A Comprehensive Account of Female Serial Killers

by
Daria Frauenfelder

A THESIS

Presented to the Department of Psychology
and the Robert D. Clark Honors College
in partial fulfillment of the requirements for the degree of
Bachelor of Science
University of Oregon

June 2018

An Abstract of the Thesis of

Daria Frauenfelder for the degree of Bachelor of Science
in the Department of Psychology to be taken June 2018

Title: A Comprehensive Account of Female Serial Killers

Approved: _____

Dr. Robert Mauro, Ph.D.

Historically, serial killer literature has been dominated by male focused research. Male serial killers made up 89% of the serial killer population. However, the 11% of serial killers that were female have killed 400-600 victims between 1800-1995 alone. Research on male serial killer behavior, adapted to female serial killers is not sufficient. Female serial killers present vastly different victimology, methodology, motive, and behavioral patterns than male serial killers and females committing a single murder. Females that committed a single murder tended to kill family with poison or guns for revenge. Most male serial killers were motivated or influenced by sex and killed strangers with guns. Most female serial killers were motivated by money and killed family or acquaintances with poison.

Acknowledgements

I would like to first express my deepest appreciation to Dr. Robert Mauro. Without his insightful comments and continued support this thesis would not exist. He has pushed me and guided beyond words; so I will simply say that I am truly grateful.

Next I would like to thank Dr. Rebecca Lindner and Ashleigh Landau for jumping on board with a topic that is a bit unorthodox. Your help is genuinely valued.

Finally, I would like to thank my entire family, especially my mom, for convincingly pretending to care about the rates of poisoning to strangulation.

Table of Contents

Introduction

Women: mothers, nurses, care-takers, nannies, lovers, and killers. Society is beginning to accept that women, along with men, can be violent killers. Although most serial killers are male, there are prolific female serial killers. Female serial killers are understudied and frequently mischaracterized. Serial killers around the world from 1990 to 2010 were catalogued. Of 4,200 studied cases, 541 (11.4%) were women (Aamodt 2013). In the US alone, between 1800 and 1995, female serial killers have murdered between 400 and 600 victims (Vronsky 2007).

Even with hundreds of victims, female serial killers have received considerably less attention than their male counterparts (Scott & Fleming 2014). Many early studies of female serial killers are simply studies adapted from their male counterparts (Scott & Fleming 2014). Current criminological theories of serial killers are built solely or mostly on male subjects' behavior. Adapted studies are not adequate for also explaining female behavior (Harrison, Murphy, Bowers, Flaherty 2014). In criminal profiling, current and reliable data is key in properly creating profiles. Often, current typologies used in profiling are based on exclusively male data (Silvo, McCloskey, Ramos-Grenier 2006). This may be because older studies suggested, based on opinion, that male data alone could account for female behavior (Silvo, McCloskey, Ramos-Grenier 2006). Newer research suggests that it cannot (Silvo, McCloskey, Ramos-Grenier 2006).

Because the literature on female serial killers is inadequate, it reinforces the idea that women cannot be aggressors. This inaccurate impression can misdirect criminal cases leaving them unsolved (Schurman-Kauflin 2000 in Vronsky 2007).

The average number of identified serial killers dramatically increased around 1960 (Kelleher & Kelleher 1999). In the US during the 1950s, there was an average of 15 serial killers operating per year (Aamodt, 2103; see Fig 1). Between the 1960s and 1980s the average number of serial killers increased dramatically, but has since began falling (Aamodt, 2103; see Fig 1). This variability may have multiple origins. Primarily, the US population has increased from around 180 million in 1960 to 226.5 million by 1980 (US Census Bureau, 2010; see Fig 2). The increase in serial killers in the US follow population growth until the 1990s suggesting there are more factors influencing the occurrence of serial killers.

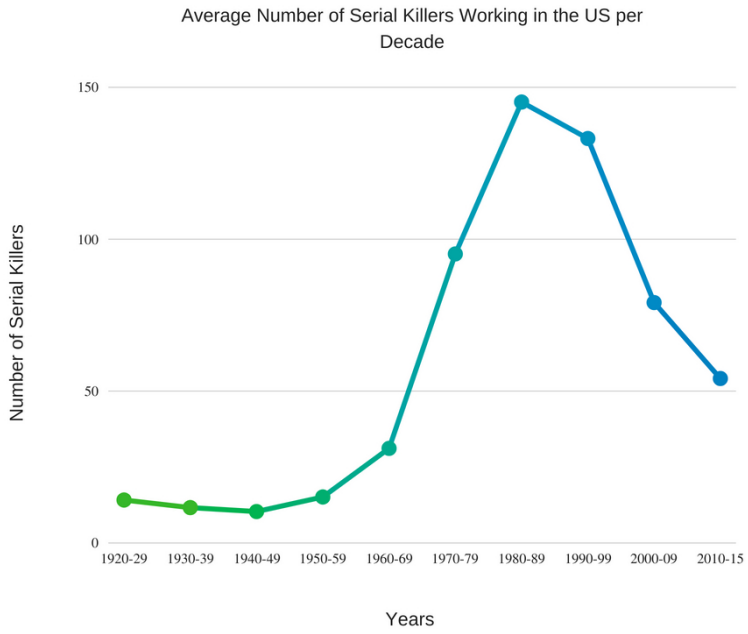

Fig. 1 (Aamodt 2013)

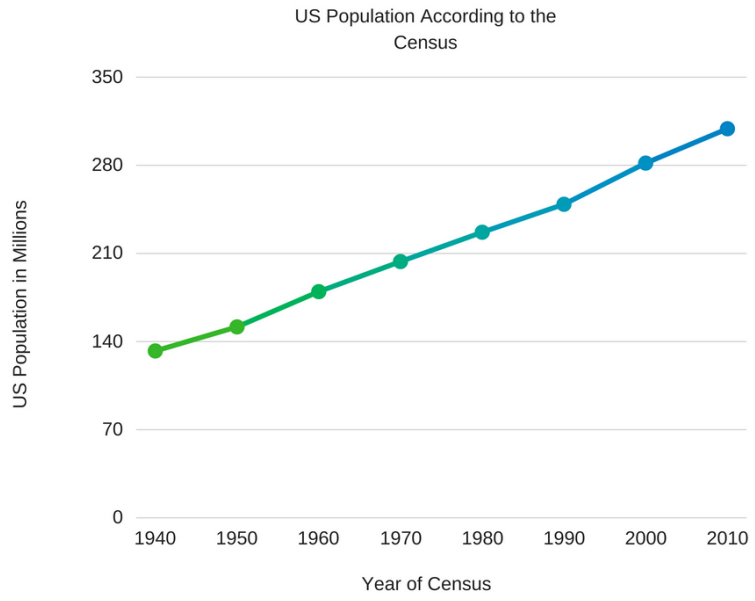

Fig. 2 (US Census Bureau 2010)

Next, the increased notoriety of serial killers in the press and popular culture, along with increased attention from researchers, criminologists, and law enforcement since the 1960s might contribute to the apparent increase. This rise in attention could increase research; creating better apprehension tactics and documentation. Two authors in this field also hypothesize that men born between 1935 to 1960 in the US were born into a more violent culture and a large victim pool (Hickey 2002, Stone 2001). These authors suggested that World War II and the Vietnam war were very tangible violent events in the lives of Americans that encouraged murder as an effective tool (Hickey 2002, Stone 2001). It is possible also that better documentation, forensics, and apprehension created apparent increase in the number of serial murders, when in reality there was no increase in total serial killers or the rate of serial murders relative to the population. However, it is unlikely that improvements in research and criminal investigation strategies are solely responsible for the observed increase (Kelleher & Kelleher 1999). The number of

female serial killers increased around 1960 and follwed a similar trend to total number of serial killers (Aamodt 2013).

Differences in Murder Type and Female Killers

Although single and multiple murder are easily differentiated, more than 1 type of multiple murder exists. Serial murder differs from single, spree, and mass killing and are all forms of multiple murder. Spree killing is defined as the killing of 2 or more people in separate events with no cooling off period (Morton & Hilts 2005). Mass killing is defined as the killing 4 or more people in a single incident with no cooling off period (Morton & Hilts 2005). Finally, serial murder is the killing of 2 or more people in separate events with a significant cooling off period (Morton & Hilts 2005). This cooling off period is a variable amount of time. It can range from a few days to a few years. These distinctions can be important for scientific examination and profiling, as different murderers may have different motives, patterns, methods, and victimology.

It was not until 1990 that the FBI extended the definition of serial killer to be able to include women, after the prolific case of Aileen Wuornos (Gurain 2011). Previously, a formal definition did not strictly exist; the FBI used definitions from scholarly literature that classified serial killers as male, strong, aggressive, and using guns (Gurain 2011).

Females committing a single murder differ from female serial killers in a considerable number of ways. The victimology is notably different between single and serial female killers. In a study of 6,216 females committing a single murder, 98% had a relationship with their victims (Fox & Zawitz 2005). Of 379 females committing a

single murder, 52.8% killed their intimate partner and 22% killed other family members (Kim, Gerber, Kim 2018). Further, females committing a single murder killed males 4 times more often than females (Fox & Zawitz 2005). Female serial killers tended to target acquaintances primarily and did not have a sex preference (Gurain, 2011; see Table 1).

Additionally, the demographics of females committing a single murder and female serial killers differ. A study of 460 females that committed a single murder found that 77% of these women were unemployed during the killing, 65% were African American, 76% had children, and their median age was 27 (Weisheit 1984). Females committing a single murder were mostly young, poor, and in an environment where violence is cultural (Weisheit 1984). A small majority of females committing a single murder were African American; most female serial killers, 95%, are white (Hickey 2002). A majority of females that committed a single murder were unemployed (Weisheit 1984). Within a sample of 62 female serial killers, only 8% were unemployed during their careers (Hickey 2002)[1].

Another difference between single and serial murder is motive. A sample of 189 females that committed a single murder observed that revenge was the most common motivator (Weisheit 1984). Thirty percent of females that committed a single murder did so for revenge, 24% killed during a robbery, and 21% killed in domestic disputes

[1] In 51 cases of female serial killers, 39.2% were employed in health related positions such as nurses, elderly aides, and health administration (Harrison, Murphy, Bowers, Flaherty 2014). 21.6% worked in caregiving roles like babysitter, nanny, or mother (Harrison, Murphy, Bowers, Flaherty 2014). The remaining 32.8% were widely spread from custodian, to prostitute, waitress, and drug dealing (Harrison, Murphy, Bowers, Flaherty 2014). In a separate interview of 7 female serial killers all were employed in traditionally feminine jobs (Schurman-Kauflin 2000 in Harrison, Murphy, Bowers, Flaherty 2014). All 7 women interviewed reported being nurses, babysitters, moms, or prostitutes (Harrison, Murphy, Bowers, Flaherty 2014).

(Weisheit 1984). Most of these 189 females killed domestic partners or other adults (Weisheit 1984). Females that committed a single murder that killed children often justified it as an act of mercy (Polk 1993). Some of these women reported knowing their child was being abused, were going to lose their child to a custody dispute, or were planning on killing themselves and thought it would be better not to leave the child alive and motherless (Polk 1993).[2] Female serial killers on the other hand, almost always kill for money as further discussed later (Hickey, 2002; see Table 3).

