Published in final edited form as:
Psychiatr Serv. 2008 December ; 59(12): 1450–1457. doi:10.1176/appi.ps.59.12.1450.

Service Utilization and Help Seeking in a National Sample of Female Rape Victims

Ananda B. Amstadter, Ph.D., **Jenna L. McCauley, Ph.D.**, **Kenneth J. Ruggiero, Ph.D.**, **Heidi S. Resnick, Ph.D.**, and **Dean G. Kilpatrick, Ph.D.**
Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, National Crime Victims Center, 165 Cannon St., 3rd Floor, Charleston, SC 29425.

Abstract

Objective: Many women with mental health problems do not seek help. Despite substantial research on predictors of help seeking, little is known about factors associated with help seeking in at-risk populations (e.g., rape victims). This study examines various forms of help seeking for emotional problems in relation to key variables in a national sample of female rape victims.

Methods: We interviewed via telephone a representative sample of 3,001 women (aged 18-76 years). Those endorsing a lifetime history of rape were included in the present analyses (n=556). Demographic characteristics, rape history, rape characteristics, psychopathology, and substance abuse were assessed. Help seeking was assessed by asking if participants ever sought help, and if so, what type(s) of services were sought (medical professional, religious figure, or mental health professional).

Results: Help seeking was endorsed by 60% of the sample. Final multivariable model showed that ever seeking help was positively associated with white race (OR=2.61), being single/divorced/widowed (OR=2.30), and having PTSD (OR=3.45). Specific forms of help seeking revealed unique predictor sets.

Conclusions: Although help seeking among rape victims was high, 40% of victims did not seek services. Odds of help seeking were generally increased by the presence of a mental health disorder. Because mental health professionals were not the only types of professionals from whom rape victims sought emotional support, education and training regarding rape and associated disorders should be available to other professionals to support provision of care. Public policy should be strengthened regarding professionals' service provision, and should include reimbursement for mental health services.

A growing body of literature reveals a significant imbalance between the prevalence of mental health disorders and utilization of mental health services. The Epidemiologic Catchment Area study, conducted from 1980-1985, reported that diagnosed individuals sought past-year treatment (1) and that help-seeking was more likely to occur among individuals with sexual assault histories (2). The National Comorbidity Survey, conducted from 1990-1992, estimated that only 25% of respondents with a mental health disorder received treatment within the past year (3). The National Comorbidity Survey Replication (4), conducted between 2001-2003, estimated that 41% of diagnosed respondents received past-year treatment. Taken together, these studies suggest that increases in mental health service utilization among those with mental health disorders have occurred over the past two decades, but that levels of use among those in need of care remain low.

(e-mail: amstadt@musc.edu)

A key finding of the NCS-R was that the type of disorder was associated with differential patterns of service use (4). That is, significant variability exists across populations in perceived need for treatment and it follows that determinants of help seeking may also differ by disorder. This underscores the potential value of research that isolates specific at-risk populations in an attempt to identify unique predictors of service use as well as modifiable factors that may be targeted by intervention.

Studies on help seeking in traumatic stress populations (e.g., rape victims, adults with PTSD) have revealed a similarly striking disconnect between the number of individuals receiving a diagnosis and those who initiate services (5-7), and further, this disconnect has been noted specifically within populations of rape victims (8). However, only a handful of studies have examined help-seeking behavior in traumatic stress populations, and none has examined how different types of rape (e.g., forcible rape *vs.* drug- or alcohol-facilitated rape) relate to victims' likelihood of seeking help and characteristics of help-seeking behavior (e.g., seeking help from a religious figure *vs.* psychologist). Research of this nature has high public health significance because rape affects about 1 in 7 U.S. women at some time in their lives (9,10) and is associated with a wide range of mental health difficulties (11-14), as well as substance use disorders (12). Further, different types of rape may relate in unique ways to victims' help-seeking decisions due to stigma issues, self-blame, and other factors (15,16). For example, forcible rape is more likely than incapacitated rape to be reported to law enforcement (17). The present study explored these issues by examining predictors of distinct categories of help-seeking behavior using a national probability sample of female victims of forcible rape, incapacitated rape, and drug- or alcohol-facilitated rape.

We examined demographic, rape history, incident characteristics, psychopathology, and substance abuse variables in relation to various forms of formal help seeking, based on categories of help seeking from past research (2,18). Based on previous research, we hypothesized that experiencing more than one assault, history of psychopathology, and history of substance abuse would be positively associated with ever seeking help (5,8,19). In regard to specific rape types, it was thought that forcible rape would be associated with increased likelihood of ever seeking help as compared to other types of rape (17).

