

Examining Safety for Women: The Relationship Between Economic Resources, Race and Ethnicity, and Woman Abuse

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Research Problem

Given the serious emotional (Bryan, 1999; Fineman, 1988; McCue, 1995), social (McCue, 1995), physical (Bureau of Justice Statistics, 2001; Rennison & Welchans, 2002; Tjaden & Thoennes, 2000), sexual (McCue, 1995; Tjaden & Thoennes, 2000) and/or financial (Bonifaz, 1991; McCue, 1995) outcomes of woman abuse, it is vital that social workers understand the circumstances and experiences of abused women. While previous research has demonstrated an association between economic resources and woman abuse, a review of previous studies demonstrates five substantial gaps in the research. First, inquiries that test the relationship between *traditional* economic resources (income, education and employment) and woman abuse have mixed findings. Additionally, Conley (1999) urges that in order to more fully understand the issue of “class position—we not only must consider income, education, and occupation but also must take into account accumulated wealth” (p. 5). Unfortunately, few studies from the United States have tested for the relationship between economic assets and woman abuse.

A third limitation is the narrow operationalization of woman abuse as some type of physical assault. Another gap in the literature is that few studies have tested for the role that race and ethnicity might play in these relationships between economic resources and woman abuse. Lastly, age and marital status also are typically ignored when studying the association between economic resources and woman abuse.

The goal of this study is to explore whether certain types of economic resources (e.g., income, education, employment, homeownership) have independent or stronger relationships with the absence of woman abuse than do other types of economic resources. Given that women of color are disproportionately represented amongst impoverished women (Dolgoft & Feldstein, 2000), it seems conceptually and ethically important to also assess the interaction that race and/or ethnicity might have with various economic resources and woman abuse; thereby increasing our understanding of the dynamics between these complex and interrelated concepts.

Research Hypotheses

1. What relationship do traditional (household income, women's employment status and women's educational attainment) and asset (homeownership) measures of economic resources have with woman abuse?
2. What relationship do traditional measures of economic resources, independent from other economic measures, have with woman abuse?
3. What relationship does homeownership, independent from other economic measures, have with woman abuse?
4. Does the relationship between the independent variables and the dependent variable (woman abuse) change based on the type of woman abuse that is reported?
5. Does homeownership have a different relationship with woman abuse for African American and Hispanic women than they do for Euroamerican women?

Methodology

Design and Sample

This study conducted secondary data analyses of the 1999 person-level file from *The National Crime Victimization Survey* (NCVS). A stratified, multi-stage cluster sampling design of households was used to select participants. Since women were the targeted population for this study, only women age 18 and older (Backman, 1998) were extracted from this data file. Additionally, the small number of Native American women (0.4 percent) and Asian/Pacific Islander women (4.2 percent) made it necessary to include only Euroamerican, African American and Hispanic women. Once the duplicated observances were removed, and a power analysis was conducted, a random sample of 557 women who did not report woman abuse was added to the subsample of intimately abused women (N= 278), providing a sample of 835 adult women. After adjusting for the missing data, there was a final research sample of 790.

Variables

Expanding on the conceptual foundation of Straus and Gelles (1990), the dichotomous dependent variables for this research project were 1) physical abuse 2) emotional abuse, and 3) intimate abuse (one or more of any of the three types of woman abuse, as well as abuse and "other" abuse). The independent variables included three traditional economic measures: household income (continuous), woman's employment status (professional, service, other and unemployed), and woman's educational attainment (less than high school graduate, high school graduate and some college), and one dichotomous asset measure, homeownership. In order to adjust for the large number of women (18 percent) who did not report their household income, a second income variable was included in the logistic regression models. This variable, no reported household income, is dichotomous, with "1" signifying that the woman did report her

household income and a “0” indicating that she did not report it. Race and ethnicity were the other two dichotomous independent variables in this analysis. The control variables were marital status (married, widowed, divorced, separated and never married) and age (continuous).

Data Analyses

Given the complex research design of the NCVS, it was necessary to use the statistical software package Stata (Rodgers-Farmer & Davis, 2001). Korn and Graubard (1991) provide a formula that allows researchers to calculate the approximate inefficiency in using weighted data. They recommend using weighted data if the inefficiency is less than 10 percent. The inefficiency rate for the weighted data for this data set is 16 percent. Consequently, it was not advisable to use the weighted data. Additionally, the unweighted data allowed the researcher to avoid overestimating the significance levels (Brecklin & Ullman, 2001).

