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OVERKILL: A FIRST RUN DEFINITION

by

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ABSTRACT

Homicide is a major social issue that has been studied by many researchers worldwide. The vast literature available, however, has avoided distinguishing homicide characterized by excessive wounds as a particular category or type of murder. This is what is often referred to as overkill. It has been observed in a variety of incidents, but it has not been systematically defined or examined in the literature in regard to why it occurs. This study aims to define "overkill" based on the number and extent of injuries for LGBT homicides between the years 1969 to 2018 (provided by Dallas Drake, co-founder of the Center for Homicide Research) and, in doing so, develop a classification of characteristics of overkill. The purpose of this research is to gather information from literature and exemplary cases, which imply excessive wound infliction and may aid in defining and analyzing data on overkill. Developing a definition can help facilitate examinations of lethal incidents and encourage the exploration that overkill has to an individual person's death. This exploratory study will discover cut-off points per category (firearm, sharp instruments, and blunt force trauma) of the number of wounds that are to be labeled as overkill. A binary logistic regression analysis will focus on variables that will be used to formulate a definition of overkill. Results indicate cut-off points for firearms to be 3 wounds, sharp instruments 17 wounds, and blunt force trauma 6 wounds. Regarding excessive wound infliction, analysis reveals significant relationships in the use of blunt objects and the presence of multiple offenders.

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CHAPTER ONE: INTRODUCTION

Reasons for committing homicide have been analyzed by many researchers, yet the number of wounds and other inflictions on a victim during an incident has received little, if any, recognition. The number of wounds has become excessive to the point where more information is needed in relation to expanding the homicide literature. Overkill is homicide magnified in some way beyond what is necessary to kill the victim. Excessive and multiple wound infliction has been presented in descriptions of a variety of cases, but it has not been properly analyzed, defined, or further studied to aid our understanding of overkill and/or to produce new knowledge related to the uniqueness of this concept. A few studies have mentioned the term "overkill" (Nikolic and Zivkovic, 2015; Douglas, Burgess, Burgess, and Ressler, 1992; Radojevic et al., 2013; Henderson, Morgan, Patel, and Tiplady, 2005) or refer to similar terms, e.g., "excessive wounding," "excessive violence," "multiple wounds," and "multiple injuries" (Nikolic and Zivkovic, 2015; Radojevic et al., 2013; Laajasalo and Hakkanen, 2006; Kaliszan, 2011). However, the foci of these studies were on the incidents themselves, not the impact of specific number of wounds, the possible causes, nor the potential benefits of examining these cases. Radojevic et al., 2013, are the only researchers who have examined the number of wounds (>3, ≥4, 5, and 25) and discovered significance in relation to sex- related homicides. Researchers and other individuals often perceive overkill as large numbers of wounds, but the current study aims to systematically define the term "overkill" and determine a level of excessiveness. Although the number of wounds needed to kill differs by individual, some cases are seen to be pushed to an extent where there is no need to continue to do further harm. A cut-off point representing excessive wound infliction will aid in the examinations of the characteristics of overkill. Thus, a

limit for the number of wounds inflicted is necessary for the definition, and other factors playing a part during the incident should also be considered. Due to the complexity of overkill, this is an exploratory study that will look at patterns of overkill using the number of wounds and will gradually add other necessary factors of overkill that are noted as significant (e.g., location of wounds). At this stage, the number of wounds and the extent in which the wounds are inflicted are important as it demonstrates "out of control," reckless conduct, and/or expressive quantities. The purpose of this research is to collect and analyze data that will aid in the first step of defining overkill.

CHAPTER TWO: LITERATURE REVIEW

Literature on overkill is limited. This may be due to opinions, such as Bell and Vila

(1996) who suggest that it is difficult to identify a cut-off point between what is or is not

necessary to kill a victim and it is also arduous to recognize the offender's subjective awareness

of the wounds they are inflicting. It is important to note that regardless of an offender's

awareness of the wounds they are inflicting, the wounds are being inflicted and an excessive

number is most likely not necessary. These facts have restricted the development of an objective

and quantitative cut-off point that represents excessive wounds. To begin, a broad definition by

Nikolic and Zivkovic (2015) states that overkill is "the infliction of massive injuries by a

perpetrator by far exceeding the extent necessary to kill the victim" (p. 498). Using this

definition, the number of wounds researchers would be directed to consider overkill is unknown.