Method

Participants

Data from this study came from the “National Women's Study-Replication.” The household sample of 3,000 women was formed from two population samples: a national cross-section of 2,000 women aged 18-34 years plus a national cross-section of 1,000 women aged 35 and older. Weights were used for all analyses with this sample to maximize representativeness by bringing the distribution of sample characteristics in line with Census figures. Of these women, only those endorsing history of at least one rape experience were included in analyses. This sample of women with a rape history consisted of 556 women (aged 18 to 76 years), with a mean age of 42.91±15.08.

We used random-digit-dial (RDD) methodology involving three steps. First, the sample was geographically stratified with sample allocation proportionate to population distribution. Second, a sample of assigned telephone banks was randomly selected from an enumeration of the Working Residential Hundreds Block (defined as each block of 100 potential telephone numbers with an exchange that includes one or more residential listings) within the active telephone exchanges within the strata. Third, a two-digit number was randomly generated by computer for each Working Residential Hundreds Block. All interviews were conducted between January 23 and June 26, 2006.

Measures[1]

Help Seeking—To determine if participants every sought help, they were asked, "Have you ever contacted a professional for help with emotional problems?" If they answered yes, they were asked if they contacted: a medical doctor, a religious counsel (priest, minister or rabbi), or a mental health professional (psychiatrist, psychologist, social worker, other therapist).

Rape Experiences—We assessed women's most recent/only and, if applicable, first incident of rape. Rape was defined as penetration of the victim's vagina, mouth or rectum without consent. Cases were defined as forcible rape if the perpetrator used force or threat of force. The key element of incapacitated rape was that the victim perceived the perpetrator to have raped her when she was intoxicated and impaired via voluntary intake of drugs or alcohol by the victim. In contrast, the key element of drug- or alcohol-facilitated rape was that the perpetrator was perceived by the victim as having deliberately attempted to produce incapacitation by administering drugs or alcohol to the victim. In both drug- or alcohol-facilitated rape and incapacitated rape cases, the victim was unable to consent due to incapacitation (e.g., lack of consciousness, lack awareness or ability to control behavior). Questions were closed-ended and behaviorally specific.

Classification of individuals into rape categories was based on history of each type of rape; classification was non-mutually exclusive. For example, women who reported a history of forcible rape as their most recent or only incident but also reported a "first incident" that met criteria for drug- or alcohol-facilitated rape were considered to have a history of both forcible rape and drug- or alcohol-facilitated rape. Women who reported elements of both drug- or alcohol-facilitated rape and incapacitated rape as part of the same incident were classified as having a history of drug- or alcohol-facilitated rape. Incapacitated rape history was defined as report of at least one incident involving incapacitated rape (without drug- or alcohol-facilitated rape), whether or not forcible rape was also part of that incident.

Rape Characteristics—Rape characteristics assessed included whether they had experienced fear of death or injury, whether they experienced physical injury, and whether they knew the perpetrator. Relationship to perpetrator was assessed by asking women if they "knew the (perpetrator) fairly well or not." For women who reported multiple incidents, we used data from the most recent/only incident.

Mental Health—PTSD and major depressive episode were assessed with the National Women's Study (NWS) PTSD and major depressive episode modules, structured interviews based on Diagnostic and Statistical Manual of Mental Disorders (20) criteria (21,22). Research on the NWS-PTSD has provided support for concurrent validity and several forms of reliability (e.g., temporal stability, internal consistency, diagnostic reliability) (14,23). The major depressive episode module assesses hallmark symptoms of depression including persistent feelings of sadness as well as loss of interest or pleasure. Support for internal consistency and convergent validity exist (14). Functional impairment was also assessed as part of the PTSD and major depressive episode modules.

Substance Use—Two substance use outcomes were measured in this study: past-year binge drinking and past-year substance abuse. Past year binge drinking was defined as consumption of five or more drinks of an alcoholic beverage with at least monthly frequency (at least 12 or more days within the past year). To assess binge drinking, women were asked to estimate the number of days in the past 12 months that they consumed five or more drinks of alcoholic beverages. Past year substance abuse was assessed using the substance use module from the

[1]Interview measures are available upon request.

NWS interview, approximating the criteria set forth by the DSM-IV. These criteria were modified to include women meeting criteria for dependence as well as abuse and have been shown to have adequate face validity, being significantly associated with higher mean number of heavy drinking days and higher mean number of days of reported intoxication (12).

Procedure

Women were interviewed using a computer-assisted telephone interviewing (CATI) system. The CATI system is designed to reduce interviewer error in both data collection and data recording. Due to the nature of the study, only experienced female interviewers were involved in survey procedures. English and Spanish versions of the interview were developed; the version administered was based on respondent preference. Completed interviews averaged 20 minutes.

