Crimes Committed By Tattooed Female Offenders and the Significance of Body Art Content and Location

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CRIMES COMMITTED BY TATTOOED FEMALE OFFENDERS
AND THE SIGNIFICANCE OF BODY ART CONTENT AND LOCATION

by
Megan Sullivan

A Research Project Proposal Presented in Partial Fulfillment
of the Requirements for the Degree
Masters of Criminology

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CRIMES COMMITTED BY TATTOOED FEMALE OFFENDERS
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ABSTRACT

Crimes Committed by Tattooed Female Offenders
And the Significance of Body Art Content and Location

The body is a site of manipulation, mutilation, and decoration, evident through centuries of body marking and tattooing. There is a very compelling relationship between tattooed individuals and crime, and this descriptive study investigates the presence of tattoos amongst female offenders. Research analysis identified the relationship between tattoos and convicted female offenders, along with the significance of the content and location of the offenders’ tattoos.

Keywords: criminology, tattoo, female offenders, crime
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INTRODUCTION

In 2006, it was estimated that 24 percent of adults in America had tattoos, the majority of whom were between ages 20 and 31 (Silver, VanEseltine, & Silver, 2009). Some argue that a tattoo is merely a reflection rather than a cause of criminal or delinquent behavior (Peterson, 1997). Since the body serves as a way to identify ethnicity and gender, tattoos can express the social position that the body occupies, especially in the prison world (Demello, 1993). Researchers argue that tattoos are a sign of low self-esteem, deviant sexual orientations, drug or alcohol abuse, aggressive personalities, and impulsiveness (Adams, 2009).

Statement of the Problem

Statistically, the relationship between criminal activity and tattooing is almost stronger than any other factor (Dalrymple, 2002). In particular, highly visible tattoos have been most strongly associated with deviant behavior (Adams, 2009), yet little research exists on the significance of the location of an offender’s tattoos. The connection between male tattooed offenders and crime has been well-documented over the past few decades, but there is relatively little recent documentation to support the concern that female offenders with tattoos might also be associated with a high level of risk and criminal behavior.

Overview of the Problem

Tattooing allows for people to express their individuality, sometimes at the level of undertaking a criminal image (Vail, 1999). Tattooing is more common among prison populations, and those with tattoos are more likely to engage in risk taking, substance abuse, and deviant behaviors (Manuel & Retzlaff, 2002). Visible tattoos allow criminals
to grab the attention of others, attracting attention to themselves. There are a greater number of repeat offenders who have tattoos (Post, 1968), as tattoos are used within correctional facilities to communicate ethnicity, status, and affiliations, and signify one’s identity as a convict (Adams, 2009). Violent behavior and the commitment to a deviant lifestyle have been identified as predictors of tattoo possession (Silver, VanEseltine, & Silver, 2009), evident by the undeniable relationship between the presence of a tattoo or tattoos, and violent, aggressive behavior in offenders (Newman, 1982).

Despite the documented support for the relationship between tattooed offenders and crime, there is little research that examines types of crime and tattoos in female prisoners, and the significance surrounding the content and location of these tattoos.

Purpose of the Project

Over the decades, tattooing has slowly been reestablished as art, although the enduring relationship between criminals and tattoos is still very evident (Kosut, 2006). Researchers have often associated tattoos with risk-taking behaviors such as the use of cigarettes, alcohol, or drugs, suicidal tendencies, unsafe sex, and violence (Adams, 2009), and individuals who partake in these risk-taking behaviors tend to be arrested more often (Koch, Roberts, Armstrong, & Owen, 2010). Tattoos can reflect prison life (prison bars, clocks, etc.), or might signify one’s commitment to a criminal lifestyle when highly visible on the face, neck, or hands (Lozano, Morgan, Murray, & Varghese, 2010). The type of tattoo a convict chose might depend on where the convict came from and his/her present situation in prison (Demello, 1993). Tear drop tattoos (representing the term or terms served, or how many people he/she has killed), Christian imagery, women, skulls, fantasy images, and anti-social slogans (“Fuck the World”) are very
popular types of prison tattoos (Demello, 1993). Crime is learned through associations with criminal definitions, as evident in the social learning sub-cultural theory, differential association. In prisoners, the identity indicated by their tattoos might protect them from being harmed or killed while incarcerated (Koch, Roberts, Armstrong, & Owen, 2010). When criminal sub-cultures exist, individuals learn to commit crime, and criminal behavior might become chronic if reinforced (Cullen & Agnew, 2002).

The purpose of this project was to demonstrate the types of crimes most strongly associated with tattooed female offenders. By conducting a retrospective study involving secondary data analysis and a mix of qualitative and quantitative methods, the researcher examined the significance of tattoos, their content, and their location in women who have been convicted of crimes. It was hypothesized that the frequency of tattoos would be higher among violent female offenders in relationship to non-violent offenders. This research advanced current knowledge of the relationship between tattoos and types of criminal behavior, and revealed the significance of the visibility and content of tattoos.

Research Questions

Research indicates that there is a distinct connection between tattooed individuals and criminal behavior, yet specific states and prisons have received minimal recent research regarding the types of crimes committed by tattooed individuals and the significance of tattoo location and content, especially for female offenders. It was hypothesized that the frequency of tattoos would be higher among violent female offenders in relationship to non-violent offenders. This research proposal attempted to answer several questions that guided this study:
RQ1: Is there a relationship in the types and/or body locations of tattoos among female offenders based on the type of crime they have committed?

RQ2: What percentage of convicted female criminals have tattoos?
RQ3: What percentage of convicted female violent offenders have tattoos?
RQ4: What percentage of non-violent convicted female criminals have tattoos?
RQ5: Is the content of the tattoos more masculine and aggressive in violent female offenders?
RQ6: Are tattoos less prevalent in non-violent offenders?
RQ7: Is there a difference in the body location of tattoos as a status symbol between violent and non-violent offenders?
RQ8: Are tattoos more visible with convicted violent offenders than with non-violent offenders?