Gender Differences in Serial Murder

Just as there are differences within females, there are disparities between genders. Males and females have substantially different victimology, methodology, and motive. In general, female serial killers have much less of a gender preference in their victims than men, and kill strangers and acquaintances alike. A study of 65 cases of both partnered (co-offenders) and solo female serial killers examined victimology (Gurain, 2011; see Table 1). Female serial killer's victim preferences are presented in Table 1.

Table 1. Victimology of Female Serial Killers by Team Status		
	Percent of Partnered Serial Murderers Preferring Victim Factor	Percent of Solo Serial Murderers Preferring Victim Factor

[2] This was a relatively small exploratory study and conclusions were tentative

Victim Factor			
Sex			
Females only	46.6	32.3	0
Males only	10	17.2	11.4
Both	43.3	50.5	88.6
Age			
Adults only	33.3	40.4	45.7
Teens only	3.3	2	0
Children only	0	0	34.3
Adults and teens	36.6	41.4	2.9
Adults and children	13.3	8.1	17.1
Teens and children	3.3	2	0
All ages	10	6.1	0
Relationships			
Family only	3.3	2	28.6
At least one family member	13.3	20.2	22.9
Acquaintances only	0	0	40
At least one acquaintance	30	26.3	0
Strangers only	53.3	51.5	8.6
At least one stranger	0	0	0
Total	Cases (n=30)	Offenders (n=99)	Offenders (n=35)

(Gurain 2011)

Female serial killers, when working alone, preferred neither sex, and killed those they could dominate such as young children and elderly or frail adults (Gurain, 2011; see Table 1). Female serial killers also killed those with which they had some relationship, such as family and acquaintances more than strangers (Gurain, 2011; see Table 1). Male serial killers preferred female victims 35% of the time if no sexual

activity was involved and 70% of the time when sexual activity was involved (Hickey 2002). Unlike female serial killers, of 326 male serial killers, 70% chose victims they did not know almost every time (Hickey 2002). Sixty two solo female serial killers averaged between 7 to 10 victims (Hickey 2002). A study of 337 male serial killers reported that solo male serial killers averaged between 7 to 13 victims depending on the decade (Hickey 2002).

Another striking difference separating male and female serial killers is their preferred murder method. Female serial killers were likely to use subtler and hands-off methods, such as drugging and poisoning (Gurain, 2011; see Table 2). Male serial killers were more violent and hands-on, opting for guns and knives.

Table 2. Murder Method of Female Serial Killers by Team Status

	Percent of Partnered Serial Murderers Preferring Method	Percent Solo Serial Murderers Preferring Method
Single Method Over a Career		
Strangulation	2	0
Stabbing	0	5.7
Blunt force	0	0
Firearms	16.2	5.7
Suffocation	0	17.1
Poison	0	40
Drowning	0	2.9
Electrocution	0	0
Drugging	0	20
Neglect	2	0
Vehicle	0	0
Combination	79.8	8.6

Total	Offenders (n=99)	Offenders (n=35)

	Partnered Serial Murder	Solo Serial Murder
Multiple Methods Over a Career		
Firearms	63.6	2.9
Strangulation	53.2	2.9
Blunt Force	50.6	2.9
Stabbing	41.6	0
Suffocation	2.6	5.7
Drowning	13	0
Electrocution	2.6	0
Drugging	9	2.9
Cleaning solution	2.6	0
Neglect	2.6	0
Canine	2.6	0
Total	Offenders (n=77)	Offenders (n=3)

(Gurain 2011)

Singular females almost always used poisoning or drugging alone throughout their entire career. If this is not the case, they favored suffocation; and a small minority used a combination of methods (Gurain, 2011; see Table 2). In stark contrast to females, within a population of 337 male serial killers, almost all used guns, strangulation, or knives (Hickey 2002). Of the men studied, 41% used firearms sometimes, 37% used some strangulation/ suffocation, 34% sometimes used stabbed/cutting, 26% used some blunt force (Hickey 2002). Female serial killers only used guns alone 5.7% of the time or 2.9% of the time sometimes (Gurain, 2011; see Table 1).

Although motivation can be an ambiguous topic, it is clear that male and female serial killers generally have different motives. Women appeared to be motivated more by extrinsic forces, like money, than intrinsic forces (Hickey 2002). Of 337 male serial killers, most were motivated by intrinsic motivations. The male serial killer's motivations include: sex sometimes (46%), control sometimes (29%), money sometimes (19%), and enjoyment sometimes (16%) (Hickey 2002). In contrast, in a population of 62 female serial killers, money was the most common motivator (Hickey, 2002; see Table 3).

Table 3. Female Serial Killer Motivation

Motivation	Percent of Female Serial Killers
Money sometimes	47
Money only	26
Control sometimes	14
Enjoyment sometimes	11
Enjoyment only	3
Sex sometimes	10
Sex only	0
Combinations of preceding motives	15
Other (drug addiction, cult, cover up, children being burden…)	23

(Hickey 2002)

Women were motivated by money or even control, but almost never by sex. Only 2 clear cases of apprehended solo female serial killers involved any sexual component at all. In contrast to female serial killers motive of money or control, male serial killers were motivated by sex or control.

Etiological Factors and Gender Differences

Genetics

Clearly, gender affects many factors of serial murder; including prevalence. It is not as clear to why gender has this effect. Etiology may help to explain these differences. One such etiological factor may be chromosomal. Some research has linked an abnormal number of Y chromosomes, XYY, to a violent criminal predisposition in men (Hickey 2002). This research is tenuous, and there are plenty of XYY males that are not serial killers. Additionally, males and females do share the same types of hormones, but in different amounts. Research has investigated links between high levels of testosterone and violence, but it is not entirely conclusive. Hormone ratios could be a factor in the high proportion of male to females in serial murder, murder, and violent crimes. Johns Hopkins University uses female hormones to suppress testosterone in sex offenders for treatment (Hickey 2002). A major key to understanding why men's serial killing is sexually driven and women's is not may be abnormally high testosterone interacting with a mind influenced by other etiological factors such as abuse, mental disorders, or a violent male archetype.

The makings of a serial killer are not obvious. Many children experience abuse, many are not raised in traditional homes, and many people suffer from mental illness. But what then creates the divide between those who live common lives, those who commit other crimes, and those who turn to serial murder? One Washington School of Medicine study found that biological children of parents that had criminal pasts were 4x more likely to commit criminal acts as adults than children with non-criminal parents (Vronsky 2007). This finding held true in the cases where children were adopted by

non-criminal parents. There are promising studies looking into possible links between genes and violence or sexual deviance. However, research is still in its infancy and it is unlikely a "serial killer" gene or single genetic cause will ever be uncovered. Serial killers are influences, as all people are, by a combination of their own genetics and the environment in which they exist.

General Psychological Factors and Antecedents

One Swedish study of 43 men and 43 women convicted of homicide examined psychosocial aspects of the perpetrators (Yourstone, Lindholm, Kristiansson 2008). Conditions during childhood and the time of the murder were examined. Furthermore, socioeconomics, autism spectrum, and other factors were examined (Yourstone, Lindholm, and Kristiansson, 2008; see Table 4).

Table 4. Association of Psychological Factors with Homicide by Sex of Perpetrator

	Percent of Murderers Exhibiting Factor		
Factor	Female	Male	Total
Socioeconomics Low	50	43	46
Middle	43	55	49
High	7	2	5
Autistic Behavior	17	25	21
Aggressive Behavior	22	45	33
Mental illness	44	58	51
Substance abuse	34	35	35
Divorced parents	39	35	37
Did not grow up with biological parent	44	33	38
Poor emotional climate in childhood	68	40	54

Sexual abuse	34	5	20
Physical abuse	46	30	38
Mental abuse	34	20	27
Traumatic experiences	22	23	22
Custodian has mental health issue or illness	41	12	26
Custodian abuses substance	42	30	36
Total Number of Murderers	43	43	86

(Yourstone, Lindholm, and Kristiansson 2008)

Homicidal women tended to have more severely encumbered childhoods than male killers as seen in higher levels of poor socioeconomic standing, abnormal households, (divorce or custodial issues), sexual abuse, and physical abuse (Yourstone, Lindholm, and Kristiansson, 2008; see Table 4). However, women had less aggressive displays (Yourstone, Lindholm, Kristiansson 2008). Females committing a single murder had more ordered social situations during their crime and had been exposed to more violence than men committing a single murder (Yourstone, Lindholm, Kristiansson 2008). This information suggests women require different sources and higher levels of stress than men to become homicidal. The higher threshold for women could be mainly a societal construction. This can be explained in the idea that "acceptable" strong female emotions are fear and insecurity (those lacking power) (Yourstone, Lindholm, Kristiansson 2008). One researcher commented, "when women commit violent crimes they are seen to have breached two laws; the law of the land which forbids violence and natural law which says that women are passive care-rs not active aggressors" (Lloyd 1995 in Yourstone, Lindholm, and Kristiansson 2008). Girls with higher levels of aggression had more introverted problems (self-harm or anorexia),

while boys had more extroverted acts (aggression towards others) (Yourstone, Lindholm, Kristiansson 2008). This is consistent with the fact that females show less displays of aggression, even when their pasts were more burdened.

What makes a female become a female serial killer may yet remain hidden. In interviews with female serial killers, some mentioned antecedents prior to their killing career. These antecedents alone cannot not account for killing. Antecedents are factors, not causes, and when added to mental illness, previous abuse, and/ or predisposition to violence, act as triggers. Within interviews of 64 female serial killers observed that 10.9% of female serial killers reported stressors including: stress from husband's position, stress of living in a gated community, family ridicule, giving up children for adoption, multiple pregnancies in 1 year, claims that doctors did not respond to medical issue of a child, and being unmarried (Harrison, Murphy, Ho, Flaherty 2014). Of 64 female serial killers, 9.4% reported mental decompensating prior to killing. This includes 2 psychotic breaks, 2 losses of control, 1 suicide attempt, and 1 fugue state. Triggers included personal crises (Harrison, Murphy, Ho, Flaherty 2014). Twenty three percent of women reported crises such as relationship problems, family problems, unexpected pregnancy, and job/ financial stress leading up to their killings (Harrison, Murphy, Ho, Flaherty 2014). Antecedents are only as important as the serial killer perceived them to be. Male serial killers reported incredibly high amounts of abandonment and rejection from parents; these same parents reported being around 80% of the time (Hickey 2002). The crucial factor is not the truth of the amount of abuse or neglect, but how the individual perceived it. These antecedents may not seem particularly uncommon or traumatic, but they are likely important. A

stable woman with an average past might go through these same experiences and be able to cope well. This data suggest that it is a unique combination of etiological factors that create a serial killer. Hickey (2002) suggests that many children deal with abuse, illness, and other hardship; what makes a normal girl into a killer is her unique inability to deal with her own victimization that was fostered by herself and/or others.

