High Prevalence of Self-Reported Forced Sexual Intercourse Among Internally Displaced Women in Azerbaijan

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Previous reports have shown that forced sexual intercourse and other forms of gender-based violence are a persistent public health problem for refugee or internally displaced women.[1–6] (Internal displacement is defined as forced relocation within a person's country of citizenship because of some catastrophic event.) In some settings, the proportion of refugee or internally displaced women reporting some type of gender-based violence exceeds 60%.[7,8] Sexual violence against refugee or internally displaced women can cause women to flee their homelands.[9–14] Unfortunately, these women are not always safe from harm after their relocation or after resettlement.[4,12,15–18] Investigation of sexual violence affecting these women, its incidence, prevalence, and correlates is critical to the development of effective treatment and prevention strategies.

METHODS

Setting

This investigation was conducted in nongovernmental organization–operated reproductive health clinics in the Barda, Yevlack,

and Terter districts in Azerbaijan between May and August 2000. It was part of a larger study of reproductive tract infections and pregnancy among displaced women.[19] The study included a gynecologic examination, laboratory testing for sexually transmitted disease, and an interviewer-administered survey that took approximately 45 minutes to complete.

Study Design and Procedure

Women attending the clinics were approached by female clinical staff and asked to participate in a study of reproductive health. Informed consent was obtained from nonpregnant, 18- to 48-year-old, sexually active volunteers. Nearly all (greater than 90%) women approached agreed to participate in the study. Women were excluded if they had had a hysterectomy, were in menopause, or had used antibiotics in the past 30 days.

Data Analysis

Analysis was conducted to characterize the study group and the prevalence of forced sexual intercourse. Women were first asked, "At any time in your life, have ever been forced by a man to have sexual intercourse against your will?" If a woman responded affirmatively, she was then asked, "How old were you the last time you were forced by a man to have sexual intercourse against your will?"

Logistic regression analyses were conducted to identify correlates of self-reported forced sexual intercourse. This analysis evaluated 16 potential correlates of forced sexual intercourse that can be assessed during brief clinical encounters. These variables were grouped into 4 broad domains: (1) demographics, (2) living situation, (3) sexual behavior and reproductive history, and (4) gynecologic conditions diagnosed syndromically.

TABLE 1—Study Group Characteristics (n = 457): Azerbaijan, May to August 2000

	No. (%)	Mean (SD)	Median
Forced sexual relations			
Lifetime history	135 (29.5)	...	...
Within past 6 y	120 (26.2)	...	...
Within past year	99 (21.7)	...	...
Years since last forced to have sexual relations	...	1.8 (3.3)	<1
Demographic			
Age, y	...	33.5 (6.8)	34
Length of time married, y	...	11.7 (6.9)	11
Currently employed	79 (17.4)	...	...
Partner currently employed	144 (32.0)	...	...
Income, US $/mo	...	38.7 (39.9)	27.0
Living situation in past 3 mo			
Physically attacked at least once	18 (4.0)	...	...
Not had enough money for basic necessities	108 (23.8)	...	...
Has been homeless at least once	33 (7.3)	...	...
Sexual behavior and reproductive history			
Used condom with last sexual contact	44 (9.7)	...	...
Number of times had sexual contact in last 30 d	...	9.1 (6.9)	8.0
Modern contraceptive method[a]	90 (31.3)	...	...
1 or 2 pregnancies	113 (24.7)	...	...
3 or more pregnancies	292 (64.3)	...	...
1 or 2 abortions	100 (21.9)	...	...
3 or more abortions	209 (45.7)	...	...
Syndromic diagnosis[b]			
Abnormal vaginal discharge	401 (87.9)	...	...
Genital ulcers	148 (33.0)	...	...
Lower abdominal pain	191 (42.4)	...	...

[a]Modern contraception use was defined use of condoms, oral contraceptives, injections, intrauterine devices, implants, diaphragms, or sterilization.
[b]Genital tract conditions were diagnosed syndromically using World Health Organization protocols (abnormal vaginal discharge, genital ulcers, and lower abdominal pain)[20,21]

RESULTS

Approximately 30% of the 457 women reported being forced to have sexual intercourse at least once in their life. Of those, 120 (26%) reported they had been forced to have sexual intercourse in the last 6 years. Twenty-one percent of the women reported that they had been forced to have sexual intercourse in the past year (Table 1).

The regression analysis was limited to women (n=95) who reported forced sexual intercourse in the past year and those who reported never being forced to have sexual intercourse (n=302) to identify correlates of recent forced sexual intercourse. Initial analysis found that 8 of the 16 correlates were significantly associated with self-reported forced sexual intercourse in the past year (Table 2) compared with those who had never experienced forced sexual intercourse. Positive associations were found with being employed, partner's being employed, increasing income, and being physically attacked at least once in the past 3 months. Not having enough money for basic necessities in the past 3 months was negatively associated with forced sexual intercourse. Abortion, genital ulcers, and lower abdominal pain were positively associated with forced sexual intercourse.

