

# Plausibility of mental illnesses being genetic and their effect on serial killers. How do male and female serial killers' motives vary?

Callie Thomas

*Research Scholars Program*

*Harvard Student Agencies  
In collaboration with Learn with Leaders*

Email: [ca26thca@caravel.org](mailto:ca26thca@caravel.org)

---

**Abstract:** Serial killers have been a gripping topic for researchers for decades now. What psychological and environmental factors contribute to shaping them has been thoroughly debated. The role of mental illness in this, as well as understanding the cause for their differing motives based on their genders make serial killers an engrossing study. Learning about this topic is good for those who are interested in criminology. This information helps those who are desperate to understand one's way of thinking and learn more about the reasoning behind their actions. Lastly, this paper emphasizes that recognizing the victims and empathizing with them holds as much importance as studying their killer.

**Keywords:** Serial killers, schizophrenia, motives, antisocial personality disorder.

---

**Subject:** Psychology

## **Introduction**

Mental illnesses play a substantial role in the issues of serial murderers. Those who commit homicide can have a variety of mental illnesses that contribute to their actions. These mental illnesses vary from schizophrenia to antisocial personality disorder. Raising awareness of the mental health aspect relating to the motives of these killers can help give insight as to why these acts were committed, potentially giving the victims' families some sort of closure.

## **Materials and Methods:**

This paper attempts to answer 2 questions:

1. Are mental illnesses genetic? If yes, how do they affect serial killers?
2. How do male and female serial killers' motives differ, and why?

Extensive secondary research was undertaken to assimilate various results of studies on mental illnesses as well as serial killers. Significant research has been conducted to investigate the effect of these illnesses on the individuals, as well as the differences between male and female killers' motives.

## **Discussion & Results:**

As it may be well known, the majority of the population of serial killers are males and as there are women who partake in these violent acts, both genders have contrasting motives. Although there is no specific number of active serial killers operating today, we can come to a safe estimate of about 25-50 in the United States as of 2022 statistics. America's first known serial killer, H.H Holmes, was convicted and sentenced to death in 1896. From this point on, serial murderers have evolved and become more frequent.

## Serial Killers and Mental Illnesses – A Link

Those who commit homicide can have a variety of mental illnesses that contribute to their actions. Not every sufferer of these illnesses commits violent acts like the ones discussed, and that itself is not clear. These mental illnesses vary from schizophrenia to antisocial personality disorder. Schizophrenia is a common disorder that affects a person's ability to think, feel, and behave clearly (Schizophrenia, 2022a). More than 200,000 cases are diagnosed in the US each year. Those who study and work with schizophrenics have stated the exact causes of this illness are still unknown, professionals suggest this illness can become developed genetically. Environmental factors, as well as physiological factors, can make someone more vulnerable to acquiring this condition. Schizophrenia runs in families. Although a single gene can't be deemed responsible, a diverse combination of genes causes people to become more open to developing this illness. Schizophrenia affects the brain, portrayed via acts committed by the violent minority group of schizophrenic sufferers. Schizophrenia is one of the more common mental disorders among those convicted of serial murders. Examples of these ill-minded criminals are Richard Chase, David Berkowitz, David Gonzalez, etc. The graphics of their committed acts do not have to be elaborated on as their conclusions were all identical - a diagnosis of schizophrenia, with some being diagnosed with paranoid schizophrenia specifically.

Another disorder commonly associated with serial killers is *antisocial personality disorder* (APD), previously known as *psychopathy*. This disorder is characterized as a complete disregard for the feelings of others. People with this illness may "lie, act out violently, also break the law and show no remorse". WebMD reports "while APD only affects 0.6% of the population, it may affect up to 47% of male inmates and 21% of female inmates". The world's most ruthless and dangerous serial killers such as Ted

Bundy, Charles Manson, and John Wayne Gacy have all been diagnosed with APD.

