

# Physical and Emotional Partner Abuse Reported by Men and Women in a Rural Community

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Intimate partner violence exacts an enormous toll each year in the United States, affecting 3% to 5% of adult intimate relationships.<sup>1-3</sup> Compared with urban settings, much less is known about the prevalence and correlates of partner violence in rural areas.<sup>4-6</sup> Rural women are more isolated, have access to fewer services, and face different attitudes and norms than urban women.<sup>5-7</sup>

This study examined the prevalence of severe physical abuse, measured by the Conflict Tactics Scale,<sup>8</sup> and controlling emotional abuse, measured by Yllo's Controlling Behavior Questions,<sup>9</sup> as reported by a cohort of cohabiting couples in a rural Iowa county. The objectives were to estimate the prevalence of abuse victimization reported by men and women on each scale and to identify factors associated with violence against men and women.

## MATERIALS AND METHODS

The study population included members of a prospective cohort study in a rural county. The county, cohort, and overall methods are described elsewhere.<sup>10</sup> Respondents aged 18 and older were asked whether they were currently living with a spouse or partner and, if so, were asked to respond to questions about partner violence. Participants were interviewed in person and without their partner being present. Of the 1633 adult cohort members, 1310 (80.2 %) lived with their partners.

We used 5 items from the Conflict Tactics Scale<sup>8</sup> to measure severe physically abusive acts perpetrated by the respondent's partner during the last 12 months. As recommended

by Straus,<sup>11</sup> these severe abuse items are kicking, hitting with a fist, hitting with some other object, threatening with a knife or gun, and using a knife or gun to harm.

We used Yllo's Controlling Behavior Questions to assess controlling emotional abuse in the previous 12 months. We used the following items:

1. You felt intimidated and frightened (e.g., by your husband's/wife's/partner's shouting, looks, smashing things).
2. You felt isolated by your husband/wife/partner controlling whom you could see or call or where you could go.
3. You felt you were treated like a subordinate, like a servant by your husband/wife/partner, making you wait on him or her or making important decisions alone.
4. You felt you were made to do sexual things against your will.

The Conflict Tactics Scale and the Controlling Behavior Questions were independently coded into dichotomous variables, so that a positive response to any one item indicated the presence of that type of abuse.

Prevalence of abuse measured by each scale was compared by gender, and  $\chi^2$  tests of independence were used to determine whether reported abuse varied by age, marital status, education, residence, and farm work. Multivariate logistic regression analysis was conducted to identify factors associated with abuse as measured on each scale independently and to determine whether these differed among men and women. The odds ratios (ORs) should not be interpreted as risk ratios on the Controlling Behavior Questions because emotional abuse was not a rare outcome.

## RESULTS

Based on the Conflict Tactics Scale, 2.9% of the women and 4.7% of the men reported at least 1 incidence of severe physical violence directed at them by their partners (Table 1) ( $P=.11$ ). On the Yllo Controlling Behavior Questions, however, 46.7% of the women and 30.2% of the men reported experiencing emotional abuse perpetrated by their partners ( $P<.001$ ).

Responses of the individuals on the 2 original scales were significantly associated (Spearman rank correlation coefficient=0.123 for the overall sample, 0.120 for men, and 0.149 for women; all correlations,  $P<.001$ ).

For the overall sample, women reported experiencing more controlling emotional abuse from their partners (OR=1.84; 95% confidence interval [CI]=1.30, 2.61) (Table 2). Increasing age and being married were protective against both types of victimization for both men and women. Education was unrelated to prevalence of any type of abuse.

Women living in a rural nonfarm residence reported the highest victimization of severe physical abuse (OR=5.30; 95% CI=1.77, 15.88). When controlling for farm residence, men who engaged in farm work experienced more severe physical abuse (OR=4.00; 95% CI=1.46, 10.86) and controlling abuse (OR=1.51; 95% CI=0.91, 2.49) than men who did not. A similar result was not seen among women.

## DISCUSSION

Partner violence is an important public health problem in rural and urban areas. Indicators of abuse in rural populations differ from those in urban areas. Gender appears to be a strong effect modifier for both severe physical and emotional abuse. Women who live outside of towns but not on farms reported more physical abuse than other women. Increased isolation might explain this finding. Women living on farms may have more interaction with others (e.g., farm workers) than women who do not live on farms. In addition, some individuals might choose rural nonfarm areas because of the isolation, and one reason to prefer isolation is to hide abusive behavior.

Men, but not women, who engaged in farm work reported experiencing more abuse than did nonfarmers. This finding has not been reported previously. The strains of farm work on relationships, which include exhausting physical labor, long hours, and financial uncertainty, may lead to increased risk of abuse by women, but this finding needs to be studied further.

Measurements of abuse should include both physical and emotional components.