These research questions explored the relationship between type of crime committed and the location of the tattoo(s) and type of tattoo(s). Prisoners with tattoos are more commonly associated with felonies rather than misdemeanors (Britt, Panepento, Wilson, 1972). Research indicates that the frequency of tattoos can be associated with an increasing degree of criminal behavior, as there is a positive association between the number of tattoos and the number of prior offenses and convictions (Harry, 1987). Visible tattoos have been connected to assaultive behavior, deliberate self-harm, delinquency, and substance abuse, as those with visible tattoos appear to be more likely than other prisoners to engage in violent and impulsive
behavior (Mason & Grubin, 1999). The location and type of tattoo can suggest various levels of one’s commitment to a criminal lifestyle, as large tattoos (especially visible on the face and neck) are designed to attract more attention and publicize a higher level of commitment (Phelan, 1998). Research suggests a distinct relationship between tattoos and masculinity, which is evident in erotic figures and aggressive symbols. Names, slogans, erotic figures, religious symbols, and weapons have been common tattoos associated with criminals for decades (McKerracher & Watson, 1969).

Definitions

Tattoo

A tattoo is created via multiple punctures that introduce pigment into the skin to produce a decorative design. Tattooing in an invasive procedure, and a small to moderate amount of blood is often released during the repetitive puncturing of the skin (Armstrong, Faan, Owen, Roberts & Koch, 2002). Tattoos have been described as “external designs for internal feelings” (Armstrong, Faan, Owen, Roberts & Koch, 2002, p. 28).

Offenses

For the purpose of this study, offenses will include assault and battery, drug crime, murder, property crime, robbery, and sex crime.

Antisocial

Antisocial attitudes can predict criminal behavior and recidivism (Walter, Wiesbeck, Dittman & Graf, 2011). Antisocial personalities can be powerful predictors of violent crime, as offenders with antisocial tendencies display higher levels of impulsivity and hostility (de Barros & de Pádua Serafim, 2008).
Identity

“Identity is an ongoing process that emerges from individuals’ interpretative and communicative efforts. To assume identities, conceptions of self and others are announced, situated, and placed” (Phelan, 1998, p. 278). However, “given “identities don’t necessarily match identities that are “given off”, so many individuals struggle to repair and clarify how they are perceived (Goffman, 1959).

Those with tattoos are most commonly described as impure, criminal, or deviant (Reed, 2000), and tattoos have traditionally been associated with prisoners (Birmingham, Mason, & Gruben, 1999). Despite tattoos’ rising popularity among mainstream society, society still considers heavily tattooed individuals to be socially unacceptable (Vail, 1999). There is an undeniable relationship between tattooed individuals and crime, which can be attributed to aggressive personalities and impulsiveness (Adams, 2009). However, little recent research exists on the subject, especially research that focuses on the relationship between tattooed female offenders and crime.
This literature review was accomplished by accessing Regis University online resources and academic databases to find peer-reviewed or scholarly journal articles related to tattoos and criminal behavior. Databases accessed included: Academic OneFile, Academic Search Premier, PsychINFO, PsychARTICLES, EBSCOhost, ScienceDirect, Google Scholar, Sociological Abstracts, National Criminal Justice Reference Service Abstracts, MLA International Bibliography, and Newspaper Source. In addition, Regis Interlibrary Loan services provided access to scholarly journal articles not readily available through the databases. Successful key terms included *tattoo, body art, crime, criminals, deviant,* and *criminal behavior,* providing a thorough review of available literature on tattoos and criminal behavior.

**History**

Tattooing was once considered a very effective form of punishment in China, as visibly and permanently marking someone as a criminal upon re-entry to society brought great shame (Reed, 2000). The Chinese felt strongly about the body being preserved in the state it was given to them; if one failed to preserve his body, he failed to fulfill the familial duty, and brought shame to his family (Reed, 2000). In ancient Chinese history, there were 200 crimes punishable by tattoo (Reed, 2000). For example, if a person was convicted of robbery, he/she received a tattoo behind the ear. After excessive or severe crimes, the person received a tattoo on the face as punishment (Reed, 2000). In 1712, Peter the Great ordered authorities to use a needle to draw a cross on the hands of the military recruits who abandoned the fleet. Authorities rubbed gunpowder onto the cross to ensure that it would be visible and permanent, and were ordered to capture any man identified with the symbol (Schrader, 2000). In similar fashion, convicts received an
eagle branding rubbed with gunpowder so they would be known as convicts for the rest of their lives (Schrader, 2000). In early Russian penal systems, people of both genders and all social classes were subject to punishment via bodily inscription. Tattooing or branding also played an important part in designating one’s membership in a particular social group so the authorities could control and track the country’s citizens (Schrader, 2000). Later, citizens started inscribing tattoos on their own bodies that allowed them to identify one another, transforming the process that was once designed to alienate them into a process that signified pride and membership. Criminals also started using tattoos to promote their rank in the prison world, but only the most experienced convict could identify himself on the breast, as he had earned the right to do so through his crimes (Schrader, 2000).

Towards the beginning of modern prison systems, tattooing was utilized as a way to degrade prisoners. In India, those who received life sentences had their name and crime tattooed on their foreheads by authorities, while in Australia, convicts on ships were tattooed in order to humiliate them and provide a means of prisoner surveillance (Awofeso, 2002).

In the mid 1700s, heavily tattooed natives were brought over to the West, and were considered to be human oddities. The natives’ tattooed bodies differed from the civilized appearance the Westerners were accustomed to, and consequently, tattoos became associated with the lower or uncivilized societal class (Burgess & Clark, 2010). By the 1800s, the “Tattooed Lady” or “Tattooed Man” were popular attractions at circuses throughout Europe and the United States. Alexandrino, a tattooed star in the 1870s and 1890s, had acquired over 388 separate tattoos, confirming the tattoo’s status.
as a form of cheap, popular amusement (Caplan, 1997) found on those who were socially undesirable (Adams, 2009).

In 18th century Europe, tattooing was considered a fad, but was not associated with criminal activity until the end of the 19th century (Bradley, 2000). By that time, criminologists had persuaded the public to believe that tattoos were associated with the lower classes and criminals (Adams, 2009). In an 1895 study of over 13,000 individuals who were classified as insane, criminal, or honest, tattooing was most common among criminals (Putnins, 2007). In addition, criminals were believed to have little sensitivity to pain, which explained their likelihood to have tattoos. When tattoos became more accessible at the end of the 19th century, they became more popular among the lower classes, who were already labeled as social deviants (Adams, 2009).