Abuse and Violence

During childhood, pliable minds are learning what normal and abnormal behavior look like. They are learning how to act and to react. Physical, mental, and sexual abuse may harmfully impact children and should never be a norm in their lives. Sadly, this is not always the case. One etiological factor shared by both sexes of serial killers is abuse. Men who experienced abuse during childhood were 3 times more likely to become violent or aggressive as adults than men who did (Hickey 2002). In interviews with 7 female serial killers, all reported psychical abuse, psychological abuse, and sexual abuse in their childhood, and 71% during adolescence as well (Keeney and Heide 1994). Thirty four percent of 43 female killers had experienced sexual abuse and 34% had experienced physical abuse before the age of 16 (Yourstone, Lindholm, and Kristiansson 2008). Compared to an average population, this is rather high. A national study of 2,293 15-17 year-olds on sexual abuse between 2003-2011 found 26.6% of females had experienced a form of sexual abuse before 17 (Finkelhor, Shattuck, Turner, Hamby 2014). Even further than experiencing abuse, female serial killers may be subject to viewing more violence and abuse than non-serial killers. A study of female serial killer's life histories discovered that nearly all women came from

very violent upbringings during which they experienced or viewed considerable domestic violence, often with weapons (Kirkpatrick and Humphrey 1987 in Hickey 2002). A sample of 62 male serial killers observed that 35% had experienced physical abuse as a child and 13% experienced sexual abuse (Hickey 2002). This suggests that as children, female serial killers are 87% more likely to be victims of sexual abuse and 65% more likely to be victims of physical abuse than male serial killers. Female serial killers were 66% more likely to be victims of both physical and sexual abuse in childhood than females that committed a single murder.[3] Sexual abuse is an important etiological factor as it can damage a child's conceptualization of healthy sex, love, and power.

Childhood Issues and Mental Health in Childhood

Many children may suffer from mental, physical, or developmental issues. Issues in childhood may not always signify lifelong complications; but they can be indicators of future trouble. In an interview with 7 female serial killers, all 7 had abused animals in their early life (Shurman-Kauflin 2000 in Vronsky). In this sample, 2 women hanged cats, 1 drowned a cat, 2 strangled cats, 1 stabbed a cat, and 1 stoned a dog during childhood (Schurman-Kauflin in Vronsky 2007). This same study discussed the importance of social isolation on development. All of the women in this study reported childhood obesity and acne; which led to separation from peers and isolation. All of these women also reported homicidal fantasies as children, which grew out of, and

[3] The statistics for female serial killer's abuse in childhood were based in relatively small samples and may be tentative. Also, females are more likely to be sexually abused than males (Finkelhor, Shattuck, Turner, Hamby 2014).

furthered their isolation (Shurman-Kauflin 2000 in Vronsky 2007). This data suggests that isolation due to various causes is an important factor in the development of female serial killers. It could be a possible indicator during childhood of future homicidal fantasies.

In a study of 43 female killers, 44% had a mental illness before 16 (Yourstone, Lindholm, Kristiansson 2008). According to the National Alliance on Mental Health, in an average population of children between 13 and 18, 21.4% of teens experience mental illness (NAMI). Further, there is no significant difference in the prevalence of mental illness between the sexes in 13 to 18 year olds (Merikanhas, He, Swanson, Avenevoli, Benjet, Georgiades, Swedensen 2010).

Often beginning in childhood, fantasies are the basis of sexual murder (Ressler 1988 in Hickey 2002). An early study of 8 males, ages 6 to 12 institutionalized with homicidal fantasies indicated that male killers commit murder to try and neutralize early trauma such as abuse or neglect (Pferrer 1980). Male murderers are nearly all marked by inner conflict; between a sense of helplessness and a need for revenge, male killer's fantasies are derived from early childhood injustice (Abrahamsen 1973 in Hickey 2002). Previous research observed that male serial killers begin their careers with fantasies alone (Ressler 1988 in Hickey 2002). When fantasies no longer relieve their anxiety or satisfy their desire, male serial killers commit murder (Hickey 2002). Fantasy creates the cyclical nature of serial killing, as the actual even may not live up to the fantasy because the killer cannot control the actions and reactions of victims (Hickey 2002). Female serial killers also reported homicidal fantasies that began in childhood rooted in isolation created by personality, abuse, or any number of things (Shurman-

Kauflin 2000 in Vronsky 2007). Male killers share these fantasies but they present in more sexual ways; whether due to genetics, societal learning, or something else remains unclear. In a sample of 99 male serial killers, 69.7% presented with paraphilia; which is abnormal sexual desires or fantasies that are sometimes dangerous or extreme (Stone 2001). These paraphilia included necrophilia (sexual interactions with corpses) (18.2%), sexual sadism ending in orgasm (18.2%), pedophilia (sexual interactions with children) (10%), voyeurism (sexual arousal from watching others) (9.1%), and more[4] (Stone 2001). The current data infers that fantasy plays a crucial role in the development of both male and female serial killers. This information could be used to spot early signs of a serial killer's development.

Another aspect associated with serial killers is behavioral issues in childhood. One study analyzed the mental health and behavior of serial killer women in childhood. In 9.4% of 64 cases, female serial killers exhibited conduct issues such as lying, stealing, violence, and cruelty (Harrison, Murphy, Bowers, Flaherty 2014). In an average population, 7.1% of girls were diagnosed with a conduct disorder in the US (Nock, Kazidin, Hiripi and Kessler 2006 in Harrison, Murphy, Bowers, Flaherty 2014). Female serial killers displayed slightly greater behavioral problems in childhood; these are possible indicators of later mental disorders such as antisocial personality disorder. Additionally, in 3 cases the female serial killer was pregnant at 16 or younger and 3

[4] Other paraphilia were bondage (8.1%), cannibalism (7.1%), exhibitionism (sexual arousal from being watched) (6.1%), transvestism (dressing an acting as the opposite sex) (5.1%), anal sex (4%), zoophilia (sexual arousal by animals) (4%), public masturbation (2%), pyromania (sexual arousal by fire) (2%), snuff films (pornographic films of murder) (2%), strangulation resulting in orgasm (2%), asphyxiation (1%), coprophilia (arousal relating to feces) (1%), eye gouging of a victim (1%), foot fetish (1%), Satanism (1%), sex with an anesthetized woman (1%), and vampirism (1%) (Stone 2001)

were married as teenagers (Harrison, Murphy, Bowers, Flaherty 2014). Troubled childhoods are nearly always present in both sexes of serial killers. However, children with tumultuous pasts rarely join the small population of serial killers.

Mental Health in Adulthood

Mental health within criminals is a subject of interest. Mental disorders are not especially rare. Roughly 50% of all American adults will experience one mental illness in their lifetime (CDC). However, mental illness covers all mental disorders from seasonal depression to paranoid schizophrenia. Although mental disorders are not particularly uncommon, the prevalence of more severely hampering disorders is apparently high in female serial killers and other killers as well.

Antisocial personality disorder (ASPD) is a metal disorder often associated with serial killers. In the literature, terms such as psychopath or sociopath are used to refer to serial killers. They may even be called insane. The terms psychopath and sociopath are rooted in an older diagnostic system. ASPD is the only term found within the Diagnostic and Statistical Manual (DSM V) of the American Psychiatric Association (2013). Someone with ASPD can be defined diagnostically as an individual who has blatant disregard for the rights of others. They will demonstrate this through refusal to conform to norms or laws, deceitfulness, impulsivity, irritability, disregard of safety, irresponsibility, and lack of remorse (DSM V 2013). To be diagnosed with ASPD, the person must also be at least 18, have schizophrenia and manic bipolar episodes ruled out as a major cause of behavioral misconduct, and have evidence of onset before 15 (Vronsky 2007). People labeled psychopaths or sociopaths are commonly those who

display these symptoms, but these are not diagnostic terms in current use. Insane is a legal term not a psychiatric one.

Antisocial personality disorder is commonly associated with serial killers, and for good reason. In a study of 99 male serial killers 80% were diagnosed as antisocial (Stone 2001). Another disorder rampant in male serial killers was sadistic disorder. Sadistic disorder is categorized by cruelty, aggression, manipulation, and violence or abuse is relationships (Stone 2001). Eighty nine percent of 99 male serial killers were diagnosed with sadistic disorder and another 60% with narcissism (Stone 2001). Some mental disorders common in male serial killers are frequently comorbid such as ASPD, sadistic disorder, and narcissism (Stone 2001).

Diagnosing disorder in females, including female serial killers, can be difficult. Traditional gender bias may lead to substantial under diagnosing of females with ASPD (Vronsky 2007). Women's traditional role as a nurturer contradicts psychopathic behavior in the minds of the public and mental health professionals alike (Vronsky 2007). Diagnosing someone as a psychopath or with ASPD is labeling them as morally and physically dangerous; a thought less associated with women (Vronsky 2007). This gender bias may leads professionals to be more likely to diagnose women with other behavioral disorder such as Histrionic Personality Disorder (HPD). HPD is characterized by craving to be the center of attention, being overly sexual/provocative, having shallow and dynamic emotions, often using physical appearance for attention, using impressionistic speech patterns (lacking detail and emphasizing emotion), having theatrical emotions, being easily influenced, and over-estimating the closeness of personal relationships (Vronsky 2007).

It may be somewhat comprehensible for the general public to be stuck thinking that women cannot have ASPD, as public opinion is slow to change, but this belief even affects professionals. One hundred and seventy five mental health professionals were given hypothetical cases with mixed symptoms of ASPD and HPD (Davidson & Abramowitz 1980 in Vronsky 2007). They were told the person being diagnosed was either male or female randomly. When they were told it was a female, they diagnosed ASPD 22% of the time and HPD 76% of the time. When told the client was male, they diagnosed ASPD in 41% of cases[5] (HPD 49%) (Davidson & Abramowitz 1980 in Vronsky 2007). Because of the biases introduced by cultural stereotypes, it is unclear whether or not the rate of ASPD is higher in males than females.

There are currently no comprehensive studies that investigate the prevalence of APSD in female killers as there are in men. One Finnish study found that female killers had an ASPD prevalence of 12.6% [6](Vronsky2007). In the general population, only 0.5% can be diagnosed with ASPD and 0.2% of females specifically (Vronsky 2007).

ASPD is one of the most prevalent and potentially dangerous mental disorders of killers. One 15 yearlong study of female felons in prison found that of all mental diagnoses, ASPD was the most common (Guze 1976 in Hickey 2002). Although ASPD is common in killers, it is not the only possibility. A study of 64 female serial killers found that 39.1% had severe mental illness; 2 women had Munchausen Syndrome by Proxy (MSBP), 1 had MSBP and schizophrenia, 3 had schizophrenia alone, and 3 had

[5] There were 6 other diagnostic options so totals are not equal to 100%

[6] The Finnish author does note that Finland has a relatively low crime rate and these statistics may not equally apply to the US

ASPD or ASPD and PTSD (post traumatic stress disorder) (Harrison, Murphy, Bowers, Flaherty 2014). MSBP affects 0.05% to 2% of a normal population; ASPD afflicts around 1% of the population and, according to Vronsky (2007), about 0.2% of women (Harrison, Murphy, Bowers, Flaherty 2014).

When female serial killers were diagnosed with a mental disorder, they were most commonly diagnosed with ASPD, MSBP, and schizophrenia. Male serial killers also had high levels of ASPD, but were also commonly diagnosed with sadistic disorder, narcissism, or schizoid personality disorder (Stone 2001). One theory that could help to explain the high levels of ASPD in both male and female serial killers has to do with attachment. Attachment theory holds that infants develop different types of attachment to a primary caregiver early in life. There are 3 types of attachment; most infants (63%) were securely attached and social (Vronsky 2007). Another group, about 16% of infants, were anxious or ambivalent and had high levels of distress (Vronsky 2007). Finally, 21% of infants fell into the insecure or avoidant group. This group did not seek contact with their primary caregiver and had detached themselves from close connections (Vronsky 2007). These infants often focused on toys or other people; anything but their caregiver. This could sometimes be a sign of abuse or neglect as perceived by the infant. These infants may associate close contact with their primary caregiver as an antecedent to the abuse, violence, or neglect they experienced and therefore distance themselves from this caregiver. These infants sometimes develop into adults who fear close personal relationships; due to their muting of their own emotions as a defense mechanism, they feel little/ no empathy, love, or social pressures (Vronsky 2007). An adult with no empathy and no fear of social morals or consequences is a

prime candidate for becoming a serial killer. Abuse and neglect are both precursors of an insecure/ avoidant infant, and are high in serial killer populations of both sexes. However, most insecurely attached infants do not become criminals, let alone serial killers.