After determining that the residence contained one or more women eligible for the study, the interviewer introduced the study and provided a toll-free telephone number to confirm authenticity of the study. When a residence had more than one woman who met study criteria, the woman with the most recent birthday was selected. Whenever possible, women were interviewed immediately after respondent selection was determined. Otherwise, appointments were scheduled or blind callbacks were made at different times of day and days of the week. A minimum of five callbacks were made before a case was abandoned. This study was approved by the Institutional Review Board. After a complete description of the study was provided, oral consent was obtained.

Statistical Analyses

Logistic regression analyses were conducted to identify variables within each predictor set that were associated with each of the four help seeking variables (ever sought services, medical professionals, religious counsel, mental health services). Significant predictors emerging from these analyses were entered into a final multivariable logistic regression analysis. A count of types of services utilized was computed, ranging from zero (the participant did not seek help) to three (the participant sought all three types of help). Linear regression analyses were conducted in the same method as described above for the binary outcome variables.

Results

Sample characteristics for the subsample of rape victims extracted from the national sample are described in Table 1. Prevalence of help seeking in this sample was high. More than half of the sample reported ever seeking help (60%). In regard to specific types of help sought, 38% went to a medical doctor, 15% sought religious counsel, and 54% sought help from a mental health specialist. Table 2 describes results of logistic regression analyses, within each predictor set.

Ever Sought Services

Significant demographic predictors that increased odds of ever having sought services were being 45 to 54 years of age (OR=2.41), white race (OR=2.61) and being unmarried (i.e., single, divorced, widowed) (OR=2.30). No rape history variables or rape characteristics were related to the outcome variable. For the psychopathology analysis, only PTSD was related to increased odds of ever seeking help (OR=3.45). Finally, substance abuse was marginally predictive of ever seeking help (OR=1.85). The significant predictors were entered into a multivariate model (see Table 3), and only white race, PTSD, and being unmarried remained significantly positively associated with ever seeking help.

Medical Professionals

Among demographic variables, white race (OR=1.70) and income of less than $20,000 (OR=2.91) were predictive of seeking medical services. forcible rape (OR=1.92) was the only rape variable related to seeking help from a medical doctor. No rape characteristics were predictive. Only major depressive episode (OR=2.90) was predictive of help seeking. Neither substance abuse variable was significantly related. The final multivariate analysis revealed that only major depressive episode remained significant in predicting seeking help from a medical doctor.

Religious Counsel

Having a college education (OR=3.78) was the only variable that was related to seeking religious counsel. The final multivariate model revealed no significant predictors of seeking religious counsel.

Mental Health Services

Many variables were related to seeking help from a mental health professional. Within the demographic variable set, being white (OR=2.72) and being unmarried (OR=2.13) were associated with seeking help. History of multiple rapes (OR=1.75) was the only significant rape history predictor. PTSD (OR=3.84) was associated with seeking mental health treatment. Neither substance abuse variable was significantly related. All variables, except history of multiple rapes, remained significant in the final model.

Number of Services

Results from linear regression analyses predicting the number of services utilized are reported in Table 3. Minority status and income were significant predictors. No variables were significant within the rape type set. Within the rape characteristics set, peritraumatic fear was a significant predictor. Both PTSD and major depressive episode were significant predictors, whereas neither substance abuse variable was related. In the final model, minority status, PTSD and major depressive episode were significantly associated with the number of services sought.

Discussion

To our knowledge, this is the first study to examine determinants of different forms of service utilization in a large national sample of rape victims. In our sample Caucasians were more likely than minority women to report help seeking; specifically Caucasian status was the only consistent predictor of help seeking among rape victims. These results are consistent with previous studies finding that minorities are less likely to seek services (24). While community level factors have been shown in previous studies to make some contribution, research suggests that individual factors, such as ethnicity, remain central in addressing health disparities (25).

PTSD was related to ever seeking treatment, number of services accessed, and seeking mental health counseling. One potential explanation is that PTSD is a complex constellation of symptoms that may be more likely diagnosed by a mental health professional versus medical professional. Interestingly, lifetime depression was only a significant predictor of seeking medical help and was not a predictor of mental health service utilization. While Lewis and colleagues (19) previously found that depression was predictive of formal help seeking among women, unlike the current study, they did not differentiate between medical professionals and mental health professionals. Depression is frequently associated with worse global health ratings, the number and severity of reported health concerns, likelihood of seeking medical treatment for unexplained physical symptoms, emergency room visits, and some evidence suggests that depression mediates the relation between PTSD diagnosis and physical health

complaints (26-28). This strong relation between depression and physical health may serve to partially explain its prediction of medical service utilization in this study. Further research could better elucidate factors influencing rape victims' decision to seek medical *vs.* mental health services for their depressive symptoms.