First, bivariate analyses (cross-tabulations and *t*-tests) were conducted to investigate the relationship between each of the four economic measures and the three types of woman abuse. The results from the bivariate analyses can be used to compare the findings from this study to those of previous inquiries. In order to test for independent associations, logistic regression analyses were then conducted with an overall research sample. Due to the smaller proportion of African American and Hispanic women to the White women in the research sample, follow-up, exploratory analyses were also ran with the separate subsamples of Black (n=109), Hispanic (n=99) and White women (n=584). Three regression models were used with the overall research sample and the three subsamples: Model I) household income, woman’s educational attainment, woman’s employment status, no reported household income, Black and Hispanic, Model II) model I plus homeownership, and Model III) model II, marital status, and age. The effect size for all findings for the overall research sample that had a significance level that was equal to or less than .05 are provided for all bivariate and multivariate analyses. Given the small number in the African American and Hispanic women subsamples, the alpha level has been relaxed to 0.10. This makes the findings for these subsamples exploratory and tentative.

Results

Descriptives

The women ranged in age from 18 to 90 years. The average woman was approximately 42.5 years old. Almost 13 percent were Hispanic and 13.8 percent were African American. Married women made up the largest group (42.4 percent), followed by never married women (22 percent). Less than one-quarter (22.9 percent) of the women had less than a high school education. Almost half of the women (43.4 percent) were employed in “other” types of occupations, and 36 percent of the women had been unemployed over the previous six months. The majority of women lived in households

that either owned or were buying their home (53.4 percent) and had household incomes of \$25,000 or more (64.7 percent).

Within the overall research sample, almost 27 percent of the women were classified as having experienced physical abuse. Eleven percent of the women were classified as having been emotionally abused, and approximately four percent reported experiencing sexual and “other” abuse. One-third of the women in the research sample had been intimately abused. Turning next to just the subsample of women who reported experiencing some type of woman abuse (n=264), 79.9 percent reported being physically abused. One-third of the subsample of abused women (33.3 percent) stated they were emotionally abused. Approximately one-eighth of the women disclosed experiencing sexual (11.4 percent) and “other” (12.5 percent) abuse.

Bivariate

Results from the bivariate analyses suggest household income has a very weak [$p < .01$, $(r_{pb})^2 = .02 - .04$], negative correlation with all three types of woman abuse. This indicates that as income goes up, women are less likely to experience woman abuse. While women’s educational attainment is negatively related to physical abuse ($p = .04$, $x^2 = 3.24$, Cramer’s $V = .06$), and intimate abuse ($p = .03$, $x^2 = 3.3$, Cramer’s $V = .06$), the strength of these associations is extremely weak. These findings suggest that women who had at least some college education were less likely to experience these types of woman abuse than were women with less education.

Women who were employed in the previous six months were more likely to experience physical, emotional, and intimate abuse than those women who were unemployed (Cramer’s $V = .05$, $.06$ and $.08$, respectively). However, women who are in the professional employment category are less likely to be emotionally abused than are unemployed women (Cramer’s $V = .06$). The effect sizes for homeownership range from weak to moderate, resulting in homeownership having the strongest association to woman abuse of all the economic resource measures ($\phi = .09$ to $.23$). The only time race or ethnicity was associated with woman abuse was the extremely weak, positive correlation between African American women and physical abuse ($\phi = .08$).

Logistic regression

Neither race nor ethnicity was a statistically significant correlate of any of the dependent variables in any of the three logistic regression models. However, given the large number of White women in the sample, as compared to Black and Hispanic women, it was thought that important relationships for Black and Hispanic women were not evident in the previous analyses. Therefore, three sets of exploratory logistic regressions with subsamples of Black, Hispanic, and White women were conducted to explore whether the relationship between economic resources and woman abuse differs for women of different racial and ethnic heritages. The odds ratio for the research sample are in Table 1, and for the three subsamples are in Tables 2-4.

Household income

Turning first to the overall research sample, household income was negatively associated with all three types of abuse in regression models I and II (OR= .88 -.94). These findings indicate that as the household income increased, the experience of woman abuse decreased. Women who did not report their income data were between 1.5 to 1.9 times more likely to experience physical and intimate abuse than those women who reported their household income. After entering the control variables of marital status and age (model III), household income was correlated with only emotional abuse (OR= .90), and no reported income data was associated with only physical abuse (OR= 1.9).

