Intentional Injuries and Violence

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Lecture Topics

- Describing and quantifying other injuries not covered in previous classes
- Describe in more detail the issues related to intentional injuries
Section A

Describing and Quantifying “Other” Injuries
Injuries

- Throughout the course, we have presented and discussed cases of:
  - Traffic injuries, occupational injuries, home and recreational injuries, etc.
- But along with the above, there are still other cases that are rarely thought of or presented in the context of injuries.
Disasters

“Any disruption of human ecology that exceeds the capacity of the community to function normally”

- Natural: Earthquakes, floods, cyclones, typhoons, hurricanes
- Man-made: Explosions, radiation, chemical toxins
- Both (e.g., earthquake in area with poor construction)

Source: Lechat, 1990
Others:

- Late effects
- Medical errors
- Violence and abuse
Section B

Describing and Quantifying Intentional Injuries
Intentional Injury

- “Injury resulting from interpersonal or self-inflicted violence”
- “It includes homicide, assault, suicide and suicide attempt, sexual assault, and violence among family members and intimate partners”

Intentional Injury

- Many persons working in the injury field use the term "violence" instead of intentional injury.
- What warrants discussion is whether "intentional injury" means that the intent was to injure or simply that the intent was to commit a particular behavior that then resulted in an injury.

Violence

“The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation”

Classification of Violence

- The standard classification in the International Classification of Diseases includes the following major categories:
  - Various types of assaults, including homicide
  - Operation of war
  - Legal interventions
  - Intentional self harm
  - Injury event of undetermined intent

Source: WHO
Sources of Data

- Same as other injuries
  - National databases
  - Hospitals
  - Police
  - Registries
  - Newspapers
Newspapers: Viable Source for Intentional Injuries?

- Newspaper accounts of assaults, homicides, suicides, and rapes occurring in Jefferson County, Alabama compared to similar data from government agencies between January 1991 and December 1991.

- Newspaper greatly “underreported,” suicides, rapes, and assaults.

Source: Fine, P.R., et al., SMJ 1998; 91: 234-242
Newspapers: Viable Source for Intentional Injuries?

- Reporting of firearm injuries substantially “exceeded” their actual occurrences
- Newspaper neither a reliable nor valid source for intentional injury surveillance

Source: Fine, P.R., et al., SMJ 1998; 91: 234-242
Homicides: The Deadly Result of Violence
Adjusted Male Mortality from Homicides: Selected Countries

Rates / 100,000 pop. 1989-1991

- Japan
- France
- Switzerland
- Canada
- Israel
- Chile
- USA - Whites
- Russia
- USA - Afro- Am.
Reported Rates of Homicide in Various Developing Countries

Source: World health annual statistics, 1999
Violence in the Americas

- In the Americas, death by violence exceeds the number of deaths for any other cause in the five to twenty-four age group (PAHO, 1990)
- In certain countries such as El Salvador, homicide and assault has been reported as the leading cause of death (Lang, 1989)
Violence in the Americas

- Afro-Americans in the U.S. have one of the highest homicide rates in the world
- In 17 of the 27 countries that reported to the WHO during the 1980s, homicide was among the five leading causes of death (PAHO)
Violence in Columbia

- In 1990, accidents and violence accounted for one-quarter of all deaths.
- In 1995, **homicide** was the number one cause of deaths and years of potential life lost.
- More than one out of every five families have lost a family member due to **homicide**.

Source: PAHO / WHO Collaborating Centers
http://165.158.1.110/english/hcn/hcnprofiles.htm
Homicide and Suicide rates by WHO regions, 2000

WHO, World report on violence 2002
Violence in South Africa

- Violence accounted for 50% of all new cases seen in hospitals in Johannesburg (Buchart, 1991)
- Preponderance of males, colored, black, and aged 25–34 years (van der Spuy, 1993)
- 10% of cases were related to organized conflicts between political groupings
- In the remaining 90%, the motives differed with gender (Buchart, 1991)
Violence in South Africa

- In males, 20% of the violent incidents were attributed to attempted robberies while the remaining 80% were attributed to ill defined arguments and quarrels.
- In females, approximately 40% of the incidents were related to arguments, most frequently among intimates (Peden, 1993).
- In Cape Town, 60% of violent cases were clinically judged to be alcohol related (Van de Spuy, 1993).
Contribution of *Violence* in Injury Deaths in South Africa

- **Violence**: 73%
- **Transport Related**: 14%
- **Unintentional Causes**: 13%

*Source: Central Statistics Services, 1992*
Characteristics of Female Homicide Victims in Bangladesh

- According to a survey among Bangladeshi women aged 10–50, 5.3% of all injury deaths attributed to homicide.