The women in our sample endorsed relatively high rates of past year substance abuse underscoring the importance of standard assessment for substance use disorders in this population. The elevated rate of substance abuse among rape victims is consistent with previous research (12,14,29), and lack of a strong relation between substance use and help seeking also is consistent with prior studies (6). It is possible, given the wording of our question (i.e., “Have you ever contacted a professional for help with emotional problems?”), that we underdetected receipt of services for substance use disorders. Further, several service modalities often used to treat substance abuse (e.g., group therapy, inpatient hospitalization, residential treatment, day treatment), were not specifically referenced in the prompts for type of service provider.

Neither type of rape nor history of multiple rapes was found to be important with respect to help seeking. One possible explanation for this finding is that this study assessed general help seeking, not assault related help seeking. Given that forcible rape has been found in previous studies to be associated with greater life disruption compared to other forms of rape (30,31), it was hypothesized that forcible rape would be associated with higher rates of help seeking than drug- or alcohol-facilitated rape and incapacitated rape. This hypothesis was not supported. However, the majority of our sample had experienced a forcible rape (nearly 80%), thereby limiting our power to detect possible differences among rape types. Additionally, no incident characteristics were predictive of help seeking in this sample.

This was one of the first studies to examine social and psychological correlates of multiple forms of help seeking using a large, representative sample of adult rape victims. This study also had several limitations. First, findings are based strictly on retrospective self-report data which introduces potential recall biases. Second, our interview was necessarily brief because a lengthy interview would have been cost-prohibitive. Use of a brief interview prevented comprehensive assessment of help seeking (e.g., amount of help seeking, informal help seeking, forensic medical examination post-rape) as well as the temporal directionality of rape, mental health outcomes, substance abuse, and help-seeking. Additionally, other forms of potentially traumatic events that impact help seeking (8), such as physical assault and child sexual abuse, were not assessed. It should also be noted that this paper is on general help seeking for emotional problems among rape victims, and this is therefore not restricted to rape-specific help seeking. Last, future research should include analysis of possible interactions between incident characteristics and rape type.

In addition to addressing the aforementioned limitations, future research in this area should continue to explore variables associated with women's choice of provider. Our data suggest that those who seek help do so from approximately two modalities, yielding a potentially high societal cost. This suggests the need for more organized service delivery for victims of rape that would both be effective at amelioration of the emotional sequelae, and also more cost effective. Also, that two-fifths of women never sought formal help of any kind underscores the need for further research on barriers to care, particularly within populations who are traditionally underserved (e.g., ethnic minorities). Such information could inform public health campaigns that are aimed at both treatment seekers and treatment providers.

Conclusions

Several notable findings emerged: (a) minority status decreased odds of help seeking mimicking previous findings of health disparities as a function of ethnicity; (b) PTSD and

major depressive episode were differentially predictive of seeking mental health services and medical services; (c) although prevalent in our sample, substance abuse was not predictive of help seeking; and (d) help seeking was not predicted by specific types of rape, nor by the cumulative effect of traumatic events.

Results strengthen the call for increased provision of targeted psychoeducation for practitioners and policy makers. Because mental health providers were not the only professionals likely to encounter rape victims seeking help with emotional problems, efforts to provide general information to medical professionals concerning sexual assault and common victim reactions should be increased. With PTSD being a predictor of seeking mental health services, practitioners at all levels of service delivery should be informed of the availability of existing empirically supported treatments, both pharmacologic and psychotherapeutic, (for reviews see (32,33)) for PTSD. This should be incorporated into training programs and included in continuing education for practitioners. Public policy implications also exist in that insurance reimbursement for PTSD and other mental health conditions should be provided, which may assist in addressing an important barrier to help-seeking in this population. Consistent with previous studies, ethnic minority women were less likely to seek formal help for emotional problems. Targeted interventions should be aimed specifically at this group of women with the primary goal of addressing and reducing existing barriers to care.

Acknowledgments

This research was supported by National Institute of Justice (NIJ) Grant #2005-WG-BX-0006. Views expressed in this article do not necessarily represent those of NIJ.