In the early 20th century, tattoos were also a symbol of pride and patriotism for military men serving in the wars (Kosut, 2006). In 1943, the rejection rate for tattooed men attempting to enlist in the armed services was 50 percent greater than for those without tattoos, and the majority of the tattooed rejects were labeled mentally unstable or socially deviant (McKerracher & Watson, 1969). In observing members of the Armed Services, Ralph Fried (1983) documented that the majority of tattooed persons were male, and that the majority of the men’s tattoos were located on the arms, back and legs, and primarily consisted of fierce animals, suggestive female figures, phrases, and religious symbols. On the contrary, the majority of the women’s tattoos were on the shoulder, ankle, breasts, and hips, and were mostly floral or “sexy” in nature (Fried, 1983). In a more recent study, about 36 percent of Army recruits had tattoos that the majority acquired between the ages of 15 and 21 (Armstrong, Faan, Owen, Roberts &
Tattooing has started to regain its popularity in America’s mainstream society over the past couple of decades, as many have turned the focus of tattoos from deviance to an expression of identity or serious art form (Adams, 2009). Advances in procedures, lower tattoo costs, higher incomes, and many new tattoo artists entering the industry have contributed to the rise in tattoo popularity (Swami, 2011). Currently, tattooing encompasses lower and middle classes; it includes those who are not traditionally considered delinquent or antisocial (Burgess & Clark, 2010), and is very common among women and college students under 30 (Lutz, 2010). The increasing popularity in body modification practices has undoubtedly affected the way tattooed individuals are perceived; non-tattooed individuals have begun to view tattooing as a more civilized practice, as they are more exposed to people with tattoos (co-workers, family members, friends, etc.) (Burgess & Clark, 2010). “Fashionable” tattoos that suggest designs other than the traditionally delinquent designs, reality shows surrounding tattoo shops, and high-profile celebrities or athletes with tattoos are all indications of tattoos’ changing perception among society (Burgess & Clark, 2010). Lightly tattooed individuals often view their body art as fashion accessories, having acquired the tattoos because they simply wanted one, or thought they looked good (Swami, 2011). Despite tattoos’ rising popularity among mainstream society, society still considers heavily tattooed individuals to be socially unacceptable (Vail, 1999), and current evidence suggests that tattoos remain associated with delinquency (Burgess & Clark, 2010).

Over the past few centuries, tattoos have served as a type of punishment, status
symbols, declarations of loyalty or love, signs of religious beliefs, and bodily embellishments. Although tattooing has greatly risen in popularity, body art still retains its negative associations with criminal behavior and delinquency.

Tattoos in Prisoners

Names, slogans, erotic figures, religious symbols, and weapons have been common tattoos associated with criminals and psychopaths for decades (McKerracher & Watson, 1969). Those with tattoos have long been described as deviant, impure, or uncivilized (Reed, 2000), and have traditionally been associated with occupations such as military service and other groups like drug addicts, psychiatric patients, and prisoners (Birmingham, Mason, & Gruben, 1999). Tattoos allow individuals to express masculinity or manliness, or remind them of loved ones or of relationships they can’t have. In terms of feminist theories, crime is shaped by social experiences and power, and men have a documented history of using crime to exercise control over women and prove their masculinity (Cullen & Agnew, 2002). Femininity has long been associated with smooth, firm, and young looking skin, and some women experience feelings of inadequacy if they fail to live up to the idealized visions of feminine skin (Patterson & Schroeder, 2010). Consequently, women feel compelled to project symbols or feelings on their skin the forms of tattoos to compensate for their inadequacy. Heavily tattooed women might also use tattooing as a way to distinguish themselves from society and challenge gender stereotypes (Goulding & Follett, 2002); their tattooed bodies make them a spectacle, demanding attention from others and disrupting the perception of women acting invisible and reserved (Patterson & Schroeder, 2010). Nonetheless, tattooed women tend to experience more negative attention and associations than tattooed men.
Essentially, tattoos are external manifestations of important feelings, and portray one’s attachments, fantasies, or attitude (McKerracher & Watson, 1969). They act as a system of communication, as a means of identity, and are symbolic of human struggles and stories (Kirkland, 2009). Tattoos can serve as a significant source of information, providing insight on one’s thoughts, memories, morals, and images that are of value to him/her; tattoos are symbolic representations of an idea or set of ideas (Caplan, 1997). A tattoo collection represents one’s actions, beliefs, fears, and hopes, and has great effects on their interactions with society (Vail, 1999). Having tattoos does not mean that one is condemned to a life of deviance and crime, as many non-criminal individuals have tattoos (Durkin & Houghton, 2000), but it can be an indication of the increased risk of becoming an offender (Peterson, 1997). Despite the historical connection between tattoos and criminality, some researchers maintain that it has started to grow beyond its negative connotations (Adams, 2009).

When a baby is born, he/she comprehends the world through skin contact, as the infant is placed against the mother and bonding develops. The need for skin contact continues throughout one’s lifetime, as a toddler smears his/her skin with food or paint, and many lonely elderly individuals enjoy petting animals (Fried, 1983). The skin is a means of attracting attention and sexual stimulation. Therefore, the mechanisms and defenses of an adult, such as masochism, guilt, fantasies, aggression, and feelings, can be represented on the skin through tattoos (Fried, 1983). Skin represents the relationship between one’s thoughts and outward reflections, and between society and one’s self (Patterson & Schroeder, 2010). Out of 10,000 tattooed individuals from the
general public, the most common motivation for obtaining a tattoo was sexual in nature, as both sex and tattooing involves the insertion of fluid, and needles simulate thrusting movements (Steward, 1990). Other common motivations included guilt, rebellion, imitation, compulsion, narcissism, sadomasochism, and decoration. Individuals who acquired tattoos on their genitals or breasts reported the process to be more painful than being tattooed on other parts of the body, supporting the theory that masochism was involved in acquiring tattoos in these particular locations (Haines & Huffman, 1958).

Visible tattoos have been accompanied by self-destructive behavior, violence, substance abuse, disorders, and childhood problems (Lozano, Morgan, Murray, & Varghese, 2010). In 2001, Christopher Slavin was convicted of luring two Hispanic laborers into a warehouse to beat, kick, and stab them. Slavin had visible tattoos that promoted skinheads and swastikas on his arms, chest, and abdomen. During the trial, the State Court of Appeals ruled that a defendant’s own body, specifically his tattoos, could be used as evidence that he committed a crime driven by hate (Healy, 2004). The judges ruled the tattoos proved that Slavin’s crime had been motivated by prejudice. In 1995, a soldier with white supremacist inclinations was accused of murdering an African-American man and woman after bragging about earning his spider-web tattoo shortly before the murders occurred (Sack, 1995). The spider-web tattoo was used in skinhead groups and gangs to identify its wearer as a murderer, often in racially motivated crimes. Law enforcement were informed by skinhead groups that this specific tattoo was a symbol that an individual had killed someone for the cause (Sack, 1995).