While male and female serial killers share high levels of childhood abuse and ASPD, many differences remain. Female serial killers were never diagnosed with narcissism or sadistic disorder as male serial killers were (Stone 2001). Females that committed serial murders for sexual motives were almost non-existent while it was common in males (Hickey 2002). Even killing methods of males and females hardly overlapped. In order to understand female serial killers and why these differences exist. they need to be better studied.

Classifications

When serial killers murder, they often display general patters. These general patterns can be further broken down within the sexes to form categories. Many sorting schemes exist for organizing serial killers. Classifications are one such organizational tool. They are categories that define general profiles of killers. Classifications are useful in profiling, academic research, and research for the sake of law and legal systems. One way to distinguish the different types of male serial killers is by grouping them into by victimology into: men who kill women, lust killers, men who kill men, men who kill children, men who kill the elderly, men who kill families, men who kill men and women, and team killers (Hickey 2002).

Men who kill women tended to kill young women, killed more victims than the

other groups, and were local killers (Hickey 2002). There are 3 geographic preferences of serial killers: place specific killers that kill only in a single location such as a house or work place, local killers that kill in a single city or state, and traveling killers that roam freely over state lines. Fifty five percent of 399 male serial killers were local killers, this included all categories (Hickey 2002). The highly publicized serial killers such as Edmund Kemper (the "Coed Killer") and Richard Biegenwald (the "Thrill Killer") belonged to this group of men who kill women (Hickey 2002). Killers in this group may have killed a male victim, but their fantasies and main crimes revolved around females. This group is more publicized due to the frequently brutal and taboo aspects such as cannibalism, taking body parts as trophies, and necrophilia that were more common here than in other groups (Hickey 2002). Men that belonged to this group targeted high or low risk victims; meaning victims that were generally cautious and hard to obtain or put themselves in risky scenarios like being a prostitute or using drugs often (Hickey 2002). In general, male serial killers averaged a 4.2 year killing career (Kelleher & Kelleher 1999).

Lust killers included rape or derived sexual pleasure from their murders, but did not always kill women (Hickey 2002). The main difference between the previous category and lust killers, was that lust killer's fantasies did not necessarily revolve around females (Hickey 2002). These killers often killed women; they usually targeted high risk strangers like prostitutes or hitchhikers (Hickey 2002). These men often employed ruses to acquire victims as Bundy did with fake casts. Lust killers may be driven by control and use sex as the vehicle to gain control by dominating their victim entirely. They were also commonly sadistic. Lust killers used sexual and physical

torture for control and pleasure (Hickey 2002). Other commonalities in these men were postmortem mutilation, necrophilia, and vivid paraphilia (Hickey 2002). Paraphilia was important in this group because sexual murder is born from fantasies that are precise and personal. These deviant fantasies were key indicators to the individual committing the crimes. Some deviant fantasies involved attack, rape, and other obvious taboos; but some are more peculiar. One man in this group derived sexual gratification from entering a victim's home through an open window (Hickey 2002). His sexual attacks and murders were not as important to him as being alone and in complete control of a sleeping victim (Hickey 2002).

Men who kill men were also often driven by or included sex in their murders. Homosexual relations were a ruse or a trigger for these men; such as Dahmer, who would lure men to his house under the guise of relations, drinks, and photography (Hickey 2002). These men tended to be single and did not show a preference for a certain geographical pattern (Hickey 2002).

Men who kill children killed mostly or exclusively children and tended to engage in sexual activity with their victims (Hickey 2002). These men tended to be highly emotional; some revealed deep hatred and sadism, and some were highly remorseful (Hickey 2002). These men appeared even more average and trustworthy than other groups because were trusted to be close to children (Hickey 2002). Also, this group tended to employ more premeditation and caution than other groups (Hickey 2002). A geographical preference was not noted.

Men who kill the elderly were control driven and needed to dominate their

victims (Hickey 2002). These men, as the others, often raped or assaulted victims before or after killing them (Hickey 2002). Their victims were usually medium risk strangers that the killers found home alone or in institutions (Hickey 2002). This group is less common in male serial killers than the previously discussed types and less patterned data is available.

Men who kill families were also rare. Multiple victims are difficult to control and many serial killers enjoy being alone with their victims. Men in this group were less prone to sexual motives and appeared to motivated primarily by profit or money (Hickey 2002). While most men in other groups had a standard distribution of methods, these men favored guns or even poison (Hickey 2002).

Men who kill men and women tended more towards spree killing than serial killing (Hickey 2002). Guns seemed to be the preferred method of these men, but levels of violence varied greatly (Hickey 2002). These men also appeared less sexually driven than some other groups and also less patterned due to their impulsive nature (Hickey 2002).

Team killers are men involved in a serial killing team. Team killers were sometimes, 17 of 47 groups, composed of a man and woman (Hickey 2002). Team killers were also primarily white and made of only 2 people, ranging from 2 to 5 (Hickey 2002). There are multiple subdivisions of team killers divided by female and male masterminded teams. Male lead teams were more sexually driven and tended to use more male consistent methods (Gurain 2011). Females in these teams were sometimes considered victims themselves and may be held against their will or under

psychological duress (Gurain 2011). Other times, females were willing participants even helping acquire, kill, and rape victims, usually other women (Hickey 2002). Female masterminded teams involving a male were very rare and patterned data was not available (Hickey 2002).

Many factors can be used in classifying serial killers. Based on 50 female serial killers from around the world that killed alone and in teams, 9 classifications have been created (Kelleher & Kelleher 1999). These classifications can be useful for studying motive, victimology, and common patterns of different types of female serial killers.

Table 5. Classifications for Female Serial Killers

Classification Title	Definition and Behavioral Patterns
Question of Sanity	A woman who murders in an apparently random manner, usually without a clear and explicable motive, and who is later judged to be legally insane. Alternatively, a woman who murders in a systematic way and is later found to be suffering from a mental disorder that is connected to the crimes. In either event a psychological disorder must be present and be of such magnitude as to bring the issue of culpability into question.
Angel of Death	A woman who systematically murders individuals who are in her care or who rely on her for apparent medical attention but are driven by control. The motives for these murders may be diverse.
Profit or Crime	A woman who systematically murders individuals in the course of other criminal activities (or for profit) but who is not a member of a team of killers and does not meet the criteria for a Black Widow
Black Widow	A woman who systematically murders multiple spouses, partners or other family members. She may also claim victims

	outside of the family, the motive for these murders may be diverse and may encompass other classifications, such as Profit of Crime.
Sexual Predator	A woman who systematically murders other in what are known to be clear acts of sexual homicide. The motive for these murders must be sexual in nature.
Revenge	A woman who systematically murders individuals for motives of revenge or jealousy.
Team Killer	In conjunction with at least one other person, a woman who systematically murders other or who participates in the systematic murder of others. The motive for these murders may be diverse, and the woman may not have personally murdered others.
Unexplained	A woman who systematically murders for reasons that are wholly inexplicable or for a motive that has not been made sufficiently clear for categorization. The perpetrator must not be judged legally insane.
Unsolved	A systematic pattern of murders that may be attributed to a woman (or women) with relative confidence, but which have not been solved.

(Kelleher & Kelleher 1999)

Question of Sanity Killers

Women that belonged to Questions of Sanity killers were rather common; but not highly organized (Kelleher & Kelleher 1999). Seventeen percent of 50 female serial killers fell into the Question of Sanity category (Kelleher & Kelleher 1999). These women were sometimes legally insane, and therefore not culpable for their actions (which is rare). The other possibility is that they suffered from a mental disorder that

influenced their killing (Kelleher & Kelleher 1999). These women's actions were not highly patterned due to the influence of an array of mental disorders (Kelleher & Kelleher 1999). They did have rather clear etiological patterns (Kelleher & Kelleher 1999).

One mental disorder influencing multiple female serial killers is Munchausen Syndrome by Proxy, or MSBP. For example, on January 11th 1980 Lisa Jane Turner rushed her 3 month old daughter to the ER (Kelleher & Kelleher 1999). By the time she arrived at the hospital the baby she presented to the doctors was already dead. Turner lamented that the baby had simply stopped breathing and the doctors pronounced death due to SIDS (sudden infant death syndrome). It seemed that misfortune rained over the Turner family as in 1982 a neighbor stopped by and found that Turner's 2 month old baby was dead in her crib. The doctors again diagnosed SIDS. According to those close to her, Turner was devastated by the losses. A few months later, Turner was babysitting a 4 month old baby of a neighbor. By the time the neighbor returned home, the child was vomiting blood. Quick medical intervention saved this child. Over the next several months Turner returned to this neighbor's house; during every visit the daughter happened to suffer similar attacks. Turner struck again on another neighbor's 1 month old baby girl; luckily, this child was saved as well. Three years from the start of her murderess career, Turner took another victim; an 8 month old boy she was babysitting. The baby boy was found dead, bleeding as the other children were. Medical personnel deemed this death highly suspicious and learned he died of asphyxiation. One year later, suspicion accumulated until Turner was charged with 3 counts of murder and 2 of attempted murder (Kelleher & Kelleher 1999). Turner reveled in the sympathy from

neighbors and attention from doctors. Those suffering from MSBP relish the pity and responsiveness of those around them until it becomes an addiction that drives them. Like many other female serial killers Lisa Turner targeted those unable to fight back, infants.

One study of 35 solo female serial killers observed that 12 preferred child victims every time (Gurain, 2011; see Table 1). Ten of these women killed only members of their own family (Gurain, 2011; see Table 1). Infanticide, killing an infant, and filicide, killing one's own child, are unfortunately frequent in female serial killers. Women in general, and especially those with mental illness, are not particularly physically imposing. Women seeking power, control, or driven by mental illness must target those smaller and weaker than themselves. When women did attack strangers, they most commonly attacked children of either sex (Hickey, 2002; see Table 7). Children were the second most commonly killed family member of female serial killers after husbands/ partners (Hickey, 2002; see Table 7). Children were also third most common of acquaintance victims behind friends/members of a group and male suitors (Hickey, 2002; see Table 7).

Discerning the motivations of female serial killers within the Question of Sanity category could be difficult. Women were most commonly motivated by extrinsic motivations like money and profit (Hickey, 2002; see Table 3). Money motivated 47% of 62 female serial killers (Hickey, 2002; see Table 3). Eleven percent of these women were also motivated by control, which was another likely motivation of a Question of Sanity killer (Table 3 Hickey 2002). These categories of female serial killers are not mutually exclusive; a woman most greatly influenced by a mental illness could still be

as motivated by money as a Profit or Crime killer. Again, Question of Sanity killers were likely to be aware of their situation and made conscious decisions over a number of years to continue a killing career.