Other researchers, such as Douglas et al. (1992) focus on overkill as ante or perimortem injuries

that are in excess of what is necessary to cause death. This creates the debate whether or not

cases of postmortem injuries should be considered overkill. Interestingly, in the forensic

literature, Henderson et al. (2005) have used the term "overkill syndrome," stating in other

words, "frenzied attacks with loss of self-control" (p.131). This definition leaves the reader with

the idea that the perpetrator must lose self-control, a requirement that goes beyond that needed to

define overkill.

A definition and further examination of overkill cases are necessary for the development

of a more complete understanding of homicide. The lack of a comprehensive definition has

potentially disrupted the investigation process and led prevention techniques in the wrong

direction. For the most part, researchers tend to ignore the importance of overkill. If law enforcement personnel downplay the elements of the attack, they may overlook details of the crime that may lead to the offender, specifically the possible offender's relationship to the victim.

> There is a discernable difference in offender behavior between one who kills the victim with little or no external or excessive injury and another who spends considerable time and effort inflicting excessive injury involving multiple cause of death… Specifically, the number, severity, location, and nature of the injuries and their relationship to cause of death need to be evaluated (Safarik and Jarvis 2005:189).

In cases of overkill, it is generally evident that there is a point of excessive wound infliction that is "too much." Bell and Vila (1996) noticed that the number of injuries on homosexual victims was greater than heterosexual victims. Thus, characteristics of victims may interact with the perpetrator's choice of weapon and/or lack of or presence of overkill.

Characteristics

Overkill is often seen as a product of expressive aggression. Radojevic et al. (2013), Last and Fritzon (2005), Laajasalo and Hakkanen (2006), Kennedy et al. (1992), and Buchanan et al. (1993) agree that multiple wound infliction is the result of negative emotional intensity, which may include jealousy and distress, such as anger, anxiety or fear. Many individuals experience distress, and further inspection would aim to identify factors that set aside individuals who participate in overkill from other homicide incidents. Different circumstances may impact results. These circumstances may include a discovery by Laajasalo and Hakkanen (2006) that

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there were multiple wounds because there were multiple perpetrators. Characteristics of the incident may also influence the number of wounds.

In many of these cases, regardless of method, there is an inclusion of a single additional wound inflicted for the perpetrators' reassurance of death. This was revealed by Keppel (2000) when examining firearm wounds. Combined homicides, defined as "combination of two or more different modes of killing" (Slovic et al., 2017:47), are also necessary to consider in the debate of overkill as they are seen to be used to accelerate the killing of a victim or to guarantee a fatal outcome. According to Block and Block (1992), multiple killing modes or weapons are more obvious in instrumental homicides. They also observed that the usage of a single weapon is more prevalent in expressive homicide. Thus, the number of wounds may be impacted by the number of weapons used.

<p style="text-align:center">Weapon</p>

Weapons have different implications that can be informative in the intentions of the crime and the type of relationship the offender and victim may have. According to Last and Fritzon (2005), using a weapon found at the scene of a crime implies that the act was impulsive and unplanned (expressive aggression), while bringing a weapon to the scene suggests that an individual was expecting a confrontation or has experienced previous violent confrontations. Additionally, "the use of manual weapons or blunt force represents a reactive, nonplanned homicide, which [has been] associate with more intense primary relationships" (Last and Fritzon 2005:180-181). Whether or not a weapon is brought to the scene may also aid in legal proceeding's explanations of motives and influence the sentencing of the offender(s).

According to Slovic, Vitosevic, Zivkovic-Zaric, Mladjenovic, and Todorovic (2017), the choice of weapon point to the motive and the connection between a killer and a victim. The type of weapons can most likely lead to more fatal injuries, influencing the number of wounds inflicted on the victim. Ericsson and Thiblin (2002) concluded that homicides primarily involve lethal shootings, followed by sharp object violence, blunt force trauma, and asphyxiation.