References

1. Narrow WE, Regier DA, Rae DS, et al. Use of services by persons with mental and addictive disorders: findings from the National Institute of Mental Health Epidemiologic Catchment Area Program. Archives of General Psychiatry 1993;50:95–107. [PubMed: 8381266]
2. Golding JM, Stein JA, Siegel JM, et al. Sexual assault history and use of health and mental health services. American Journal of Community Psychology 1988;16:625–644. [PubMed: 3218635]
3. Kessler RC, Zhao S, Kats SJ, et al. Past-year use of outpatient services for psychiatric problems in the National Comorbidity Survey. American Journal of Psychiatry 1999;156:115–123. [PubMed: 9892306]
4. Wang PS, Lane M, Olfson M, et al. Twelve-month use of mental health services in the United States. Results from the National Comorbidity Survey Replication. Archives of General Psychiatry 2005;62:629–640. [PubMed: 15939840]
5. Koenen KC, Goodwin R, Struening E, et al. Posttraumatic stress disorder and treatment seeking in a national screening sample. J Trauma Stress 2003;16:5–16. [PubMed: 12602647]
6. Ullman SE, Brecklin LR. Sexual assault history, PTSD, and mental health service seeking in a national sample of women. Journal of Community Psychology 2002;3:261–279.
7. Kimerling R, Calhoun KS. Somatic symptoms, social support, and treatment seeking among sexual assault victims. Journal of Consulting and Clinical Psychology 1994;62:333–340. [PubMed: 8201071]
8. Ullman SE. Mental health services seeking in sexual assault victims. Women & Therapy 2007;30:61–84.
9. Kilpatrick, DG.; Edmunds, CN.; Seymour, AK. Rape in America in Rape in America. National Victim Center; 1992.
10. Tjaden, P.; Thoennes, N. Full report of the prevalence, incidence, and consequences of violence against women: Findings from the National Violence Against Women Survey. National Institute of Justice, U.S. Department of Justice; Washington, DC: 2000.
11. Kessler RC, Sonnega A, Bromet E, et al. Posttraumatic stress disorder in the National Comorbidity Survey. Archives of General Psychiatry 1995;52:1048–1060. [PubMed: 7492257]

12. Kilpatrick DG, Acierno R, Resnick HS, et al. A 2-year longitudinal analysis of the relationship between violent assault and substance abuse in women. Journal of Consulting and Clinical Psychology 1997;65:834–847. [PubMed: 9337502]

13. Kilpatrick DG, Acierno R, Schnurr PP, et al. Risk factors for adolescent substance abuse and dependence: Data from a national sample. Journal of Consulting and Clinical Psychology 2000;68:19–30. [PubMed: 10710837]

14. Kilpatrick DG, Ruggiero KJ, Acierno R, et al. Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: results from the National Survey of Adolescents. J Consult Clin Psychol 2003;71:692–700. [PubMed: 12924674]

15. Filipas HH, Ullman SE. Social reactions to sexual assault victims from various support sources. Violence and Victims 2001;16:673–692. [PubMed: 11863065]

16. Starzynski LL, Ullman SE, Filipas HH, et al. Correlates of women's sexual assault disclosure to informal and formal support sources. Violence and Victims 2005;20:417–432. [PubMed: 16250409]

17. Kilpatrick DG, Resnick HS, Ruggiero KJ, et al. Drug-facilitated, incapacitated, and forcible rape: A national study. Final report submitted to the National Institute of Justice. 2007

18. Golding JM, Siegel JM, Sorenson SB, et al. Social support sources following sexual assault. Journal of Community Psychology 1989;17:92–107.

19. Lewis SF, Resnick HS, Ruggiero KJ, et al. Assault, psychiatric diagnoses, and sociodemographic variables in relation to help-seeking behavior in a national sample of women. Journal of Traumatic Stress 2005;18:97–105. [PubMed: 16281201]

20. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. Vol. Fourth Edition. Author; Washington, D.C.: 1994.

21. Acierno R, Resnick H, Kilpatrick DG, et al. Risk factors for rape, physical assault, and posttraumatic stress disorder in women: Examination of differential multivariate relationships. Journal of Anxiety Disorders 1999;13:541–563. [PubMed: 10688523]

22. Ruggiero KJ, Smith DW, Hanson RF, et al. Is disclosure of childhood rape associated with mental health outcome? Results from the National Women's Study. Child Maltreatment 2004;9:62–77. [PubMed: 14870998]

23. Resnick HS, Kilpatrick DG, Dansky BS, et al. Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. Journal of Consulting and Clinical Psychology 1993;61:984–991. [PubMed: 8113499]

24. Koenen KC, Goodwin R, Struening E, et al. PTSD and treatment seeking in a national screening sample. Journal of Traumatic Stress 2003;16:5–16. [PubMed: 12602647]

25. Stockdale SE, Tang L, Zhang L, et al. The effects of health sector market factors and vulnerable group membership on access to alcohol, drug, and mental health care. Health Services Research 2007;42:1020–1041. [PubMed: 17489902]

26. Elhai JD, North TC, Frueh BC. Health Service Use Predictors Among Trauma Survivors: A Critical Review. Psychological Services 2005;2:3–19.