Question of Sanity killers were slightly less patterned than other categories. They employed many methods of killing. In one examination of method of all solo female serial killers, 14 of 35 used poison every time and 7 used drugging alone (Gurain 2011). As the issue of culpability must be brought up, it is possible many Question of Sanity killers were not organized enough to use more complex methods such as lethal injections or slow poisoning with toxins like arsenic (Kelleher & Kelleher 1999). These women generally killed in spontaneous manners and may not have had the forethought to previously marshal poison or drugs (Kelleher & Kelleher 1999). Another method common to all solo female serial killers was restricting air and blood flow through suffocation, strangulation, or smothering (Gurain, 2011; see Table 2). Six of 35 women used suffocation every time, 1 used strangulation sometimes, and 2 used suffocation sometimes (Gurain, 2011; see Table 2). These methods may be better for impulsive killers because as they do not require much or any supplies. They do, however, require the killer to be more physically imposing than the victim, which is usually the case as previously mentioned.

Question of Sanity killers were not the most organized of all categories. This was somewhat apparent in their geographical preference. Due to their possible disorganization, they were neither likely to be killing in a precise location, nor were organized enough to travel across states. Local female serial killers made up 45% of a sample of 62 solo female serial killers (Hickey, 2002; see Table 6). Local killers made

up almost half of all solo female serial killers studied, but accounted for only 33 to 35% of victims (Hickey, 2002; see Table 6).

Table 6. Geographic Preference of Female Serial Killers and Average Victims Killed

	# of offenders	% of offenders	# of victims	% of victims	Avg. # victims/ offender	Avg. # victims/ case
Geographic Method						
Traveling	14	23	99-134	23-24	7-10	7-10
Local	28	45	144-195	33-35	5-7	6-8
Place- specific	20	32	174-255	42	9-13	9-14
Total	62	100	417-584	100	7-10	7-10

(Hickey 2002)

Solo female serial killers were most likely to be local killers (Hickey, 2002; see Table 6). This is a likely occurrence for Question of Sanity killers because they are not likely seeking out victims. Question of Sanity killer's spontaneity and categorization as a local killer is consistent with local female serial killers accounting for less victims than other geographical preferences (Hickey, 2002; see Table 6).

Question of Sanity killers had a surprisingly long career length regardless of their disorganization, spontaneity, and less discrete killing methods. On average, these women killed for 9 years without apprehension (Kelleher & Kelleher 1999). This could be due to their disorganization. Disorganization may lead to a less noticeable pattern.

Also with Question of Sanity killers having killed many child victims, suspicion may accumulate very slowly. When is it apparent that a child died suspiciously, it will likely receive high levels of attention. However, children, especially infants, cannot relay suspicion or advocate for themselves well. Solo female serial killers generally average a 7 year career and do not begin killing until the age of 32 (Harrison, Murphy, Ho, Flaherty 2014).

Question of Sanity killers were driven by their mental illness which influenced their actions and drive to kill. These women may have been less cold-hearted than other killers and more burdened. One study of women caught committing filicide reported that the women had told friends, physicians, or social workers that they had fears or fantasies of filicide before they committed these acts (Rosenblatt & Greenland 1974 in Hickey 2002). Question of Sanity killers may be more likely than others to report their fears or fantasies because their motives are driven by their mental illness and not their own calculated desire to murder, go undetected, and continue murdering.

Angel of Death Killers

Like Lisa Turner and so many others, Angels of Death tended to target weaker individuals like children or the elderly. The Angel of Death category was motivated by ego and a compulsion for domination (Kelleher & Kelleher 1999). Eight percent of the solo female serial killer population was made of Angels of Death (Kelleher & Kelleher 1999). They needed to completely control the lives of those who depended on them; often choosing defenseless victims. This type of woman was subtle and covert, they were difficult to detect and apprehend (Kelleher & Kelleher 1999). They favored lethal

injections but resorted to suffocation or smothering if necessary (Kelleher & Kelleher 1999). The Angel of Death was compulsive in the need to kill (Kelleher & Kelleher 1999). They often wanted to discuss their crimes as rationalized acts of mercy after they killed (Kelleher & Kelleher 1999).

For example, Terri Rachals, born in 1962, was a nurse in Albany, Georgia (Kelleher & Kelleher 1999). Her early life was clouded with molestation from her adoptive father. This led her to experience fugue states. Due to these fugues, she was kicked out of her home at 16. What transformed Rachals's from exceptionally average to Angel of Death is unknown. Between October of 1985 and 1986, it is believed that she injected over 20 patients with potassium chloride; up to 9 of which then suffered fatal cardiac arrest. When misgivings formed about the nurse, she abruptly quit and approached the Georgia Bureau of Investigations; offering a voluntary confession of injecting 5 patients with potassium chloride and killing 3. The prosecutors argued her motive was ego and control. The defense countered that she was plagued by fugue states and was a gentle woman by nature. The jury convicted her of only 1 assault and determined that she was mentally ill but culpable; leading to a 17 year sentence (Kelleher & Kelleher 1999).

Rachals displayed a pattern common to female serial killers, and Angels of Death specifically. Rachals was a nurse and used her occupation to acquire her victims. When female serial killers targeted strangers, the second most common victim was a patient of the nursing home or a hospital in which they work after children (Hickey, 2002; see Table 7).

Table 7. Victim Type Preference of Female Serial Killers in Rank Order From Most to Least Common by Relationship	
Relationship	Victim Type
Strangers	
	Children (boy/girl)
	Patients (nursing home or hospital)
	People in stores
	People in homes
	Travelers
	Other
Family	
	Husbands
	Children
	In-laws
	Mothers
	Others
Acquaintances	
	Friends / members of a group
	Male suitor
	Children

	Older men and women
	Other

(Hickey 2002)

Again, female serial killers are usually physically average and therefore could not subdue large, healthy, or male victims easily. Angels of Death seemed to have no particular fantasy about patients; it was simply ease and accessibility that led these women to kill patients (Kelleher & Kelleher 1999). Some Angels of Death may have had superficial relationships with patients, but they remained mainly strangers (Kelleher & Kelleher 1999). Since 1975, the percent of stranger victims of all solo female serial killers has been steadily increasingly (Vronsky 2007). By 2007, stranger victims marginally outnumbered non-stranger victims (Vronsky 2007). It was difficult to determine the number of victims of Angels of Death because they operated in areas where death is common. Also, they assumed a role, caretaker, that provided them with easy access to their victims without having any obvious relationship to the victims (Kelleher & Kelleher 1999).

By definition, Angels of Death were motivated by a compulsive need for domination (Kelleher & Kelleher, 1999 see Table 5). Control motivated 14% of 62 solo female serial killers (Hickey, 2002; see Table 3). Angels of Death's need for control was the key to their murders (Kelleher & Kelleher 1999). Angels of Death may say that they were motivated by mercy or medical reasons, but this seemed to be a rationalization for their desire for total domination (Kelleher & Kelleher 1999). For the Angel of Death, governing life and death is the ultimate form of control. Angels of

Death often work in medical fields and are deeply involved immersed in the sadness and confusion they create (Kelleher & Kelleher 1999).

Rachals was a good example for the patterns of Angels of Death; especially in her method. Rachals used potassium chloride injections to poison and kill 9 people (Kelleher & Kelleher 1999). Angels of Death were even more likely than other categories to use poison; specifically, lethal injections (Kelleher & Kelleher 1999). Of 35 Solo female killers, 60% used poison or drugging all of the time (Gurain, 2011; see Table 1). Angels of Death likely used lethal injections as a simple byproduct of its accessibility through pkk0their jobs in health care. Lethal injection may have added to their sense of power, as its effects are usually immediate and powerful.

Angels of Death were difficult to group into geographic preference categories. Some were known to travel across states or cities. However, the actual murders systematically occurred in single place; usually their place of work (Kelleher & Kelleher 1999). Because Angels of Death frequently acquired victims from health care facilities, they killed at the facility almost every time (Kelleher & Kelleher 1999). Although they killed in a single location, they may travel to different facilities throughout their careers (Kelleher & Kelleher 1999). This preference pattern blurs the line between the geographical categories of place specific and traveling. Angels of Death were categorized mainly as either place specific or traveling (Kelleher & Kelleher 1999). Due to their subtle methods, and the commonality of death in these healthcare locations, Angels of Death were difficult to discern and apprehend (Kelleher & Kelleher 1999). However, Angels of Death were not often highly organized (Kelleher

& Kelleher 1999). Their compulsions, rationalizations, and disorganization allowed this woman to average a 2 year career (Kelleher & Kelleher 1999).

Profit or Crime Killers

It is clear that female serial killer's most common motive was money (Hickey, 2002; see Table 3). Naturally, Profit or Crime killers were driven by attaining profit. They were, patient, mature, and employed precise planning (Kelleher & Kelleher 1999). Interestingly, even though money was the most common motivator of female serial killers, Profit or Crime killers made up only 8% of solo female serial killers (Kelleher & Kelleher 1999). Further, Profit or Crime killers were highly organized, cold hearted, and decidedly calculated (Kelleher & Kelleher 1999). They exploited bonds with people in their lives who already trusted them; people that were be easily manipulated, and offered profit opportunity (Kelleher & Kelleher 1999). They were dispassionate, callous, usually sane; driven to obtain profit often far beyond her needs (Kelleher & Kelleher 1999).

Dorothea Puente, or The Black Widow of Sacramento, is not truly a Black Widow in classification; but a Profit or Crime killer (Kelleher & Kelleher 1999). Puente came from poverty and abandonment in Mexico and married 4 times in the US. After spending a few years in jail for petty theft and fraud, she obtained a type of boarding home. Puente convinced social workers she could care for elderly patients on social security. After 2 years of quiet mischief Puente was caught. Neighbors of Puente complained of an enduring smell coming from the house. Eventually, the smell, combined with a, social worker's suspicion of disappearing elderly patients, led police

to Puente's door. Police came to Puente's boarding house and found 3 corpses over 3 days buried in the back yard. She quickly fled to California in an attempt to scam men as police unearthed 7 more bodies. During the investigation it was noted that 25 of Puente's patients had been reported missing. She was eventually caught in California and sentenced on 3 counts of murder to life in prison. Upon killing each patient, she had diverted their social security checks into her own personal accounts; she racked up an income on the dead patient's checks (Kelleher & Kelleher 1999).

As exemplified by Puente, Profit or Crime killers showed no obvious care for who they killed, as long as it made them money (Kelleher & Kelleher 1999). All female serial killers tended towards weak victims; Profit or Crime killers were no different (Gurain 2011; see Table 1). Profit or Crime Killers tended to kill those they had built a relationship for the ease of manipulation (Kelleher & Kelleher 1999). The average victims killed by 62 solo female serial killers was between 7 to 10 victims (Hickey 2002). Profit or Crime killers averaged 5 to 10 victims per conviction (Kelleher & Kelleher 1999) However, it was believed the true number was much higher. Difficulty in estimating victim count came from the fact that people that were easily manipulated and killed (the elderly) left behind few people to report them missing (Kelleher & Kelleher 1999).

By definition, these women were motivated by money. Money was the most common motivator for female serial killers; motivating 73% of solo female serial killers sometimes, or always (Hickey, 2002; see Table 3). Money and profit are considered extrinsic motivation. However, a case could be made that some women who killed for

money were motivated by a combination of intrinsic and extrinsic powers; as many of these women continue killing even after they have sufficient funds for a decent life (Kelleher & Kelleher 1999). Many female serial killers have faced abusive pasts, shaky socioeconomic childhoods, and/ or mental issues. Money may be able to lend them a sense of power and control that could be classified as intrinsic motivation. This argument is hard to solidify, as the line between money for necessity and for psychological comfort is indistinct.

