Health Implications of Violent Crime Victimization and Resources

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Abstract: This study explored the health consequences of violent crime. Experiences from a subset of 1059 violence victims who responded to the 2010 National Crime Victimization Survey were examined to consider factors that may affect poorer health outcomes for some victims. Supported by Agnew's Strain Theory, regression analysis found that victims who required medical attention, had weapons used in the attacks, and had close relationship with the attacker experienced more mental and physical health problems. Findings about these "strains" contributed to the body of literature on the victimology of violent crimes. Ten professionals, who were interviewed for this study, emphasized that mental health problems persisted longer than the initial physical injuries from which the bodies can heal.

INTRODUCTION

This study examined the health of victims of violent crime to find factors that might contribute to continued problems for survivors after a violent experience. A better understanding of how to assess mental and physical health after effects of victimization can offer insight into the resources and treatment options needed by those individuals. Examining how, where and what kind of injuries were treated might inform health professionals when it is best to introduce options for further follow up services. Another contributing factor to poorer health of some crime victims may be limited household socioeconomic resources. Fewer resources may inhibit treatment options and lead to degradation of mental and physical health, if not medically addressed. Some victims find themselves in continued danger when their attackers are intimate partners or family members; relationships between the victim and offender may further interfere with the survivor's ability to recover from the attack.

We should be concerned about the health of victims of violent crime because current knowledge about victims suggests that offenders have often been victims themselves. Untreated mental instability resulting from victimization may pose a threat to other

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members of the community. In order to prevent future victimizations, it is important to treat victims of crime before they might become offenders.

Of course, the majority of victims do not go on to become offenders, but medical treatment is just as important for them. Health problems lead to a diminished quality of life that may be ameliorated with appropriate services. Besides, mental health issues of victims appear to receive more attention, even though there are often lasting physical disabilities that result from a violent encounter. In order for healthcare providers to mold treatment plans to address the full scope of health effects, physical and mental health consequences need to be disaggregated.

DEFINING TERMS AND CONCEPTS

Because many of the terms and concepts used in this study can be interpreted broadly, a clear set of concept definitions are critical at the outset. The specific measurements used in this research were guided by the questions asked in the 2010 National Crime Victimization Survey (NCVS), the secondary survey data set used.

Health of Victims of Violent Crimes: Physical and Mental

For the purposes of this study, health was categorized into two subsections: mental health and physical health. The two are certainly related, but it is important to make distinctions between them. For one, symptoms that present themselves mentally or physically are treated by different specialists. Second, examining the effects of violent crime victimization and resource availability on specific types of health problems will help decipher the appropriate treatment plans and health services needed and that should be available to future victims.

Mental health problems of crime victims were measured by responses to questions regarding potential relationship problems with coworkers, peers, and family as a result of being a crime victim. Other mental health questions addressed distress emotions as a result of the crime incident like anger, worry, anxiety, sadness, and distrust. Physical health problems were indicated by experiences of physical ailments like headaches, body aches, upset stomach, and other pain; physical problems described here refer more to somatic responses than physical injuries during the attack. NCVS Respondents were asked to respond only if those effects lasted a month or more following victimization.

Violent Victimization

A primary focus of this study was the severity of victimization and assessing whether more violent attacks led to health detriment following the traumatic event. Violent crime

victimization was measured by three factors associated with the incident. They were: if the victim was actually hit or attacked during the crime; if the offender used a weapon; and if medical attention was needed for immediate injuries.

The nature of the physical assault was further detailed by questions about how the victim was hit or attacked, if it was a sexual assault, if the crime involved weapons, or if the perpetrator strictly utilized their own hands or body to inflict injury. Use of weapons also indicated a more violent attack. A victim might have more extensive health problems if a weapon was used to inflict harm; respondents indicated whether the offender had used a gun, knife, or other blunt or sharp object to injure or further threaten the victim during the crime. On balance, these crime characteristics were used to measure the severity of the crime perpetrated against the victim because violent crime victims will presumably experience more health problems than victims of less severe crimes.

Depending on the severity of their injuries, a victim may need to seek medical attention. Treatment of immediate physical injuries is essential for victims who have survived a violent attack in which they sustained more serious injuries. Respondents to the survey indicated whether they had to receive any medical care and the location of any medical attention, even if it was self-care delivered privately at home or a family member or friend's house. Medical attention in this research also indicated severity of crime; the more severe or sustained the injuries, the more likely that they required care, and negatively affected health outcomes.

Resources

A victim's ability to mitigate the after-effects of a violent attack may be contingent on the resources available to them. Therefore, the relationships between household socioeconomic resources and mental and physical health were examined to learn more about differences in health outcomes for people of various social standing. Questions regarding per capita household income[15] and educational attainment were used to measure socioeconomic resources. There are substantial costs to accessing healthcare and those with fewer resources may not have the same opportunities for treatment. The financial burden of expenses associated with treatment may further exacerbate health problems for people from lower socioeconomic backgrounds.

Relationship to Offender

A fourth concept in this analysis was the victim's relationship to the offender. While random attacks can be very traumatic, they are less common. The way a victim perceives a violent incident can be further complicated by their relationship to their attacker(s) as well as by the circumstances and events leading up to the attack. This

[15] Total household income was divided by number of household members older than age twelve to have a more accurate picture of per capita or personal income that may be available to the victim.

study characterized the victim's relationship to the attacker as primary or secondary. Following long-standing sociological tradition (Cooley 1909), intimate partners, friends, and family were considered primary relationships. Secondary relationships are those with coworkers, neighbors, employees, clients, et cetera.

LITERATURE REVIEW

A review of existing academic literature about crime victims gave an idea about what is already known about violent victimization and associated health problems. The major themes explored in the crime victimization literature pertained to mental and physical health, healthcare access, medical attention needed and received, and differences that have been documented in juveniles, by gender, victim-offender relationships and socioeconomic resources.

Gender-Specific Studies of Crime Victims

Much of the literature on violent victimization has focused on intimate partner violence because of its prevalence in society. It is considered one of the most common types of violence and comes with its own unique patterns; so researchers have specifically focused on domestic or intimate partner violence. Since women are more likely to be victims in these types of violence, many studies on health effects choose to narrow their subjects to females. There are however few studies that acknowledged this hyper-focus on women and examined men more closely.

A study of mental and physical health of 7,700 female violent crime victims (Demaris & Kaukinen 2005) from a nationwide survey examined some of the same factors the current study focused on, including the severity of the crime and the victim-offender relationship. They concluded that the most important determinant for poorer health outcomes was the severity of the physical assault. When there was an elevated level of violence during the attack, victims reported poorer health. The relationship between the victim and offender was also important and when the offenders were people known to victims, depressive symptomology was present. Victims had previously assumed known individuals to be safe and suffered mental health consequences when those notions were shattered. Limiting the sample to women allowed for a better understanding of the gendered repercussions of intimate partner violence.

Prisoners, particularly female prisoners, have been the focus of other researchers. One study of female prisoners indicated that "female offenders with victimization histories reported experiencing more stress than female offenders without victimization histories" (Anumba, Dematteo & Heilbrun 2012:1213). The authors explored histories of victimization of three hundred female offenders in New Jersey and found that those who had histories of sexual victimization exhibited more signs of mental health challenges. Additionally, social resources like education and noncriminal friends served as a buffer

to mental distress. Using strictly females, and offenders, definitely limited the scope of the findings. However, females are more likely than males to be sexually assaulted; and sexual violence may result in more severe mental health effects than other types of physical violence.