- Out of these homicides:
  - 87% were married
  - 96% resided in villages
  - 70% were poor or lower middle class
  - 50% were illiterate
  - 68% were aged 10-29 years

Political Violence

- State terrorism has been a major source of violent injuries in many areas of the Middle East, Central America, Africa, and Asia (Chomsky, 1991)
- Serious underreporting of homicides from state terrorism often occur
- In Nicaragua, about 1% of persons suffer from physical disability mostly as a result of violence (Garfield, 1989)
Section C

Landmines and Suicides
Prevalence/100,000 Pop. of Amputees from Land Mines

Source: International Committee of the Red Cross, Geneva, 1993
Percentage of Landmine Injuries Resulting in Deaths

Comparison of Death Rates Due to War in Regions of the World

Source: Murray, 1996
Suicide

“A deliberate, willful, self-inflicted, and life-threatening act resulting in death”

Suicide Rates for Women by Age and Marital Status in Bangladesh

Characteristics of *Suicide* Victims in Bangladesh

- Suicide attributed to about 50% of the total deaths caused by injuries among women 10–50 years of age
  - 71% were married
  - 98% resided in the villages
  - 64% belonged to either the poor or lower middle class
  - 56% were illiterate

Suicide Attempted by Burning in Brazil

- From 1984–1995 a total of 82 patients were admitted to a burn center in Sao Paulo with a history of attempted suicide.
- 70.7% were males and 29.3% females.
- Mortality rate was 44%.
- Methyl alcohol was used by 87.5% of the patients to ignite the fire.

Trends in Suicides

- In developed countries, completed suicides tend to be more common among males and attempted suicides in females (Barrs, 1997)

- This is not always the case in developing countries, where suicide rates are sometimes very high among rural females (e.g., the suicide rate in rural China among women)
Female “Suicides” Admitted to Salt River Mortuary, South Africa,
By Race and Gender, January 1990–June 1991

Section D

Case Study on Domestic Violence Against Women
Violence Against Women

Any act of gender-based violence that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether occurring in public or private life

Introduction

- Violence, including physical and sexual violence, is increasingly being recognized as an important global health problem.
- Approximately 5% of the healthy years of life lost to women of reproductive age in developing countries are due to violence.
- In most cases the perpetrators are husbands and boyfriends.
Cultural attitudes in India also embody the notion that wives should be respectful to their husbands and should try to obey their commands.

However, the use of physical force by husbands as a means of controlling their wives is not widely sanctioned in the culture.
India

- A recent large-scale survey of men in India found that the majority of men (about two-thirds) felt that wives should follow the instructions of their husbands.
- However, only a minority of men (about one-quarter) felt that physically beating one’s wife was justified if she disobeyed her husband.
India-Methods

- Study consisted of married men, aged 15 through 65 years, from approximately 400 villages and towns in five districts (Uttar Pradesh, India)

- A total of 8,296 eligible men were enumerated in the household listing of the study districts and 6,902 of these men (83%) agreed to complete the full male interview

Continued
India-Methods

- Of these men interviewed, 6,632 (96%) met the conditions of living with their wives and having complete information on all of the study variables reported here.
Policy Issues

- What are the risk factors for domestic violence in India?
- Which men are more likely to participate in physical violence?
- What are the implications of this study for the Indian health policy?
- What are the non-health sector issues that would need to be considered if interventions were being planned for this problem in India?
- Which population would you like to study for further evaluation?
India-Results

Almost half of the 6,632 men (46%) reported perpetrating some type of wife abuse

- 1,112 men (17%) comprised the physical abuse only group
- 1,476 men (22%) comprised the sexual abuse without physical force group
- 436 men (7%) comprised the sexual abuse with physical force group

Continued
India-Results

- Greater proportions of rural men, men of lower castes, and men of lower socioeconomic status were in each of the three abusive groups
Policy Issues