In a study designed to examine the relationship between tattoos and crime when
little research existed on the subject in the United States, 482 male prisoners were sampled from the Illinois State Penitentiary System (Haines & Huffman, 1958). One hundred seventy-nine prisoners had one or more tattoos, while 303 prisoners did not have any tattoos. Both groups were categorized by type of offense: violent crimes against a person (homicide, sexual assaults or rape, and robbery), and non-violent property crimes (larceny, burglary, and breach of trust). The study concluded that prisoners convicted of non-violent crimes were more likely to have one or more tattoos, as about 52 percent of tattooed prisoners were incarcerated for non-violent property crimes (Haines & Huffman, 1958). Burglary was the most common non-violent property crime committed, while robbery was the most common violent crime against a person, accounting for 40 percent of total crimes committed by prisoners with tattoos. Of the 179 tattooed prisoners, 42 percent had only one tattoo, while the remainder had two or more tattoos. The most recurring tattoo themes amongst prisoners with tattoos were expressions such as “love” or “mom” near the heart, along with names of former girlfriends (Haines & Huffman, 1958). The study also indicated that men who only had one tattoo were more likely to have a tattoo of his name, nickname or initials. The tattoos were classified by erotic or decorative, mnemonic devices, or philosophical significance. Erotic or decorative tattoos included roses, panthers, bluebirds, daggers, swords, comic strip characters, and phrases such as “born to lose”, “never forget the betrayal”, “born to raise hell”, and “born to suffer”. Mnemonic devices included service or social security numbers, places, cities, and events, while tattoos considered to be of philosophical significance were stars, crosses, Crucifixes, flags, etc. The study revealed that erotic or decorative tattoos were the most common among tattooed
In a later study, researchers examined 686 male patients with unstable social histories who had committed acts of violence and were secured at an English special security hospital. Of the 686 patients, 105 of the men had one or more tattoos (McKerracher & Watson, 1969). The average number of tattoos per patient was eight, with the number of bodily tattoos ranging from 1 to 61. The study indicated that men with six or more tattoos had committed more breaking and entering offenses, more assaults on women, and were more likely to have been convicted for being drunk and disorderly (McKerracher & Watson, 1969). Larceny accounted for 77 percent of offenses committed by the tattooed individuals; 46 percent of offenses were breaking and entering, 21 percent were categorized under grievous bodily harm and actual bodily harm, and 14 percent were drunk and disorderly offenses. Much like the previous study, the most recurring tattoo theme among patients was the name of relatives or acquaintances accompanied by hearts, along with erotic and aggressive designs. The study concluded that the tattooed men were more aggressively unstable and younger than other patients, and were more likely to be convicted of larceny, drunken disorderliness, and breaking and entering (McKerracher & Watson, 1969).

Despite some societies or cultures that emphasize the purposeful, decorative, and emblematic attributes of tattoos, criminal and delinquent populations have often been documented with having a high occurrence of tattoos (Britt, Panepento, Wilson, 1972). Deviance is depicted by four behaviors, including social rule breaking, irresponsibility, self-indulgence, and interpersonal intrusiveness, and is validated by anger, control, excitement, and greed (Walters, 1990). Criminal thinking styles include
cutoff, impulsive reasoning behind deviant behaviors; discontinuity, the disconnect between thoughts and behaviors that enables criminals to still view themselves as good people; entitlement, believing that societal rules do not apply to certain people because they are different than others; mollification, blaming society for their problems; power orientation, assessing if others are easy targets; and sentimentality, performing good acts to convince themselves that they are not completely bad people (Walters, 1990). Criminals have unsound ways of perceiving and thinking, which leads to flawed decision making and illegal behaviors (Lozano, Morgan, Murray, & Varghese, 2010).

In a study of 500 consecutive admissions to a prison in North Carolina, almost 27 percent had tattoos, and those with tattoos were much more likely to have committed felonies rather than misdemeanors (Britt, Panepento, Wilson, 1972). However, the study did not reveal any significant difference in the occurrence of tattoos between those who committed crimes against a person and those who committed property crimes. Sixty-five percent of the tattooed prisoners had more than one tattoo, and understandably, with increasing age, there was an increase in the number of tattoos (Britt, Panepento, Wilson, 1972). The study documented a total of 653 tattoos on the prisoners, classified as an inscription or graphic. Inscriptions included names, numbers, phrases, and initials. Due to the nature of graphic tattoos, this classification was divided into sub-groups of aggressive (daggers, weapons, vicious animals), designs (geometric shapes and ribbons), love (pierced hearts), patriotic (flags, stars, anchors), religious (crosses), sexual (naked or semi-naked figures, and sexual symbols), and miscellaneous (insects and birds, or any tattoo that did not fit the previous categories). Utilizing this classification system, the misdemeanant population had more tattoos that
fell under the inscription category, while felons were more likely to have aggressive tattoos (Britt, Panepento, Wilson, 1972). The study concluded that young, white, intelligent felons who committed crimes against a person had the most tattoos (Britt, Panepento, Wilson, 1972). As most of the offenders in the study were first-time offenders, the tattoos were not obtained in prison; this was an indication that the acquisition of a tattoo might be a predictor of incarceration (Britt, Panepento, Wilson, 1972). Based on the frequency of tattoos in this sample, the researchers deduced that having a tattoo could be due to an individual's impulsive and uninhibited behavior—the same behavior that can result in criminal behavior and imprisonment.

