

Depressive Symptoms in Women Experiencing Intimate Partner Violence

DEBRA HOURY

NADINE J. KASLOW

Emory University

MARTIE P. THOMPSON

Clemson University

The study was a cross-sectional examination of African American women positive for intimate partner violence (IPV) who presented to the medical or psychiatric emergency department (ED) for treatment. African American women with a recent history of IPV who presented following an attempted suicide (n = 100) were compared to demographically comparable African American women who were IPV positive who had not attempted suicide and presented for treatment of another condition (n = 100). Women completed face-to-face interviews on several measures, including demographics and the Beck Depression Inventory-II (BDI-II). Overall, there were no demographic differences between cases and controls. Attempters reported statistically significant higher scores on all 21 BDI-II items than did nonattempters. Four BDI-II items had effect size values in the medium range: sadness, self-dislike, suicidal thoughts, and feelings of worthlessness. These four items can be used as a brief screen in the ED to detect female patients positive for IPV at increased risk for suicidal behavior.

Keywords: *suicide; depression; intimate partner violence*

Intimate partner violence (IPV) is a widespread medical, psychological, social, and public health problem (Koziol-McLain, Coates, & Lowenstein, 2001). Each year in the United States, almost one million women are victims of IPV, and 1,800 victims are murdered by their partner (U.S. Department of Justice, 1998). Women of color often are at increased risk, with up to 23% of

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African American couples reporting IPV (Caetano, Schafer, & Cunradi, 2001). In many cases, the emergency department (ED) is the primary point of access to health care for women who are abused (Abbott, Johnson, Koziol-McLain, & Lowenstein, 1995). In addition, the majority of women who are depressed who have experienced IPV often seek treatment for medical complaints rather than mental health concerns (Scholle, Rost, & Golding, 1998).

One major psychological sequelae of IPV is suicidal behavior. Kaslow and colleagues (2000) reported that physical (odds ratio [OR] = 2.5) and non-physical partner abuse (OR = 2.8) were risk factors for suicide attempts among African American women. A study conducted in an ED reported that 31% of suicide attempters who required medical hospitalization and 56% of suicide attempters referred for psychiatric treatment had disclosed a history of physical abuse (Elliott, Pages, Russo, Wilson, & Roy-Byrne, 1996).

The association of depressive symptoms with suicidality is strong, particularly in victims of IPV. Rhodes, Lauderdale, He, and Howes (2002) found that female ED patients who disclosed IPV were 2.5 times more likely to disclose depressive symptoms and almost 5 times more likely to have attempted suicide than women who did not screen positive for IPV. Thompson, Kaslow, and Kingree (2002) reported that women who had experienced IPV in the past year were more likely to attempt suicide if they had high levels of depressive symptoms. However, none of these studies looked at specific depressive symptoms and their correlation with suicidality.

The ED is a very busy and chaotic environment, and many emergency physicians may not have the time or interest to screen their patients for mental health issues. Unless a patient presents with an acute psychiatric disorder or makes a suicide attempt, emergency physicians may not recognize the symptoms and presentations of mental health problems. Thus, many victims of IPV have depressive symptoms and/or suicidal thoughts that may go unrecognized and untreated in the ED setting. Although in general, all victims of IPV should receive a mental health referral for evaluation given the high psychiatric burden these victims carry; this, unfortunately, is not standard of care in the ED. Targeted screening for mental health issues in women who experience IPV would increase recognition of depressive symptoms, particularly in patients at risk for suicide attempts, should increase referrals to mental health resources, and aid victims of IPV with getting psychiatric treatment.

The purpose of the current study was to compare two groups of African American women victims of IPV (suicide attempters and nonattempters) with regards to specific depressive symptoms. An additional aim of the current study was to determine if those depressive symptoms that best discriminated between attempters and nonattempters could be used to effectively pre-

dict attempter status. Ultimately, these data could help in the development of a brief mental health screen for victims of IPV in the ED.

