



Risk Factors of Physical Family Violence in Lima, Peru

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Background

Domestic Family violence is a persistent global public health problem. Worldwide, it is estimated that around 50 percent of families suffer or have suffered some form of family violence (WHO). In Peru, it is estimated that 6 out of 10 families have been victimized by family violence. Family violence has been recognized as a human rights violation as well (UN), and is therefore subject to both epidemiologic and legal surveillance.

There is a limited number of family violence studies in Peru. A large population-based epidemiological study found that prevalence of psychological and physical family violence prevalence was 35 and 17 percent, respectively (Anicama, 1999). The Peruvian National Institute of Statistics and Informatics conducted a survey of domestic victimization in Lima and found that of the 32 percent of participants who had been victimized, 70 percent also knew of a relative who had been a victim as well (Bardales, 2001).

Objective

The objective of this study was to identify the characteristics and risk factors of physical family violence in a low SES sample of adults in Lima Peru.

Methods

A cross-sectional study was conducted at HNDM during the months of July and August of 2003. All adults, 18 years or older, visiting the Social Service Department, and who were capable of granting informed consent were eligible for enrollment in the study.

Of 318 patients approached and invited to participate, 308 (97%) elected to do so. All participants completed a comprehensive socio-demographic section followed by a screening section that assigned each subject into a case or control.

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Methods & Results

The interview lasted approximately 20 minutes, and it was designed to measure prevalence of family violence in the last 12 months, history, approval, severity, and frequency of violence, alcohol-related problems, and characteristics of the violence perpetrated, on victims, or by aggressors.

All subjects gave an oral consent. The analysis was conducted using SPSS and EPI Info software.

Table 1. Crude and Adjusted* Odd Ratios Associated with Becoming a Victim of Family Violence

Characteristics	Victims n=31	Controls N=223	Crude OR (95% CI)	Adjusted OR (95% CI)
Sex				
Female	26	178	1.3 (0.5, 3.6)	0.9 (0.3, 3.2)
Male	5	45	Ref	
Age				
< 40	24	92	4.9 (2.0, 11.8)	7.4 (2.5, 21.6)
40 or older	7	131	Ref	
Marital Status				
Married/Cohabitant	20	123	1.5 (0.7, 3.2)	1.1 (0.4, 2.8)
Not partnered	11	100	Ref	
Monthly Income in Dollars (3.5 Soles per 1 U.S. Dollar)				
< 16	14	65	3.7 (1.2, 10.7)	5.0 (1.5, 16.7)
16-28	10	68	2.5 (0.8, 7.7)	3.7 (1.1, 12.8)
29+	5	85	Ref	
Alcohol Related Problems				
Yes	10	40	2.2 (0.9, 5.0)	1.7 (0.6, 4.6)
No	21	183	Ref	
Violence Approval				
Yes	19	84	2.6 (1.2, 5.7)	2.2 (0.9, 5.4)
No	12	139	Ref	
Presence of FV among neighbors				
Yes	23	116	2.7 (1.1, 6.2)	1.8 (0.7, 4.8)
No	8	107	Ref	
Presence of Violence (criminality) in neighborhood				
Yes	29	171	4.4 (1.02, 19)	3.3 (0.7, 16.1)
No	2	52	Ref	
Witnessed Interparental Violence in Youth				
Yes	23	107	3.1 (1.3, 7.3)	2.8 (1.02, 7.5)
No	8	116	Ref	

* Multivariate analysis adjusted for: Sex, age, income, marital status, alcohol-related problems, witnessing of violence in youth, approval of violence, environmental family violence, and environmental violence (criminality). $p \leq .05$.

Table 2. Crude and Adjusted* Odd Ratios Associated with Becoming a Perpetrator of Physical Family Violence