Studies of male victims and/or offenders are important; otherwise health symptomology that are specific to men may be overlooked. Tewksbury's (2007) study on effects of sexual assault on men found that attacks on men are likely to be more violent than women and thus, result in more physical injuries. Sexual victimization was associated with psychological disturbances later in their lives. Tewksbury found that men who were sexually assaulted experienced mental and physical effects, and more specifically some struggled with identity and future sexuality-related emotional distress.

Youth Crime Victims

In a search to identify when the violent crime cycle might start in the life of an individual, childhood exposure to violence has been linked to future risk of victimization. Adolescents who were studied in a nationwide longitudinal survey (Amstadter, Elwood, Begle, Gudmundsdottir, Smith, Resnick, Hanson, Saunders, Kilpatrick 2011) were examined in two waves to determine previous victimization in the first wave and the likelihood that those who were victimized when they were younger would also later report future violent experiences in the second wave that was conducted in adolescence at the average age of 14. Children that exhibited signs of Post-Traumatic Stress Disorder following an earlier victimization were most likely to be revictimized before the the second wave. Not only do they discuss the links to poorer mental health in children that have experienced violence, but they concluded that the degraded mental health was a risk factor for future violence as well.

Juvenile delinquency has also been linked to violent victimization in childhood. Many studies of youth have tried to identify causes of juvenile delinquency and later involvement with the criminal justice system. For example, Hay and Evans (2007) used a strain theory model and data from the National Survey of Children to confirm that victimization was a source of strain that increased delinquency. They also found that effects of victimization were greater for children who had weak emotional attachment to parents and personality qualities that suggested low self-control.

Singular Focus on Mental Health

As already noted, there has been much focus on mental health problems in victimology research. Some have examined the psychological trauma resulting from crime victimization. An article by Jennings, Gover, and Piquero (2011) focused on integrating mental health systems available to crime victims into the criminal justice system. Their goal was to provide information about the mental health detriments of victimization in a way that could help victims find the courage to speak up about their abuse to judicial

authorities. Because reliving painful scenarios can be a trigger for adverse mental effects, victims can sometimes feel re-victimized in a sense, when required to be witnesses in criminal proceedings. The suggested remedy was to integrate mental health support services for victims involved to make the criminal prosecution process more bearable.

Healthcare Costs Associated with Crime Victimization

Socioeconomic resources are posited to affect health of crime victims; healthcare costs could prevent individuals with lower incomes from receiving medical treatment for health related ailments resulting from victimization. Work on health disparities in the United States suggested that both being poor and a race/ethnic minority were related to health disparities; it was institutional bias that contributed to poorer healthcare for some ethnicities (Barr 2008).

Healthcare costs of victimization are not limited to the U.S. In a study of women in Denmark, costs of health care were higher if they were victims of violence (Kruse, Sorensen, Bronnum-Hansen, Helweg-Larsen 2011). If treatment costs rise with the severity of the violence of the victimization, presumably some individuals with the least socioeconomic resources will not be able to afford the additional costs, leaving their health problems to persist untreated.

Another angle on the resource-victimization challenge was offered by research that concluded that violent crime victims have lower incomes (Kunst, Bogaerts, Wilthagen, Finkle 2010). Some financial difficulties faced by crime victims arose from disruptions in employment following victimization. After the traumatic event, the victim either took time off, had to reduce hours, or otherwise struggled to perform up to previous function in their workplace, which resulted in income reductions.

Victim-Offender Overlap

A commonly explored aspect of victimization has been the likelihood that a victim has been an offender at some point also. Violent offenders exposed themselves to riskier situations and were more likely to become victims themselves than the average, non-violent individual (Skubak Tillyer & Wright 2014). In trying to understand why offenders commit violent acts and sometimes repeatedly, violence is conceptualized as a cycle; the focus is on the offenders' previous negative violent experiences. Offenders often have a history of violent victimization themselves and end up repeating the violent pattern.

Gang members, a subgroup of offenders, are exposed to elevated levels of violence. They often experience victimization and also perpetrate violence themselves. In the context of gangs, "violence begets violence" (Pyrooz, Moule, Decker 2014: 336) and attacks are generally not isolated incidents, nor static. Ongoing conflicts are connected

to each other and dynamics between groups are constantly changing. Therefore, gang members experience both forms of violence, offending and victimization.

Summary

It is not surprising that there is plenty of research about mental health of crime victims in the U.S. But, most studies reviewed above used samples that did not adequately represent the general American adult population. The samples tended to represent singularly particular groups (such as women, men, youth, prisoners, or violent offenders) that experienced violence in their own ways. While these studies are no doubt important, they limit the universality or generalizability of their findings. Besides, different forms of violence may have different health consequences. For example, victims may respond differently to gang violence, or sexual assault, domestic violence, war, or other forms of violence. Also, it appears as though some physical effects are overlooked, making them seem less important. The research presented in this paper aimed to fill some of these gaps by examining a wide range of violent crimes experienced by a representative sample of the entire U.S. population over age twelve.

This study intentionally distinguished two separate categories of health, physical and mental health, so that more can be learnt about the long lasting symptoms that victims experience. It is clear that literature reviewed either ignored, or even minimized, the fact that some victims of violent crime experience serious physical health effects, including somatic ones or are permanently disabled from their injuries.

RESEARCH QUESTION

The following set of questions was explored: What are the health implications of violent crime for victims? How did contributing factors differ for mental and physical after-effects? More specifically, how did the special circumstances during the crime, that elevated the level of violence, make a difference for the health problems of crime victims? Further, to what extent did the victim’s relationship to the offender and limited socioeconomic resources exacerbate health problems following victimization? Age and race of victim will be controlled for in the multivariate analysis.

THEORIES AND ASSOCIATED HYPOTHESES

Much of the theoretical ideas supporting the hypothesized outcomes identified a variety of strains that contributed to negative outcomes in the aftermath of victimization. As per Robert Agnew’s adaptation of Strain Theory (2012), certain conditions can place additional strain on an individual and lead to cumulative disadvantages. General strain theory purported that different types of “strains”, including victimization or other stressful experiences, play a central role in negative emotional and behavioral challenges.

“Painful events and conditions generate negative emotions and sometimes prompt criminal coping…” (Agnew 2012: 35). While Agnew’s theory focused on explanations for criminal behavior, it also speaks to the negative physical and emotional consequences of victimization, the primary focus of this study. Within this framework, it is appropriate to explore the consequences of different types of strains on the emotional and physical challenges associated with violent victimization. Three different categories of strain considered in this study were: crime severity, relationship to the offender, and socioeconomic resources. As per the general strain theory, these strains can aggravate the feelings of anger, resentment, and physical problems that victims experience as they cope with trauma from the crime.

This theoretical argument was the basis for **Hypothesis #1**: Victims of more violent crime will suffer higher rates of mental and physical distress as a result of the incident than those who did not experience as severe a degree of violence during the crime, after controlling for socioeconomic resources, relationship to offender, age, and race. Specifically, severity of violence was measured by the use of physical attack, use of weapon, and medical attention. An attack that used more physical force or involved weapons typically causes more physical injury to the victim. Those with the most serious injuries will need to seek medical attention. If the victim was injured to the extent that they required medical care at the time of the incident, it was predicted that they will also report more mental and physical health effects in the future. In sum, this hypothesis was derived from Agnew’s adaptation of strain theory.

In addition to the severity of the crime, other personal circumstances and details of the crime can serve as additional “strains” that can further aggravate the health consequences for the survivor. A police officer (Interviewee #2) who specializes in domestic violence, pointed to a special personal circumstance when he noted that the most important factor in health of crime victims is their relationship to the attacker. Not only do they suffer mental anguish trying to reconcile being hurt by someone they love, but they can be particularly at risk for future attacks because violent offenders rarely have an isolated incident; it is understood that most offenders follow a pattern of abusive behaviors that leads to violence. Therefore, a second hypothesis, **Hypothesis #2**, was posed: the proximity of the relationship between a victim of violence and their attacker was predicted to negatively impact the victim’s health, net of crime severity, socioeconomic resources, race, and age of victim. Primary relationships, where the attacker is a friend, family member, or spouse were expected to put additional strains on the health of the survivor.

