

Research brief

This research brief analyzes research articles on the relationship between sexual violence, physical health, and mental health. The research articles below, published between 2001 and 2010, demonstrate that lifetime sexual victimization is correlated with physical health problems, mental health problems and high-risk behaviors (i.e., substance abuse, unprotected sex). Negative health outcomes of sexual assault afflict all sexes, stemming from both childhood and adult sexual traumas. This research brief can help stakeholders, including sexual assault advocates and health care providers, understand the ways that sexual victimization can trigger or exacerbate physical and mental health conditions.

Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse, 10*, 225-246. doi:10.1177/1524838009334456

Aims: This article examined the psychological impact of adult sexual assault victimization through an ecological theoretical perspective.

Methods: The authors reviewed research on the relationship between sexual assault, victim mental health, and variables across different levels of victim interaction with the community and culture individual, microsystem, meso/exosystem, macrosystem, and chronosystem.

Key Findings:

An ecological theoretical approach reveals ways that multiple factors in the social ecology are associated with an increased risk of negative mental health outcomes among sexual assault victims. Factors at the individual level (age, race, and socioeconomic status, education, income, mental health, and other factors), microsystem level (interactions with family, friends, and peers), meso/exosystems level (formal institutions and networks), macrosystem level (cultural attitudes) and chronosystem level (changes in individual-environment interactions over time) all affect victim distress and recovery.



- Individual - Maladaptive coping responses (i.e., self-blame, avoidance behaviors) as individual traits were correlated with negative mental health symptoms. The role of other individual variables, such as income, education, and genetics is unclear.
- Microsystem - Feeling close to family members, living with family members, and the availability of family and friends contribute to positive post-assault adjustment. Negative reactions to sexual victimization disclosure from family, friends, and significant others predict adverse mental health outcomes, including anxiety, depression, and post-traumatic stress disorder.
- Meso/exosystem - Positive meso/exosystem level experiences with service providers, legal professionals, and other providers can facilitate recovery. Likewise, negative experiences with service providers, legal personnel, medical personnel, and other providers, has been correlated with increased distress and negative effects on mental health.
- Macrosystem - Research on macrosystem factors (i.e., cultural attitudes) is limited. Sexual assault research has yet to take into account the impact of cultural attitudes on the recovery of sexual assault victims.
- Chronosystem - One factor that may affect victim distress and recovery is a prior history of sexual victimization. Multiple sexual victimizations are associated with negative psychological outcomes and may have a cumulative effect on psychological distress. Other forms of lifetime victimization, such as intimate partner violence and sexual harassment, have also been shown to increase

distress and promote negative mental health outcomes for sexual assault victims.

Summary: Research indicates that rape is a severe trauma that can potentially cause several long-term negative outcomes, including post-traumatic stress disorder, depression, anxiety, substance abuse, and suicidal ideation. After reviewing research on the mental health of survivors after sexual assaults, the authors found that the mental health consequences of sexual assault are shaped by multiple factors, not just personal characteristics of a victim or an assault. Social networks (i.e., family and friends), formal institutions, and lifetime experiences all impact the mental health and distress levels of survivors.





Application: An ecological model of the mental health impact of sexual violence can help service providers intervene at multiple levels of society through educational programs, sexual assault response teams, restorative justice programs, rape crisis centers, policy work, and systems advocacy. (Prevention efforts targeting multiple levels of the social environment have been discussed in the 2006 NSVRC publication, *Sexual violence and the spectrum of prevention: Towards a community solution*, <http://www.nsvrc.org/publications/nsvrc-publications/sexual-violence-and-spectrum-prevention-towards-community-solution>) Researchers can use ecological models in research on the experiences of sexual violence survivors with disabilities, LGBT survivors, immigrant survivors, and survivors later in life. Future ecological models can

examine the ways that different levels of social ecology interact for sexual violence survivors.

Martin, S. L., & Macy, R. J. (2009). *Sexual violence against women: Impact on high-risk health behaviors and reproductive health*. Retrieved from VAWnet: National Online Resource Center on Violence Against Women: http://new.vawnet.org/Assoc_Files_VAWnet/AR_SVReproConsequences.pdf

Aims: This article provided an overview of research on the impact of sexual violence on women's reproductive health and high-risk health behaviors (including substance use and unsafe sexual practices). Additionally, it offers recommendations to medical personnel and service providers on how to screen for sexual violence victimization and provide trauma-informed services to survivors.



Methods: The authors review research from 1990 to 2008 on sexual violence and its relationship to reproductive health and high-risk health behaviors.