27. Newman MG, Clayton L, Zuellig A, et al. The relationship of childhood sexual abuse and depression with somatic symptoms and medical utilization. Psychological Medicine 2000;30:1063–1077. [PubMed: 12027043]

28. Kimerling R, Clum GA, Wolfe J. Relationships among trauma exposure, chronic posttraumatic stress disorder symptoms, and self-reported health in women: Replication and extension. Journal of Traumatic Stress 2000;13:115–128. [PubMed: 10761178]

29. Burnam MA, Stein JA, Golding JM, et al. Sexual assault and mental disorders in a community population. Journal of Consulting and Clinical Psychology 1988;56:843–850. [PubMed: 3264558]

30. Abbey A, BeShears R, Clinton-Sherrod AM, et al. Similarities and differences in women's sexual assault experiences based on tactics used by perpetrator. Psychology of Women Quarterly 2004;28:323–332.

31. Testa M, Livingston JA, Vanzile-Tamsen C, et al. The role of women's substance use in vulnerability to forcible and incapacitated rape. Journal of Studies on Alcohol 2003;64:756–764. [PubMed: 14743937]

32. Amstadter AB, McCart M, Ruggiero KJ. Psychosocial interventions for adults with crime-related PTSD. Professional Psychology: Research and Practice. In Press

33. Kilpatrick DG, Amstadter AB, Resnick HS, et al. Rape related PTSD: issues and interventions. Psychiatric Times. In Press

Table 1

Frequencies for Independent Variables (N=556)

Variable	N	%
DEMOGRAPHICS		
Age Categories		
18-24	66	12
25-34	121	22
35-44	126	23
45-54	121	22
55-64	67	12
over 65	55	10
Racial/Ethnic Status		
White/non-Hispanic	418	75
Other	138	25
Education		
Up to some high school	61	11
High school grad	322	58
College grad	129	23
At least some grad school	44	8
Employment		
Yes	342	62
No	212	38
Income		
$20K or less	124	22
$20K-$60K	234	42
over $60K	158	29
Relationship Status		
Married	275	50
Not Married	281	51
RAPE HISTORY		
Incapacitated Rape		
Yes	80	14
No	476	86
Drug/Alcohol Facilitated Rape		
Yes	62	11
No	494	89
Forcible Rape		
Yes	444	80
No	112	20
Number of Rapes		
Single Incident	276	50
Multiple Incident	280	50
RAPE CHARACTERISTICS		
Peritraumatic Fear		

Variable	N	%
Yes	250	45
No	277	50
Injury		
Yes	213	38
No	340	61
Relationship to Perpetrator		
Know Fairly Well	404	73
Did Not Know Fairly Well	85	15
PSYCHOLOGICAL FUNCTIONING		
Lifetime PTSD		
Yes	197	36
No	357	64
Lifetime Major Depressive Episode		
Yes	168	30
No	388	70
SUBSTANCE ABUSE		
Past Year Substance Abuse		
Yes	66	12
No	490	88
Past Year Binge Drinking		
Yes	40	7
No	508	92

Table 2

Logistic Regressions Results: Predictors of Help Seeking

	Ever Sought Help			Medical Doctor			Religious Figure			Mental Health Professional		
Predictor	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**
Model 1: Demographics												
Age												
18-24	1.00	-	.03	1.00	-	.35	1.00	-	.11	1.00	-	.14
25-34	1.22	.70-2.12		.98	.58-1.65		1.53	.70-3.33		1.28	.74-2.22	
35-44	1.18	.60-2.31		.79	.41-1.53		2.81	1.16-6.81		1.34	.70-2.56	
45-54	2.41	1.19-4.90		1.52	.79-2.92		2.42	.98-5.99		1.98	1.01-3.88	
55-64	1.02	.29-3.58		.58	.14-2.49		2.56	.52-12.61		1.33	.39-4.56	
65-76	.16	.03-1.06		.54	.08-3.77		-	-		.22	.03-1.37	
Education												
Up to Some High School	1.11	.37-3.34	.11	.79	.30-2.10	.47	1.69	.40-7.16	.03	.70	.25-1.97	.07
High School Graduate - Some College	.62	.26-1.45		.74	.34-1.60		1.33	.40-4.45		.50	.22-1.14	
College Graduate	1.28	.50-3.28		1.38	.60-3.18		3.78	1.09-12.11		1.18	.48-2.90	
Some Graduate School - Graduate Degree	1.00	-		1.00	-		1.00	-		1.00	-	
Caucasian												
No	1.00	-	<.001	1.00	-	.04	1.00	-	.58	1.00	-	<.001
Yes	2.61	1.53-4.47		1.70	1.01-2.84		1.22	.60-2.48		2.72	1.62-4.60	
Employed												
No	1.00	-	.75	1.00	-	.80	1.00	-	.47	1.00	-	.54
Yes	.91	.52-1.61		1.07	.61-1.89		.78	.39-1.54		.84	.49-1.46	
Married												
No	1.00	-	<.001	1.00	-	.75	1.00	-	.90	1.00	-	<.01
Yes	.43	.26-.71		.92	.56-1.52		.96	.50-1.85		.47	.29-.77	
Income												
<$20,000	1.53	.74-3.17	.29	2.91	1.32-6.41	.03	2.45	.87-6.90	.23	1.40	.69-2.84	.50
$20,000-60,00	1.58	.89-2.83		1.58	.86-2.91		1.30	.61-2.76		1.38	.79-2.43	
>60,000	1.00	-		1.00	-		1.00	-		1.00	-	