A third possible strain in health outcomes of crime victims considered were socioeconomic resources. Financial difficulties can be an additional barrier preventing a victim from seeking medical attention, leaving their symptoms untreated. Scholars have widely recognized that having access to socioeconomic resources, say education and income, afford individuals not only more economic capital but social capital as well. In the context of crime victimization, these resources can either hinder or facilitate access to much needed assistance. To borrow from Coleman’s (1988) conceptualization, social capital, allow individuals the ability to influence conditions that make it easier or more

difficult to take action that can either benefit them or work to their detriment. Following this line of reasoning, **Hypothesis #3** read as follows: Crime victims with fewer household socioeconomic resources will have poorer mental and physical health than those with higher socioeconomic standing, after controlling for crime severity, victim-offender relationship, age and race. All things considered, more socioeconomic resources will lead to better health outcomes.

METHODS

Mixed methods, analyses of survey data and interviews with professionals who work with victims of violent crimes, were used to test the validity of the hypotheses. First, secondary survey data were analyzed to expose links between health and crime victimization, severity of violence, relationships, and socioeconomic resources. In order to supplement the quantitative results, interviews were conducted with ten professionals who work with victims of violent crime. These professionals' opinions were valuable; real life experiences of crime victims they observed bolstered the validity and relevance of the survey findings.

Secondary Survey Data Set

I used the 2010 National Crime Victimization Survey (NCVS) conducted by the U.S. Census Bureau on behalf of the United States Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. A sample of 50,000 housing units were surveyed to identify the target population of individuals over the age of twelve living in the United States who were victims of crime in the past year(2010).

However, only a subset of 1059 respondents who answered questions applicable to this particular study were used in this analysis. The subset of victims represented many age ranges, but teenagers were least common (2.8%). Adults in their twenties (20.8%), thirties (22.5%), forties (23%), and fifties (18%) made up about a fifth each of the sample. In terms of race, Whites made up about three quarters (76.9%) of the victims examined (Appendix A). Both age and race were controlled in the multivariate analyses in order to further isolate the unique effects of crime severity, victim-offender relationships, and socioeconomic resources on physical and mental health.

Primary Qualitative Interviews

Professionals who regularly interact with victims of violent crime were sought out for interviews to gather their opinions and to compare their real life experiences with what the national survey data suggested. Ten interviews with professionals who work with victims of violence were completed. Most interviewees were selected by searching the internet for local victim services, resulting in phone conversations that followed the

interview guide. A few were referred as professional contacts of a professor that has worked with many healthcare providers. A consent form and interview guide (Appendix B) were prepared with questions to probe for specific examples from experiences in their work. Interviewees were also asked to differentiate between physical and mental health consequences of violence.

DATA ANALYSES

The secondary survey data from the NCVS was statistically analyzed on three levels. Univariate analysis described the frequency of responses to individual questions examined. Bivariate analysis gave preliminary ideas about connections that were later tested on the multivariate level. Interview comments were used to illustrate the statistical findings and point to needed future research.

Descriptive Analysis

Mental Health Consequences

Mental health of respondents was measured using responses to questions regarding relationships and feelings post the crime victimization (Table 1.A.). Overall, relationships with family, coworkers, and peers were sometimes adversely affected by the trauma of violent victimization and many had negative feelings and emotions like anger, sadness, anxiety, and distrust. Emotional distress that lasted a month or more were more common than changes in their relationships. Specifically, more than a plurality (40%) experienced emotional distress and had negative feelings that included being worried, feeling sad, anxious, depressed, vulnerable, violated, or unsafe. In comparison, a fifth (20%) reported that their relationships with bosses, coworkers, peers, or family changed following victimization; these change included arguing, feelings of distrust, or not feeling as close. A smaller group (16.6%) reported they had problems with school, work, or peers following victimization. The average cumulative index of mental health problems =4.9 on a range of 0-12 indicated low-mid levels.

Table 1.A. Mental Health consequences of Violent Victimization
National Crime Victimization Survey, 2010 (n=1059)

Concept		Variables(Questions)	Responses	Statistics
Mental Health	Stem question: Being a victim of crime affects people in different ways. Next I would like to ask you some questions about how being a crime victim may have affected you. Did being a victim of this crime:	lead you to have significant *problems with your job or schoolwork, or trouble with your boss, coworkers, or peers*? V4140B1	1=Yes[1]	16.6%
		lead you to have significant *problems with family members or friends*, including getting into more arguments or fights than you did before, not feeling you could trust them as much, or not feeling as close to them as you did before? V4140B2	1=Yes[1]	19.9%
		V4140B3 How *distressing* was being a victim of this crime to you? Was it not at all distressing, mildly distressing, moderately distressing, or severely distressing?	0=Not at all 1=Mildly 2=Moderatel y 3=Severely	18.4% 25.5 25.0 31.1
	Still thinking about your distress associated with being a victim of this crime did you feel any of the following ways FOR A MONTH OR MORE?:	V4140B4 Did you feel *worried or anxious*?	1=Yes[1]	42.4%
		V4140B5 Did you feel *angry*?	1=Yes[1]	43.5%
		V4140B6 Did you feel *sad or depressed?*	1=Yes[1]	31.6%
		V4140B7 Did you feel *vulnerable*?	1=Yes[1]	37.7%
		V4140B8 Did you feel *violated*?	1=Yes[1]	37.6%
		V4140B9 Did you feel like you *couldn't trust people*?	1=Yes[1]	34.6%
		V4140B10 Did you feel *unsafe*?	1=Yes[1]	38.8%
	Index of Mental Health[2]		Mean(SD) Min-Max	4.9(2.6) 0-12

[1] Recoded from original; 0=No
[2] Index of Mental Health=V4140B1+ V4140B2 + V4140B3+ V4140B4 + V4140B5+ V4140B6+ V4140B7+ V4140B8+ V4140B9+ V4140B10.

Physical Health Consequences

Physical after-effects of violent crime victimization were measured by responses to questions about physical problems that lasted for over a month following the crime. Questions addressed ailments such as headaches, sleep disruptions, stomach pain, fatigue, and high blood pressure (Table 1.B.). About a fifth of respondents experienced physical health effects after being victimized. The most common physical health problem was trouble sleeping (27%). Very few people experienced changes in blood pressure (8%). Overall physical problems tended to present themselves slightly less often than mental ones, but the gap was not wide; about one fifth of crime victims experienced physical effects for more than a month after the attack, while mental effects were reported by over a third of respondents.

Table 1.B. Physical Health Consequences of Violent Crime
National Crime Victimization Survey, 2010 (n=1059)

Concept		Variables(Questions)	Responses	Statistics
Physical Health	Did you experience any of the following physical problems associated with being a victim of this crime for A MONTH OR MORE?:	V4140B20 Did you experience headaches?	1=Yes[1]	17%
		V4140B21 Did you experience trouble sleeping?	1=Yes[1]	27.3%
		V4140B22 Did you experiences changes in your eating or drinking habits?	1=Yes[1]	12.7%
		V4140B23 Did you experience upset stomach?	1=Yes[1]	17.8%
		V4140B24 Did you experience fatigue?	1=Yes[1]	18.5%
		V4140B25 Did you experience high blood pressure?	1=Yes[1]	7.8%
		V4140B26 Did you experience muscle tension or back pain?	1=Yes[1]	17.7%
		V4140B27 Did you experience some other physical problem?	1=Yes[1]	4.9%
	Index of Physical Health[2]		Mean(SD) Min-Max	1.2(2.0) 0-8

[1] Recoded from original; 0=No;

[2] Index of Physical Health= V4140B20+ V4140B21+ V4140B22+ V4140B23+ V4140B24+ V4140B25+ V4140B26+ V4140B27.