Firearms

Firearms have been the most commonly used weapon in homicides (Ericsson and Thiblin, 2002). This may be due to the distance an offender is able to maintain between himself/herself and the victim, the ease of access to the weapon, and/or the ability to "get the job done." There are different types of firearms that are able to have different impacts on the body. A shotgun for example, is recognized by Libby and Corzine (2007) as much more likely to cause a death than a rifle. Bullets may result in different impacts depending on whether the bullet passed through soft tissues and organs or solid bone. Some guns are made to release multiple pellets and others one bullet at a time. Kumar (2013) noted that most individuals were killed with a single shot. Firearms must be evaluated to determine the number of wounds that were not necessary as it is seen as a lethal method in a case. This method is also important because there are a variety of relationships between the victim and offender who chooses this use of weapon.

Sharp Instrument

Stabbings are the second most popular method of killing in homicide cases (Ericsson and Thiblin, 2002). Considering the differences in the overkill cases, wounds are not limited to knives and include any sharp objects. It was noted that Burke et al. (2018) observed homicides

caused by single stab wounds without any other significant injuries. Observations differ when discussing stab wounds. Radojevic et al. (2013) expressed that multiple stabbings are often seen because of an offender's expressed affect, which is more frequent in sex related cases (including a person's whole sexual life, which can involve jealousy, paraphilia, and/or mutilation of genitalia). These stabbings can be observed in diverse relationships as well and may result in a larger number of wounds as it is seen as a more personal method.

Blunt Object

Blunt force trauma is not seen in many cases, but still occurs. These wounds are the cause of blunt instruments but can also include wounds caused by fists and feet. The number of wounds related to blunt force trauma may be impacted due to the lack of knowledge of the effects of these weapons. Blunt force trauma injuries also require a specific amount of strength for an outcome of death (Henderson et al., 2005), which can influence the number of wounds. These cases can sometimes include asphyxiation to seal the deal.

Asphyxiation

Considering the strength that is necessary to cause death, asphyxiation is not commonly seen as the sole method in homicide cases. Supported by Henderson et al. (2005) and Slovic et al. (2017), asphyxiation cases can differ, but are generally the result of strangulation, either by ligature or manual. Difficulties in overpowering some of the victims broadly results in asphyxiation as a latter method to blunt force trauma. The strength needed for this method may also impact whether there were multiple methods used and the number of wounds inflicted to result in death.

Unique Method: Mutilation

Mutilation has been seen in a variety of cases related to overkill. Mutilation is defined by Newman Dorland (2007) as "the act of depriving an individual of a limb, member or other important part of the body; or deprival of an organ; or severe disfigurement" and it also covers the term "dismemberment" (Hakkanen-Nyholm, Weizmann-Henelius, Salenius, Lindberg, and Repo-Tiihonen 2009:933). Explanations for mutilation vary. Since the wounds from mutilation are not often the cause of death (Byard 2017:926), it may be considered as excessive when examined in relation to the number of wounds.

CHAPTER THREE: METHODOLOGY

It is important to further assess the injuries inflicted on a victim. To do so, Safarik and Jarvis (2005) suggest that "quantitative measurement of injury nature and severity could add to a greater understanding of the variation and dynamics within homicide and provide the basis for discriminating between different forms of homicide" (p.189). A quantitative methods project will allow for a more advanced explanation of what overkill is and what causes this unique form of homicide. Overkill is seen as excessive, but it is unclear what excessive means in relation to the number of wounds. Cut-off points to represent excessive wound infliction are needed to establish a framework in overkill literature and to advance research. It is important to first investigate the number of wounds and then include the severity and location of the wounds in future work. Beginning steps to analyze overkill will aid in the exploration of influential factors, which may assist law enforcement and legal proceedings.

Data

This study analyses cases from the GLBT National Dataset. The GLBT dataset is an ongoing database for all homicides related to the LGBTQIA+ community. This means that the victim, offender, and incident could have LGTBQIA+ involvement. The information on these cases can be obtained through law enforcement records, court documents, medical examinations, and media content. Currently the dataset includes 3590 cases but the number continues to increase. The cases are dated from 1969 to 2018 and were provided by Dallas Drake, the co-founder for the Center for Homicide Research. The Center for Homicide Research, located in Minneapolis, Minnesota, exists "to serve as a catalyst for homicide prevention and homicide case

clearance through empirical research, with a strong focus on under-researched and marginalized populations, and organizational partnerships" (Center for Homicide Research 2017).