	Ever Sought Help			Medical Doctor			Religious Figure			Mental Health Professional		
Predictor	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**
Model 2: Rape History												
History of Incapacitated Rape												
No	1.00	-	.38	1.00	-	.09	1.00	-	.08	1.00	-	.54
Yes	1.28	.74-2.21		1.56	.93-2.64		.42	.16-1.09		1.18	.69-2.03	
History of Drug or Alcohol Facilitated Rape												
No	1.00	-	.21	1.00	-	.06	1.00	-	.92	1.00	-	.20
Yes	1.45	.81-2.62		1.75	.98-3.12		1.04	.44-2.45		1.47	.82-2.62	
History of Forciple Rape												
No	1.00	-	.89	1.00	-	.03	1.00	-	.80	1.00	-	.89
Yes	1.04	.56-1.94		1.92	1.08-3.41		.88	.32-2.39		.96	.52-1.77	
History of Multiple Rapes												
No	1.00	-	.08	1.00	-		1.00	-		1.00	-	.04
Yes	1.66	.94-2.95		1.09	.63-1.88	.74	1.14	.61-2.15	.68	1.75	1.01-3.02	
Model 3: Rape Characteristics												
Peritraumatic Fear												
No	1.00	-	.14	1.00	-	.62	1.00	-	.23	1.00	-	.09
Yes	.65	.37-1.15		.87	.49-1.53		1.50	.77-2.91		.62	.36-1.07	
Injury												
No	1.00	-	.49	1.00	-	.23	1.00	-	.39	1.00	-	.75
Yes	1.25	.66-2.34		1.45	.79-2.64		1.33	.69-2.57		1.00	.61-1.99	
Perpetrator Known to Victim												
No	1.00	-	.84	1.00	-	.91	1.00	-	.06	1.00	-	.89
Yes	1.08	.50-2.34		.96	.46-1.99		2.49	.96-6.45		.95	.46-1.96	
Model 4: Psychopathology												

	Ever Sought Help			Medical Doctor			Religious Figure			Mental Health Professional		
Predictor	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**
Lifetime PTSD												
No	1.00	-	<.001	1.00	-	.15	1.00	-	.13	1.00	-	<.001
Yes	3.45	1.82-6.54		1.56	.85-2.88		2.26	.79-6.42		3.84	2.10-7.02	
Lifetime MDE												
No	1.00	-	.46	1.00	-	.002	1.00	-	.97	1.00	-	.40
Yes	1.33	.62-2.85		2.90	1.50-5.61		1.02	.34-3.07		1.35	.67-2.72	
Model 5: Substance Abuse												
Past Year Substance Abuse												
No	1.00	-	.05	1.00	-	.24	1.00	-	.37	1.00	-	.09
Yes	1.85	.99-3.46		1.42	.79-2.55		.73	.37-1.45		1.67	.92-3.05	
Past Year Binge Drinking												
No	1.00	-	.58	1.00	-	.86	1.00	-	.45	1.00	-	.73
Yes	1.24	.57-2.71		1.08	.48-2.43		.69	.26-1.82		1.14	.54-2.42	

