Violence:
A Public Health Approach to Prevention

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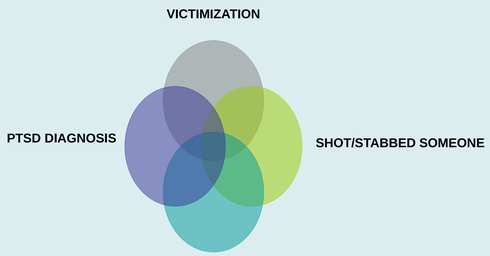
INTRODUCTION

- Violence is a major public health issue that has traditionally been analyzed from a criminal justice perspective.
- While violence is certainly a criminal justice issue, it is important to study violence from a public health standpoint.
- The criminal justice model uses punishment to deter people from behaving violently- but what about those who commit violent acts against themselves such as attempting or committing suicide? Or inmates who emerge from prison more hardened, volatile and desensitized to committing violent acts? What if violence were treated like a contagious disease instead of a moral issue. Certainly we wouldn't punish someone for being ill. When addressing violence using a public health based disease model, we can focus on the casual (contagious) aspect of violence in hope of finding a possible cure rather than emphasizing the importance of retributive justice based on punishment in hope of changing behavior.

BACKGROUND

- The literature suggests that violence is often a vicious cycle of trauma and abuse which results in a victim of violence later becoming a perpetrator of violence. This is most classically seen in child abuse and gang related violence. (Cullen et al., 2005).Some scholars believe that an individual who has been subjected to violence, in an attempt to gain back control they feel they have lost after being victimized, will then actually become violent perpetrators themselves (Williams et al., 2010). The literature also suggests that a large distribution of violent offenders have, at some point in their life, been victims of violent crimes themselves (Abram, K. M.2008).
- The literature also suggests that the epidemic of violence has been largely attributed to the apparent contagious nature of violence, which shows the three main characteristics of a communicable disease in a population: clustering, spread, and transmission (Slutkin et al., 2013).
- An empirical research study examined the relationship between violent offenders and suicidal ideation. The study concludes that violent offenders are at elevated risk of continued interpersonal violence, violent victimization and suicidal actions. Beyond risk associated with a range of common psychiatric symptoms, an association between violent victimization and violent offending still exists. (Zambrano et al., 2017).



RESEARCH QUESTION

I have hypothesized that individuals who have been victimized are more likely to victimize others and engage in acts of extreme violence such as attempting suicide and shooting/stabbing another person.

- Are individuals who have been victimized more likely to engage in extreme interpersonal violence?
- Are individuals who have been victimized more likely to attempt suicide?
- Are individuals who have victimized another person more likely to make suicide attempts?

METHODS

Add Health Sample Characteristics

- National Health Information Survey
- Random sample of 5114 Adults age 24-34 years old
- Personal interview data collected 2008-2009

Description of Variables

Intrapersonal Violence	Victimization & Interperonal Violence	Demographics
H4SE2: During the past 12 months, how many times have you attempted suicide? None (N=5010), Once (N=48) Twice (N=11) 3-4 times (N=4) 5 times or more (N=2) N=5075	*H4DS14: witnessed someone get shot or stabbed? (N=5101) Yes (N= 792) No (N=4309) *H4DS15: Someone pulled a knife or gun on you? (N= 5100) Yes (N=754) No (N=4346) *H4DS16: Someone shot or stabbed you? (N= 5102) Yes (N=600) No (N=4502) *H4DS17: Someone slapped hit choked or kicked you? (N=5101) Yes (N=920) No= (4181) *H4DS18: You were beaten up? (N=5101) Yes (N=593) No (N= 4508)	AGEAPPROX: Recoded variable. Respondent age in years 24-34 years old
	Victimization2: computed ordinal variable level 1-4 Victimization4: computed scale of victimization using all bivariate victimization variables level 0-35 *Victimization5: yes/no victimization Yes (N=1175) No (N= 3925)	H4ID5I: Has a health care provider ever diagnosed you with PTSD? Yes (N= 161) No (N= 4952) N= 5113
	*H4DS20: Have you ever shot or stabbed someone? Yes (N=500) No (N= 4600) N= 5100	
* Binary Categorical Variables- Yes/No response		

Operationalization of measured constructs

- Victimization
  - Having been the victim of a violent crime
  - Having witnessed a violent crime
  - Victimization2=(2 * H4DS17 + 4 * H4DS18 + 6 * H4DS14 + 8 * H4DS15 + 10 * H4DS16).
  - Victimization2 (0=1) (30=4) (2 thru 6=2) (8 thru 28=3) INTO Victimization4.
  - Victimization4 (1=0) (2=1) (3=1) (4=1) INTO Victimization5.
- Intrapersonal Violence (Inward violence)
  - Suicidal Ideation
  - Actual suicide attempts
- Interpersonal Violence (Outward Violence)
  - Perpetration of violent victimization
  - Specifically having shot or stabbed someone