**TABLE 1—Prevalence of Abuse Reported by Men and Women on 2 Scales**

	Distribution by Gender		Conflict Tactics Scale				Yllo's Controlling Behavior Questions			
	Men No. (%)	Women No. (%)	Men		Women		Men		Women	
			No. Abused	Prevalence	No. Abused	Prevalence	No. Abused	Prevalence	No. Abused	Prevalence
Total	621 (47.4)	689 (52.6)	29	4.7	20	2.9	187	30.1	322	46.7
Age, y										
18–29	18 (2.9)	36 (5.2)	1*	5.6	3*	8.3	13***	72.2	19*	52.8
30–39	111 (17.9)	161 (23.4)	12	10.8	8	5.0	48	43.2	92	57.1
40–49	144 (23.2)	159 (23.1)	4	2.8	3	1.9	54	37.5	68	42.8
50–65	194 (31.2)	210 (30.5)	8	4.1	2	1.0	43	22.2	96	45.7
≥ 66	154 (24.8)	123 (17.9)	4	2.6	4	3.3	30	19.5	48	39.0
Marital status										
Married	593 (95.6)	663 (96.2)	25*	4.2	15**	2.3	176	29.7	308	46.5
Other	27 (4.4)	26 (3.8)	4	14.8	5	19.2	12	44.4	15	57.7
Education										
≤ High school	364 (59.7)	293 (44.7)	17	4.7	6	2.0	93*	25.5	134	45.7
> High school	246 (40.3)	362 (55.3)	12	4.9	14	3.9	92	37.4	175	48.3
Residence										
Farm	238 (38.3)	251 (36.4)	12	5.0	3***	1.2	55***	23.1	130	51.8
Rural nonfarm	120 (19.3)	150 (21.8)	4	3.3	12	8.0	38	31.7	64	42.7
Town	263 (42.4)	288 (41.8)	13	4.9	5	1.7	95	36.1	129	44.8
Farm work										
Yes	320 (51.6)	181 (26.3)	21*	6.6	1***	0.6	90	28.1	90	49.7
No	299 (48.2)	507 (73.6)	8	2.7	19	3.7	97	32.4	232	45.8

Chi-square tests indicate significance at level: \* $P < .05$ ; \*\* $P < .01$ ; \*\*\* $P < .001$ .

**TABLE 2—Logistic Regression Predicting Any Abuse on the Conflict Tactics Scale and Yllo's Controlling Behavior Questions, by Gender**

Independent variable <sup>a</sup>	Conflict Tactics Scale						Yllo's Controlling Behavior Questions					
	Total		Men		Women		Total		Men		Women	
	OR	95% CI	OR	95% CI	OR	95% CI	OR <sup>b</sup>	95% CI	OR	95% CI	OR	95% CI
Female gender	0.66	0.23, 1.86					1.84	1.30, 2.61				
Increasing age category	0.72	0.55, 0.94	0.68	0.48, 0.96	0.77	0.50, 1.18	0.76	0.68, 0.84	0.64	0.54, 0.76	0.84	0.73, 0.97
Married	0.24	0.10, 0.55	0.35	0.11, 1.15	0.16	0.08, 0.54	0.69	0.39, 1.22	0.72	0.31, 1.67	0.67	0.29, 1.50
> High school education	1.04	0.56, 1.94	0.76	0.34, 1.72	1.58	0.56, 4.46	1.15	0.91, 1.47	1.39	0.96, 2.02	0.99	0.72, 1.37
Rural nonfarm residence	0.62	0.18, 2.01	0.52	0.16, 1.68	5.30	1.77, 15.88	1	0.63, 1.61	0.75	0.46, 1.23	0.91	0.61, 1.36
Residence on farm	0.62	0.25, 1.50	0.42	0.16, 1.13	1.60	0.34, 7.60	0.85	0.61, 1.20	0.36	0.20, 0.63	1.40	0.91, 2.16
Farm work	3.17	1.18, 8.54	4.00	1.46, 10.86	0.18	0.02, 1.62	0.89	0.59, 1.35	1.51	0.91, 2.49	0.90	0.58, 1.41
Interaction of gender and farm work	0.86	0.01, 0.79					1.29	0.77, 2.14				
Interaction of gender and rural nonfarm residence	6.51	1.50, 28.24					0.73	0.41, 1.33				
Model goodness of fit	6.13		9.4		17.9*		12.9		5.7		8.8	

Note. OR = odds ratio; CI = confidence interval.

<sup>a</sup>All variables were included in logistic models.

<sup>b</sup>Controlling behavior is not a rare outcome, so odds ratios do not approximate risk ratios.

\* $P < .05$ .

Further study of factors associated with different types of abuse in rural environments will help direct the development and implementation of programs that offer assistance to victims and prevent violent behavior. ■

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### Contributors

S.A. Murty developed the study and wrote early drafts of the manuscript. C. Peek-Asa conducted analyses and wrote later drafts of the brief. C. Zwerling participated in the study design, contributed to the oversight of data collection, and reviewed multiple drafts of the brief. A.M. Stromquist supervised data collection, contributed to data interpretation, and reviewed multiple drafts of the brief. L.F. Burmeister contributed to planned data analysis and reviewed multiple drafts of the brief. J.A. Merchant is the Principal Investigator of the Keokuk County Rural Health Study and reviewed multiple drafts of the brief.

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### Human Participant Protection

The Keokuk County Rural Health Cohort Study was approved by the University of Iowa human subjects review board.

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