Studies have linked individuals with tattoos to delinquency, prison records, drug addictions, and felony charges (Newman, 1982), and some researchers maintain that individuals acquire tattoos because they wish to display a symbol of physical strength and aggressiveness (Hawkins & Popplestone, 1964). In an attempt to discover the motivation behind tattooing, 256 Caucasian male prisoners were examined in a study that sorted tattoos into the categories of aggressive, fate, identify, love-sexual, and religious (Newman, 1982). Aggressive tattoos included skulls and crossbones, daggers, and ferocious animals (black widow spiders, panthers, etc.). Fate or luck tattoos included phrases such as "born to lose", numbers, or dice. Identity tattoos included initials or an organization or person. Nude females, hearts, and the word "love" were categorized as love-sexual, while crucifixes, rosaries, and a Star of David were considered religious. The prisoners' behaviors were classified as assaultive crimes (murder, rape, molestation, assault, armed robbery, kidnapping, or manslaughter), or non-assaultive property crimes (breaking and entering, burglary, auto
theft, and forgery). The study concluded that there was an undeniable relationship between the presence of a tattoo or tattoos, and violent, aggressive behavior (Newman, 1982). Of the prison population sample, 14 percent possessed tattoos, and 83 percent of the tattooed prisoners had committed assaultive crimes; only 47 percent of non-tattooed prisoners had committed assaultive crimes. The study also revealed that the theme or category of the tattoos were determined by personal motivation, and would not aid in a psychiatric diagnosis of a prisoner.

Research has indicated that the frequency of tattoos can be associated with an increasing degree of criminal behavior, as there is a positive association between the number of tattoos and the number of prior offenses and convictions (Harry, 1987). In a study involving 45 male offenders referred by the State Board of Probation and Parole, the average number of arrests per offender was three, and almost 47 percent of the offenders had tattoos (Harry, 1987). Most of the tattoos were arrogant or romantic in nature, and were primarily located on the forearms and upper arms. The next most popular location for the tattoos was on the chest, followed by the back and lower legs, and lastly on the necks and hands or fingers. In terms of visibility, 7 percent of the tattoos were readily seen, 40 percent were sometimes seen, and about 53 percent were usually unseen (Harry, 1987). The sample population primarily consisted of rapists, robbers, murderers, and assailants; however, results indicated that there was no significant difference in any offense type between offenders with tattoos and those without tattoos. Inmates with tattoos were diagnosed with drug abuse more than those with no tattoos, which could have been an indication of greater impulsivity (Harry, 1987). In addition, the tattooed inmates were the only individuals who also sustained self-
inflicted cuts or scars, possibly an indication that tattoos are related to self-mutilation. Based on these findings, the study suggested that violent men with tattoos might have a difference in self-concept and suffer from low self-esteem, resulting in behavior that would compensate for feelings of inadequacy (Harry, 1987).

In a study that focused on the significance of tattoo location and visibility in 549 adult male prisoners, 28 percent had visible tattoos that were primarily homemade and on the hands, or professionally inked on the neck and face (Mason & Grubin, 1999). Fifty-three percent of offenders with visible tattoos were currently charged with a violent offense (property or person), and 88 percent had previously served a prison sentence. It’s possible that some of the prisoners may have received their tattoos while in prison, evident by the positive relationship between visible tattoos and previous criminal sentences. Visible tattoos were clearly correlated with assaultive behavior, deliberate self-harm, delinquency, and substance abuse, as those with visible tattoos appeared to be more likely than other prisoners to engage in violent and impulsive behavior (Mason & Grubin, 1999).

In an attempt to distinguish his study from others, Josh Adams (2009) drew his sample from the general population, instead of sampling only college students or prisoners. Since tattoos might serve as a specific social function within prisons, and those with visible tattoos are more likely to be socially branded, Adams (2009) predicted a positive relationship between an individual with a tattoo on his/her face, neck, or hands and having served time in jail. In Adams’ (2009) study of 500 adults in the United States between the ages of 18 and 50, 120 men and women had at least one tattoo. Only 13 percent of the tattooed individuals were involved in the military, and 90 percent
reported having a family member or friend who had acquired a tattoo. In addition, those who had spent at least three days in jail were most likely to have a tattoo, specifically on the face, fingers, hands, or neck. This indicated a significant meaning behind the location of tattoos, and that having tattoos on certain areas of the body could be directly related to negative associations and labels. After being branded as a criminal due to tattoos, especially visible tattoos, individuals might fall victim to labeling; individuals might become stabilized in criminal roles after being labeled as criminals, which encourages these individuals to develop their criminal identities (Cullen & Agnew, 2002). However, the study indicated that recreational drug and alcohol use were not significantly related to having tattoos, suggesting that tattooed individuals weren’t necessarily involved in other socially deviant activities (Adams, 2009). The study ultimately revealed that despite the rising popularity of tattoos among mainstream society, the relationship between jail time and tattoos supported decades of research that identified a distinct connection between prisoners, deviancy, and tattoos.

Although many studies that focus solely on college students might be branded as overly standardized and reflecting only middle-class norms and principles, these studies sought to solidify the sub-cultural theory. Sub-cultural identity theory states that individuals need to create sub-groups against which their different identities can surface, and that there needs to be tension with the common cultural environment (Koch, Roberts, Armstrong, & Owen, 2010). Sub-cultures form to provide people with a sense of belonging to a group divided by gender, class, race, etc. Tattooing is recognized as an ideal medium for expressing individuality, much like one’s personal clothing or hair style that establishes his/her gender, class, ethnicity, and sexual
standards (Atkinson, 2004). Those who experience a level of incompleteness or unclear identity are more likely to use symbols to express their social identities (Phelan, 1998). In a study of 1753 men and women, the respondents’ deviance was measured in terms of illegal behavior and legal behavior that conflicted with social norms. Individuals with four or more tattoos were more likely to be involved in deviant behavior than those with no tattoos, and were more likely to have previous arrests (Koch, Roberts, Armstrong, & Owen, 2010). The study concluded that acquiring tattoos could be attributed to the desire for uniqueness, and that individuals who engage in delinquent activities might be attempting to mark the margins of sub-cultural identity (Koch, Roberts, Armstrong, & Owen, 2010).