Sample

For the purpose of this study, the analytic sample of the data focuses on cases with one victim. All other cases with more than one victim were excluded, resulting in a sample size of 1316 cases[1]. The reasoning behind this decision is based on the notion that there is a focus of time, effort, and emotion on the individual victim. A single victim is an only target at the time of the incident, which can impact the number of wounds. Filtering the data to one victim per case will identify more characteristics of an incident. Excessive violence toward one individual can aid in gathering more information on factors that can influence excessive wounds.

Dependent Variable

The dependent variable is overkill, which combines the wounds that are seen as excessive for firearm wounds, sharp instrument wounds, and blunt force trauma wounds. This variable, labeled "OverallExcessive" was created into a dichotomous categorical variable measuring whether or not overkill was present in one of the three categories (firearm wounds, sharp instrument wounds, and blunt force trauma wounds), 0= no and 1= yes. This variable does not differentiate antemortem, perimortem, and postmortem wounds as the information is missing for most cases.

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[1] The sample includes a large amount of missing information per case. Missing data will lead to a smaller sample size as more variables are included in the analyses.

Independent Variables

The independent variables chosen are used collectively to measure different factors that play a part in overkill and other homicide cases. These variables will focus on the incident and the offender and are then used to support the definition.

The first independent variable is the relationship between the offender and victim. This is a nominal level variable, which includes acquaintances, strangers, and other types of relationships. For the purpose of the multivariate analysis, this variable was recoded into three separate dummy variables to signify each type of relationship (1= yes, 0= no). The relationship between the victim(s) and offender(s) may impact the number of wounds during an incident.

The second independent variable is the type of weapon that was used in an incident. This nominal level variable was created using the primary weapon variable and was recoded as 1= gun, 2= sharp instrument, 3= blunt object, 4= personal means (hands and feet), and 5= other. Personal means was separated into another category to consider methods other than blunt force (e.g., strangulation). The weapon used during the incident will aid in an explanation for the number of wounds. It is important to analyze the number of wounds in comparison to this variable because it can explain the level of excessiveness.

The third variable is the weapon access, focusing on weapons that were brought to the scene. This is a dummy variable coded as 0= not brought to scene and 1= brought to incident. This can explain whether the offender(s) brought the weapon to the scene and were prepared for or planned an encounter, or if they used a weapon at the scene, which may explain a "sudden impulse." The weapon may also express a relationship of the victim(s) and offender(s).

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The fourth variable involves the number of offenders and measures whether or not there were multiple offenders. This dummy variable was coded to 0= no, which represents one offender, and 1= yes, which accounts for more than one offender. Observing if there is more than one offender will help understand the relationship between the number of wounds and determine if more offenders result in more wounds.

The fifth independent variable focuses on the unique methods. This variable was created using two different variables, mutilation and dismemberment, and grouped them as a new nominal level variable. The grouping allowed for more cases to be included for the analyses. The values are 0= no mutilation or dismemberment, 1= at least one method of mutilation or dismemberment (includes cases involving both methods). Including this variable will determine the potential significance in relation to overkill and can possibly pinpoint if a relationship between the victim and offender led to this method, leading to more wounds or if this was done for the purpose of disposing a body/ evidence.

The final variable is the inclusion of multiple methods in an incident. This variable was created using information from the weapon description and the type of injuries. It was then dummy coded as 0= no, and 1= yes, measuring the presence of multiple methods being used. Since not all cases of overkill involve multiple methods, it is appropriate to view the importance and the impact there is on the number of wounds that are inflicted.

Analytic Strategy

Multiple methods will be conducted to break down the complexity of overkill. For a more consistent and systematic analysis, the analyses will be conducted through the use of statistical

software, The Statistical Package for the Social Sciences (SPSS). First, in an attempt to measure overkill, quantitative cut-off points for an excessive number of gunshot wounds, stab wounds, and blunt force trauma wounds will be calculated. Extreme outliers for each type of wounds will be removed from the analyses. For purposes of this study, excessive wound infliction is defined as observations that fall one standard deviation from the mean. These values will then result in quantitative cut-off points for each variable (shot, stab, and blunt force trauma) for a definition of the term overkill.