Key Findings:

- Women who have experienced sexual assault during adulthood are more likely to engage in substance abuse than women who have not been sexually victimized. Several studies reveal that alcohol and drug use rates among women increase after sexual assault, although this is not a universal finding of all studies.
- Women who have been sexually victimized as adults are more likely to engage in unsafe sexual behaviors, including not negotiating condom use with partners, sex without condoms, sex with multiple partners, and sex in exchange for money or drugs. Female sexual violence victims demonstrate an elevated prevalence of sexually transmitted diseases. The extent to which these infections are the result of sexual assaults is unclear, as victims vary in their susceptibility and do not always

receive STD screenings immediately following sexual assaults.

- Female victims of sexual violence often experience gynecologic injuries after the assault, such as genital or anal trauma.
- Female sexual violence victims have an increased likelihood of experiencing gynecological disorders such as sexual dysfunction, dysmenorrhea (severe pain during menstruation), and menorrhagia (prolonged and/or excessive menstrual bleeding).
- Various studies have found that 5% to 20% of rapes result in pregnancy. Sexual assault during or in close proximity to pregnancy has been correlated with miscarriage, preterm birth, and low birth weight infants.

Summary: Despite the methodological limitations of some studies, research reviewed in this article suggests that the experience of sexual victimization is associated with negative health outcomes, and high-risk sexual behaviors, showing a need for trauma-informed health care practices. It should be noted that

some of the research discussed neglected contextual factors (i.e., race, socioeconomic class, mental health status) surrounding sexual assault which are factors that also directly affect physical health. Future research can explore the health impact of sexual victimization with attention to contextual factors, sample size, and applicability to the general population.

Application: Women who have experienced sexual violence are more likely to suffer from reproductive health problem, engage in high-risk sexual practices, and engage in substance abuse than women who have not been sexually victimized. The authors recommend that medical personnel and service providers receive training on how to screen clients for sexual violence so that proper interventions can take place. Additionally, the authors recommend that health and human service professionals offer trauma-informed services to clients who have experienced sexual assault.

Choudhary, E., Coben, J., & Bossarte, R. M. (2010). Adverse health outcomes, perpetrator characteristics, and sexual violence victimization among U.S. adult males. *Journal of Interpersonal Violence, 25*, 1523-1541. doi:10.1177/0886260509346063

Aims: This study explored the relationship existing between sexual victimization and poor self-perceived health as reported by male victims.

Methods: The authors analyzed data from 59,511 male respondents from the 2005 and 2006 Behavioral Risk Factor Surveillance System survey. Researchers gathered

data on respondents' reported sexual victimization, as well as respondents' self-reported health status, number of days of negative mental health, social and emotional support, and activity limitations stemming from health problems.



Key Findings:

- Respondents who reported attempted sexual assault were more likely to report one or more days of negative mental health (i.e., depression, stress) in the past 30 days, activity limitations, and low emotional support than men who had experienced no attempted assault.
- Men who reported experiencing completed sexual assault were more likely to report activity limitation due to physical, mental, or emotional problems.
- Respondents who had experienced both attempted and completed sexual assault were more likely to report negative health status, activity limitations, and low emotional support than non-victimized respondents.

Summary: Male respondents with a history of attempted and/or completed sexual victimization were more likely to report compromised mental health, poor life satisfaction, activity limitations, and lack of social support compared to men with no sexual victimization history.

Application: Clinicians and other service providers who work with sexual assault victims should reflect on the correlation between sexual victimization and adverse health outcomes. Furthermore, increased awareness of male sexual victimization can help stakeholders craft future research and develop sexual violence prevention strategies.

Molnar, B. E., Buka, S. L., & Kessler, R. C. (2001). Child sexual abuse and subsequent psychopathology: Results from the National Comorbidity Survey. *American Journal of Public Health, 91*, 753-760. doi:10.2105/AJPH.91.5.753 Retrieved from <http://ajph.aphapublications.org/cgi/reprint/91/5/753>

Aims: This study analyzed the relationship between child sexual abuse and psychiatric conditions in adulthood, including mood disorders (i.e., depression), anxiety disorders, and substance abuse.

Methods: Researchers collected data from 1990 and 1992 from the National Comorbidity Survey (NCS). Data was drawn from 8,098 non-institutionalized subjects between the ages of 15 and 54. Data included reported psychiatric disorders, history of childhood sexual victimization and history of other adverse childhood experiences such as verbal abuse, physical abuse, parental psychopathology, and parental substance abuse.