In the African American subsample, in model I, household income was inversely related to physical and intimate abuse (OR= .88 and .90, respectively). However, adding homeownership in model II renders relationships insignificant. Interestingly, while household income is not significantly associated with emotional abuse in model I, this relationship was significant in model II (OR= .83). In model III, the strength of the relationship between household income and emotional abuse is stronger than it was in model II (OR= .76). In models I and II, women who did not report their income were three times more likely to experience intimate abuse, and in model II they were 2.8 times more likely to be physically abused.

All of the models for Hispanic women and household income were insignificant. Women who did not report their household income were three times more likely to experience intimate abuse in model I and more than seven times more likely in model III.

While household income was negatively related to both physical and intimate abuse of White women in models I and II, the strength of the association decreases when homeownership is added to model II (OR= .89 to .92 and .88 to .91, respectively). The inverse relationship between household income and emotional abuse remains fairly constant from model I to model II (= .88 to .89). Women who did not report their income are twice as likely to experience physical abuse in all three regression models.

Women's educational attainment

In the research sample, it was only after marital status and age were entered into the regression model that women's educational attainment is significantly correlated with woman abuse. In model III, women with some college are 1.8 times less likely to experience both physical and intimate abuse than women with less than high school education. Educational attainment was not significantly related to any type of woman abuse for either African American or Hispanic women. In the White women subsample, women with some college education were 2.3 times less likely to be physically abused in models I and II. However, when marital status and age were added into the regression model, the odds increased to 3.3. Additionally, White women with some college education were 2.2 times less likely to experience intimate abuse in model II, and almost four times less likely in model III.

Women's employment status

In the research sample, in models I and II, employed women (professional, service and other) were two to 3.8 times more likely than unemployed women to experience physical and intimate abuse. Women employed in the service and other

categories were approximately 3.5 times more likely than unemployed women to be emotionally abused. None of the correlations were statistically significant in regression model III.

In models I and II, African American women who were professionally employed were 23.7 to 29.5 times more likely to be physically and intimately abused than unemployed women. Adding marital status and age to model resulted in the strength of relationship decreasing to 10.2 times for physical abuse, and not significant for intimate abuse. In models I and II, women employed in the category of “other” were 2.6 to 3.2 times more likely to be physically and intimately abused than unemployed women. While African American women who were in the other employment category were 13.2 times more likely to experience emotional abuse in model I, adding homeownership in model II increased these odds to 29.7. In model III, the odds decreased slightly to 28.1.

In models I and II, Hispanic women in service employment were 4.1 and 4.9 times more likely than unemployed women to experience intimate abuse. Women in other employment were 2.7 times more likely to be intimately abused. While employment status was not significantly correlated with emotional abuse in models I and II for this subsample, after entering marital status and age, women in other employment were 5.5 times more likely to this type of abuse.

In the subsample of White women, service and other employment were significantly related to all three types of woman abuse in regression models I and II. The odds ratio for service employment decreased from model I to model II for physical, emotional and intimate abuse (OR= 2.6 to 2.2, 3.7 to 3.5, and 4.4 to 3.8, respectively). Likewise, the odds ratios also decreased for other employment (OR= 2.6 to 2.2, 2.5 to 2.4, and 3.2 to 2.8, respectively).

Homeownership

Since homeownership was not entered until regression model II, there can be no findings for this variable in model I. In the research sample, renters were approximately two times more likely than homeowners to be physically and intimately abused in model II. After adding marital status and age, these relationships were insignificant. However, in model III, homeowners were twice as likely as renters to experience emotional abuse.

In both models II and III, homeownership had a strong, positive relationship with emotional abuse (OR= 4.8 to 5.1 respectively) for African American women. Among Hispanic women, homeowners are 4.8 times less likely than renters to be intimately abused in model II. White women who are homeowners are two times less likely to experience physical and intimate abuse in model II.

Conclusions

These results indicate that the association between economic resources and woman abuse vary not only along racial and ethnic lines, but also by marital status and age. For example, prior to entering the control variables of marital status and age (model III), homeownership had a negative correlation with both physical and intimate abuse (in both the overall research sample and white subsample). Conversely, in the African

American subsample, homeowners were five times more likely to be emotionally abused. While most of the overall regression models for Hispanic women were insignificant, in model II, there was a strong, inverse correlation between homeownership and intimate abuse.