Second, once quantitative cut-off points are determined for each type of wound, three separate variables will be coded representing excessive wounds for gunshot wounds (1= yes, 0= no), stab wounds (1= yes, 0= no), and blunt force trauma wounds (1= yes, 0= no). After each variable is dummy coded, the three variables will be combined to measure overkill in at least one category (1= yes, 0= no). Each cut-off point represents excessive wound infliction and when combined, allows the study to observe certain factors that are related to overkill. See Table 1 for a visual representation of the outcome.

Third, the independent variables will also be tested for multicollinearity. Once the results are gathered for the correlations, chi-square tests will be individually conducted to explain possible relationships. Chi-square tests will suggest modifications of any independent variables being used. This will allow for a stronger multivariate analysis.

Finally, a binomial logistic regression will be conducted to analyze the relationship of the dependent and independent variables. Further examination will allow a detailed look at the

predicted probabilities of the significant variables and excessive wound infliction. The outcomes can be used to support the definition that is to be determined as well.

CHAPTER FOUR: RESULTS

Due to the intricacy of overkill, several weapons (firearm, sharp instrument, and blunt force trauma wounds) were combined to create a representative variable that was not biased by the researcher's preference. To guarantee that every case with a value was inclusive in each variable, zeros were incorporated in the frequencies. All variables excluded missing cases. For purposes of this study, cut-off points representing excessive wound infliction were determined to be the number of wounds that fell one standard deviation from the mean. Anything above the cut-off were deemed excessive or overkill. Table 1 demonstrates the steps taken to create cut-off points representing excessive wounds and express the creation of each coded variable. The table also displays the combination of the firearm, sharp instrument, and blunt force trauma wounds variables (creating variable OverallExcessive) and its outcome.

Table 1: Computing Variable "OverallExcessive"

Variable	Range	Mean	Standard Deviation	Cut-off Point	New Variable Values	Percentages	N
Firearm Wounds	0-18	.51	1.54	3+	Not Excessive	94.1	610
					Yes, Excessive	5.9	
Sharp Instrument Wounds	0-97	4.46	12.26	17+	Not Excessive	89.9	493
					Yes, Excessive	10.1	
Blunt Force Trauma Wounds	0-80	.80	4.58	6+	Not Excessive	95.8	573
					Yes, Excessive	4.2	
Overall Excessive Wounds	---	---	---	---	Not Excessive	86.9	836
					Yes, Excessive	13.1	

One standard deviation from the mean number of firearm wounds was 2.048, which led to the cut-off point representing excessive gunshot wounds as three or more wounds. Although this number may seem low, it is important to note that a high percentage (94.1%) of individuals' lives were either ended by less than three wounds or they were killed by a different method. One standard deviation from the mean number of sharp instrument wounds was 16.72, which led to the cut-off point representing excessive stab wounds as seventeen or more wounds (10.1% of the sample). The high cut-off point shows that there is a large number of multiple stabbings in the sub sample. One standard deviation from the mean number of blunt force trauma wounds was 5.38, which led to the cut-off point representing excessive blunt object wounds as six or more wounds. This method was the least common method, but still proves to be an excessive method related to the cause of death. Each variable was then individually recoded to represent excessive (coded 1) or not excessive (coded 0) wounds and were later combined into one variable measuring overkill. Interestingly, categories that overlapped only displayed non-excessive wounds. For example, some cases that displayed methods of non-excessive blunt force trauma wounds also had non-excessive stab wounds. Cases with multiple methods of excessive wounds were nonexistent. This resulted in the overkill variable only containing values 'not excessive' and 'excessive,' rather than an additional value 'excessive in more than one category.' To consider the categories that did overlap, the multiple methods variable was created as a representation. The overkill variable, that represents the overall excessive wounds of all three categories, shows that there are few cases that express overkill. The 13.1% that do express overkill inform us that there are cases that differ for reasons that may not be known.

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Several variables were examined to analyze characteristics of cases that may influence

the number of wounds that are inflicted. Table 2 displays the variables that the literature deems

as important. The sample size for each variable differs as there is a large amount of missing data

per variable.