- Thirteen percent of female respondents and 2.5% of male respondents reported childhood sexual abuse. Seventy-eight percent of females who reported childhood sexual abuse also reported at least one psychiatric disorder, compared with 48.9% of females who did not report sexual abuse. Among male respondents, 82.2% of males who reported sexual abuse also reported at least one psychiatric disorder, compared with 51.1% of males who did not report sexual abuse.
- Sexually abused respondents were eight times more likely to exhibit post-traumatic stress disorder than respondents who had not been sexually victimized.
- Significant associations emerged between sexual abuse and multiple mood, anxiety, and substance abuse disorders for female

respondents. Researchers also found significant associations between sexual abuse and five lifetime disorders among male respondents. Childhood sexual victimization was still positively correlated with psychiatric disorders, even when other adverse childhood experiences were not present.

Summary: In a National Comorbidity Study of 8,098 subjects from the continental U.S., researchers found a strong relationship between childhood sexual victimization and various psychopathologies, whether or not sexual abuse occurred alongside other adverse childhood experiences. Psychopathologies were also correlated with childhood sexual abuse alongside parental psychopathology, and physical and/or abuse. The mechanisms linking childhood sexual victimization and

psychopathology remain to be explored in future research.

Application: The authors stressed the need for public health prevention programs intended to reduce both CSA prevalence and deliver efficacious treatment options. Primary prevention programs should include multi-level and multidisciplinary efforts that prevent child sexual abuse from occurring in the first place. Research and efforts are needed to mobilize adults in helping to keep children safe from sexual abuse and in providing effective early intervention services to ameliorate the possible long-term effects of childhood sexual abuse over the lifespan. Programs should be rigorously evaluated.

Palm, K. M., & Follette, V. M. (2008). Sexual victimization and physical health: An examination of explanatory mechanisms. *Journal of Child Sexual Abuse, 17*, 117-132. doi:10.1080/10538710801916309

Aims: Researchers sought to uncover the relationship between lifetime sexual victimization, stress, experiential avoidance as a stress response, and physical health problems. Specifically, researchers explored whether stress and experiential avoidance act as mediating factors between sexual victimization and later health problems.

Methods: Researchers conducted a study of 77 female undergraduate students from a western state university. Respondents were asked about lifetime sexual victimization, utilization of health services, stress levels, and physical symptoms. Respondents completed the Pennebaker Inventory of Limbic Languidness (measuring unpleasant physical



symptoms such as pain, digestive problems, and breathing problems), the Acceptance and Action Questionnaire (AAQ) (measuring tendencies to engage in emotional avoidance), and the Brief Stress and Coping Inventory (measuring stress and coping strategies).

Experiential avoidance was defined as unwillingness to experience negative bodily sensations, emotions, and thoughts, resulting in behaviors meant to temporarily soothe these negative experiences. Such behaviors include but are not limited to substance abuse, self-injury, and eating disorders.

Key Findings:

- Research on the relationship between sexual victimization and physical health problems has yielded mixed results. Some studies have demonstrated a correlation between the two, while others have not. However, some studies have identified mediating factors caused by sexual assault, such as stress and experiential avoidance, that impact physical health.
- In a study of 77 female undergraduate students, 57% reported at least one form of lifetime sexual victimization. Thirty percent of respondents reported a history of childhood sexual abuse, 35% reported adolescent sexual assault, and 27% reported adult sexual assault.
- Health care utilization by respondents was not correlated with sexual victimization, stress, or experiential avoidance.
- Adolescent and adult sexual victimization were significantly correlated with high stress

levels. Adult sexual assault significantly predicted higher AAQ scores, indicative of greater experiential avoidance.

- Adult sexual assault was significantly correlated with physical health complaints, more so than adolescent or childhood sexual victimization.
- The authors found a mediating relationship between high stress levels, physical health complaints, and adult sexual assault. That is, the relationship between sexual assault and more physical health complaints was at least partially explained by the link between sexual assault and higher perceived stress.

Summary: In a study of 77 female undergraduate students, researchers found a correlation between adult sexual victimization, physical health complaints, high stress levels, and experiential avoidance. The study also uncovered a correlation between adolescent



sexual victimization and high stress levels. This suggests that stress may mediate the relationship between sexual victimization and physical health problems.

Because of the study's small sample size and use of an undergraduate population, it is unclear if these findings can be generalized to other populations. Additional research is needed to determine if these results can be replicated in other studies.

Application: This article can help medical professionals, mental health professionals, and sexual assault advocates understand how sexual abuse results in unhealthy behaviors and physical health complaints in some victims - through their experience of a higher level of stress than non-victims, which in turn can produce or exacerbate physical health problems. For health care professionals



in particular, this research underlines the importance of trauma-informed health services and of assessments that ask about a variety of sources of stress in the lives of their patients.