Table 3

Logistic Regressions Results: Final Model of Help Seeking

	Ever Sought Help			Medical Doctor			Religious Figure			Mental Health Professional		
Predictor	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**
Model 1: Demographics												
Age												
18-24	1.00	-	.07	-	-	-	-	-	-	-	-	-
25-34	1.45	.84-2.50		-	-	-	-	-	-	-	-	-
35-44	1.56	.78-3.11		-	-	-	-	-	-	-	-	-
45-54	2.84	1.41-5.71		-	-	-	-	-	-	-	-	-
55-64	1.13	.32-4.00		-	-	-	-	-	-	-	-	-
65-76	.74	.12-4.52		-	-	-	-	-	-	-	-	-
Education												
Up to Some High School	-	-	-	-	-	-	1.00	-	.14	-	-	-
High School Graduate - Some College	-	-	-	-	-	-	1.09	.39-3.03		-	-	-
College Graduate	-	-	-	-	-	-	2.37	.77-7.29		-	-	-
Some Graduate School - Graduate Degree	-	-	-	-	-	-	.73	.17-3.10		-	-	-
Caucasian												
No	1.00	-	.002	1.00	-	.10	-	-	-	1.00	-	<.001
Yes	2.57	1.42-4.66		1.63	.91-2.99		-	-	-	2.76	1.48-5.13	
Employed												
No	-	-	-	-	-	-	-	-	-	-	-	-
Yes	-	-	-	-	-	-	-	-	-	-	-	-
Married												
No	1.00	-	.005	-	-	-	-	-	-	1.00	-	.002
Yes	.42	.23-.77		-	-	-	-	-	-	.42	.25-.73	
Income												
<$20,000	-	-	-	1.00	-	.26	-	-	-	-	-	-
$20,000-60,00	-	-	-	.71	.37-1.39		-	-	-	-	-	-
>60,000	-	-	-	.58	.30-1.11		-	-	-	-	-	-

	Ever Sought Help			Medical Doctor			Religious Figure			Mental Health Professional		
Predictor	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**
Model 2: Rape History												
History of Incapacitated Rape												
No	-	-	-	-	-	-	-	-	-	-	-	-
Yes	-	-	-	-	-	-	-	-	-	-	-	-
History of Drug or Alcohol Facilitated Rape												
No	-	-	-	-	-	-	-	-	-	-	-	-
Yes	-	-	-	-	-	-	-	-	-	-	-	-
History of Forciple Rape												
No	-	-	-	1.00	-	.29	-	-	-	-	-	-
Yes	-	-	-	1.36	.77-2.41	-	-	-	-	-	-	-
History of Multiple Rapes												
No	-	-	-	-	-	-	-	-	-	1.00	-	-
Yes	-	-	-	-	-	-	-	-	-	1.00	-	-
Model 3: Rape Characteristics (no significant finding)												
Model 4: Psychopathology												
Lifetime PTSD												
No	1.00	-	<.001	-	-	-	-	-	-	1.00	-	<.001
Yes	3.70	2.15-6.38		-	-	-	-	-	-	4.69	2.80-7.83	
Lifetime MDE												
No	-	-	-	1.00	-	<.001	-	-	-	-	-	-
Yes	-	-	-	3.40	1.86-6.22		-	-	-	-	-	-
Model 5: Substance Abuse												
Past Year Substance Abuse												

	Ever Sought Help			Medical Doctor			Religious Figure			Mental Health Professional		
Predictor	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**	**OR**	**95% CI**	**p-value**
No	1.00	-	.47	-	-	-	-	-	-	-	-	-
Yes	1.31	.63-2.71		-	-	-	-	-	-	-	-	-
Past Year Binge Drinking												
No	-	-	-	-	-	-	-	-	-	-	-	-
Yes	-	-	-	-	-	-	-	-	-	-	-	-

Table 4

Linear Regressions Results: Predictors of Help Seeking

	Number of Services		
Predictor	**B**	***t***	**p-value**
Model 1: Demographics			
Age	−.04	−.83	.41
Education	.09	1.96	.051
Minority Status	.17	3.81	<.001
Employment Status	.03	.63	.53
Relationship Status	−.07	−1.48	.14
Income	−.13	−2.39	.02
Model 2: Rape History			
History of Incapacitated Rape	.23	.53	.60
History of Drug or Alcohol Facilitated Rape	.07	1.69	.09
History of Forciple Rape	.04	.96	.34
Number of Rapes	.07	1.69	.09
Model 3: Rape Characteristics			
Peritraumatic Fear	−.11	−2.25	.03
Injury	.03	.51	.61
Relationship to Perpetrator	.01	.19	.85
Model 4: Psychopathology			
Lifetime PTSD	.25	5.37	<.001
Lifetime MDE	.15	3.18	.002
Model 5: Substance Abuse			
Past Year Substance Abuse	.06	1.25	.21
Past Year Binge Drinking	.01	.10	.92
Final Multivariate Model			
Age	--	--	--
Education	--	--	--
Minority Status	.18	4.24	<.001
Employment Status	--	--	--
Relationship Status	--	--	--
Income	−.60	−1.40	.16
History of Incapacitated Rape	--	--	--
History of Drug or Alcohol Facilitated Rape	--	--	--
History of Forciple Rape	--	--	--
Number of Rapes	--	--	--
Peritraumatic Fear	.01	.21	.84

	Number of Services		
Predictor	**B**	***t***	**p-value**
Injury	--	--	--
Relationship to Perpetrator	--	--	--
Lifetime PTSD	.25	5.26	<.001
Lifetime MDE	.13	2.72	.007
Past Year Substance Abuse	--	--	--
Past Year Binge Drinking	--	--	--