Characteristics	Agessors n=67	Controls n=223	Crude OR (95% CI)	Adjusted OR (95% CI)
Sex				
Female	57	178	1.4 (0.7, 3.3)	2.0 (0.9, 4.5)
Male	10	45	Ref	
Age				
< 40	37	105	1.8 (1.01, 3.0)	1.7 (0.9, 3.1)
40 or older	30	136	Ref	
Marital Status				
Married/Cohabitant	48	135	2.1 (1.1, 3.7)	2.4 (1.2, 4.5)
Not partnered	19	106	Ref	
Monthly Income in Dollars (3.5 Soles per 1 U.S. Dollar)				
< 16	23	65	1.3 (0.7, 2.5)	1.2 (0.6, 2.4)
16-28	21	68	1.1 (0.6, 2.2)	1.2 (0.6, 2.4)
29+	23	85	Ref	
Alcohol Related Problems				
Yes	22	40	2.2 (1.2, 4.1)	2.1 (1.1, 4.2)
No	45	183	Ref	
Violence Approval				
Yes	35	84	1.8 (1.04, 3.1)	2.0 (1.1, 3.6)
No	32	139	Ref	
Presence of FV among neighbors				
Yes	49	116	2.5 (1.4, 4.6)	2.4 (1.3, 4.5)
No	18	107	Ref	
Presence of Violence (criminality) in neighborhood				
Yes	53	171	1.6 (0.6, 2.2)	0.8 (0.4, 1.7)
No	14	52	Ref	
Witnessed Interparental Violence in Youth				
Yes	39	107	1.5 (0.8, 2.6)	1.3 (0.7, 2.3)
No	28	116	Ref	

* Multivariate analysis adjusted for: Sex, age, income, marital status, alcohol-related problems, witnessing of violence in youth, approval of violence, environmental family violence, and environmental violence (criminality). $p \leq .05$.

Results

Eighty two percent of participants were women; mean age of 42 ± 13.5 years, 73.3% mestizos, 30.5% had primary education or less, 24.5% were single, 75.6% catholic, 31.5% were housewives, and 30.5% had 7 or more persons living at home. Overall, 85 (28%) participants reported domestic family violence in their homes, in the last twelve months, either as victims (n=31), aggressors (n=67), or both (n=13).

Risk factors for both victims and aggressors include: being younger than 40 years of age, violence approval, and presence of domestic violence among neighbors. Risk factors for victims include: extreme poverty (<16 dollars a month), having witnessed inter-parental violence as a child or adolescent, and living in a violent neighborhood.

Risk factors for being a perpetrator include: being married or cohabitating, and having alcohol-related problems. Multivariate analyses showed that the independent risk factors for being a victim include those younger than 40 years of age, those living in extreme poverty, and those who witnessed inter-parental violence in their youth; and the independent risk factors for being a perpetrator include being married/cohabitating, those with alcohol-related problems, violence approval, and the presence of domestic violence among neighbors.

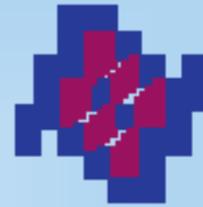
Discussion

The prevalence estimate (28 %) of physical family violence in this study was similar to previous studies conducted in Peru, and other Latin American countries (Anicama, et al, 1999). Interestingly, we found similar risk factors (age, approval of violence and environmental family violence) for both victims and aggressors.

Results from this study indicate that family violence in Lima, as in the rest of the world, is a prevalent public health problem. Comprehensive bio-psychosocial and environmental studies will be needed to develop culturally appropriate and effective strategies for preventing family violence.



Adolescent Sexuality in Urban and Rural Mexico: Knowledge, Behavior and Access to Information



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Introduction & Objectives

Sexually transmitted infections (STI), human immunodeficiency virus (HIV) and the acquired immunodeficiency syndrome (AIDS) are some of the most severe public health problems that affect many adolescents of today, including the Mexican adolescent, who constitutes 40%-50% of the Mexican population, according to the Pan-American Health Organization.

The Ministry of Health of Mexico concluded that there are 6.4 million cases of AIDS, and approximately 150,000 cases living with the virus. The National Youth Survey of Mexico found that its young population is initiating sex at a younger age each year. The average age for males was 14.4 years and 14.9 years for females. Also, condom use is approximately 50.9% for males while 22.9% of women negotiate their use in sexual encounters. This statistic is even lower in subsequent sexual encounters (24.6%), among the poor adolescents and adolescents who live in rural areas.

As of the year 2000, there were 97.5 million inhabitants in Mexico, mostly found (75%) in urban cities such as Mexico City, Guadalajara and Monterrey, while roughly 24.7 million still choose to live in rural communities. Unlike the majority of other Latin American countries who are finding their rural communities dwindling, Mexico is experiencing 1% urbanization rate. One of the many striking differences between urban and rural communities is the amount of education that young adults receive.

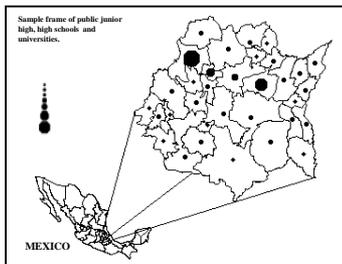
The goals of this study were to assess the socio-demographic characteristics and self-reported sexual knowledge and behavior and access to sexual information among rural and urban adolescents.