Poison was the overwhelming method of choice of Profit or Crime killers (Kelleher & Kelleher 1999). Seventy three percent of Profit or Crime killers used poison every time they killed (Kelleher & Kelleher 1999). This suggest that Profit or Crime killers were 17% more likely to use poison or drugging than all of solo female serial killers (Gurain, 2011; see Table 2). Their rather subtle methods, combined with their cold and calculated demeanor, led to a long average career. Profit or Crime killers average an 8 year career, but tend to become less cautious and more suspicious near the end (Kelleher & Kelleher 1999). Poison was a relatively hands-off method that suited the Profit or Crime killer nicely, as they seem to derive little to no pleasure from the actual act of killing (Kelleher & Kelleher 1999).

Like 77% of all female serial killers, Profit or Crime killers are unlikely to travel (Hickey, 2002; see Table 6). They were almost always local or place specific. (Kelleher & Kelleher 1999). Their preference between local and place specific was likely more tailored to their victim pool than actual decided preference. Puente, for example, was a place specific killer (Kelleher & Kelleher 1999). She killed all of her elderly victims in

the boarding house she provided because that is where she had access to victims (Kelleher & Kelleher 1999). Another Profit or Crime killer, Madame Popova, was migratory (Kelleher & Kelleher 1999). She killed over 300 men as a husband eliminating service (Kelleher & Kelleher 1999). Madame Popova would personally, or through an associate, travel near Samara, Russia and sounding areas "liberating" wives for a small fee (Kelleher & Kelleher 1999). Profit or Crime killers did not often take their murderous careers on the road, but their pasts were likely marked with traveling petty crime (Kelleher & Kelleher 1999). Puente, for example, had scammed multiple men out of money throughout California and Mexico (Kelleher & Kelleher 1999).

Black Widow Killers

Black Widows were the exemplary category of organized and successful female serial killers (Kelleher & Kelleher 1999). These women were older and most common. They started their careers around the age of 34 and made up 26% of solo female serial killers (Kelleher & Kelleher 1999). Black Widows focused their murderous activities on family members, were more intelligent than other categories, and were highly organized (Kelleher & Kelleher 1999). Importantly, these women were very patient. They were commonly motivated by profit (Kelleher & Kelleher 1999). Black Widows relied on the trust of the victim created by a personal relationship (Kelleher & Kelleher 1999). The key points that distinguished Profit or Crime Killers from Blacks Widows were relationship to the victim and the fact that Black Widows sometimes had motivations other than money (Kelleher & Kelleher 1999).

In 1954, "The Giggling Grandma" plastered the news. Nanny Hazel Doss was a

Black Widow given this eerie nickname due to her nervous laughter while discussing her crimes (Kelleher & Kelleher 1999). Doss was born into an abusive family. She was married and pregnant by 16. Doss had 4 children with her first husband. She was persistent in making sure each child had a life insurance policy that benefitted her. By her 20s Doss had experienced 2 apparently tragic deaths of her children. Doss's first husband became suspicious and moved away; taking 1 of her children. Doss then relocated and remarried. Doss's daughter, Florine, eventually married and had 1 son. Florine returned from a trip to find her son had unfortunately died while in Doss's care. This is Doss's only murder where a clear motive was never discerned. Doss's second husband soon died after the death of her grandson; leaving Doss with his life insurance and assets. After making her way through 2 more husbands, suspicion peaked and an autopsy was performed. The medical report showed that her latest husband had died of massive arsenic poisoning. Doss admitted to murdering 4 husbands, 3 children, 2 sisters, and her mother and was sentenced to life in prison where she died (Kelleher & Kelleher 1999).

As seen in Doss, Black Widows killed all or mostly family (Kelleher & Kelleher 1999). Although a Black Widow was still classified as so if she killed victims outside of her family; they must at least have had a deep personal relationship (Kelleher & Kelleher 1999). When solo female serial killers targeted family, they most commonly attacked husbands then children (Hickey, 2002; see Table 7). Black Widows followed the pattern of most solo female serial killers; exploiting personal bonds and physical weakness to attain their morbid goal. Exemplified by Doss, Black Widows often targeted their children, but remarkably they most often attacked husbands (Kelleher &

Kelleher 1999). Many of these men were neither especially fragile nor old. They would not have been easily dominated as most victims of female serial killers are. Black Widows used the trust of their husbands to overcome their physical limitations (Kelleher & Kelleher 1999). Black Widows showed no concern or preference for a certain ages or gender; they attacked without concern for relation (Kelleher & Kelleher 1999).

Like most solo female serial killers, Black Widows common motivations were money and profit (Kelleher & Kelleher 1999). However, they need not necessarily have been motived by profit to be a Black Widow. Doss killed her grandson for no apparent reason; even though he had no insurance or assets to benefit her (Kelleher & Kelleher 1999). Motive was a difficult topic as usual, and was varied. It included, but was not limited to, money (Kelleher & Kelleher 1999). It was not uncommon for a Black Widow to continue murdering for years after a reasonable profit was reached (Kelleher & Kelleher 1999). They may be attempting to fill a psychological limit rather than a monetary number.

Black Widows overwhelmingly favored poison alone. Black Widows used poison about 86% of the time, followed by suffocation, strangulation, or shooting, each about 5% of the time (Kelleher & Kelleher 1999). This suggests that they used poising or drugging 26% more often than all solo female serial killers (Gurain, 2011; see Table 2). Black Widows likely favored poison for multiple reasons. Firstly, poison is one of the most inconspicuous murder methods and can create the illusion of a natural death. Second, Black Widows attacked spouses that may have been more physically dominant.

Poison was one of the only ways to subtly kill them. Finally, poison can be administered over a long period of time; mimicking illness, furthering the appearance of a natural death (Kelleher & Kelleher 1999).

Black Widows seemed to show no obvious pattern in geographical preference. Some moved from state to state, killing husbands, and some killed their children in a single home (Kelleher & Kelleher 1999). Black Widows who traveled may have extended their career even further by diminishing suspicion in a single area. Black Widows had the longest average career of all categories female serial killers at about 11 years (Kelleher & Kelleher 1999).

Sexual Predator Killers

Solo female serial killers motivated by sex were infinitely rare. Only 2 obvious cases of apprehended women have ever involved sexual components. No clear patterned behavior could be generalized. Some researchers suggested that these women share similar psychological and behavioral patterns with male serial killers. However, with such a small sample, no conclusive patterns can be discerned (Kelleher & Kelleher 1999).

Aileen Wuornos, likely the most prolific female serial killer of all time, was an example of a Sexual Predator (Kelleher & Kelleher 1999). Wuornos suffered an unfortunate childhood. Her father hanged himself in prison where he was convicted of rape and kidnapping when she was a child (Wuornos v The State of Florida 1994). After the death of her father, and the abandonment of her mother, she went to live with her

alcoholic grandparents. Soon after her father's death, her grandpa committed suicide. Wuornos was diagnosed with hearing loss, and vision problems (Wuornos v The State of Florida 1994). By the age of 14, she had been raped and impregnated by a family friend and forced to give the child up for adoption (Kelleher & Kelleher 1999). While still in her teens, she turned to prostitution and worked in Florida for multiple years. One day she transformed and began killing. Wuornos claimed her 7 murders were in self-defense against the rape of the Johns she picked up (Kelleher & Kelleher 1999). Wuornos is also quoted as saying, "I want to tell the world that I killed them and robbed them, as cold as ice, and I'd do it again because I've hated human beings for a long time" (Lelis 2001). It is now clear that the first man she killed was a longtime rapist (Kelleher & Kelleher 1999). Her first murder was a likely case of self-defense. The 6 men after this seem to be a byproduct of the original kill, in combination with a long past of abuse. Her described motives ranged from the money she stole after her kills, to sexual enjoyment, to revenge, to mental illness (Kelleher & Kelleher 1999) (Wuornos v The State of Florida 1994). Her true motivation may not even be known to her.

Limited current data does not allow for a systematic review of victimology, motivation, methodology, geographic preference, or career length of Sexual Predators. Within the 2 clear cases of Sexual Predators, 1 sexually abused children before killing them in satanic rituals, and 1 only used sex as a ruse to acquire victims (Kelleher & Kelleher 1999).

Revenge Killers

Revenge Killer were emotionally charged; unlike the cold hearted Profit or Crime Killers or Black Widows (Kelleher & Kelleher 1999). By definition, serial killers require a cooling-off period (Morton & Hilts 2005). It may be difficult to maintain the rage necessary for revenge killing over a long period of time. However, 11% of solo female serial killers were Revenge killers (Kelleher & Kelleher 1999). Revenge killers acted alone, had intense dark emotions, and viewed victims as symbolic of the injustice they had incurred (Kelleher & Kelleher 1999). Revenge killers used poison or suffocation, and employed poor planning (Kelleher & Kelleher 1999). Further, these women were driven by an overwhelming feeling of abandonment or rejection and when caught, they admitted to their crimes freely (Kelleher & Kelleher 1999).

Ellen Etheridge is a single example of a Revenge killer (Kelleher & Kelleher 1999). She was active for only 1 year in 1913 after marrying a wealthy Texan entrepreneur with 8 children of his own. One year into this marriage Etheridge became dreadfully jealous of her husband's relationship and devotion to his children. Etheridge decided her only choice was to eliminate the objects of his affection. She used arsenic to kill 2 of her stepchildren and successfully convinced people it was horrible misfortune. Later that same year, she continued her ploy and poisoned 2 more children; finally creating enough suspicion for autopsies that revealed her devious doings. As soon as police apprehended her she confessed to all 4 murders and was sentenced to life in prison where she died (Kelleher & Kelleher 1999).

Revenge killers displayed widely varying patterns due to the deeply personal nature of their crimes (Kelleher & Kelleher 1999). The victims they choose were

symbolic; but may not have been actually related to the killers or the perceived injustice done to them (Kelleher & Kelleher 1999). These women were motivated by these perceived injustices and wanted revenge (Kelleher & Kelleher 1999). Their need for retribution was described as pathological (Kelleher & Kelleher 1999). Revenge killer's motivation was fortified by an overwhelming sense abandonment or rejection. Their killing was an attempt to regain some control in her own lives (Kelleher & Kelleher 1999).

The methods and geographic patterns of Revenge killers showed no reliable arrangement. These women averaged relatively short careers, around 3 years (Kelleher & Kelleher 1999).

Team Killers

A large category of female serial killers was Team Killers. Twenty eight percent of all female serial killers were involved in teams (Kelleher & Kelleher 1999). Clear examples of intrinsically motivated murders were less common in solo female serial killers than males (Hickey 2002). Sexually motivated female serial murderers were likely the rarest of all. Sex sometimes motivated 10% of a population of 62 female serial killers (Hickey 2002). Only 2 cases of sexual solo serial murder by females exist. Co-offenders, teams including a male and female, are more often motivated by sexual ideas than solo female serial killers (Silvo, McCloskey, Ramos-Grenier 2006). Many authors have described the traveling and violent team. Team Killers, involving at least one woman, usually began with non-murderess crimes, and the females were usually sexually involved with the males (Kelleher & Kelleher 1999). The team's activities

were loosely or highly organized as decided by their intelligence and cooperation levels (Kelleher & Kelleher 1999). Team Killer's crimes were extremely vicious, highly opportunistic, often reckless, and short-lived (Kelleher & Kelleher 1999). These offenders utilized an array of weapons; teams involving a male often used male consistent weapons (such as guns, knives, or bludgeoning), and female only teams usually use female only consistent methods (such as poison or suffocation) (Kelleher & Kelleher 1999).