Ratner, P. A., Johnson, J. L., Shoveller, J. A., Chan, K., Martindale, S. L., Schilder, A. J., Hogg, R. S. (2002). Non-consensual sex experienced by men who have sex with men: Prevalence and association with mental health. *Patient Education and Counseling*, 49, 67-74. doi:10.1016/S0738-3991(02)00055-1 Retrieved from the British Columbia Centre for Excellence in HIV/AIDS: Retrieved from ResearchGate: http://www.researchgate.net/publication/10951571_Non-consensual_sex_experienced_by_men_who_have_sex_with_men_prevalence_and_association_with_mental_health

Aims: Researchers sought to determine whether lifetime sexual victimization and involvement in juvenile prostitution were correlated with alcohol abuse, mood disorders, suicidal ideation, and suicide attempts among adult men who have sex with men.

Methods: Researchers conducted a study of 358 men who have sex with men from January 1998 to January 2000. Participants were between the ages of 19 and 35 and were recruited through the Vanguard Project (a study of HIV among men who have sex with men in the greater Vancouver area). Participants completed a questionnaire about experiences with juvenile prostitution, lifetime sexual victimization, alcohol abuse, suicidal ideation, attempted suicide, and mood disorders (i.e., depression, bipolar disorder).



Key Findings:

- Of the 358 respondents, 35.2% reported some type of lifetime sexual victimization. Fourteen percent of respondents reported sexual abuse before the age of 14, while 14.2% of respondents reported sexual victimization after the age of 14.
- Approximately 10% of respondents had engaged in juvenile prostitution. All 358 respondents had been exploited by men, but three reported being exploited by women.
- The study found that 28.6% of respondents had an alcohol abuse problem at some point in their lives. Respondents who had been subjected to sexual assault were 2.7 times more likely to report alcohol abuse at some point in their lives.
- Nearly one-half (48.1%) of respondents reported suicidal ideation at some point in their lives, and 18.8% reported at least one suicide attempt. Victims of childhood sexual abuse or adult sexual victimization were 2.7 times more likely to have considered suicide. Juvenile prostitution was not significantly correlated with suicidal ideation. Victims of childhood sexual abuse were 3.3 times more

likely to have attempted suicide.

- More than one-fifth (21.2%) of respondents displayed mood disorders. Depression and bipolar disorder were the most commonly reported psychopathologies. Sexual victimization, especially childhood sexual abuse, was correlated with mood disorders. Juvenile prostitution was strongly correlated with depression in particular.

Summary: In a study of 358 adult men who have sex with men in the Greater Vancouver area, researchers found a correlation between lifetime sexual victimization (including involvement in juvenile prostitution) and onset of psychopathologies, including alcohol abuse, suicidal thoughts, suicide attempts, and mood disorders such as depression and bipolar disorder. The author notes that additional research is needed on the health consequences of revictimization among men who have sex with men.

Application: The author argues that substance abuse treatment programs and mental health services would benefit from recognizing links between sexual victimization, substance abuse, and psychopathology. Victim services intended

for male sexual assault victims could help male survivors cope with victimization. Finally, the author states that primary prevention programs should be developed for male audiences, including sexual minority audiences.

Conclusion

The studies reviewed in this brief suggest a consistent relationship between sexual victimization—at various points of the lifespan—and negative health outcomes, including physical and mental health problems.

The exact nature of this relationship appears to be multifaceted and rooted in individual and societal factors. Therefore, a holistic response to sexual assault, addressing individual variables, institutional responses, and cultural attitudes, may be the most comprehensive way to prevent sexual violence and its associated negative health outcomes.

The resiliency of sexual violence survivors cannot be understated. Not all survivors of sexual violence will develop health and mental health problems. However, health care providers, mental health services, and substance abuse treatment programs will likely encounter patients with physical or mental health problems who have a history of sexual victimization, as well as sexual violence

survivors who are at risk for physical and mental health problems. Trauma-informed care, screening, and referrals to relevant services providers are imperative for both populations, as some physical and mental health problems may be related to prior sexual victimization.

Sexual assault advocates, medical professionals, mental health professionals, and drug and alcohol treatment staff can collaborate with the goal of addressing the physical and mental impact of victimization. Stakeholders from various disciplines can affect institutional change that assures accessible services and empathy for sexual assault victims with health concerns. Finally, researchers can explore what protective factors potentially lessen the risks of post-assault physical and mental health problems. Because not all sexual violence survivors develop physical or mental health problems, future research can determine what if any other interrelated variables are correlated with health difficulties.

In conclusion, because sexual violence victims have an increased risk of physical and mental health problems, and because individual and societal factors may exacerbate those health problems, a multifaceted, interdisciplinary prevention approach and response is crucial.