Materials and Methods

A sample of 12,764 adolescents, 11-19 years old, attending 352 public junior and high schools in Morelos, Mexico, completed a self-administered questionnaire on sexual knowledge and behavior from September 1998 through June 1999. The participation rate was 98.6%.

This study was approved by the Ethics, Bio-Safety, and Research Committees of the National Institute of Public Health of Mexico.

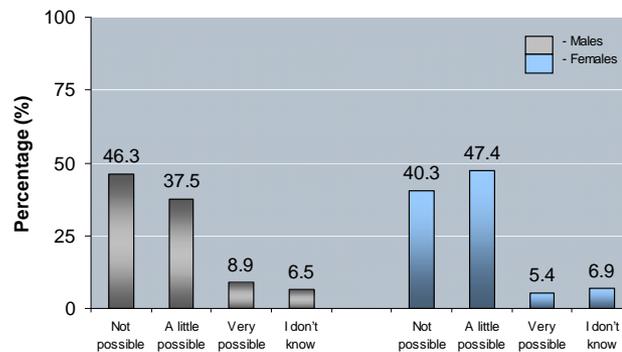
Descriptive statistics were used to demographically characterize participants in the study population. Cross-tabulation was used to analyze sexuality, HIV/AIDS, and STI knowledge by age group and marginalization. The Statistical Package for the Social Sciences (SPSS) version 11.5 for Windows was used for all analyses.



Results

STI Risk Perception

Do you think you are at risk of contracting an STI?



Socio-demographic characteristics: The study sample of 12,764 was 43.8% male and 56.2% were female. Roughly one half of the students were of middle socioeconomic level, while one fourth was of low (25.1%) and the other fourth (23.4%) was of high socioeconomic level. There was a higher prevalence of students living in urban areas (60.3%) than students living in rural areas (39.6%).

Sources of and access to sexual information: Students reported that school materials were overwhelmingly trusted (82.5%), while 12.5% trusted television, movies theatres and movie rentals, and only 5.0% trusted magazines the most. Preferences were similar in both in rural and urban areas.

Sexual knowledge: There was a greater understanding of male reproductive biology than female, such as the duration of a menstrual cycle, the meaning of menstruation, and when a woman can get pregnant, with older students and those from urban schools being more knowledgeable.

Contraception knowledge: Females are more familiar than males with the cervical mucus method (93.7%) and basal body temperature (81.2%), than condom use (13%) as methods of contraception. Rural and younger adolescents had greater knowledge of contraception than did urban and older students.

Sexually Transmitted Infection knowledge: Less than 20% of students could accurately distinguish STIs from a general list of diseases. The student sample reported that they did not know the correct answer in majority of the questions, especially among rural adolescents, females and adolescents between 13-16 years of age.

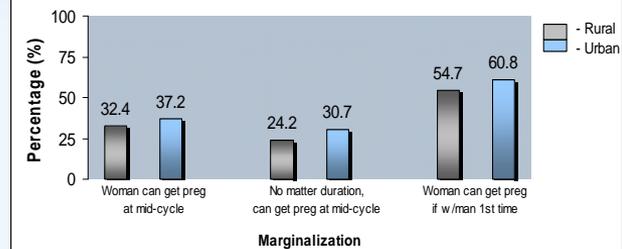
HIV/AIDS knowledge: Very few could identify risky behaviors for HIV/AIDS. Knowledge was similar across age groups and between rural/urban areas; females, however, were less knowledgeable than males

Sexual activity: In the student sample, 14.5% reported having sexual relations, with a higher prevalence in urban areas than rural areas. The average age of first sexual intercourse was 13.6 years for males and 14.4 for females. When asked if they felt they were at risk of contracting an STD, 86% reported either no or little possibility. In addition, 44.0% of students used condom as contraception method while 40.1% reported nothing was used.

Results

Knowledge of Menstrual Cycle

(correctly answered questions)



Discussion

Adolescents are an important topic of high priority in sexual and reproductive health research. Occasionally, it was seen that rural students had higher levels of knowledge than urban students. This can be accounted by the fact that specific public health programs are implemented on select areas on behalf of the State Health Ministry.

The State Health Ministry determines which health education programs are implemented by assessing their current ailments. Moreover, sexuality within the context of gender relations, age and marginalization should always be taken into consideration from a public health perspective when constructing an intervention method to render the most useful results for care providers and policy makers.