One interesting Team Killer is the female only team of Gwendolyn Graham and Catherine Wood; a sexually motivated lesbian serial killer team (Silvo, McCloskey, Ramos-Grenier 2006). This murderous team can be classified as both a Team Killer, and Sexual Predator (Kelleher & Kelleher 1999). Wood was a nurse's aide supervisor and had just been divorced when she met Graham (Silvo, McCloskey, Ramos-Grenier 2006). The two began an intense love affair that often included other women, choking, and rough play (Kelleher & Kelleher 1999). Graham first brought up the idea of choking someone to death but Wood dismissed it as silly. Only a year later, Graham committed her fist murder. Her original plan was to kill victims whose last names would spell M-U-R-D-E-R. When some women proved too strong and tenacious for the pair, they moved to weak victims at the nursing home Wood worked at. Graham smothered patients with a wet washcloth while Wood acted as lookout. The two would often fornicate following each murder. Graham became bored with Wood and left for another lover. Wood confessed her crimes to her ex-husband who informed the police. Wood testified against Graham and received 20 to 40 years in prison while Graham received 6 life sentences (Kelleher & Kelleher 1999).

A more stereotypical example of a Team Killer is Cynthia Coffman and Gregory Marlow (Kelleher & Kelleher 1999). Coffman was raised in an affluent and religious setting. At 17 she became pregnant with her high school boyfriend's baby, and was forced to marry him. She moved to Arizona after 5 years and fell into drugs and alcohol. She was eventually arrested on drug charges with a boyfriend; while the charges were dismissed, she visited this boyfriend in jail. During her visits, she met another inmate; James Marlow. James Marlow was an older white supremacist. Upon his release he and Coffman began traveling through the southern United States; borrowing or stealing what they needed. After a string of minor offenses and burglaries they crossed over to California. There they beat, robbed, and murdered a woman who had just withdrawn cash from and ATM. The team then headed to Arizona where they attacked another woman in a similar fashion. Later that year in California they escalated. They abducted a woman who had withdrawn cash, sexually assaulted her, then murdered her. This pattern continued. This couple was carless and violent; they discarded victim's checkbooks in a sack with their own full names, and checked into motels using their real names. After being caught, the couple turned on each other; each accusing the other of being the sole perpetrator. Both were charged with a single count of murder. Coffman and Marlow were both sentenced to death; however, Coffman was tried on a second count of murder and received a life sentence (Kelleher & Kelleher 1999).

These 2 were a perfect example of the transformation a partner makes in female serial killers. Marlow and Coffman traveled through states freely, used violent hands-on methods, and sexually assaulted victims (Kelleher & Kelleher 1999). Also, Coffman was rather young for a female serial killer, 24 years old, when she began killing

(Kelleher & Kelleher 1999). Her career lasted only a year (Kelleher & Kelleher 1999). On average female serial killers do not begin killing until around 32 and average a 7 year career (Harrison, Murphy, Ho, Flaherty 2014).

Team status greatly affects many aspect of serial murder. Victimology is one such factor. Solo female serial killers had no sex preference and killed either adults or children (Gurain, 2011; see Table 1). Co-offenders killed females 14 of 30 times, or both sexes 13 of 30 times (Gurain, 2011; see Table 1). Victims of co-offenders also tended to be adults, adults and teens, or all ages (Gurain, 2011; see Table 1). Further, co-offenders tended to kill mostly strangers, 16 of 30 cases; while solo female serial killers killed more family and acquaintances (Gurain, 2011; see Table 1). Team Killer's victim preference tended to mirror that of male killers. As previously stated, male serial killers almost exclusively killed younger females, or all females (Hickey 2002). The difference in victim preference between solo and co-offending female serial killers may be due to the increased manpower or a true change is victim preference.

Motivations of Team Killers were also drastically different from solo female serial killers. A male-female serial killing team was sometimes sexually motivated and included sexual elements in their crimes (Kelleher & Kelleher 1999). Female-female serial killing teams came together for various motivations. As seen before with Graham and Wood, they can be sexual and for fantasy fulfillment. Female serial killers can also partner up to mirror Angels of Death and Profit or Crime killers (Kelleher & Kelleher 1999). Within male-female teams, the male killer controlled almost all teams and led an obedient female (Hickey 2002). The fact that female members were obedient does not dismiss their role, enjoyment, or gain from the murders. While some females in teams

were compliant victims coerced by force or stupidity, many are active members (Hickey 2002).

The methods of Team Killers were much more comparable to methods preferred by solo male serial killer than solo female serial killers. Co-offenders almost always used a combination of methods; favoring guns (16.2% always) (63.3% sometimes), then strangulation (53.2% sometimes), then blunt force (50.6% sometimes), and then stabbing (41.6% sometimes) (Gurain, 2011; see Table 2). Solo female serial killers almost exclusively use poison or drugging, with a small minority employing suffocation or stabbing (Gurain, 2011; see Table 2). This difference in method is possibly due to the fact that males tend to dominate their team member. Another possibility, is that by increasing the people and force, the options for murder method were more open.

Team Killers were one of the least organized categories of killers (Kelleher & Kelleher 1999). They killed more brutally and spontaneously than any other group (Kelleher & Kelleher 1999). This was reflected in their geographic preference as well. Almost no/ no solo female serial killers were migratory (depending on the subject pool). Twenty seven of 99 co-offenders were migratory (Gurain, 2011; see Table 8).

Table 8. Geographic Preference of Female Serial Killers by Team Status

	Partnered Serial Murder	Solo Serial Murder
	Percent of Murderers Preferring Geographical Method	
Geographic Method		
Migratory	27.3	0
Local	56.6	45.7

Place Specific	16.2	54.3
Total	Offenders (n=99)	Offenders (n=35)

(Gurain 2011)

Team Killers were most often local, but showed a much higher travel rate than solo female serial killers (Gurain, 2011; see Table 8). Team Killers were least likely to be place specific (Gurain, 2011; see Table 8). Geographic preference was possibly due to their structure as mostly male lead teams and victim preference; which are commonly strangers (Gurain, 2011; see Table 8). Solo male serial killers were migratory 10% of the time and local 55% of the time (Hickey 2002). Solo male serial killers, more than females, also prefer stranger victims (Hickey 2002). Data suggest Team Killers were almost 11% more likely to be local than solo female serial killers (Gurain, 2011; see Table 8).

With their spontaneity and male consistent traits, Team Killers had relatively short careers. Team Killers averaged 2.5 year careers, the shortest of all female serial killers[7] (Kelleher & Kelleher 1999). These teams were rather impulsive and brutal, but their organized relied heavily on their level of cooperation (Kelleher & Kelleher 1999). Highly cooperative teams were more organized and may have lead longer careers than those whose relationship dissolved (Kelleher & Kelleher 1999). Almost all Team Killers, even those sexually involved, flipped on their teammate once apprehended (Kelleher & Kelleher 1999).

[7] *aside from the one case of Sexual Predator in the US

Conclusion

Although studies are still limited, substantial progress in female serial killer research is evident through current deductions of patterns. Information on trends in motivation, victimology, and methodology is advancing. Researchers can currently differentiate patterns by sex, and even specific categories in each sex. We now understand that solo female serial killers most commonly kill those they have a relationship with; exploiting their victim's trust. Further, they kill mainly for money with poisons. This information stands in stark contrast with females committing single murder and male serial killers. Females committing single murders tended to do so within domestic partnerships. Male serial killers killed almost all stranger women, had sexually motivated ideas, and used guns. One major commonality between female and male serial killers is their compulsive need for control.

Female serial killers murdered most commonly to attain money. Solo female serial killers motivated by money, often continued killing to attain money far beyond their actual needs. Male serial killers often included obvious sexual components to their kills; such as rape. However, men did not always target young, beautiful, or seductive mates. Men killed older women or men, young men, or anyone they could dominate. An argument could be made that while men and women both kill for superficially different reasons; an irrepressible need for control drives these killers, though money and sex are the vehicle for attaining control.

Paternal investment theory may help to understand psychological control and comfort. One evolutionary sociobiologist discusses how women must usually invest immense energy in carrying and raising a child, and can likely only have 1 offspring per

year; but have easy access to mates (Trivers 1972). Conversely, males put in great amounts of effort to finding and attaining a female, but very little effort is absolutely necessary after conception (Trivers 1972). Applying this theory to serial killers may help to explain why female serial killers ardently seek out money (recourses), and male serial killers seek out young females (mates). Each gender's genetic and learned priorities may clarify the seemingly large difference in these killers. However, this may not entirely account for male's sexual sadism or female's unique choice of recourse acquisition.

More research is necessary in forming conclusive knowledge of underlying causes and patterns in female serial killers. Research must remain unbiased in the face of gender if we are to ever truly understand the differences and similarities in killers, specifically, serial killers. Gender does likely substantially affect many factors of serial killers, but this information must come from data; not assumptions. Understanding these dangerous women is crucial. Further research could aid in intervention. Apprehending a Question of Sanity killer before she attacks multiple children or stopping an Angel of Death from exploiting those in her care is possible. With current studies using samples of convenience and mental diagnoses being influenced by societal ideas; conclusions on this population are still tentative.

Research suggest that the population of serial killers is growing, with female serial killer's population growing similarly. It is unclear if this is due to population growth, desensitization to violence, or any other factor. There is a chance that with growing gender equality, and the slow deconstruction of feminine stereotypes; female serial killers will become even more prevalent. With this growing population, better

systematic research is essential for understanding and intervention. Intervention will be surely impossible if we cannot understand the nature of the beast.

Appendix A

Uncategorized Information

Intelligence

When asked to conceptualize a female serial killer, college students imagined them as highly intelligent (Vronsky 2007). In reality, female serial killers are no more intelligent than an average population. In 16 of 59 cases where information was available, 50% of female serial killers were of average intelligence, 12.5% were highly intelligent, and 28.6% were intellectually disabled or deficient (Harrison, Murphy, Bowers, Flaherty 2014). In one study of 271serial killers that did not distinguish gender, the average IQ was 94.5 with a median of 86 (Aamodt 2013). This IQ information is further broken down by preferred killing method; bombers are highest (140.3 average) and poisoners (women's most common choice) are 4th highest (100 average) (Aamodt 2013).

Age

On average female serial killers have a killing career from 32 to 39.5 (Harrison, Murphy, Bowers, Flaherty 2014). However, this average accounts for a large range of female serial killers and all classifications. Different classifications of female serial killers begin killing at different ages and have varying career lengths as seen in figure 2 (Kelleher & Kelleher 1999).