Violence and Crime Severity

One major component of this research was to assess the consequences of the severity of crime, the first strain, for the health of survivors. Some victims of crimes may not be physically assaulted or harmed and can still experience negative health effects as a result. Those who experienced a more severe level of violence or bodily injury during the crime may also have different health outcomes.

About half the respondents were physically assaulted (47.6%) and reported being hit, knocked down, or attacked during the crime (Table 1.C.). Over a fifth (21.1%) of offenders used a weapon during the commission of the crime. A smaller group (13.9%) indicated that they were injured to the extent that they required medical care; they represented the portion of the sample who experienced the most brutality. These figures indicated a significant number of crimes were particularly violent.

Table 1.C. Violent Crime Victimization, National Crime Victimization Survey

Concept	Dimensions	Variables(Questions)	Values/Responses	Statistics
Violent Crime Victimiz-ation	Physical Assault (Index)[2]			(n=1059)
		V4059 Did the offender hit you, knock you down, or actually attack you in any way?	1=Yes[1]	47.6%
		V4093 How were you attacked? Any other way?	1=Yes	47.4%
		<u>If attacked, were you:</u>		(n=502)
		V4094 Raped	1=Yes	2.8%
		V4095 Tried to rape	1=Yes	1.2%
		V4096 Sexual assault other than rape or attempted rape	1=Yes	3.6%
		V4097 Shot	1=Yes	0.4%
		V4098 Shot at (but missed)	1=Yes	0.2%
		V4099 Hit with gun held in hand	1=Yes	1.8%
		V4100 Stabbed/cut with knife/sharp weapon	1=Yes	1.0%
		V4101 Attempted attack with knife/sharp weapon	1=Yes	1.2%
		V4102 Hit by object (other than gun) held in hand	1=Yes	7.0%
		V4103 Hit by thrown object	1=Yes	4.4%
		V4104 Attempted attack with weapon other than gun/knife/sharp weapon	1=Yes	1.2%
		V4105 Hit, slapped, knocked down	1=Yes	62.4%
		V4106 Grabbed, held, tripped, jumped, pushed, etc.	1=Yes	38.6%
		V4107 Other type of attack	1=Yes	4.8%
	Weapon Index[3]			(n=1059)
		V4049 Did the offender have a <u>weapon</u> such as a gun or knife, or something to use as a weapon, such as a bottle or wrench?	1=Yes	21.1%

	V4050 What was the weapon?	1=Yes	21.1%
	If weapon used:		(n=223)
	V4051 Handgun present (pistol, revolver, etc.)	1=yes	36.8%
	V4052 Other gun (rifle, shotgun)	1=yes	3.1%
	V4053 Knife	1=yes	20.6%
	V4054 Other sharp object (scissors, ice pick, axe, etc.)	1=yes	4.9%
	V4055 Blunt object (rock, club, blackjack, etc)	1=yes	19.7%
	V4056 Other	1=yes	13.9%
	V4057 Gun type – unknown	1=yes	0.4%
Medical Attention Index[4]			(n=1059)
	V4127 Were you injured to the extent that you received any medical care, including self treatment?	1=yes	13.9%
	V4128 Where did you receive this care? Anywhere else?	1=Yes[1]	13.9%
If received medical care:			(n=147)
	V4129 At the scene	1=yes	10.9%
	V4130 At home/neighbor's/friend's	1=yes	29.9%
	V4131 Health unit at work/school, first aid station at a stadium/park, etc.	1=yes	1.4%
	V4132 Doctor's office/health clinic	1=yes	15%
	V4133 Emergency room at hospital/emergency clinic	1=yes	44.2%
	V4134 Hospital (other than emergency room)	1=yes	8.8%
	V4135 Other care	1=yes	2%

[1]Recoded from original; 0=No;
[2] Index of Physical Assault=V4059Recode + V4093Recode + V4094 + V4095 + V4096 + V4097 + V4098 + V4099 + V4100 + V4101 + V4102 + V4103 + V4104 + V4105 + V4106 + V4107. Possible Range=0-16;
[3] Index of Weapon Used=V4049Recode + V4050Recode + V4051 + V4052 + V4053 + V4054 + V4055 + V4056 + V4057; Possible range=0-9;
[4] Index Medical Attention=V4127 + V4128 + V4129 + V4130 + V4131 + V4132 + V4133 + V4134 + V4135 + V4137; Possible range =0-10.

Socioeconomic Resources

Availability of socioeconomic resources to the victim, a second strain, were measured using per capita household income and education completed (Table 1.D). Household incomes indicated that most respondents came from homes with sufficient incomes. Forty percent of the sample in the subset examined earned over $50,000. But, most respondents tended to be not as well educated. Over half (51.2%) had not received any education beyond high school and about half of those (24.3%) did not even receive their

high school diplomas. So, while a significant portion has not had as much formal education, they tended to earn enough income to be financially stable. Restated in social capital terminology, the respondents had some access to resources that might assist in their physical and emotional healing.

Table 1.D. Socioeconomic Resources of Crime Victims, National Crime Victimization Survey (n=1059)

Concepts	Dimensions	Variables(Questions)	Values/Responses	Statistics
Household Socioeconomic Resources	Household Income	V2026 Household Income[1]	0=Less than $5,000	5%
			1= $5,000 to $7,499	2.2
			2= $7,500 to $9,999	3
			3= $10,000 to $12,499	4
			4= $12,500 to $14,999	3.7
			5= $15,000 to $17,499	3.2
			6= $17,500 to $19,999	3.5
			7= $20,000 to $24,499	7.3
			8= $25,500 to $29,999	6.6
			9= $30,000 to $34,499	6.1
			10= $35,500 to $39,999	5.6
			11=$40,000 to $49,999	9.8
			12=$50,000 to $74,999	15.5
			13=$75,000 and over	24.5
	Education	V3020 Educational Attainment[1]	0= < High school diploma	24.3%
			1= High school graduate	26.9
			2= Some college, no degree	16.2
			3= Associate's Degree	5.4
			4= Professional school degree	1.2
			5= Bachelor's degree	16.3
			6= Master's degree	4.8
			7= Doctorate degree	0.9
	Index of SES[2]		Mean(SD)	8.9(12.7)
			Min-Max	0-91

[1]Recoded from original;
[2] Index of SES= V2026 *V3020; Possible Range: 0-91.

Victim-Offender Relationship

The NCVS categorized crimes committed by either single or multiple offenders. In crimes perpetrated by a single offender, the most common relationship to the victim was an "other nonrelative" (23.3%) or a current or former boy/girlfriend (16.7%). When multiple offenders were involved in the crime, the most common relationship to the victim was by far a friend or ex-friend (48.5%), or "other nonrelatives" (19.7%). Overall, "other nonrelatives" as well as "friends" or "ex-friends" described many of the perpetrators. Of the crimes that were not committed by strangers, it was more common for the offender to have a secondary relationship to the victim; they were either an acquaintance or friend, but not necessarily the closest of relationships.