In a study of 208 adult male prisoners from the Texas Department of Criminal Justice and 66 male college students from Texas Tech University, the tattooed individuals were categorized by those with prison tattoos and those with non-prison tattoos (Lozano, Morgan, Murray, & Varghese, 2010). Prison tattoos included prison images (clock faces, gang symbols, prison bars) or tattoos that were acquired in prison. Non-prison tattoos consisted of tattoos that the general public might acquire, such as national origin, animals, and love. The study indicated that inmates with prison tattoos had an unfounded sense of entitlement and were more likely to be committed to a criminal lifestyle than the other students and inmates. The prison tattooed inmates were described as immature, and were inclined to blame others for their involvement in criminal activities (Lozano, Morgan, Murray, & Varghese, 2010). Prisoners with tattoos had an average of six convictions, while those with no tattoos had the lowest average number of convictions. In addition, inmates with prison tattoos were more likely to
misbehave and receive punitive infractions, and were more likely to recidivate (Lozano, Morgan, Murray, & Varghese, 2010). Consequently, inmates with prison tattoos would require more attention and should be of the highest concern to staff in regards to management problems. There were no compelling differences in prisoners with a greater percentage of skin covered by tattoos in terms of recidivism, criminal thinking, and punitive infractions; however, inmates with visible tattoos were at greater risk of behavior problems and recidivism. Inmates with antisocial-themed tattoos (demonic images, intimidating messages, aggressive images that violate social norms, etc.) scored higher in criminal thinking, and were more likely to recidivate than those with non-antisocial-themed tattoos (Lozano, Morgan, Murray, & Varghese, 2010). In order to reduce recidivism, correctional staff should focus on rehabilitation measures for inmates with prison tattoos, and identify these inmates as individuals who might be more likely to misbehave while incarcerated (Lozano, Morgan, Murray, & Varghese, 2010).

Although many non-criminals acquire tattoos, tattoos have traditionally been associated with prisoners, and they can be an indication of the increased risk of becoming an offender. The acquisition of multiple tattoos might be indicative of the impulsive and uninhibited behavior that results in criminal behavior and deviance. As the majority of studies that have documented the frequency and content of tattoos have focused on male prisoner populations, the proposed research aimed to provide valuable insight on the frequency, content, and visibility of tattoos among female prisoners.

Psychiatric Implications of Tattoos

Some researchers believe that there is a strong relationship between antisocial personality disorder and tattoos, as those with the disorder tend to be self-abusive, fail
to plan ahead, suffer from low self-esteem, and are reckless and impulsive (Raspa & Cusack, 1990). Others have identified voluntarily inflicting pain on one’s body and marking the skin with permanent symbols of “impurity” as anti-social behavior (Koch, Roberts, Armstrong, & Owen, 2010). In a study that attempted to demonstrate the relationship between antisocial personality disorders and tattoos, 15 of 96 psychiatric patients had tattoos, which included dots, crosses, pictorials, and love/hate themes. Twenty-two percent of male patients had tattoos, while only 2 percent of females had tattoos. Tattoos were present in 34 percent of patients who were diagnosed with substance abuse, but only one tattooed patient was diagnosed with a personality disorder (Williams, 1998). The study revealed surprising results that failed to document an undeniable relationship between a personality disorder or substance abuse and the presence of tattoos.

In a study of 37 tattooed psychiatric patients and non-prisoners, and 226 male and female inmates from various institutions, about half of the inmates were tattooed. The majority of male inmates began with professional tattoos, but added prison tattoos once they had been convicted. Seventy-four percent of the male inmates and 68 percent of the female inmates arrived at the various institutions with tattoos, while 26 percent of the males and 32 percent of the females obtained their first tattoos within the first few weeks of being detained in custody (Taylor, 1974). Female inmates primarily had homosexual tattoos, including the names of their partners; the most aggressive female inmates had tattoos of gangs, daggers, and chains on their arms (Taylor, 1974). Unlike the females, the male inmates did not have tattoos of the names of other inmates, but instead had tattoos with names of the opposite sex. The male inmates had
a greater variety of tattoos, including “love” or “hate” tattooed on their fingers, swastikas, cartoon characters, hinges tattooed on their arms and elbow joints, a Crucifix on the thumb or forefinger, the star of certain prison camps on their right ears, and spots on their cheeks and foreheads that signified the length of the sentences they had served (Taylor, 1974). The non-prisoners primarily had tattoos of women, daggers, snakes, skulls, badges of the Armed Service, and places travelled on their chest and limbs—none of the non-criminals had acquired facial tattoos (Taylor, 1974). Some of the male inmates obtained tattoos because they considered it to be manly, but most of them admitted to obtaining tattoos because they wanted to be different. The male prisoners without tattoos claimed that tattoos were simply a way for criminals to publicize their criminal careers (Taylor, 1974). In an attempt to discover any personality differences in the tattooed and non-tattooed individuals, the researchers utilized the 16 Personality Factor test. The results indicated that female inmates with tattoos were more suspicious, tense, unstable, sexually confused, and defiant than the non-tattooed inmates, and consequently needed more supervision. The male inmates with tattoos were more aggressive, unrestrained, and lacked self-discipline in comparison to those with no tattoos (Taylor, 1974).

Due to a lack of resources, prison tattoos tend to only be black, while individuals on the outside have access to professional tattoos with a range of colors (Phelan, 1998). Prior to the 1970s, any black only tattoo would be recognized as a prison tattoo, since most professionals used color inks at the time (Demello, 1993). Non-prisoners tend to have tattoos in less noticeable places, designed only to be shared with intimates, while prisoners are frequently tattooed on the face and neck in order to
express their social position and complete their identities (Phelan, 1998).

Antisocial behavior and tattoo acquisition have both been linked to reckless and impulsive behavior, with female prisoners exhibiting suspicious, defiant, unstable characteristics. Tattoos on the neck and face act as status symbols, and such visibility might be indicative of what types of crime a female offender has committed, and how many crimes she has committed.

Tattoos in Adolescents

Most studies of adolescents with tattoos reveal deviant and risk-taking behavior. Recent research has indicated that youth who acquire tattoos are at risk of being regarded as troublemakers and are more likely to be influenced by deviant peers to partake in criminal activities (Durkin & Houghton, 2000). Tattooing is illegal for youth, and this might result in rebellious activity designed to refute the prohibition of acquiring tattoos (Silver, VanEseltine, & Silver, 2009). Tattoos’ permanence might also appeal to adolescents, as this feature makes tattoos an especially daring form of body alteration. Even though individuals may no longer participate in deviant behavior or maintain a particular social role, the permanence of tattoos acquired as adolescents might prevent those individuals from moving away from that risky, deviant behavior, increasing the likelihood that a delinquent self-image or deviant path will continue through adulthood (Silver, VanEseltine, & Silver, 2009). In a study of 898 youths, 17 percent of the males and 30 percent of females had tattoos. Only 2 percent of males age 11 to 13 had tattoos, compared to 47 percent of males age 19 to 20. Eight percent of females age 11 to 13 had tattoos, while 52 percent of females age 17 and older had obtained tattoos (Putninš, 2007). The study revealed a positive relationship between tattoos and
fighting, deliberate self-harm, and aggressiveness primarily in the males. Although the study pointed to an increased risk in recidivism among youths with tattoos, there was a lack of consistency in the results, suggesting that the presence of a tattoo was not actually a reliable indicator of recidivism risk (Putnins, 2007). However, the researchers did indicate the need for future research regarding the potential connection between recidivism and the size, location, number, visibility, and design of tattoos.