School-based intervention programs need to stress identification of STIs and their prevention, risky HIV/AIDS behaviors and its prevention, and basic sexual biology. Without health promotion and disease prevention, unplanned and undesired pregnancies, abortion, STIs and HIV infections will continue to increase in number and continue to plague the Latin American adolescent.



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Reducing Stigma Surrounding HIV/AIDS: Evaluation of an Educational Program for Health Professionals in Mexico and Latin America

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Objectives

The Instituto Nacional de Salud Publica (National Institute of Public Health or INSP) of Mexico has developed a four-week intensive curriculum, the Multidisciplinary HIV/AIDS Diploma Course: Surveillance, Prevention, and Care or "Diplomado", to train health professionals in the implementation of public health programs on HIV/AIDS. The objective of this study was to evaluate changes in knowledge and attitudes concerning HIV/AIDS following the Diplomado offered in June 2003 in Cuernavaca, Mexico.

Introduction

As HIV (Human Immunodeficiency Virus) continues to create havoc in both developing and developed countries, the incidence of new infections is increasing while the death toll from AIDS-(Acquired Immunodeficiency Syndrome) related diseases continues to rise at excessive levels. With success gauged by the stabilization of HIV prevalence as well as with the expansion of education and resources to public and private sectors, it becomes imperative that programs with these particular goals implement a thorough investigation to determine their efficacy. With this in mind, we have undertaken the effort to evaluate an HIV/AIDS course offered by the INSP, one of the UNAIDS collaborating centers.

Also known as the "Diplomado", the course is an intensive four-week HIV/AIDS program first offered in 2000 designed to educate individuals ranging from a variety of backgrounds. The chief objective of the Diplomado is to provide health professionals with proper resources as well as build their capacities to coordinate successful programs in their respective workplaces and residencies. Participants have originated not only from Mexico but also from different parts of Central and South America. The course is equally divided amongst four thematic areas: epidemiology, social research, social response, and strategic and operational planning. Using an interactive and multi-disciplinary approach, the course mobilizes an average of 50 lecturers and facilitators who come from a vast array of backgrounds vital to the response to HIV/AIDS in Mexico and Latin America.

Previously, post-course evaluations of courses have shown high participant satisfaction with positive perceptions of course material and utility. While these post-course perceptions give some indication of the value of the course, they do not give a clear understanding of actual changes in knowledge and attitude that may have resulted from the program.

Methods

This evaluation was conducted on the Diplomado beginning June 2003 at the INSP in Cuernavaca, Mexico. A pre-test was administered on the first day of class to collect participants' demographics as well as current knowledge of HIV/AIDS (including transmission) and to evaluate attitudes toward specific HIV/AIDS issues. To conclude the course, the same test was administered to assess change in responses to these items. Questions on transmission of HIV were true/false. Attitudes were measured on a four-point Likert Scale ranging from 1 as "completely agree" to 4 as "completely disagree". Changes in scores were evaluated using paired t-tests in SPSS (Statistical Package for the Social Science) for Windows, version 11.0.

Results

The 31 persons participating in the Diplomado were an average of 39 years of age and 64% were women. Most originated from Mexico although 5 (16%) were from other parts of Latin America. Almost half (48%) were currently employed in State programs, 39% worked in hospitals or clinics, and the remaining worked in education, for NGOs or the private sector.

Overall, prior knowledge of HIV transmission was high with 10 of 15 (67%) questions answered on the pre-test correctly by 90% or more of participants. Four questions (27%) showed an increase of knowledge by 10% or more by participants on the post-test. These included information on transmission of HIV from drinking cups, masturbation, oral sex, and mother-infant transmission via breastfeeding.

Eight of 19 (42%) questions regarding attitudes showed significant increases in tolerance toward individuals with HIV/AIDS ($p < .05$). Greatest changes included less agreement regarding prohibition of HIV-positive women from having children, obligatory testing of gay men and commercial sex workers, prohibition of prostitution, and more agreement regarding governmental policy on antiretroviral treatment and permitting HIV-positive surgeons to operate on their patients.

This work was supported by a grant from National Institutes of Health, Fogarty International Center, to the University of Washington School of Public Health and Community Medicine (T32-TW-00049).

Table 1. Knowledge of HIV Transmission Before and After a Four-Week Intensive Training Course on HIV/AIDS in Mexico, June-July 2003.