Table 1.E. Victim Relationship to Offender, National Crime Victimization Survey (n=1059)

Concepts	Dimensions	Variables(Questions)	Responses	Statistics
Victim's Relationship to Offender	Strangers	V4512 What (was/were) the offender(s) relationship(s) to you? For example, friend, spouse, schoolmate, etc.	1=At least one good entry in one or more of the category codes 1-10	2.8%
	Primary[1]	V4513[2] Spouse at time of incident	1=yes	6.1%
		V4265[3]		3.0%
		V4514 Ex-spouse at time of incident	1=yes	0
		V4266		3.0%
		V4515 Parent or step-parent	1=yes	0
		V4267		0
		V4516 Other relative	1=yes	9.1%
		V4270		7.6%
		V4522F Own child or step-child	1=yes	3.3%
		V4268		0
		V4522G Brother/sister	1=yes	9.1%
		V4269		1.5%
		V4522H Boyfriend or girlfriend, ex-boyfriend or ex-girlfriend	1=yes	16.7%
		V4271		9.1%
		V4517 Friend or ex-friend	1=yes	3.3%
		V4272		48.5%
	Secondary[4]	V4518 Neighbor(single)	1=yes	3.3%
		V4275 Neighbor(multiple)		6.1%
		V4519 Schoolmate	1=yes	6.7%
		V4274		7.6%
		V4520 Roommate, boarder	1=yes	3.3%
		V4273		1.5%
		V4522 Other nonrelative	1=yes	23.3%
		V4277		19.7%
		V4522A Customer/client	1=yes	9.1%
		V4276		1.5%
		V4522B Patient	1=yes	13.3%
		V24277A		0
		V4522C Supervisor (current or former)	1=yes	0
		V4277B		0
		V4522D Employee (current or former)	1=yes	0
		V4277C		0
		V4522E Co-worker (current or former)	1=yes	3.3%
		V4277D		0
		V4522I Teacher/school staff	1=yes	0
		V4277E		0

[1] Index primary offenders= V4513 + V4514 + V4515 + V4516 + V4522F + V4522G + V4522H + V4517 + V4265 + V4266 + V4267 + V4270 + V4268 + V4269 + V4271 + V4272. Possible range=0-16;

[2.] Single Offender;

[3] Multiple Offenders (indented);

[4].Index secondary offenders=V4518 + V4519 + V4520 + V4522 + V4522A + V4522B + V4522C + V4522D + V4522E + V4522I + V4275 + V4274 + V4273 + V4277 + V4276 + V4277A + V4277B + V4277C + V4277D + V4277E.

Possible Range=0-20.

Summary

Descriptive analyses revealed the following patterns in the NCVS. In terms of health effects experienced by victims, it appeared that more mental problems presented themselves than physical ones. When the severity of the violence was examined, about half had been physically assaulted, a fifth had a weapon used in the crime, and fourteen percent needed medical care. While many in this subset sample did not have educational backgrounds beyond high school, their incomes indicated that most of these victims lived in households with sufficient incomes for basic life necessities. Of the victims who knew their attackers, most were secondary relationships, like other nonrelatives and ex-friends.

Bivariate Analysis

Bivariate analysis, the second analytical strategy, painted a preliminary picture of the relationships between the above described concepts (Appendix C). Violent victimization had similar positive relationships with both mental and physical health problems; these problems co-occurred at similar levels. This makes sense considering many of the physical health effects examined here are often somatic manifestations of mental distress. Specifically, physical assaults ($r=0.17^{**m}$, $r=0.15^{**p}$), use of weapons ($r=0.11^{**m}$, $r=0.10^{**p}$), and requiring medical care ($r=0.25^{**mp}$), were all tied to health problems, be they physical or emotional. Victim-offender relationships seemed to only correspond with negative health effects when the offender was a primary relative ($r=0.11^{**mp}$). But, secondary relationships did not have any significant associations with health problems. How close a person is to the attacker appears to play a role in health consequences; trust is more likely to be broken in situations where a more interconnected relationships existed prior to the incident (Interviewees 2, 5, & 7). However, socioeconomic resources did not have any significant associations with health degradation following victimization.

Linear Multiple Regression

Finally, multiple linear regression analysis was used to tease out the unique (net of age and race) effects of the three strains, violence, relationships, and resources, on negative health consequences. The regression analysis indicated the following unique patterns in the relationships of health effects with violent crime victimization, victim-offender relationships, and socioeconomic resources (Table 2 and Figure 1).

Severity of crime was the strongest strain for victims of crime. Among the indicators of crime severity, requiring medical attention, weapons use, and physical attacks, in that order, were most consequential for the health of victims. For example, victims who required medical attention because of the crime later showed higher rates of both mental (0.20^{***}) and physical (0.21^{***}) health effects. That is, the more serious the injuries

were at the time of the incident, the more a victim was to later experience both mental and physical distress. In fact, seeking immediate medical attention was the most predictive of the future health problems for victims of violence.

Table 2. Regression Analysis of Mental and Physical Health on Violent Crime Victimization and Socioeconomic Resources with Age and Race as controls[1]: National Crime Victimization Survey, 2010

	Mental Health Beta (β)	Physical Health Beta (β)
Violent Crime Victimization		
Physical Assault	0.08*	NS
Weapon Used	0.10***	0.08**
Medical Attention	0.20***	0.21***
Relationship to Offender		
Primary Relationship	0.11***	0.11***
Secondary Relationship	NS	NS
Socioeconomic Resources	NS	NS
Age	NS	0.09**
Race	NS	NS
Constant	1.87	0.43
Adjusted R^2	0.09	0.09
DF 1 and 2	8&1050	8&1050