Tattoo acquisition among adolescents might be attributed to self-protection, prior deviant behavior, and weak social bonds (Silver, VanEseltine, & Silver, 2009). Tattoos might provide a way for individuals to display their toughness, dominance, and to avoid attacks (Silver, VanEseltine, & Silver, 2009). According to a study of over 13,000 adolescent boys and girls that analyzed their behaviors and characteristics prior to and after tattoo acquisition, tattoo acquisition was predicted by violent victimization, supporting the theory that tattoos were used to symbolize strength and to deter attacks (Silver, VanEseltine, & Silver, 2009). Adolescents who have been involved in delinquent behavior were more likely to obtain a tattoo in order to demonstrate their commitment to a deviant lifestyle, and the study identified marijuana and alcohol use and violent behavior as predictors of tattoo possession (Silver, VanEseltine, & Silver, 2009). Individuals with weak social bonds to others have less commitment to relationships and society; they disregard the social costs of acquiring a tattoo, as they care less about the negative reactions from others (Silver, VanEseltine, & Silver, 2009). According to the study, adolescents with high grade point averages were more likely to be sensitive to adult disapproval; this was an indication that these adolescents would be less likely to acquire tattoos, since adults tend to view tattoos negatively (Silver,
As delinquent identities might develop from the risky acquisition of tattoos at a young age, deviant or criminal behavior can progress throughout adulthood, with tattoos demonstrating one’s commitment to deviance. Inmates may use tattoos as a way to deter attacks and symbolize their status or strength in prison; therefore, the proposed research attempted to demonstrate how aggressive or violent female offenders may be inclined to have more tattoos with higher visibility.

Identity

Tattoos that are clearly visible might warn others to keep their distance, perhaps acting as a defense mechanism (Popplestone, 1963). Over two years, 409 of 8,574 male inmates at the Colorado Department of Corrections were cited under the Code of Penal Discipline (COPD) for tattooing, most of whom were antisocial personalities. Researchers argued that inmates with little interaction with reality might use tattooing as a way to fulfill fantasies (Manuel & Retzlaff, 2002). Tattoos might provide inmates with a way to visually communicate gang rank or membership, or personal or criminal triumphs. Tear drop tattoos indicate the number of people an inmate has killed, or the length of time he/she has served, and act as a self-inflicted brand (Demello, 1993). Aggressive tattoos (commonly present on inmates convicted of rape, robbery, or homicide) and the tear drop tattoos might demonstrate that these inmates are masculine, tough, and fierce, and can act as an exoskeletal defense (Manuel & Retzlaff, 2002). As a barrier to sexual assaults in prison, some men have the Virgin Mary tattooed on their backs, which could possibly be another indication of a self-defense mechanism.
In addition to self-defense mechanisms, inmates might be motivated by peer pressure within the prisons. Visible tattoos, especially on the fingers, can represent a prisoner’s entry into the criminal world, and can act as a way to represent one’s self in a distinct group (Schrader, 2000). Tattoos can represent information about one’s crimes, the groups to which individuals belong and their rankings, the acts they have committed to maintain their status, and their passion for drugs or other deviant behaviors. Tattoos that might convey several meanings enable the criminal to keep a secret and maintain their exclusivity and uniqueness; by tattooing their own bodies, criminals are able to brand themselves with ownership, denying law enforcement the opportunity to completely control the criminals’ lives (Schrader, 2000).

Tattoos can communicate personal identity, membership in sub-groups within society, or cultural practices and values (Phelan, 1998). In 1961, 65 percent of men enlisted in the Navy had tattoos, as did 25 percent of the men enlisted in the military (Watkins, 1961). Similar to the military, gangs engage in tattooing that designates rank, division, sub-groups, and accomplishments (Phelan, 1998). After joining a gang, many individuals acquire tattoos that display the name or symbol of the gang. These symbols represent loyalty and dedication, and act as a bond between members (Poljac & Burke, 2008). Many gangs expect lifelong membership from their followers, and a gang tattoo demonstrates the member’s commitment to the gang (Phelan, 1998). Gang tattoos differentiate gangs from one another, help rivals and allies identify other members, promote membership, and intimidate others. The location and type of tattoo suggest various levels of commitment, as large gang tattoos (especially visible on the face and neck) were designed to attract more attention and publicize a higher level of
Gang tattoos have the potential to communicate one’s status and past feats, and function as a secret communication system between gang members and those in prison gang. Tattoos that represent one’s accomplishments have to be earned, and those wearing incorrect symbols can suffer severe punishment or death (Phelan, 1998). Inadvertently, gang tattoos also provide law enforcement with significant information, allowing them to implement effective tactics, policies, and plans designed to reduce gang activity (Poljac & Burke, 2008). Many correctional officers and law enforcement agencies document criminals’ tattoos and add them to the individuals’ records, as some tattoos can provide useful information regarding one’s criminal and personal histories; tattoos can reveal a gang member’s rank, criminal expertise, or the number of crimes he/she has committed (Poljac & Burke, 2008). Consequently, some inmates or gang members attempt to remove tattoos that connect them to their criminal pasts.