Table 2: Descriptive Statistics

Variable	Category	Percentages	N	VIF
Overall Excessive	No	86.9	837	---
	Yes	13.1		
Relationship			717	1.034
	Stranger	30.5		
	Acquaintance	31.8		
	Other	37.7		
Weapon Type			514	1.259
	Firearm	28.0		
	Sharp Instrument	29.4		
	Blunt Object	9.7		
	Personal	13.6		
	Other	19.3		
Brought Weapon			529	1.265
	No	46.7		
	Yes	53.3		
Multiple Offenders			1103	1.035
	No	74.2		
	Yes	25.8		
Mutilation and/or Dismemberment			914	1.056
	Neither	81.9		
	One or both	18.1		
Multiple Methods			859	1.050
	No	81.5		
	Yes	18.5		

The relationship between the victim and the offender shows that strangers (30.5%) and

acquaintances (31.8%) were close in number to other types of relationships (37.7%). Commonly,

people are killed by family and friends (Silverman and Kennedy, 1987), which is evidently

different in this study. This may be due to the focus on the LGBTQIA+ community. The type of

weapon demonstrates that sharp instruments (29.4%) are more common in the sample, followed

by firearms (28%); other (19.3%), personal means, such as hands and feet (13.6%); and blunt

objects (9.7%). Sharp instruments may imply more personal violence resulting in a higher

number of excessive wounds. When comparing the access an offender had to a weapon, it is

more frequent that offenders brought the weapon to the incident (53.3%). On the other hand,

46.7% either used weapons from the incident or used their hands, feet, arms, etc. Offenders who

brought weapons to the incident may imply that they were prepared for violence or were

planning on harming someone.

The majority of killings involved a single offender (74.2%) compared to more than one

offender (25.8%). Mutilation and/or dismemberment are not common (as shown by the 18.1%

cases that experience these methods), but it is important to distinguish if there is a relationship

with the number of wounds as this method is a unique form of violence (considering that 18.1%

of cases displayed at least one method of mutilation or dismemberment). Multiple methods being

used are also uncommon (18.5% used single methods), but the 18.5% that include multiple

methods can aid in information that may be missing in the dependent variable, showing us that

there may be a connection in the number of wounds inflicted.

To examine the intercorrelations among the independent variables, multicollinearity was

tested. All variables had a variance inflation factor (VIF) of less than 2, which is smaller than the

4 minimum recommended by Fisher and Mason (1981). This explains that each variable is

indeed independent. Chi-Square tests were also completed to view the level of association among excessive wounds and each independent variable individually (see Table 3).

Table 3: Chi-Square Outcomes of Excessive Wound Infliction and Incident Characteristics

Independent Variable	Categories	Chi-Square	Significance	Percentages	N
Relationship	Stranger Acquaintance Other	4.28	.118	--- --- --- ---	611
Weapon Type	Firearm Sharp Instruments Blunt Object Personal Other	13.54**	.009	13.13 18.25 13.93 25.53 8.06 4.44	434
Brought Weapon	No Yes	7.65**	.006	15.57 10.67 19.77	488
Multiple Offenders	No Yes	11.75**	.001	13.77 11.17 21.16	726
Mutilation and/or Dismemberment	No Yes	.67	.413	--- --- ---	761
Multiple Methods	No Yes	1.84	.175	--- --- ---	727

Note: Percentages represent the relation to excessive wounds @ *p < .05, **p<.01

These tests led to significance in all variables except the relationship between the victim and offender, the presence of mutilation and/or dismemberment, and the use of multiple methods. There is not an association at the bivariate level between excessive wounds and the relationship, mutilation and dismemberment, and multiple methods. For those variables that are associated with excessive wounds (weapon type, brought weapon, and multiple offenders), a more in depth look was conducted. Bivariate analyses indicate that in relation to the type of

weapon used, 13.13% of victims experienced excessive wounds. Cases characterized by blunt objects as the primary weapon had the highest percentage of excessive wounds at 23.53%, followed by firearms (18.25%), sharp instruments (13.93%), personal means (8.06%), and other weapons (4.44%). Overkill was present more often in cases where the weapon was brought to the scene (15.57%). For cases where the weapon was brought to the scene, 19.77% were characterized by excessive wounds compared to 10.67% of cases where the weapon was not brought to the scene. Multiple offenders, which consisted of 13.77% of the sample, engaged in excessive wound infliction. Single offenders have a lower than average rate of excessive wounds at 11.17%, while multiple offenders had a higher than average percentage of excessive wounds at 21.16%. It was also observed that there is a decline in the sample size per variable. This is due to the missing cases that were not counted as valid.

A binomial logistic regression is used to determine the relationship between characteristics of the incident and excessive wound infliction. Missing values within each variable led to an overall sample size of 232.