Mental illnesses themselves are known to be caused by widespread environmental and genetic factors. It's been long established that these mental illnesses can be passed down through a family. The scientists who study mental illnesses are known as psychologists. These doctors are trained specially to evaluate one's mental health by running a series of tests to determine their well-being. A commonly known illness, known as *bipolar disorder*, is one of the most "highly genetically inherited psychiatric disorders". This illness affects about 1-4% of the population, those who commit violent acts being included. Although these killers can inherit these illnesses genetically, there are other possibilities as well. Sometimes the way any person can develop these illnesses is the risk factors before birth, such as the environmental exposures, alcohol or drug use by the mother while the infant is in the womb, toxins, etc. Another way is simply just unbalanced brain chemistry. Neurotransmitters, which are brain chemicals that carry signals to other parts of your brain and body, can be impaired. This affects the functioning of nerve receptors, which can lead to depression and other disorders. Any individual with these specific differences in their genes and brain itself is more inclined to commit a crime than others. In the discussion of these illnesses among human beings, it must be stated clearly that genetically inherited illnesses are no excuse for these acts being committed.

### Ill or Insane?

Every single human can develop different intensities of said illnesses and can choose how intensely to deal with them. On the other hand, there is a wide variety of people struggling with the same disorders that do not feel the need to commit violent crimes. Mental disorders perform major roles in the criminal justice system. Let's go over a promulgated act used in court that is overall determined consequently by the jury - the plead of insanity. What is the extent of using the plead of insanity? What illnesses constitute insanity?

To start, the extent of the illness has to be so severe that the offender doesn't have any recollection of the crime they committed, they cannot distinguish what is reality and what is a delusional fantasy. Defenses such as the insanity defense are used to focus on the defendant. These are used to claim that the defendant should be excused from criminal "responsibility" for his or her set verdict due to their happenstance during the crime. Four states do not allow this plea though, including Kansas, Montana, Idaho, and Utah. In a multitude of states, the defense can be used but the circumstances are widely varied. The plea of insanity itself is an extremely controversial subject. This defense looks around the violent, evil, and unspeakable acts perpetrated resulting in unjust vindication. All of the debate does no good in the end as this defense is rarely used, and when it is used it is almost never successful. An example of an illness that can be used and categorized as "insanity" is a personality disorder which, as we know, is an illness a serial murderer can suffer from.

### The Gender Debate

After years of research and psychological evaluations done by many researchers, we can give a fairly accurate analysis of the difference between male and female serial killers. These researchers have uncovered that male serial murderers mostly "hunt" their victims; these victims are almost always strangers that can lead back to the original target they couldn't bring themselves to harm. Female killers, however, often "gather" their victims, who mostly tend to be people they already know. These females' motives may also be for financial gain.

Marissa Harrison, who is an associate professor of psychology at Penn State Harrisburg, believes that these findings could help a murder investigation in various ways. Harrison stated, "If a murder has been committed without a known suspect, you can sometimes use details of the crime to form a profile of what the perpetrator might look like. So, if you know that men are more likely to commit a crime in a certain way and women are more likely to do it

another way, hopefully, it can help investigators go down the correct path."

Although a substantial number of people have an interest in serial killers, very few want to research this topic among crimes. When Harrison was working on another study, she noticed some distinguishable differences in the patterns between males and females. She continued with historical facts to back up her conclusion on the two genders' differences. To sum it up, Harrison made a historical connection with men hunting animals as prey, while women gathered supplies and food. As the author of this research, it is my personal opinion that Dr Harrison's theory seems undeniably plausible. As the historical hunter in the gender role division, we know men to be more efficient killers compared to women, as well as their tendency to stalk their 'prey'.

Researchers experimented on this subject and received very interesting results that further inform their theories of the two genders. The experiment was to use data on 55 male serial killers and 55 female serial killers all from the U.S. After a thorough analysis, they concluded that "male serial killers were almost six times as likely to kill a stranger, while female serial killers were nearly twice as likely to kill a person they already knew. Additionally, 65.4 percent of male serial killers stalk their victims, compared to 3.6 percent of female serial killers". This information is very helpful to those in law enforcement as it helps them get a better understanding of the motives and patterns between the two genders. When looking at a crime scene, officials should be able to distinguish the gender fairly quickly.