*** $p <= .001$; ** $p <= .01$; * $p <= .05$

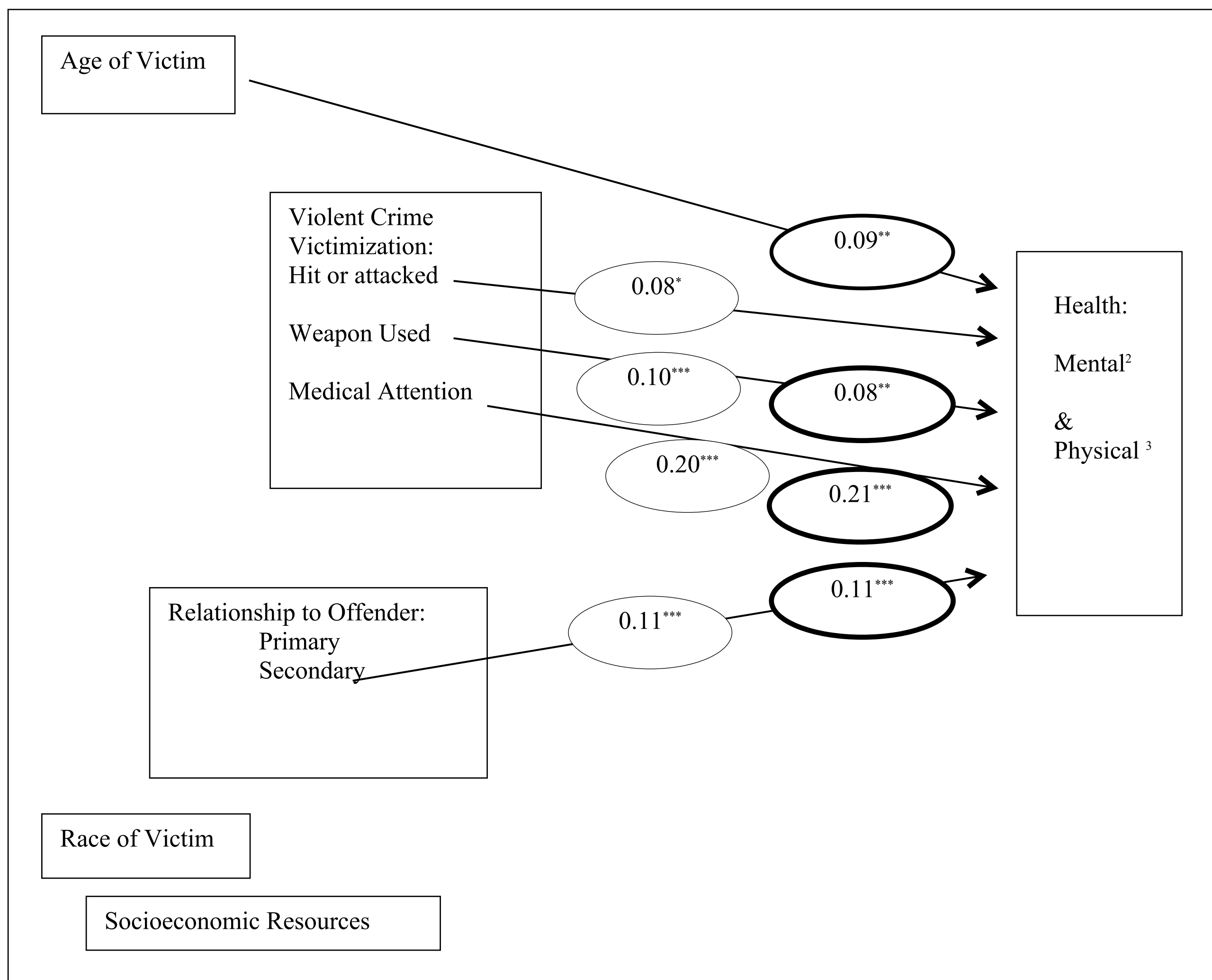
1. Index of Mental Health=V4140B1+ V4140B2 + V4140B3+ V4140B4 + V4140B5+ V4140B6+ V4140B7+ V4140B8+ V4140B9+ V4140B10. Possible Range=0-12;
Index of Physical Health= V4140B20+ V4140B21+ V4140B22+ V4140B23+ V4140B24+ V4140B25+ V4140B26+ V4140B27; Possible Range=0-8;
Index of Physical Assault=V4059Recode + V4093Recode + V4094 + V4095 + V4096 + V4097 + V4098 + V4099 + V4100 + V4101 + V4102 + V4103 + V4104 + V4105 + V4106 + V4107. Possible Range=0-16;
Index of Weapon Used=V4049Recode + V4050Recode + V4051 + V4052 + V4053 + V4054 + V4055 + V4056 + V4057; Possible range=0-9;
Index Medical Attention=V4127 + V4128 + V4129 + V4130 + V4131 + V4132 + V4133 + V4134 + V4135 +V4137; Possible range =0-10;
Index of SES= V2026 *V3020 Possible Range:0-91;
Index primary offenders= V4513 + V4514 + V4515 + V4516 + V4522F + V4522G + V4522H + V4517 + V4265 + V4266 + V4267 + V4270 + V4268 + V4269 + V4271 + V4272. Possible range=0-16;
Index secondary offenders=V4518 + V4519 + V4520 + V4522 + V4522A + V4522B + V4522C + V4522D + V4522E + V4522I + V4275 + V4274 + V4273 + V4277 + V4276 + V4277A + V4277B + V4277C + V4277D +V4277E. Possible Range=0-20;
Age: 1 (12-19 years old to 8 (80-89 years);
Race: 0= Non-White, 1= White.

Use of weapons (another indicator of crime severity) during an assault was also related

to, but to a lesser extent, higher rates of mental (***) and physical health (**) effects. The use of a weapon in a violent crime escalates the level of violence and victims who were attacked or threatened with weapons appeared to report higher rates of both mental and physical health effects that lasted a month or longer. Physical assault, like hitting, knocking down or slapping, were minimally (=0.08*) linked to mental health effects; however there was no evidence of connection to physical ailments. Considering the timeframe of one month or longer for effects to present themselves, it can be inferred that many physical effects might subside in a shorter period of time since mental trauma can present itself or subside throughout a victim's lifetime.

Empirical Model:

Net Effects of Violent Crime Victimization and Socioeconomic Resources, Age and Race on Mental and Physical Healthj[1]



1. Refer to Table 2 for index and variable coding;
2. Thin circles indicate mental health effects;
3. Bold circles indicate physical health effects.

Crimes in which the victim-offender relationship was primary- a closer relative, friend or spouse, resulted in more mental and physical health effects than if they were secondary relationships. Secondary relationships, where the attacker and the victim did not know each other as well, like an acquaintance, colleague, or neighbor did not appear to have any influence on later health problems for victims. This confirmed that the closer the attacker is, the more likely that the victim suffered both mental (0.11^{***}) and physical (0.11^{***}) health effects. Health effects might also be amplified by continued emotional and physical abuse since the attacker is in frequent contact with the victim. This may indicate that primary relationship violence is recurrent and not limited to isolated incidents, which was discussed by multiple qualitative interviewees.

However, health effects did not vary for people from differing socioeconomic backgrounds, a third strain, or race. Violence affects people of all statuses and skin colors and there does not appear to be differences in future reports of mental or physical ailments. Some qualitative interviewees strongly supported this notion; they had worked with clients from all walks of life and they supported that violence affects a diverse set (class or race) of our population. Victims with more resources seek treatment from providers that they are able to afford services from, but the fact that trauma occurred and resulted in negative health symptoms does not change based on their socioeconomic resources.

Summary

The most prominent finding, that receiving medical attention immediately following victimization meant a higher likelihood for later reports of mental and physical health problems, strongly indicated that an elevated level of violence during the attacks can result in elevated levels of future health problems. Secondary relationships did not appear to have a relationship with health of survivors, but primary relationships did. The majority of primary offenders were friends or ex-friends of the victim; it appears that this type of relationship between victim and offenders did influence future health of survivors. A series of events leads up to a physical assault and varying circumstances and situations in the relationship might influence the attacker to be more violent, as well as influence the context from which the victim perceives the situation. An example given by a professional with experience working with gang violence (Interviewee #5) explained this connection. Friendships and sense of camaraderie within a group are shattered for the victim when sometimes a gang member is “turned on” by their gang and attacked. The violent attack becomes symbolic of a message of exclusion from a group within which the victim perceived they had strong ties.

THEORETICAL IMPLICATIONS

The impacts of crime related strains on the health of victim identified in this analysis

were supported by Strain theory. The particular strained circumstances of the crime can exacerbate health problems for victims. Elevated levels of violence during the attack and close relationships with violent perpetrators served as strains for an individual. And compounding multiple strains produced more negative outcomes for violence survivors in their struggle to physically heal from more severe forms of injury and disability as well as mentally cope with the broken bonds of trust in close relationships.

Socioeconomic resources or social capital available to crime victims did not distinguish the severity of health effects. It is possible that these forms of social capital may still be beneficial for some violence victims. Though not evident in this particular data, there has been a long established relationship between health and wealth, including social capital as well as money and assets available to a person (Phelan, Link, and Tehranifar 2010). An interviewee (#4) indicated that those with lesser education may not be aware of services available; and if they do not have much income, they may not be able to access unaffordable healthcare. Conversations with healthcare providers confirmed that people with less social capital like education and income have fewer opportunities to seek treatment that could alleviate negative health symptoms that violence can influence. On the other hand, given the legal implications of violent crime, health resources might be more uniformly available irrespective of resources. Emergency rooms do not exclude those who will not be able to take financial responsibility for the services rendered. Additionally, many local agencies provide pro bono services to victims of violence and victim witness assistance programs offered by local counties usually help with counseling services, court assistance, and victim compensation.