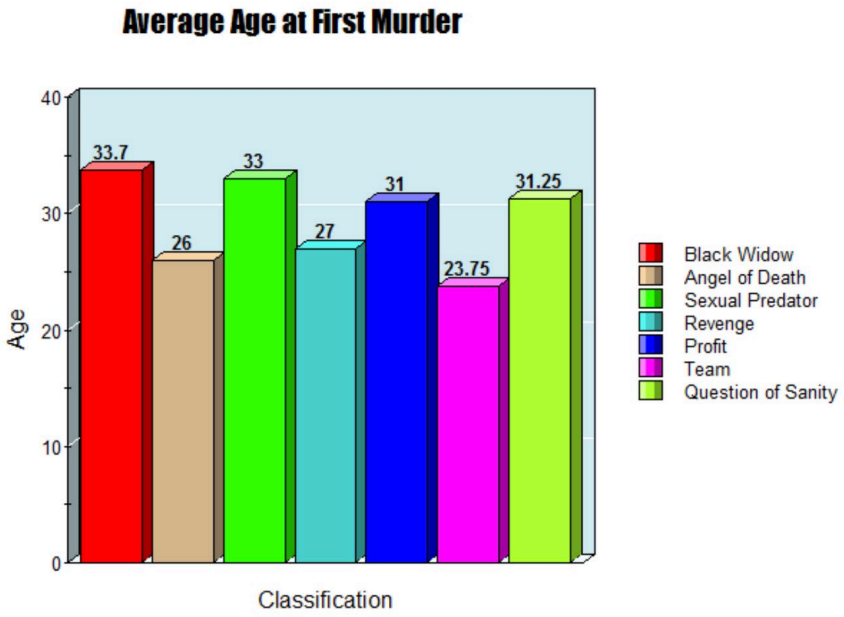

Fig. 3(Kelleher & Kelleher 1999)

Family Dynamics

Childhood is an incredibly impressionable time for people. Personality, morals, and habits are all created by interacting with those around us. A family unit is the greatest social influence in a child's life. Family dynamics can have incredible impact whether it be positive or negative. Family dynamics were assessed in a report of 14 female serial killers. Of 10 available data reports, 4 women were raised in non-traditional homes, 4 were adopted, and only 2 were raised in average homes (Keeney and Heide 1994). 71% of the females committing multiple murders came from families with drug or alcohol problems and 14% had parents with a psychiatric history (Shurman-Kauflin 2000 in Vronsky 2007). In one study, half of the women had lost a

loved one growing up (Hickey (2002 Kirkpatrick and Humphrey 1987). This is an important stressor, as it alone is stressful, but can precipitate moving in with distant family, moving to foster care, or dropping out of school.

Classification Prevalence

Table 9. Distribution of Female Serial Killer Categories				
	Including Team Killers		Excluding Team Killers	
Classification	Number	Percent	Number	Percent
Black Widow	13	26	13	26
Angel of Death	3	6	3	8
Sexual Predator	1	2	1	3
Revenge	4	8	4	11
Profit or Crime	3	6	3	8
Team Killer	14	28	--	--
Question of Sanity	4	8	4	11
Unexplained	6	12	6	17
Unsolved	4	2	6	
Total	50	100	36	100

Table 2 (Kelleher & Kelleher 1999)

Traumas

Another aspect studied in female serial killers is traumas related to happenstance. In a study of 64 female serial killers 9.4% had severe illness in childhood such as head trauma, scarlet fever, seizures, blood poisoning, or measles (Harrison, Murphy, Bowers, Flaherty 2014). Between 2 and 7% of children will experience these same issues in an average population (Harrison, Murphy, Bowers, Flaherty 2014). This statistic could point to neglect, abuse, or other parental failures in populations that later develop into serial killers. Data discussing male serial killers' physical illness was not

readily available, but neglect is seemingly present. Male serial killers did report absentee parents or parents that seemed to be absent during childhood; actual availability of parents was not as important as perceived availability (Hickey 2002).

Appearance

People have many preconceived notions about serial killers. For example, many people believed that female serial killers were slovenly (Heckert and Ferraiolo 1996 in Hickey 2002). Realistically, of 25 studied cases, 40% were described as perfectly average, 28% very attractive, 12% very ugly, and 20% overweight (Harrison, Murphy, Bowers, Flaherty 2014). One study of male serial killers found 23 physical abnormalities common to the group. Some such similarities were, bulbous fingertips, fine or wire like hair that will not comb down, hair whorls, head circumference outside a normal range, malformed ears, curved fifth finger, high-steepled palate, singular transverse palmer crease, very long third toes, and abnormalities in teeth and skin texture (Vronsky 2007). Appearance could be important because highly abnormal appearances could further childhood isolation, a commonality shared by female and male serial killers alike.

References

Aamodt, M. G. (2013). Serial killer statistics. Retrieved from http://maamodt.asp.radford.edu/serial%20killer%20information%20center/Serial%20Killer%20Statistics.pdf

Alley, C., Minnis, H., Thompson, L., Wilson, P., Gillberg, C. (2014) Neurodevelopmental and psychosocial risk factors in serial killers and mass murderers. Aggression and Violent Behavior, 9: 288-301. doi: 10.1016

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

Davidson, C., Abramowitz, S. (1980) Sex bias in clinical judgment: Later Empirical Returns. Psychology of Women Quarterly, 4: 377-395 doi: 10.1111

Farrell, A., Keppel, R., Titterington, V. (2011). Lethal Ladies: Revisiting What We Know About Female Serial Murderers. Sage Publications, 15: 228-252 doi: 10.1177 10, 5aiii, 1c

Finkelhor, D., Shattuck, A., Turner, H., Hamby, S. (2014) The Lifetime prevalence of child sexual abuse and sexual assault assessed in late adolescence. Journal of Adolescent Health, 55: 329-333. doi: 10.1016

Fox, J., Zawitz, M. (2005). Homicide trends in the US. Bureau of Justice Statistics. Retrieved from https://www.bjs.gov/content/pub/pdf/htius.pdf

Frei, A., Vollm, B., Graf, M., Volker,D. (2006). Female serial killing: review and case report. Journal of Criminal Behavior and Mental Health, 16:167-176. doi: 10.1002

Gurain, E. (2011) Female serial murderers: directions for future research on a hidden population. International Journal of Offender Therapy and Comparative Criminology, 55: 27-42. doi: 10.1177

Harrison, M., Murphy E., Ho, L., Bowers, T., Flaherty, C. (2014) Female serial killers in the United States: Means, Motives, and Makings. The Journal of Forensic Psychiatry and Psychology, 26: 383-406 doi:10.1080 Retrieved from http://web.b.ebscohost.com.libproxy.uoregon.edu/ehost/detail/detail?vid=0&sid=23d669e7-0139-4376-a481-987cdf132e00%40pdc-v-sessmgr01&bdata=JnNpdGU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#AN=102578627&db=lgh

Hickey, E. (2002) Serial murderers and their victims. Belmont, CA: Wadsworth Group.

Keeney, B., Heide, K. (1994) Gender Differences in Serial Murderers. Journal of Interpersonal Violence, 9: 383-398 doi: 10.1177

Kraemer, G., Lord, W., Heilbrun, K., Meloy, J., ; Fetthous, Alan. (2004). Comparing single and serial homicide offenses. Behavioral Sciences & the Law, 22: 325-343. doi: 10.1002

Lelis, L. (2001). Kill Me Now, Wuornos Urges. Orlando Sentential. Retrieved from http://articles.orlandosentinel.com/2001-07-21/news/0107210118_1_wuornos-serial-killer-death-row

McKee, G. (2006). Why Mother's Kill: A Forensic Psychologist's Casebook. New York, New York: Oxford University Press. Retrieved from https://books.google.com/books?id=bOEJCAAAQBAJ&pg=PT299&lpg=PT299&dq=Dr.+Geoffrey+McKee+female+serial+murder&source=bl&ots=I1BGsIJrPt&sig=l23uqKCrkgxzoB076mm0URZ3MSM&hl=en&sa=X&ved=0ahUKEwiRip2b4dPZAhVJHGMKHU3IDbcQ6AEINDAC#v=onepage&q=Dr.%20Geoffrey%20McKee%20female%20serial%20murder&f=false 8a, 3

Merikanhas, K., He, J., Swanson, S., Avenevoli, S., Benjet, C., Georgiades, K., Swedensen, J. (2010). Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey Replication--Adolescent Supplement (NCS-A). Journal of the American Academy of Child and Adolescent Psychiatry, 10: 980-989. doi: 10.1016

Meyers, W., Gooch, E., Meloy, J. (2005). The Role of psychopathy and sexuality in a female serial killer. Journal of Forensic Science 50. Retrieved from https://pdfs.semanticscholar.org/8b49/ac80db5f0269070ce2d2f36dcde7e495d332.pdf

Morton, J., Hilts, M. (Eds.). (2005) Serial Murder: Multi-disciplinary perspectives for investigators. U.S. Department of Justice, Federal Bureau of Investigation

NAMI (2017). Mental health by the numbers. National Alliance on Mental Health. Retrieved from https://www.nami.org/Learn-More/Mental-Health-By-the-Numbers

Perri, Frank. (2010). The last frontier: myths & the female psychopathic killer. The Forensic Examiner 19. Retrieved from http://www.biomedsearch.com/article/last-frontier-myths-female-psychopathic/228171764.html

Pfeffer C. Psychiatric hospital treatment of assaultive homicidal children. Am J Psychother 2, 197–207 Retrieved from

Polk, K. (1993). Homicide: Women as offenders. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.557.1450&rep=rep1&type=df

Scott, H., Fleming, K. (2014) The female family annihilator: An Exploratory Study. Sage Publications, 18: 59-82 doi: 10.1177 Retrieved from http://journals.sagepub.com.libproxy.uoregon.edu/doi/pdf/10.1177/108876791351315

Silvo, H., McCloskey, K., Ramos-Grenier, J. (2006). Theoretical consideration of female sexual predator serial killers in the United States. Journal of Criminal Justice, 34: 251-259. doi: 10.1016

Stanton, J., Simpson, A. (2002) Filicide: a review. International Journal of Law and Psychiatry, 25: 1-14 doi: 10.1016 Retrieved from https://www-sciencedirect-com.libproxy.uoregon.edu/science/article/pii/S0160252701000978

Stone, M. (2001). Serial Sexual homicide: Biological, psychological, and sociological Aspects. Journal of Personality Disorders, 15, 1-18. Retrieved from http://libproxy.uoregon.edu/login?url=https://search-proquest-com.libproxy.uoregon.edu/docview/195237805?accountid=14698

Vronsky, P. (2007) Female serial killers: How and why women become monsters. London, England: The Berkeley Publishing Group. Retrieved from https://books.google.com/books?hl=en&lr=&id=FdN0MMbGIQkC&oi=fnd&pg=PA1&dq=female+serial+murderers&ots=8dvzQzVcz8&sig=0l3kzAFbiqK2XSbrLmRDKl2HMN4#v=onepage&q=female%20serial%20murderers&f=false

Weishett, R. (1984). Female homicide offenders: Trends over time in an institutionalized population. Justice Quarterly 1, 471-490 Retrieved from http://heinonline.org.libproxy.uoregon.edu/HOL/Page?public=false&handle=hein.journals/jquart1&page=471&collection=journals

Wuornos v. State of Florida. 644 So.2d 1000. (1994) Retrieved from https://scholar.google.com/scholar_case?case=3815165900516625429&q=Aileen+Wuornos&hl=en&as_sdt=6,38

Yourstone, J., Lindholm, T., Kristiansson, M. (2008). Women who kill: A comparison of the psychosocial background of female and male perpetrators. International Journal of Law and Psychiatry, 31: 374-383. doi: 10.1016