METHOD

Study Design

The study was a cross-sectional examination of African American women victims of IPV who presented to the medical or psychiatric ED for treatment. A cohort of African American women victims of IPV who presented following a suicide attempt was identified ($n = 100$) and compared to a demographically comparable cohort of African American women victims of IPV who had never attempted suicide and who presented for treatment of another condition ($n = 100$). For more details regarding the study design, the reader is referred to Kaslow et al. (1998) and Thompson and colleagues (Thompson et al., 2002; Thompson, Kaslow, Short, & Wyckoff, 2002). The current study was approved by the Institutional Review Board.

Study Setting

We conducted the current study at our city's only public hospital and level-one trauma center. As such, it is the primary hospital used by the inner-city and medically indigent populations of the two most populous counties in the state. Total patient volume in the ED is approximately 105,000 patients per year. Approximately 92% of patients are African American. Total patient volume in the psychiatric ED is 24,000 patients per year. All patients seen in the psychiatric ED must have a primary psychiatric diagnosis and have been medically cleared by the ED.

Selection of Participants and Case Definition

All African American women age 18 to 64 years who reported IPV within the past year and sought treatment following a suicide attempt that required medical attention and/or had serious intent were eligible for participation. These were considered case patients. All African American women age 18 to 64 years who reported IPV within the past year and sought treatment in the ED for another medical condition were eligible for participation were considered controls. Women were excluded from the control group if they had any prior history of suicide attempts or gestures. Women were excluded from both groups if they had a life-threatening medical condition in which death

was imminent or were unable to complete the protocol because of psychosis, delirium, or limited cognitive functioning.

Health providers in either the ED or psychiatric ED notified the principal investigator (NK) about a potential research participant. All eligible patients then were approached by a member of the research team to participate in the current study. Informed consent was obtained, and the patient was interviewed in a private setting.

Methods of Measurement

A modified version of the George Washington University Universal Violence Prevention Screening Protocol (UVPSP; Dutton, Mitchell, & Haywood, 1996) was used to identify IPV in the study participants. A positive response to any question was considered a positive screen for IPV. In African American ED patients, a study conducted at our hospital reported a sensitivity of 78% to 95% for the physical and emotional abuse screening questions and a positive predictive value of 75% to 95% compared to the Index of Spouse Abuse (Heron, Thompson, Jackson, & Kaslow, 2003).

The Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996) was used to ascertain the presence and severity of depressive symptoms. The BDI-II is a validated 21-question self-report instrument designed to detect symptoms of depression and the severity of each reported symptom based on a 0 (*minimal*) to 3 (*severe*) coding scale (i.e., a 4-point intensity scale; Heron et al., 2003). The BDI-II assesses the affective, behavioral, and somatic symptoms of depression. The measure has a test-retest reliability of .93 and a split-half internal consistency reliability of .91 (Beck et al., 1996). Validity tests resulted in an overall classification rate of 88% (sensitivity 71%; specificity 88%; Dozois, Dobson, & Ahnberg, 1998). For our population, the reliability of the BDI-II was .93.

Data Analysis

All analyses were conducted using SPSS software (version 11.0). We compared the cases and controls on key demographic variables to ascertain whether there were between-group differences on background characteristics of the women. To compare age between the groups tests were used; chi-square was used for all other comparisons. MANOVA was used to test the hypothesis that attempters would report higher levels on the BDI-II items compared with their nonattempting counterparts. Univariate ANOVA were

then used to assess on which specific items the groups differed. Based on the magnitudes of the effect sizes obtained in the univariate analyses, we selected the BDI-II items on which the groups reported the greatest difference. Specifically, we selected the items with effect size values over or close to .25, as this is deemed a medium effect size in ANOVA analyses (Cohen, 1992). We conducted logistic regression to determine the predictive value of the model containing the BDI-II items with the largest effect-size values.

RESULTS

During an 18-month period, 200 women (100 cases and 100 controls) were enrolled in the current study. The mean age was 32 years ($SD = 9.7$). Fifty-six women (28%) had an education level beyond high school, and 81 women (40.7%) were currently employed. Overall, 59 women (29.5%) were living with their partner. There were no demographic differences between cases and controls; see Table 1 for more details.