FURTHER QUALITATIVE INTERVIEW INSIGHTS

The diversity in types of violence each professional interviewee dealt with contributed to a more comprehensive understanding of all health effects that have been observed in victims. Since secondary survey data limited the ability to examine the full range of effects, qualitative interviews addressed as many health effects as professionals have seen. In terms of mental health effects, there were disorders as well as negative feelings. Disorders included: depression, anxiety disorders, PTSD, General Anxiety Disorder, Rape Trauma Syndrome, Major Depressive Disorder, Borderline Personality Disorder, self-harm (cutting, drinking bleach, swallowing batteries), suicide, substance abuse, eating disorders, aggravation of Schizophrenia, and complex trauma(with no specific diagnosis). Negative feelings that survivors of violence experience include: mood swings, anxiety, attention-seeking, anger, guilt, unsafety, violation, self-blame, paranoia, phobias/fears, grief, loss, shame, isolation, inability to vent, vigilance, vulnerability, betrayal, stress, distrust, and nervousness. When it came to physical health effects, there were more immediate physical injuries from the violence as well as prolonged health problems that persisted for long periods of time or were permanent disabilities. Immediate injuries included: broken bones, bruising, cuts, scrapes, shank or stab wounds, gunshot wounds, genital injuries, stroke resulting from immediate injuries, and in most extreme cases, death. Prolonged or permanent physical effects included:

substance abuse, STDs like Hepatitis and HIV (either from rape or intravenous drug use) permanent scarring or physical condition, stroke resulting from prolonged stress, long term permanent damage, chronic illness, chronic pain, Fibromyalgia, stomach aches, headaches, head injury, trouble sleeping, flu-like symptoms, hospitalization, heart attack (stress related), and living in chronic violent conditions.

In support of the data on use of weapons during physical assaults, interviewees provided examples of victims they worked with who suffered significant trauma as a result of a particularly violent attack with a weapon. A psychiatrist (Interviewee #6) described a patient that experienced flashbacks and nightmares following service in the Vietnam War. Many of the recurring dreams went back to visuals of being held and threatened at gunpoint. The weapon, a gun in this instance, remained an important factor that contributed to mental health effects. Another psychiatrist (Interviewee #9) explained that when a weapon is used during the commission of a crime, more damage can be inflicted on the victim. Weapon use is more likely to result in permanent scarring or a long term, permanent physical condition. For example, one victim who was beaten with a hammer suffered a stroke during the attack due to the brutality of the event being carried out with the additional use of a weapon. Weapons appear to elevate levels of both mental and physical health implications.

Some interviewees agreed with the statistical suggestion that race and socioeconomic resources did not have much of an association with health outcome. However, in other conversations with professionals, “culture” was sometimes a factor in how victims responded. For example, victims without documentation of citizenship tend to avoid law enforcement or other authorities and may not reach out for any professional services to address physical injuries or ongoing emotional distress because their immigration status may be discovered. Lack of legal status may be a source of additional strain or anxiety that negatively affects health.

Other interviewees strongly felt that race is not a factor in health outcomes; in their experience, their clients come from diverse backgrounds and violence affects people of all races. Yet, some interviewees reflected on cultural differences (rather than race) as they inhibited a victim’s willingness to seek medical treatment. In certain cultural communities, children are socialized to keep quiet about personal problems and “suck it up” (Interview #5). Cultural communities in the United States are tight knit; for example, African Americans, Latinos, and Asian all have very interconnected subcultures. These heavily bonded communities are often beneficial in providing support and a place to feel included. However, there is an expectation that any negativity will be kept within the community as well. Historical marginalization of colored people has produced a social environment where speaking about violence or abuse brings shame to an entire community; consequently, victims are less inclined to do anything about it. Besides, in countries where patriarchy is more pervasive, mental illness is stigmatized and women are vulnerable to abuse, but also culture influences how they respond to and perceive their circumstances. Being treated inferior is accepted as a fact of life for some and they may be better equipped emotionally to handle violent victimization as they have been conditioned to see this as normal. Some Asian and Pacific Islander communities, like Laos and Hmong do not believe in the use of medications (Interviewee #8), which can

also hamper recovery when treatment efforts are rejected because western medicine is not accepted. A college professor (Interviewee #10) with expertise in Asian American communities added that immigrants from countries with oppressive regimes are less likely to contact police because of distrust of authorities that originates from political violence in their native countries. Additionally, Asian American communities are known to have some of the highest rates of domestic violence and intimate partner homicide in locales with more Asian immigrants, like Silicon Valley in California. Immigrants, from most countries, might also be affected by language barriers and isolation within their American communities. They may simply not be aware of laws that exist to protect violence survivors. An attorney who represented immigrant victims of violence (Interviewee #4) said that a lot of clients did not know about legal protections or about agencies that provide services to victims; and navigating a foreign legal system is an additional challenge.

LIMITATIONS AND FUTURE DIRECTIONS

The three sets of strains analyzed in this study accounted for 9% of variability of overall mental and physical health effects of violence survivors. Of course, the limits of secondary data were a primary reason. Future research should address additional reasons (strains) why some victims suffer more or less severe health consequences after a violent attack. Professional interviewees who work with victims of violence offered suggestions for other factors that can influence the health of survivors.

A mental health professional (Interviewee #7) described seeing patients who responded well to treatment have a commonality- they have a heightened sense of hope. Those who can “see the light at the end of the tunnel” have a different attitude and may be less prone to spiraling in to depression and chronic negative mental health effects. Mental stability prior to the victimization was important to health after experiencing a violent incident for many professionals who work with victims. For example, childhood experiences shape the way a victim will later cope with victimization in adulthood. Children become desensitized to or resilient from being emotionally affected by negative events, particularly if they are brought up in environments where violence is commonplace. On the other hand, some professionals (Interviewees #2, #7 & #8) hypothesized that alternatively, childhood trauma might be a precondition that will worsen health outcomes for victims because they are already at risk for and possibly experienced mental health challenges from prior victimization. Sexual abuse of children appears to be particularly burdensome; but neglect and physical abuse also later produce adults less equipped to handle re-victimization. When childhood abuse is by a parent or close family member, there are even more mental health problems because those bonds of trust are more important to children than strangers. It would be interesting to follow victims of child abuse in to their adulthood to see how and to what extent those early experiences affect their health later.

Substance abuse, an additional strain, was another recurring theme prevalent among victims who received services according to several interviewees (Interviewees #5, #8, & #9). In their professional judgements, addiction is fueled by negative emotional

responses to victimization. Substance abusers seek respite from negative feelings and compound those negative health effects with additional bodily repercussions of drug use. Health professionals, they opined, should pay attention to substance abuse of victims they are treating as they are particularly at risk for spiraling into addiction that can quickly deteriorate their health. Intravenous drug users additionally risk transmission of diseases like Hepatitis and HIV (Interviewee #9).

On balance, future research should explore the roles that childhood abuse, drug use, and cultural values play in mediating the negative health consequences of crime victimization. In addition to considering some preconditions that may be related to poorer health outcomes, hopefully chronicling all the health effects that victims of violent crime experience can help shape treatment options to best suit individuals recovering from trauma. At a minimum, bringing about awareness to health effects of violence may help some victims feel validated in their health struggles.

APPENDICES

Appendix A. Table

Age and Race Distribution of Crime Victims, National Crime Victimization Survey (n=1059)

Concepts	Dimensions	Variables(Questions)	Values/Responses	Statistics
Controls	Age	V2042 Age[1]	1=12-19 years old	2.8%
			2= 20-29	20.8%
			3= 30-39	22.5%
			4= 40-49	23.0%
			5= 50-59	18.0%
			6= 60-69	9.9%
			7= 70-79	2.2%
			8=80-89	0.8%
			Mean(SD)[2]	3.75
	Race	V2049 Race[1]	0= Non-White	23.1%
			1= White	76.9%
			Mean(SD)[2]	0.77

[1] Recoded from original;
[2] Age Range=1-8; Race Range=0-1.