Table 4: Logistic Regression Results of Incident Characteristics in Relation to Overkill

Independent Variable	Category	B	SE	Odds Ratio
Relationship	(Reference: Other) Stranger Acquaintance	.097 .530	.489 .474	1.102 1.699
Weapon Type	(Reference: Firearm) Sharp Instrument Blunt Object Personal Means Other	.045 1.382 -.785 -.990	.480 .688 .864 .724	1.046 3.984* .456 .372
Brought Weapon	---	.592	.487	1.808
Multiple Offenders	---	.845	.406	2.327*

Independent Variable	Category	B	SE	Odds Ratio
Mutilation and/or Dismemberment	---	.207	.484	1.230
Multiple Methods	---	-.478	.638	.620

Intercept	.094
LR Chi2	21.09*
P-value	.021
N	232
R2	.105

Note: B = unstandardized regression coefficient. SE = standard error. @ *p < .05.

A likelihood ratio chi square test of 21.09 with a p-value of .021 indicates that the predicted value of overkill in relation to the independent variables is significant. The pseudo R square of .105 indicates a weak model. Blunt objects and multiple offenders were the only significant variables that independently predict the odds of excessive wound infliction. Compared to a firearm, the odds of excessive wound infliction are higher for a blunt object by a factor of 3.98, while controlling for all other factors in the model. Using a sharp instrument, personal means, or other weapon as the primary weapon does not impact the odds of excessive wounds, compared to firearm.

Multiple offenders was the other significant variable that contributed to our understanding of excessive wound infliction. The odds of excessive wound infliction for cases with multiple offenders are 2.33 times higher than for cases with one offender, while controlling for all other factors in the model. Based on the logistic regression model, the predicted probability of excessive wounds for multiple offenders is 23.56%. In contrast, the probability of single offenders inflicting excessive wounds is 12.37%, when all other variables are held constant.

Results based on several analyses have led to a definition of overkill. The definition will be further tested based on future studies. As of this study, the definition is:

> Overkill is the intentional or inadvertent infliction of excessive wounds which include a minimum of three firearm wounds, seventeen stab wounds, or six blunt force trauma wounds, whether or not postmortem, to an individual by one or more offenders.[2]

It is evident that there are cases which consist of multiple methods. Due to the lack of significance in this study, multiple methods was not additionally analyzed in regard to excessive wounds. It is also important to note that the lack of information on antemortem, perimortem, and postmortem wounds has led to the inability of differentiating the stages in which the wounds were inflicted. This has impacted the outcome of the definition.

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[2] This definition consists of single methods, but may be applicable to multiple methods used at the incident. Multiple wounds, mutilation, and dismemberment may be present as characteristics in the cases, but are not measured specifically in this particular study. Further examination of overkill will elaborate on this definition.

CHAPTER FIVE: DISCUSSION AND CONCLUSION

The purpose of this research was to explore overkill and factors associated with excessive wound infliction in homicides. To begin, the provisional definition required cut-off points in regard to the number of wounds. The number of wounds is important as it is the first step in the process of deconstructing the complexity of overkill. This resulted in the outcome of excessive injuries being three firearm wounds, seventeen stab wounds, or six blunt force wounds. The cut-off points were then used as part of the definition, claiming that overkill is the intentional or inadvertent infliction of excessive wounds which may include a minimum of three firearm wounds, seventeen stab wounds, or six blunt force trauma wounds, whether or not postmortem, to a single individual by one or more offenders. The definition focuses on single methods. The lack of significance in multiple methods did not require additional analysis for this study. Due to the focus of this study and the lack of overlapping cases that express excessive wounds, these circumstances have not been explored yet. Further expansion of this study will evaluate an appropriate measure of wounds that consist of multiple methods.

This study intended to examine excessive wounds inflicted on individual LGBTQIA+ related victims and the characteristics related to the influence of these numbers: the relationship between the victim and offender, the type of weapon, the focus on offenders that brought weapons to the incident, the inclusion of multiple offenders, the presence of mutilation and/or dismemberment, and the involvement of multiple methods. The findings may have been influenced by the small sample size of 232 cases as more variables were introduced in the multivariate analysis. Blunt objects (compared to firearms) as the type of weapon and multiple

offenders were the only significant variables in comparison to the relationship of the victim and the offender, the access to the weapon, mutilation and/or dismemberment, and multiple methods in relation to excessive wounds.