Of the 100 women who attempted suicide, 76 took an overdose of pills, 4 had an ingestion of another toxic substance, 12 attempted cutting, 1 attempted hanging, and 7 attempted using other methods. The precipitating event was partner related in 37 cases (partner abuse for 26 women, sexual assault for 3 women, and loss of relationship for 8 women).

Results from the MANOVA indicated that the multivariate F was significant, $F(21, 173) = 7.08, p < .001$. Thus, we followed the MANOVA analysis with ANOVAs to determine on which BDI-II items the two groups differed significantly. These results are presented in Table 2 and show that the women who attempted suicide reported statistically significant higher scores on all 21 BDI-II items than did their counterparts who did not. As can be seen in Table 2, the effect sizes for each item differed in magnitudes, ranging from .02 (interest in sex) to .35 (suicidal thoughts).

Table 2 shows four BDI-II items with effect-size values in the medium range. These included the items assessing for sadness, self-dislike, suicidal thoughts, and feelings of worthlessness. A logistic regression of these four items entered as independent variables had a concordance rate of 78%, meaning that a woman's risk of attempting suicide could be predicted correctly 78% of the time if one had knowledge of a respondent's scores on the predictor variables in the model. The model with all 21 BDI-II items had a concordance rate of 83%.

TABLE 1: Demographics of Case (*n* = 100) Versus Control (*n* = 100)

	<i>Case</i>	<i>Control</i>	<i>p Value</i>
Age (<i>M</i>)	31.1	32.8	.21
Currently employed	35%	46%	.10
Less than 12th-grade education	28%	28%	1.00
Living with partner	35%	24%	.09
Monthly income less than US \$1,000	28%	27%	.39
Physical abuse	70%	66%	.57
Nonphysical abuse	77%	68%	.20

DISCUSSION

Previous studies have examined suicide attempts as a consequence of IPV in African American women who are low income (Kaslow et al., 2000). Another study conducted in a similar population reported that the partner abuse-suicidal behavior link was mediated by psychological distress, hopelessness, and drug use and moderated by social support (Kaslow et al., 1998). The current study found that African American women who were low income who experienced IPV and had attempted suicide had higher levels of depressive symptoms on all aspects of the BDI-II than nonattempters.

BDI scores can be predictive of suicidality. Patients in outpatient depression treatment who were suicidal had higher BDI scores (36), than patients who were nonsuicidal (26) in that same clinic (Berlim, Mattevi, Pavanello, Caldieraro, & Fleck, 2003). In addition, a study conducted on adolescents hospitalized for mental health symptoms found higher BDI scores among adolescents who had attempted suicide prior to hospitalization compared to those who had not (25 vs. 19; Ivarsson, Larsson, & Gillberg, 1998). Thus, higher BDI scores can be predictive of suicidality. Brown, Beck, Steer, and Grisham (2000) also reported that patients who scored a 2 or higher on the BDI-II suicide item were 7 times more likely than patients who scored less than a 2.

The current study examined specific symptoms and items on the BDI-II and the correlation with suicidality. Although it is not surprising that suicidal thoughts are predictive of suicidality, patients who disclosed high levels of sadness were more likely to attempt suicide than their counterparts who did not report sadness. The current study adds to the limited body of research on the link between sadness and suicidal behavior. For example, one study conducted with psychiatric patients found an association between suicide attempts and symptoms of sadness (Apter et al., 1991). Tollestrup et al.