When marital status and age were entered into the logistic regression model, most of the relationships between economic resources and woman abuse that were statistically significant in model II became insignificant. However, in the overall research sample, homeowners were twice as likely as renters to experience emotional abuse. Additionally, married White women tended to experience less physical and intimate abuse than do separated, divorced and never married women (OR= .35 and .30, respectively). Separated African American women were 9.8 and 15.6 times more likely than never married women to experience physical and intimate abuse, respectively. Marital status was not significantly related to any type of woman abuse among this Hispanic subsample. In general, younger Hispanic, White and Black women were more likely to experience woman abuse than were the older women in this sample.

Utility For Social Work Practice

This study is unique in several ways. It is the first to include all of the following characteristics: 1) a nationally representative data set, 2) multivariate analyses (in order to explain independent relationships), 3) both traditional and asset measures of economic resources, 4) an expanded operationalization of woman abuse, 5) statistical analyses along racial/ethnic lines, and 6) age and marital status included as control variables.

Implications for policy practice to help decrease woman abuse include supporting policies that assist women with 1) obtaining post-secondary education and training, 2) keeping their homes, even upon marriage dissolution, and 3) accumulating assets at an earlier age (particularly with Hispanic women). Additionally, social workers need to advocate against economic policies that discriminate against married individuals that file separate income tax returns, such as the Savings For Working Families Act, 2002. Turning to direct practice, asset-building programs need to be educated regarding woman abuse, include components that are sensitive to the needs and circumstances of abused women (e.g. legal and financial counseling), and have an increased awareness that Hispanic women may require other services (e.g., translation, and legal assistance with immigration law), in order to more fully participate in the economy. Future research should include evaluation of asset-building programs to determine best practices; national studies that examine the interaction effects of marital status and age with both traditional economic and asset measures; and national studies that include more asset measures (including women's independent assets), race/ethnicity, and a comprehensive operationalization of woman abuse.

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Table 1

Logistic Regression Results: Correlates of Physical, Emotional and Intimate Abuse for the Research Sample (N=790)

Variable	Physical Abuse			Emotional Abuse			Intimate Abuse		
	Model I	Model II	Model III	Model I	Model II	Model III	Model I	Model II	Model III
	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio
Professional Employment	2.35*	2.07*	1.14	1.24	1.24	.67	2.36*	2.10*	.95
Service Employment	2.60*	2.24*	.76	3.50*	3.48*	1.43	3.84*	3.38*	1.01
Other Employment	2.23*	1.99*	.75	3.51*	3.50*	1.65	3.03*	2.74*	.92
High School Graduate	.87	.91	.69	1.24	1.24	1.10	.94	.97	.69
Some College	.70	.69	.57*	1.20	1.20	1.27	.736	.72	.56*
Household Income	.90*	.94*	.97	.88*	.88*	.90*	.90*	.92*	.96
No Reported Household Income	1.85*	1.91*	1.91*	1.04	1.04	.90	1.53*	1.56*	1.64
Hispanic	.92	.86	.78	1.08	1.08	1.18	1.10	1.04	.96
Black	1.50	1.38	1.35	.81	.80	.81	1.22	1.13	1.04
Homeownership		.49*	1.14		.98	2.01*		.53*	1.48
Married			.43*			.50			.39*
Widowed			.84			.856			.94
Divorced			1.89*			2.20*			2.87*
Separated			2.95*			6.06*			14.18*
Age			.92*			.942*			.91*
Model Statistics	F= 6.00, p< .001	F= 6.00, p< .001	F= 10.82, p< .001	F= 4.29, p< .001	F= 3.87, p< .001	F= 6.34, p< .001	F= 7.58, p< .001	F= 8.27, p< .001	F= 12.71, p< .001

* $p = \text{or} < .05$

Model I= professional employment, service employment, other employment, high school graduate, some college education, household income, no reported income, Hispanic and Black