### **Conclusions:**

We can now safely answer the questions asked in the beginning: the contrasting of genders among serial killers, mental illnesses being hereditary, and how they play a role in these killers' lives. To those interested in further research on this topic or pursuing something related to criminology, the information in this paper should be useful. As the author, there is an additional point that begs to be added: one of the

victims of these heinous crimes. The names of some of the world's most famous killers were mentioned in the first body paragraph, but only because of the topic being discussed. Ideally, we should be talking about their victims instead – who are the important ones. As the author, I believe that a person who can commit such violent crimes and feel no remorse does not deserve any praise or recognition besides what is required for academic purposes. As you read, I urge you to take a moment to think about the families of these victims, and especially think about the victims themselves. Lastly, with all the statistics, research, experiments, and interviews, it can be concluded that serial killers may vary in some specific ways but overall have similar motives and illnesses.

## References and footnotes:

Schizophrenia. (2022a). *National Institute of Mental Health* (NIMH). Available at: <https://www.nimh.nih.gov/health/topics/schizophrenia>

Schizophrenia. (2022b, January 11). *World Health Organization*. Available at: <https://www.who.int/news-room/fact-sheets/detail/schizophrenia>

Marie Louise Petersen, David P. Farrington. (2007) Cruelty to Animals and Violence to People. *Victims & Offenders* 2:1, pages 21-43.

Cottier, Cody. "Female Serial Killers Exist, but Their Motives Are Different." *Discover Magazine*, 3 Dec. 2020, Available at: <https://www.discovermagazine.com/mind/female-serial-killers-exist-but-their-motives-are-different>.

"Can Genes and Brain Abnormalities Create Killers?" NPR, *NPR*, 6 July 2010. Available at: <https://www.npr.org/templates/story/story.php?storyId=128339306>.

Carroll, Heather. "Serious Mental Illness and Mass Homicide." *Treatment Advocacy Center*. Available at: <https://www.treatmentadvocacycenter.org/key-issues/violence/3626-serious-mental-illness-and-mass-homicide>.

"Common Genetic Factors Found in 5 Mental Disorders." *National Institutes of Health, U.S. Department of Health and Human Services*, 15 May 2015. Available at: <https://www.nih.gov/news-events/nih-research-matters/common-genetic-factors-found-5-mental-disorders>.

"Dangerous Minds: Mental Illnesses of Infamous Criminals." *Forensics Colleges*, 17 Aug. 2021, Available at: <https://www.forensicscolleges.com/blog/resources/dangerous-minds-criminal-mental-illness>.

"H.H. Holmes." *Crime Museum*, 13 Aug. 2021, Available at: <https://www.crimemuseum.org/crime-library/serial-killers/hh-holmes/>.

"Mental Illness." *Mayo Clinic, Mayo Foundation for Medical Education and Research*, 8 June 2019, Available at: <https://www.mayoclinic.org/diseases-conditions/mental-illness/symptoms-causes/syc-20374968>.

NHS Choices, NHS, Available at: <https://www.nhs.uk/mental-health/conditions/schizophrenia/causes/>.

"Psychology May Help Explain Why Male and Female Serial Killers Differ." *ScienceDaily*, ScienceDaily, 20 Mar. 2019. Available at: <https://www.sciencedaily.com/releases/2019/03/190320110622.htm>.

R, Richard-Devantoy S;Olie JP;Gourevitch. "[Risk of Homicide and Major Mental Disorders: A Critical Review]." *L'Encephale, U.S. National Library of Medicine*. Available at: <https://pubmed.ncbi.nlm.nih.gov/20004282/>.

Shabir, Dr. Osman. "The Genetics of Mental Disorder." *News*, 22 Mar. 2021, Available at: <https://www.news-medical.net/health/The-Genetics-of-Mental-Disorder.aspx>.

"Types of Mental Health Professionals." *NAMI*, Available at: <https://www.nami.org/About-Mental-Illness/Treatments/Types-of-Mental-Health-Professionals>.

[Author removed at the request of original publisher]. "6.1 The Insanity Defense." *Criminal Law, University of Minnesota Libraries Publishing Edition*, 2015.

This Edition Adapted from a Work Originally Produced in 2010 by a Publisher Who Has Requested That It Not Receive Attribution., 17 Dec. 2015, Available at: <https://open.lib.umn.edu/criminallaw/chapter/6-1-the-insanity-defense/>.