TABLE 2: Descriptive and Inferential Statistics for Attempters and Nonattempters on BDI-II Items

<i>BDI-II Items</i>	<i>Attempters</i>	<i>Nonattempters</i>	<i>F(1, 199)</i>	<i>Effect Size</i>
Sadness	1.97	.91	60.48	.24
95% CI	1.78 to 2.16	.72 to 1.10		
Pessimism	1.78	.83	44.76	.19
95% CI	1.58 to 1.98	.63 to 1.03		
Past failure	1.77	1.00	30.73	.14
95% CI	1.58 to 1.97	.81 to 1.19		
Loss of pleasure	1.74	1.02	26.86	.12
95% CI	1.55 to 1.94	.83 to 1.21		
Guilty feelings	1.71	.89	43.81	.19
95% CI	1.54 to 1.89	.72 to 1.06		
Punishing feelings	2.19	1.21	31.13	.14
95% CI	1.94 to 2.43	.97 to 1.46		
Self-dislike	1.75	.77	59.68	.24
95% CI	1.57 to 19.3	.59 to .94		
Self-criticalness	1.85	1.02	27.76	.13
95% CI	1.63 to 2.06	.80 to 1.24		
Suicidal thoughts	1.58	.36	104.4	.35
95% CI	1.41 to 1.74	.19 to .52		
Crying	1.73	1.07	20.78	.10
95% CI	1.53 to 1.94	.87 to 1.27		
Agitation	1.87	1.04	27.72	.13
95% CI	1.65 to 2.09	.82 to 1.26		
Loss of interest	1.84	1.13	18.97	.09
95% CI	1.62 to 2.06	.91 to 1.36		
Indecisiveness	1.70	.85	35.19	.15
95% CI	1.50 to 1.90	.65 to 1.05		
Worthlessness	1.57	.54	62.65	.25
95% CI	1.39 to 1.75	.36 to .72		
Loss of energy	1.61	.96	30.27	.14
95% CI	1.44 to 1.77	.80 to 1.12		
Sleep problems	1.94	1.36	18.03	.09
95% CI	1.75 to 2.13	1.17 to 1.55		
Irritability	1.60	.94	21.19	.10
95% CI	1.40 to 1.80	.74 to 1.14		
Appetite problems	1.66	1.18	11.69	.06
95% CI	1.47 to 1.86	.99 to 1.38		
Concentration	1.51	1.02	12.84	.06
95% CI	1.32 to 1.69	.83 to 1.21		
Fatigue	1.90	1.15	27.74	.13
95% CI	1.70 to 2.09	.96 to 1.35		
Interest in sex	1.21	.91	4.59	.02
95% CI	1.02 to 1.40	.72 to 1.10		

NOTE: BDI-II = Beck Depression Inventory-II; CI = confidence interval.
All *p* values $\leq .05$.

(1999) found that victims of IPV who were experiencing verbal aggression, and those who reported physical aggression, reported significant degrees of sadness. Sadness was the only common link between the two IPV groups. Thus, asking about symptoms of sadness may be a good screening tool for identifying patients at greater risk of suicide.

We found that feelings of self-dislike and worthlessness also were predictive of suicide attempts in our patients. Hall, Platt, and Hall (1999) reported that feelings of worthlessness were a risk factor for severe suicide attempts in managed care patients. A study conducted at Duke University found that feelings of worthlessness were found more commonly in their patients with psychotic depression than in patients with nonpsychotic depression (Thakur, Hays, & Krishnan, 1999). These feelings of worthlessness and self-dislike could perhaps be correlated with other psychopathology or personality disorders; however, they do appear to be predictive of suicide attempts in certain patient populations.

Overall, symptoms of sadness, self-dislike, suicidal thoughts, and feelings of worthlessness had a significant correlation with suicide attempts in the current study. Using the entire 21-item BDI-II did not yield much greater concordance (83%), than just these four specific symptoms (78%). This suggests that asking women reporting IPV about sadness, self-dislike, feelings of worthlessness, and suicidal thoughts may identify a subgroup of women at greatest risk for suicide attempts. However, this finding needs to be prospectively validated before concluding this definitively.