Model II= model I and homeownership

Model III= model I, model II, married, widowed, divorced, separated and age

Table 2

Odds Ratios for Models Correlated with Physical Abuse, By Race and Ethnicity

Variable	Model I			Model II			Model III		
	Black (n=109)	Hispanic (n=99)	White (n=584)	Black (n=109)	Hispanic (n=99)	White (n=584)	Black (n=109)	Hispanic (n=99)	White (n=584)
Professional Employment	29.5	--	--	27.5	--	--	10.2	--	--
Service Employment	--	--	2.6	--	--	2.2	--	--	--
Other Employment	2.9	--	2.5	2.6	--	2.2	--	--	--
High School Graduate	--	--	--	--	--	--	--	--	--
Some College	--	--	.44	--	--	.43	--	--	.30
Household Income	.88	--	.89	--	--	.92	--	--	--
No Reported Income	--	--	1.9	2.8	--	1.9	--	--	2.0
Home Ownership				--	--	.48	--	--	--
Married							--	--	.35
Widowed							--	--	--
Divorced							--	--	--
Separated							--	--	2.5
Age							.93	--	.92
Model Statistics	F= 2.83, p= .010	F= 1.63, p= .137	F= 7.07, p≤ .001	F= 2.85, p= .007	F= 1.54, p= .155	F= 7.47, p≤ .001	F= 2.15, p= .021	F= 1.17, p= .318	F= 10.51, p≤ .001

-- Not significant

Model I= professional employment, service employment, other employment, high school graduate, some college education, household income, no reported income, Hispanic and Black

Model II= model I and homeownership

Model III= model I, model II, married, widowed, divorced, separated and age

Table 3

Odds Ratios for Models Correlated with Emotional Abuse, By Race and Ethnicity

Variable	Model I			Model II			Model III		
	Black (n=109)	Hispanic (n=99)	White (n=584)	Black (n=109)	Hispanic (n=99)	White (n=584)	Black (n=109)	Hispanic (n=99)	White (n=584)
Professional Employment	--	--	--	--	--	--	--	--	--
Service Employment	--	--	3.7	--	--	3.5	--	--	--
Other Employment	13.2	--	2.5	27.9	--	2.4	28.1	5.5	--
High School Graduate	--	--	--	--	--	--	--	--	--
Some College	--	--	--	--	--	--	--	--	--
Household Income	--	--	.88	.83	--	.89	.76	--	--
No Reported Income	--	--	--	--	--	--	--	--	--
Homeownership				4.8	--	--	5.1	--	--
Married							7.2	--	--
Widowed							--	--	--
Divorced							--	--	2.8
Separated							9.8	--	7.2
Age							--	.89	.94
Model Statistics	F=2.04, p=.068	F=0.97, p=.450	F=3.35, p=.002	F=2.80, p=.011	F=1.06, p=.399	F=3.02, p=.003	F=1.74, p=.082	F=1.98, p=.036	F=5.11, p≤.001

-- Not significant

Model I= professional employment, service employment, other employment, high school graduate, some college education, household income, no reported income, Hispanic and Black

Model II= model I and homeownership

Model III= model I, model II, married, widowed, divorced, separated and age

Table 4 Odds Ratios for Models Correlated with Intimate Abuse, By Race and Ethnicity

Variable	Model I			Model II			Model III		
	Black (n=109)	Hispanic (n=99)	White (n=584)	Black (n=109)	Hispanic (n=99)	White (n=584)	Black (n=109)	Hispanic (n=99)	White (n=584)
Professional Employment	24.2	--	--	23.7	--	--	--	--	--
Service Employment	--	4.1	4.4	--	4.9	3.8	--	--	--
Other Employment	3.2	2.7	3.2	3.2	2.7	2.8	--	--	--
High School Graduate	--	--	--	--	--	--	--	--	.41
Some College	--	--	--	--	--	.46	--	--	.26
Household Income	.90	--	.88	--	--	.91	--	--	--
No Reported Income	2.9	3.0	--	3.0	--	--	--	7.4	--
Homeownership				--	.21	.49	--	--	--
Married							--	--	.30
Widowed							--	--	--
Divorced							--	--	4.0
Separated							15.6	--	17.2
Age							.91	.91	.91
Model Statistics	F=29, p=.008	F=21, p=.049	F=8.38 p<.001	F=2.6, p=.011	F=2.12, p=.042	F=8.82, p<.001	F=2.22 p=.017	F=1.63, p=.094	F= 11.96, p<.001

-- Not significant

Model I= professional employment, service employment, other employment, high school graduate, some college education, household income, no reported income, Hispanic and Black

Model II= model I and homeownership;

Model III= model I, model II, married, widowed, divorced, separated and age