Question	% Correct Pre-test	% Correct Post-test	p-value*
1.) A person can get HIV by using the same toilet an infected person used	100	96.8	.325
2.) A person with HIV but without symptoms can infect others	96.8	100	.325
3.) Sharing needles can transmit HIV	100	100	1
4.) Intercourse with infected individuals without condom use can lead to transmission of HIV	100	100	1
5.) An HIV+ mother can infect her child through breastfeeding	87.1	96.8	.083
6.) A person can infect themselves with HIV using non-injectable drugs	93.5	93.5	1
7.) Correct condom use can decrease chances of becoming infected with HIV	96.8	100	.325
8.) There are medications to treat HIV/AIDS	96.8	93.5	.325
9.) Oral sex has a lower risk of HIV transmission	52.6	77.4	.017
10.) HIV can be transmitted through a razor blade	58.1	51.6	.489
11.) Masturbating mutually prevents the transmission of HIV	51.6	77.4	.003
12.) Transmission of HIV is prevented with "throwaway" cups.	87.1	96.8	.083
13.) Only men and women who have intercourse can infect themselves	71	83.9	.103
14.) Only promiscuous people can become infected	90.3	96.8	.161
15.) If you know your partner well you cannot become infected	90.3	87.1	.572
TOTAL CORRECT	84.7	90.0	.004

*p-value based on paired t-test of pre- and post-test response.



Health Professionals Engaged in Class Discussions, Mexico, June- July, 2003

Table 2. Attitudes Towards HIV/AIDS Before and After a Four-Week Intensive Training Course on HIV/AIDS in Mexico, June, July 2003.

Question	Mean Pre-Test*	Mean Post-Test*	p**
1. A teacher living primarily with HIV/AIDS should be permitted to have contact with his/her students.	1.10	1.00	.08
2. They ought to prohibit women positive for HIV from having children to prevent infecting them.	3.00	3.42	.007
3. Diagnostic testing for HIV/AIDS should be voluntary.	1.32	1.10	.05
4. I would go to a dentist that has HIV/AIDS	1.71	1.32	.02
5. I would consult a homosexual physician.	1.13	1.06	.57
6. They should permit surgeons with HIV/AIDS to operate on their patients.	1.90	1.30	.001
7. They ought to prohibit prostitution as a method to reduce the transmission of HIV.	3.29	3.71	.03
8. I would work with a colleague who has HIV/AIDS.	1.00	1.00	n/a***
9. It is necessary to make obligatory the HIV testing of men who have sex with other men.	3.10	3.61	.004
10. It is necessary to make obligatory the HIV testing of commercial sex workers.	2.32	3.58	<.001
11. They ought to make public information about persons who have AIDS.	3.73	3.93	.06
12. They ought to permit the church to participate in the campaign to prevent HIV/AIDS.	2.24	2.59	.13
13. They ought to prevent persons living with AIDS from using public services such as bathrooms and swimming pools.	3.77	3.61	.48
14. They ought to prevent foreign persons with HIV/AIDS from entering our country.	3.60	3.77	.43
15. To be a person living with HIV/AIDS is punishment for his/her behavior.	4.00	4.00	n/a***
16. I would permit my children/nieces/nephews to play with a child who has HIV/AIDS.	1.17	1.50	.12
17. The government ought to give antiretroviral treatment to all persons with HIV/AIDS.	1.32	1.10	.03
18. In a poor country, there should be no cost for antiretroviral treatment for all persons with HIV/AIDS.	3.52	3.68	.48
19. Not all persons living with HIV/AIDS deserve antiretroviral treatment.	3.68	3.71	.85
TOTAL TOLERANCE SCORE****	2.9	3.2	<.001

* Based on a 4-point Likert scale ranging from (1) totally agree to (4) totally disagree. ** p-value resulting from paired t-tests. *** t cannot be computed because the standard error of the difference is 0. **** Average of individual scores (1-4) with 4 being most tolerant and 1 being least.

Conclusions

This study to evaluate the results of the Diplomado demonstrated that an increase in both participants' knowledge and tolerance can be achieved upon completion of an intense HIV/AIDS course. Not only did the pre-test/post-test evaluation illustrate a valuable gain in knowledge pertaining to HIV/AIDS, but it changed attitudes to better suit the needs of those infected-with and affected by HIV/AIDS. Faced with religious and social pressures as well as gender-bias in their societies, health care professionals in Latin America are in dire need of tools to help them better understand this disease and aid them in their capacity to assist their respective communities. Thus, the Diplomado's emphasis on increasing knowledge of affected sub-populations, with hopes of transforming attitudes to become more accepting of marginalized communities, becomes extremely important to the regional issues and success of health professionals.