Appendix B
Consent Form and Interview Protocol

Letter of Consent

Dear _______________:

I am a Sociology Senior working on my Research Capstone Paper under the direction of Professor Marilyn Fernandez in the Department of Sociology at Santa Clara University. I am conducting my research on the health (both physical and mental) of victims of violent crime.

You were selected for this interview, because of your knowledge of and experience working in the area of victim's services.

I am requesting your participation, which will involve responding to questions about your knowledge of experiences of victims of violence and will last about 20 minutes. Your participation in this study is voluntary. You have the right to choose to not participate or to withdraw from the interview at any time. The results of the research study may be presented at SCU's Annual Anthropology/Sociology Undergraduate Research Conference and published (in a Sociology department publication). Pseudonyms will be used in lieu of your name and the name of your organization in the written paper. You will also not be asked (nor recorded) questions about your specific characteristics, such as age, race, sex, religion.

If you have any questions concerning the research study, please call/email me at ______________ or Dr. Fernandez at __________

Sincerely,

Emily Szabelski

By signing below you are giving consent to participate in the above study. (If the interviewee was contacted by email or phone, request an electronic message denoting consent).

______________________ ____________________ ____________

Signature Printed Name Date

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, through Office of Research Compliance and Integrity at (408) 554-5591.

Interview Schedule

Research Topic: Health of victims of violent crime.
Interview Date and Time: ____________
Respondent ID#: __ (1-10)

1. What is the TYPE of Agency/Organization/Association/Institution(NO NAME) where you learned about (and/or worked) with survivors of violent crimes: ____

2. What is your position in this organization? ___________________________

3. How long have you been in this position and in this organization? ____________________________

4. Based on what you know about victims of crime, what are some of the most common health consequences of victimization? Have you seen differences in mental and physical health of victims? (Probe for examples)

5. In your opinion, what are some reasons that some crime victims suffer more severe health problems than others? (PROBE for differences in mental and physical health and for examples)

6. [If the respondent does not bring up violence of crimes and socioeconomic resources) as potential causes of negative health effects of crime victimization], probe:

   a. How about victims of more violent crimes like an attack where a weapon was used? How does that violent experience affect their health? (Probe for differences in physical and mental health consequences and ask for examples.)

   b. How about socioeconomic resources of the victim? Do less educated people or people with lesser incomes experience different types of health consequences of victimization than those with more? Do they seek treatment differently or respond in other ways that distinguish people of differing social backgrounds? Why do you think so? (Probe for examples.)

   c. Do you think victims often seek medical treatment for their injuries? Where do they go to receive medical care? If medical care results in hefty bills, do you think the financial strain might affect a victim’s health

d. Do you think the victim's relationship to the offender has any influence on future health outcomes? Depending on how close a person is to their attacker, do you think they suffer from more mental or physical health problems? Why do you think so? (Probe for examples.)

e. How about age? Are younger people more likely to be victimized and do they have different health consequences than older victims? Why do you think so? (Probe for examples.)

d. How about race? Have you noticed any patterns of health effects of victimization that affect some races more than others? Why do you think so? (Probe for examples).

7. In your experience, what other issues do you think impact the health of crime victims? (Probe for examples).

Thank you very much for your time. If you wish to see a copy of my final paper, I would be glad to share it with you at the end of the spring quarter. If you have any further questions or comments for me, I can be contacted at __________. Or if you wish to speak to my faculty advisor, Dr. Marilyn Fernandez, she can be reached at __________.

Appendix C: Table

Correlation Matrix: Indices of Mental Health, Physical Health, Violent Crime Victimization, Victim-Offender Relationship, Socioeconomic Resources, Age and Race[1] (n=1059)

	Index of Mental Health	Index of Physical Health	Index of Physical Assault	Index of Weapons Used	Index of Medical Attention	Index of Primary Relationships	Index of Secondary Relationships	Index of SES	Age	Race
Index of Mental Health	1	0.70***	0.17**	0.11**	0.25**	0.11**	-0.06*	NS	0.07*	NS
Index of Physical Health	0.70***	1	0.15**	0.10**	0.11**	NS	NS	0.25**	0.10**	NS
Index of Physical Assault	0.17**	0.15**	1	NS	NS	-0.08*	NS	0.44**	NS	NS
Index of Weapons Used	0.11**	0.10**	NS	1	NS	NS	NS	0.07*	0.08*	0.10**
Index of Medical Attention	0.25**	0.25**	0.44**	0.07*	1	NS	NS	NS	NS	NS
Index of Primary Relations	0.11**	0.11**	NS	NS	NS	1	NS	NS	NS	NS
Index of Secondary Relations	-0.06*	NS	-0.08*	NS	NS	NS	1	NS	NS	NS
Index of SES	NS	NS	NS	NS	NS	NS	NS	1	NS	NS
Age	0.07*	0.10**	NS	0.08*	NS	NS	NS	NS	1	NS
Race	NS	NS	NS	-0.10**	NS	NS	NS	NS	NS	1

*** p <=.001; ** p <=.01; * p <=.05

[1] Index of Mental Health=V4140B1+ V4140B2 + V4140B3+ V4140B4 + V4140B5+ V4140B6+ V4140B7+ V4140B8+ V4140B9+ V4140B10. Possible Range=0-12;

Index of Physical Health= V4140B20+ V4140B21+ V4140B22+ V4140B23+ V4140B24+ V4140B25+ V4140B26+ V4140B27; Possible Range=0-8;

Index of Physical Assault=V4059Recode + V4093Recode + V4094 + V4095 + V4096 + V4097 + V4098 + V4099 + V4100 + V4101 + V4102 + V4103 + V4104 + V4105 + V4106 + V4107. Possible Range=0-16;

Index of Weapon Used=V4049Recode + V4050Recode + V4051 + V4052 + V4053 + V4054 + V4055 + V4056 + V4057; Possible range=0-9;

Index Medical Attention=V4127 + V4128 + V4129 + V4130 + V4131 + V4132 + V4133 + V4134 + V4135 + V4137; Possible range =0-10;

Index of SES= V2026 *V3020 Possible Range: 0-91;

Index primary offenders= V4513 + V4514 + V4515 + V4516 + V4522F + V4522G + V4522H + V4517 + V4265 + V4266 + V4267 + V4270 + V4268 + V4269 + V4271 + V4272. Possible range=0-16;
Index secondary offenders=V4518 + V4519 + V4520 + V4522 + V4522A + V4522B + V4522C + V4522D + V4522E + V4522I + V4275 + V4274 + V4273 + V4277 + V4276 + V4277A + V4277B + V4277C + V4277D + V4277E. Possible Range=0-20;
Age: 1 (12-19 years old to 8 (80-89 years);
Race: 0= Non-White, 1= White.

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Interview #1. 12/7/14. Hospital Nurse Examiner for Sexual Assault Response Team.

Interview #2. 12/8/14. Police officer specializing in domestic violence.

Interview #3. 2/9/15. Intensive Supervision Specialist for district attorney.

Interview #4. 2/26/15. Attorney specializing in domestic violence in immigrant communities, sexual assault, and human trafficking.

Interview #5. 2/27/15. Founder of gang violence prevention program.

Interview #6. 3/2/15. Psychiatrist for Veteran’s Administration.

Interview #7. 3/3/15. Marriage and Family Therapist.

Interview #8. 3/6/15. Clinician for rehabilitation program for offenders on probation or parole.

Interview #9. 3/23/15. Psychiatrist for rehabilitation program for offenders on probation or parole.

Interview #10 4/10/15. University professor with expertise in Asian American communities.

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