Limitations

The current study has several limitations. The current study was conducted in a single site with an African American ED patient population who were low income. Ethnic, cultural, and sociodemographic variations factors could influence symptoms; different populations may have other symptoms that are more predictive of suicidal behavior. In addition, patient symptoms were based on self-report, and because suicide attempters may overendorse depressive symptoms or have recall bias regarding their functioning during the prior 2 weeks, the validity of their reports may be somewhat questionable. Furthermore, for many suicide attempters, their symptom picture changes after the attempt. Therefore, we cannot conclude that the presence and severity of their depressive symptoms was identical before and after the attempt. However, we did use validated tools (BDI-II, UVPSP) that have been validated for self-report and have shown good sensitivity, predictive value, and reliability. Although the BDI-II is based on symptoms in the past 2 weeks

only, all case patients had presented for treatment immediately following an attempted suicide, thus the symptoms they reported were within 2 weeks. Finally, this derivation set of symptoms has not been prospectively validated.

CONCLUSION

In conclusion, African American women who are low income who have experienced IPV in the past year and attempt suicide had higher levels of depressive symptoms than nonattempters who have experienced IPV in the past year. Symptoms of sadness, self-dislike, suicidal thoughts, and feelings of worthlessness predicted suicide attempt status 78% of the time. Further prospective validation of these depressive symptoms as predictors of suicidality would help in the development of a brief mental health screen for patients of IPV.

REFERENCES

- Abbott, J., Johnson, R., Koziol-McLain, J., & Lowenstein, S. R. (1995). Domestic violence against women: Incidence and prevalence in an emergency department population. *Journal of the American Medical Association*, *273*, 1763-1767.
- Apter, A., Kotler, M., Sevy, S., Plutchik, R., Brown, S. L., Foster, H., et al. (1991). Correlates of risk of suicide in violent and nonviolent psychiatric patients. *American Journal of Psychiatry*, *148*, 883-887.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *BDI-II: Beck Depression Inventory manual* (2nd ed.). Boston: Harcourt, Brace.
- Berlim, M. T., Mattevi, B. S., Pavanello, D. P., Caldieraro, M. A., & Fleck, M. P. (2003). Suicidal ideation and quality of life among adult Brazilian outpatients with depressive disorders. *Journal of Nervous and Mental Disease*, *191*, 193-197.
- Brown, G. K., Beck, A. T., Steer, R. A., & Grisham, J. R. (2000). Risk factors for suicide in psychiatric outpatients. *Journal of Consulting and Clinical Psychology*, *68*, 371-377.
- Caetano, R., Schafer, J., & Cunradi, C. B. (2001). Alcohol-related intimate partner violence among White, Black, and Hispanic couples in the United States. *Alcohol Research and Health*, *25*, 58-65.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155-159.
- Dozois, D. J., Dobson, K. S., & Ahnberg, J. L. (1998). A psychometric evaluation of the Beck Depression Inventory-II. *Psychological Assessment*, *10*, 83-89.
- Dutton, M. A., Mitchell, B., & Haywood, Y. (1996). The emergency department as a violence prevention center. *Journal of American Medical Womens' Association*, *51*, 92-95, 117.
- Elliott, A. J., Pages, K. P., Russo, J., Wilson, L. G., Roy-Byrne, P. P. (1996). A profile of medially serious suicide attempts. *Journal of Clinical Psychiatry*, *57*, 567-571.
- Hall, R. C., Platt, D. E., & Hall, R. C. (1999). Suicide risk assessment: A review of risk factors for suicide in 100 patients who made severe suicide attempts. *Psychosomatics*, *40*, 18-27.