RESULTS

- Null Hypothesis: Having shot or stabbed someone will have no relationship to level of victimization
- Alternate Hypothesis: Respondents who have shot or stabbed someone will be more likely to report higher level of victimization
- Confounding Hypothesis: Controlling for PTSD diagnosis will impact the relationship between interpersonal violence and victimization
- ✓ Reject the null hypothesis, accept the alternative hypothesis (*p= .000)*

Analysis of Variance

(*p= .000)*

Moderation

- A statistically significant relationship between having shot or stabbed someone and level of victimization exists (*P=0.000).* Having been diagnosed with PTSD does not modify the statistically significant relationship between having shot or stabbed someone and level of victimization.

Logistic Regression

- The p-value for the b1 estimate of the regression coefficient for scale of victimization is significant (*P*= 0.000). The likelihood of a respondent having shot or stabbed someone increases by 1.4% with each incremental increase in level of victimization.

Confounding Factor

- After controlling for PTSD diagnosis, the p-value for the regression coefficient of victimization does not lose significance (*P*=0.000). PTSD diagnosis is not a confounding factor or predictor for the relationship between level of victimization and having shot or stabbed someone.

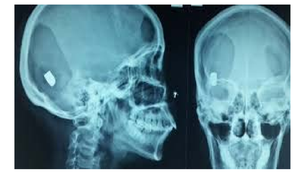
- Null Hypothesis: Level of victimization will not be correlated with number of suicide attempts
- Alternative Hypothesis: Level of victimization will be positively correlated with number of suicide attempts
- ✓ Reject the null hypothesis, accept the alternative hypothesis (*P*=0.011)

Multiple Linear Regression

- For every level of increased victimization, on average the predicted number of suicide attempts raised by 0.001(CI= .000, 001) (*P*= 0.011).
- Controlling for PTSD diagnosis, on average the predicted number of suicide attempts increased by 0.099 (CI= 0.007, 0.012) compared to individuals with no PTSD diagnosis (*P*= 0.000).
- Respondents who shot or stabbed someone reported on average 0.05 (CI = -0.084, -0.016) lower suicide attempts than respondents who shot or stabbed someone. (*P*=0.004).

RESULTS

Interpersonal Violence



Intrapersonal violence

Violence as a symptom of disease can manifested as intrapersonal and Interpersonal violence, both of which result in injury or death

- Null Hypothesis: Having shot or stabbed someone will have no relationship to number of suicide attempts
- Alternative Hypothesis: Having shot or stabbed someone will have a positive relationship with number of suicide attempts.
- ✓ Accept the null hypothesis (P = 0.350)

- ✓ Age was not found to have any association with interpersonal violence (P = 0.473) , victimization (P = 0.771) or number of suicide attempts (P = 0.605).

CONCLUSION

The use of punishment to effect behavior change has yielded minimal results for controlling violence in society. The ability to rethink violence prevention strategies may rely on changing the way we think about violence. This research has confirmed the positive association between interpersonal/intrapersonal violence and victimization. While PTSD is a possible predictor of intrapersonal violence and is positively associated with victimization, no significant relationship was found between PTSD and interpersonal violence. Furthermore, individuals who reported having shot stabbed someone had on average fewer suicide attempts than those who had never shot or stabbed anyone.

Researchers have suggested that patterns of interpersonal violence are similar to those seen in an infectious disease epidemic (Slutkin et al,. 2013). This begs the question, what about intrapersonal violence? Is intrapersonal violence not a manifestation of the violence 'disease'? While most people do not immediately associate suicide with violence, suicide is a violent act. If victimization is thought of as exposure and violence is the manifestation of disease, how can intrapersonal violence be ignored? The first major step to preventing violence using the disease model is to identify violence predictors and interrupt transmission (Slutkin et al,. 2013). As this research has illustrated, victimization could be a probable predictor of interpersonal violence in society. This research also suggests that individuals who have been victimized, particularly those diagnosed with PTSD, are at increased risk of intrapersonal violence. In order to truly cure violence in society it is important not to forget that suicide is also violence. While violence is not always a crime, it is always a public health concern.

IMPLICATIONS

It is hard to abandon the morality of violence but it may be necessary for developing an effective approach to preventative strategies. Instead of viewing violent offenders as evil people who need to be punished, we should instead look at them as ill and in need of treatment. It is possibly even more difficult to view victims as 'infected patients' who may spread violence in society due to the inherent lack of empathy this thought provokes; but morality my be the chains holding us back when it comes to understanding and treating violence in society. A scientific approach to curing violence should replace the archaic criminal justice model of punishment and morality. Future researchers should focus effort on the identification of violence predictors and not limit the operationalization of violence to only interpersonal violence but to include intrapersonal violence in the measurable definition as well.

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