Basic frequencies informed us that strangers and acquaintances have percentages relatively similar to other relationships. The relationship outcome of the frequencies is worth noting. Family and close individuals, such as family and friends, are generally noted in other literature as more common offenders (Silverman and Kennedy, 1987), which makes it intriguing to see that acquaintances and strangers were more common in this data. Unfortunately, there was no findings which could aid in more information about this pattern. These patterns could possibly be due to the focus of LGBTQIA+ cases. Frequencies were also informative that it is more common for offenders to bring weapons to the incident, mutilation and/or dismemberment to not often be present, and single methods to be used compared to multiple methods.

It was observed that sharp instruments seemed more frequent, and personal means and other methods were more common in the data set than blunt objects, but further analysis on the relationship of the weapon type and excessive wounds resulted in similar observations in literature by Last and Fritzon (2005) who claimed that blunt objects result in excessive wounds. The weapon type in Chi-Square tests expressed a higher association with the use of blunt objects, followed by firearms, sharp instruments, personal means, and other in relation to excessive wounds. These associations may have also influenced the outcome of blunt objects being significant in the multivariate analysis.

Descriptive statistics also showed a higher frequency of incidents involving single offenders than multiple offenders, but bivariate analysis expressed a higher percentage of excessive wounds by multiple offenders. When tested in a multivariate model for a relationship with excessive wounds, there was a significant relationship regarding multiple offenders inflicting such wounds. This finding supported Laajasalo and Hakkanen's (2006) statement that more wounds are inflicted with the presence of multiple offenders. All variables, regardless of significance, have pointed to unexpected observations which may be influenced by the focus on the LGBTQIA+ community.

CHAPTER SIX: LIMITATIONS AND FUTURE WORK

As with any research, there are limitations in this study. To begin, the data set has a wealth of information and considers almost every characteristics of an incident, such as the number of offenders, any symbolism, and the motive of the offender. Although it is an impressive data set, it has incomplete and/ or missing information. This could be due to the lack of information from sources at the time of data collection or the error of the individual who was inputting data. Much of the information has been imputed for years by multiple student interns at the Center for Homicide Research. There is a codebook, but some of the information is based on the researcher's discretion. This means that there is a large amount of missing and inconsistent information which restricted some variables (e.g., sexual acts and hate crimes) from being used in the analyses. Inconsistent data, for example, are present for the number of stabbings in a case. The original variable consisted of whole numbers, numbers including "+," and grouped numbers. For consistency, any number that was not a whole number was recoded as missing. Values that were coded as missing have led to a small sample size for the multivariate analysis.

The second limitation is the types of variables in the data set. This data set is extremely detailed. By this it is meant that each variable tends to have a large number of categories due to having to cover every possibility in the LGBTQIA+ homicides. Since the variables consist of many values, the values had to be grouped into broad categories to be used for this study. I believe that a large number of categories can harm the outcome of the analyses because some of the categories represent less than five percent of the sample.

The third limitation is that some information was not recorded, such as number of blunt force wounds. To create the variable, this required going back to each case to record the number of wounds. The location of the wounds have been noticed as an important factor for overkill, but the lack of this information in the data set and as a whole limits the abilities of this research. This is similar to other variables, which were not included in this study.

The fourth limitation is the use of the type of weapon variable. Significance in certain categories may be due to the use of firearms, sharp instruments, and blunt force trauma wounds as the variables focused on for the dependent variable. It was noticed that using blunt objects as a reference category influenced many of the categories. The reasoning behind this is unknown and was not used in this study.

The fifth limitation regards the offender information. If there is more than one offender, it is difficult to group characteristics, such as the relationship. The relationship focused on the first offender, who was generally the primary offender if there is more than one offender. Some offenders had different relationships which made grouping difficult. For example, one offender could be an acquaintance and the other could be a significant other. This can mask the outcome of the significance of the relationships.

Future research in this area should run analyses to test the cut-off points used in the definition. It is also important to investigate the location and severity of injuries in relation to the number of wounds as it seemed to have an impact on the victim's injuries. Other variables should be included to expand on significant relationships to excessive wound infliction and amplify the literature.

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