- Heron, S. L., Thompson, M. P., Jackson, E., & Kaslow, N. J. (2003). Do responses to an intimate partner violence screen predict scores on a comprehensive measure of intimate partner violence in low-income Black women? *Annals of Emergency Medicine*, *42*(4), 483-491.
- Ivarsson, T., Larsson, B., & Gillberg, C. (1998). A 2-4 year follow up of depressive symptoms, suicidal ideation, and suicide attempts among adolescent psychiatric inpatients. *European Child and Adolescent Psychiatry*, *7*, 96-104.
- Kaslow, N. J., Thompson, M. P., Meadows, L. A., Chance, S., Puett, R., Hollins, L., et al. (1998). Factors that mediate and moderate the link between partner abuse and suicidal behavior in African American women. *Journal Consulting and Clinical Psychology*, *66*, 533-540.
- Kaslow, N. J., Thompson, M., Meadows, L., Chance, S., Puett, R., Hollins, L., et al. (2000). Risk factors for suicide attempts among African American Women. *Depression and Anxiety*, *12*, 13-20.
- Koziol-McLain, J., Coates, C. J., & Lowenstein, S. R. (2001). Predictive validity of a screen for partner violence against women. *American Journal of Preventive Medicine*, *21*, 93-100.
- Rhodes, K. V., Lauderdale, D. S., He, T., & Howes, D. S. (2002). "Between me and the computer": Increased detection of intimate partner violence using a computer questionnaire. *Annals of Emergency Medicine*, *40*, 476-484.
- Scholle, S. H., Rost, K. M., & Golding, J. M. (1998). Physical abuse among depressed women. *Journal of General Internal Medicine*, *13*, 607-613.
- Thakur, M., Hays, J., & Krishnan, R. R. (1999). Clinical, demographic, and social characteristics of psychotic depression. *Psychiatry Research*, *86*, 99-106.
- Thompson, M. P., Kaslow, N. J., & Kingree, J. B. (2002). Risk factors for suicide attempts among African-American women experiencing recent intimate partner violence. *Violence and Victims*, *17*, 283-295.
- Thompson, M. P., Kaslow, N. J., Short, L. M., & Wyckoff, S. (2002). The mediating roles of perceived social support and resources in self-efficacy-suicide attempts relation among African American abused women. *Journal of Consulting and Clinical Psychology*, *70*, 942-949.
- Tollestrup, K., Sklar, D., Frost, F. J., Olson, L., Weybright, J., Sandvig, J., et al. (1999). Health indicators and intimate partner violence among women who are members of a managed care organization. *Preventive Medicine*, *29*, 431-440.
- U.S. Department of Justice. (1998, March). *Violence by intimates* (NCJ-167237). Washington, DC: Author.

Debra Houry, M.D., M.P.H., is an assistant professor in the Department of Emergency Medicine at Emory University School of Medicine and is the associate director for the Center for Injury Control, Rollins School of Public Health. She has authored more than 40 peer-reviewed publications and book chapters on injury prevention and violence. She has been the recipient of several national awards, including the Jay Drotman Award, given annually by the American Public Health Association for the most outstanding young public health professional in the country. She was also awarded the American College of Emergency Physicians Young Investigator Award and the Council of Residency Directors Academic Achievement Awards. She serves on several national committees for the American College of Emergency Physicians, Society for Academic Emergency Physicians, and the American Public Health Association. She is currently serving as the injury prevention and women's health editor for Annals of Emergency Medicine.

Nadine J. Kaslow, Ph.D. is professor and chief psychologist, Emory School of Medicine Department of Psychiatry and Behavioral Sciences and is based at Grady Health System. She was a Primary Care Public Policy Fellow through the U.S. Public Health Service, a fellow of the Executive Leadership in Academic Medicine Program, and a Fellow of the Woodruff Leadership Academy. She also served as president of the Division of Clinical Psychology of the American Psychological Association (APA) where she received the 2004 Distinguished Contributions for Education and Training Award from the APA. An associate editor for two journals, and a recipient of multiple grants from the Centers of Disease Control and Prevention, she has published more than 130 articles. A member of Rosalyn Carter's Mental Health Advisory Board, she serves on the board of the Women's Resource Center to End Domestic Violence. She is a nationally recognized expert in suicide, intimate partner violence and child abuse, and depression in children and adolescents.

Martie P. Thompson, Ph.D., is a research associate professor in the Department of Public Health Sciences at Clemson University. She received her Ph.D. in community psychology from Georgia State University. She received a National Research Service Award from National Institute of Mental Health for postdoctoral training at Emory University School of Medicine and was an epidemic intelligence service officer at the Division of Violence Prevention at the Centers for Disease Control and Prevention. Her research has focused on the psychological and physical consequences of violent victimization, and she has authored or coauthored more than 50 articles and chapters on violence.