Seven of the 8 variables were included in the final logistic regression model (Table 2). Partner's employment status was excluded because of the high correlation with respondent's employment status. Four variables remained significant in the multivariate model including (1) being physically attacked in the past 3 months (odds ratio [OR]=3.7, 95% confidence interval [CI]=1.2, 11.5), (2) abortion (1 or 2, OR=2.2, 95% CI=1.0, 4.7; 3 or more, OR=2.7 95% CI=1.4, 5.3), (3) syndromic diagnosis of genital ulcers (OR=

TABLE 2—Associations of Demographics, Living Situation, and Sexual Behavior/Reproductive Health and Syndromic Diagnoses With Recent Forced Sexual Relations (n = 95 Recent Forced Sexual Relations; n = 302 Never Forced Sexual Relations)[a]: Azerbaijan, May to August 2000

	Unadjusted Association Odds Ratio (95% Confidence Interval)	Adjusted Association Odds Ratio (95% Confidence Interval)
Demographic		
Age (5-y intervals starting at 15 y)[b]	1.1 (0.9, 1.3)	. . .
Length of time married, y (5-y intervals)	1.0 (0.8, 1.2)	. . .
Currently employed	1.9 (1.0, 3.4)	1.6 (0.8, 3.3)
Partner currently employed	1.7 (1.1, 2.2)[c]	. . .
Monthly income, US $5 intervals[d]	1.1 (1.0, 1.1)	1.0 (1.0, 1.1)
Living situation (past 3 mo)		
Physically attacked at least once	4.3 (1.6, 11.6)	3.7 (1.2, 11.5)
Not enough money for basic necessities	0.5 (0.3, 0.8)	0.6 (0.6, 1.2)
Has been homeless at least once	0.9 (0.3, 2.4)	. . .
Sexual behavior and reproductive history		
Used condom with last sexual contact	1.6 (0.7, 3.3)	. . .
Number of times had sexual contact in last 30 d	1.0 (0.9, 1.0)	. . .
Modern contraceptive method	1.2 (0.6, 2.2)	. . .
1 or 2 pregnancies	2.1 (0.9, 5.1)	. . .
3 or more pregnancies	1.4 (0.6, 3.1)	. . .
1 or 2 abortions	2.0 (1.1, 4.0)	2.2 (1.0, 4.7)
3 or more abortions	1.9 (1.1, 3.4)	2.7 (1.4, 5.3)
Syndromic diagnosis		
Abnormal vaginal discharge	1.6 (0.8, 3.2)	. . .
Genital ulcers	4.7 (2.8, 7.8)	2.6 (1.3, 5.0)
Lower abdominal pain	6.0 (3.5, 10.0)	3.5 (1.8, 6.7)

[a]Women who had not experienced forced sexual contact within the last year were not included in this analysis.
[b]Age range was 18 to 48 years.
[c]Partner employment status was not included in the multivariate model because of correlation with respondent's employment status.
[d]Monthly income range was US $0 to $550. Those with an income more than US $100 (3.5%) were included in 1 category.

2.6, 95% CI = 1.3, 5.0), and (4) lower abdominal pain (OR = 3.5, 95% CI = 1.8, 6.4).

DISCUSSION

One of every 5 women in this study reported being forced to have sexual intercourse in the past year. Women who had been physically attacked, had had at least 1 abortion, and had syndromic diagnoses of genital ulcers or lower abdominal pain were more likely to have recently experienced forced sexual intercourse.

The prevalence of forced sexual intercourse in this study group is similar to that cited in reports from other refugee settings.[1–6] Our clinical and sexual/reproductive health findings are similar to those in other reports: women who have experienced forced sexual intercourse are at increased risk for sexually transmitted diseases, genital irritation, pelvic pain, urinary tract infections, physical abuse, mistimed/unwanted pregnancies, and abortions.[3,5–7,8,18,22–27]

Gender-based violence is a universal public health problem. Both the scientific and the popular literature have reported that around the world women are being victimized. The high prevalence of forced sexual intercourse calls for vigilance among providers to ensure appropriate treatment and referral of victims of sexual violence. Further study of sexual violence toward women is needed to elucidate the problem and to lay the foundation for eliminating it. ■

About the Authors

At the time of the study, Jamila Kerimova was with Relief International, Baku, Azerbaijan. Samuel F. Posner, Y. Teresa Brown, Susan Hillis, Susan Meikle, and Ann Duerr are with the Centers for Disease Control and Prevention, Atlanta, Ga.

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Human Participant Protection

Local and Centers for Disease Control and Prevention human subjects protection review panels approved the study protocol.

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