- What are the risk factors for domestic violence in India?
- *Which men are more likely to participate in physical violence?*
- What are the implications of this study for the Indian health policy?
- What are the *non-health sector* issues that would need to be considered if interventions were being planned for this problem in India?
- Which population would you like to study for further evaluation?
<table>
<thead>
<tr>
<th>Variables**</th>
<th>No Abuse, %</th>
<th>Physical Abuse Only, %</th>
<th>Sexual Abuse without Physical Force, %</th>
<th>Sexual Abuse with Physical Force, %</th>
<th>X²(P)</th>
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<td>Pre marital sex</td>
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<td>97.90s (&lt;.01))</td>
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<tr>
<td>No (96)</td>
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<td>6</td>
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<td>STD before marriage</td>
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<td>30</td>
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<td>16</td>
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<td>STD after marriage</td>
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<td>STD Currently</td>
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<td>32</td>
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<td>Contraception use</td>
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<td>Unplanned pregnancy</td>
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</table>

*X² values and associated P values were computed using SUDAAN. STD indicates sexually transmitted disease. **Values in parentheses are percentages of population.
India-Results II

- Men with lower education levels were more likely to be part of the physical abuse only group and the sexual abuse with physical force group.

- Greater proportions of men fell within each of the three abusive groups if they reported having premarital sex, extramarital sex, STD symptoms, or their wives having an unplanned pregnancy.
India-Results II

- Statistically significant relationships between male sexual behavior outside marriage and wife abuse
Policy Issues

- What are the risk factors for domestic violence in India?
- Which men are more likely to participate in physical violence?
- **What are the implications of this study for the Indian health policy?**
- What are the *non-health sector* issues that would need to be considered if interventions were being planned for this problem in India?
- Which population would you like to study for further evaluation?
Logistic Regression Analyses Findings for the Reproductive Health Variables (N=6632)*

<table>
<thead>
<tr>
<th></th>
<th>OR (95% CI)</th>
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<td></td>
<td>Physical Abuse Only</td>
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<tr>
<td>Sex outside marriage</td>
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<td>Premarital Sex</td>
<td>2.21 (1.75-2.78)</td>
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<td>Extramarital sex</td>
<td>2.72 (1.78-4.15)</td>
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<tr>
<td>Any STD Symptoms</td>
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<tr>
<td>Before marriage</td>
<td>2.03 (1.59-2.58)</td>
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<tr>
<td>After marriage</td>
<td>2.16 (1.71-2.74)</td>
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<tr>
<td>Currently</td>
<td>1.77 (1.83-2.36)</td>
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<tr>
<td>Contraception/unplanned pregnancy</td>
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<tr>
<td>✗ Contraception used currently</td>
<td>1.08 (0.90-1.30)</td>
</tr>
<tr>
<td>✗ Any unplanned pregnancies</td>
<td>1.43 (1.11-1.85)</td>
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</tbody>
</table>

*For all logistic regression models, the no abuse group served as the referent group. All associations (except [1] contraception use and physical abuse only and [2] contraception use and sexual abuse with physical force) statistically significant (P<.05). OR indicates odds ratio; CI, confidence interval; and STD, sexually transmitted disease.
Policy Issues

- What are the risk factors for domestic violence in India?
- Which men are more likely to participate in physical violence?
- What are the implications of this study for the Indian health policy?
- *What are the non-health sector issues that would need to be considered if interventions were being planned for this problem in India?*
- *Which population would you like to study for further evaluation?*
Incidence of Domestic Violence

In a Group of Pregnant Women Attending an Antenatal Clinic in China

Perpetrator of Abuse of *Domestic Violence* in China

Risk Factors for Domestic Abuse in Chinese Women

- Comparing the risk factors for women with or without a history of domestic violence in the last year showed the following differences
  - Unplanned pregnancy $p < 0.002$
  - Unemployment among husband / partner $p < 0.05$
  - Unemployment in women $p > 0.05$
  - High income $p = 0.388$

*Source: Leung, W.C., et. al., Int J Gyn & Obs 1999; 66: 23–30*
Domestic Violence and Health of Pakistani Women

- Confidential interviews were conducted in 150 randomly selected women from health care facilities in Karachi, Pakistan.
- 34% reported being physically abused.
- 15% reported being physically abused while pregnant.
- 72% of physically abused women were anxious / depressed.
- Physical abuse is a major predictor of anxiety and depression among women.