Individual identity is limited for prisoners during incarceration, but tattoos can express each inmate’s identity (Lozano, Morgan, Murray, & Varghese, 2010). The act of obtaining a tattoo in prison signifies rebellion, of having “stabbed institutional surveillance in the back” (Awofeso, 2003, p. 163). Prison tattoos are often obtained out of boredom, or as initiation into a group (Caplan, 1997). In many correctional facilities, boredom, inactivity, and lack of treatment or training programs would result in prisoners tattooing themselves or others (Haines & Huffman, 1958). Some inmates also used tattooing as a therapeutic act or release when stressed or angry (Awofeso, 2002). In Russian prisons, most inmates reported acquiring tattoos only after they had committed a crime. Those with more convictions and longer terms of incarceration had the most
tattoos; between 95 and 98 percent of convicts in the maximum-security facilities in Russia were tattooed (Bronnikov, 1993). The methods of tattooing in prison are painful and primitive, and have resulted in health complications such as tetanus, gangrene, and lymphadenitis (Bronnikov, 1993). Many prisoners add needles and a bottle of liquid dye (composed of scorched rubber and urine) to an electric shaver to create their prison tattoos. Other types of prison-made tattooing mechanisms included taking a motor from a cassette recorder and connecting it to a guitar strip that vibrated up and down the barrel of a pen (Awofeso, 2002). The most primitive method of prison tattooing involves dipping a needle into ink, and sticking it into the skin until the design is achieved. Tattoos created using this method are usually on extremely public places like the hand or lower arm (Demello, 1993). Inmates pay for their prison tattoos with drugs, money, or canteen (Demello, 1993).

In 1997, 94 percent of inmates in a French prison reported that they acquired tattoos within the first three months of imprisonment (Rotily, Delorme, Obadia, Escaffre & Galliner-Pujol, 1998), while in a similar study, 38 percent of Australian prisoners obtained at least one tattoo while incarcerated (Dolan, Wodak & Hall, 1998). It would appear that new prisoners often received tattoos during the initial part of their imprisonment, as they attempted to become institutionalized and part of the prison community (Haines & Huffman, 1958). In Oregon prisons, it was estimated that 800 male and female inmates received tattoos while in prison, over 300 inmates provided those tattoos, and 75 percent of the tattooing occurred in medium to maximum security prisons (Bellatty & Grossnickle, 2004). Through tattoos, convicts could express their ethnicity, personalities, and affiliations with gangs. According to a compilation of male
convicts and former prisoners, only convicts received tattoos in prison, while inmates did not (Demello, 1993). The acquisition of tattoos during incarceration validated an individual's status as a convict, someone who has been stripped of everything he owns, whose respect was the only thing he retained. A convict's respect was the only thing the system could not take away, and the difference between an inmate and a convict was that very respect; according to the sample of prisoners and former convicts, an inmate had no respect, as he was a model prisoner who bowed to the authority of “The Man” (Demello, 1993). Prison tattoos enable a new convict to become part of a new community to which he now belongs, and to regain control over his body and challenge the justice system that attempted to regulate him (Demello, 1993).

Much like gangs, the tattoos that prisoners wear act as ranking system. In Russian prisons, an inmate's position in the hierarchy of the criminal world was based on his experience, knowledge, and professionalism (Bronnikov, 1993). Those at the top of the hierarchy, called the “ringleaders”, were tattooed with an eight-pointed star on their chests. Those with a cross tattooed on their chests were considered commonplace thieves. Finger tattoos were the most common types of tattoos found on prisoners, as they were the most visible and were designed to correspond with the prisoner's feats (Bronnikov, 1993). A black and white diamond on the finger meant the prisoner pleaded not guilty, and was very dangerous. Three dots tattooed on a female's hand meant she was a thief; a skull or pirate between the fingers represented a murderer, robber, or sadist; and a domino with six dots on the hand or fingers represented a prisoner who was broken and should not be feared. Most murderers were also found to have tattoos of a skull with a dagger, a skeleton, or the heads of
ferocious animals like lions, leopards, or wolves (Bronnikov, 1993). Tattoos distinguished the inmates' right to wear the symbols, as they were visible signs of their authority or deeds.

The body is an important site for the formation of identities, with aggressive or dangerous tattoos demonstrating masculinity and ferocity, and highly visible tattoos representing one's entry into the criminal world, membership in a group, or level of commitment. The proposed research intended to distinguish whether or not the content and visibility of tattoos in female offenders exhibited the same trends that have clearly been documented in previous studies.

Tattoo Visibility

Visible and poorly designed tattoos can result in the unfavorable labeling of tattooed inmates after their incarceration, which can affect the success and well-being of previous convicts with prison tattoos (Awofeso, 2002). In a study of 340 children, the participants were presented with illustrated sets of three individuals who were to be judged solely on appearance; the appearance details were random (long hair, casual dress, etc.) so the results could not be justified by other characteristics that might make the individual distinctive (Durkin & Houghton, 2000). The only difference that would be present on an individual was a tattoo that was visible, but not noticeably extreme in terms of size or design. The study revealed that many children and adolescents have negative opinions of individuals with tattoos; the tattooed males in the illustrations were greatly associated with delinquent qualities (Durkin & Houghton, 2000). It also indicated that young people were aware that if they obtained a tattoo, they were likely to be viewed as a delinquent individual who was associated with illegal and criminal behavior.
Many individuals, including former inmates, outgrow their anti-social and deviant behaviors, but the visible disgraces associated with those behaviors are permanently etched onto their skin (Dalrymple, 2002). The presence of visible tattoos can considerably reduce a previous inmate’s chance of obtaining employment (Awofeso, 2002). Regardless of one’s actual criminality, having tattoos might make one more vulnerable to society’s negative expectations, which could include the increased likelihood of punishment or blame (Durkin & Houghton, 2000). Even though the popularity of tattoos has increased, the stereotypes surrounding tattooed individuals’ personal lives and behaviors remain (Martin & Dula, 2010).

In a similar study of 196 high school and college students, 14 percent had one or more tattoos, with the most popular types of tattoos being noncommercial symbols, animals, names and phrases, floral, and religious symbols (Degelman & Price, 2002). The participants were shown two photographs of the same model; in one photo, the model had a tattoo of a black dragon on her arm, while in the other photo, the same model did not have any tattoos. The study examined 13 personality characteristics, and the results indicated that the model without the tattoo was perceived to be more intelligent, artistic, motivated, generous, mysterious, religious, honest, and athletic than the model with the tattoo (Degelman & Price, 2002). A visible tattoo undoubtedly affected the participants’ attitudes towards the model. Researchers maintain that the presence of visible tattoos might lead to negative or deviant behavior, as negative attitudes are generally associated with delinquent or criminal behavior (Degelman & Price, 2002).

Burgess and Clark’s (2010) findings corroborated the previous study’s
conclusions. In a study of 300 college students, the participants were shown a photograph of an individual who had applied for a job as a children’s care worker or office manager. The individual had either a cute tattoo, tribal tattoo, or no tattoo, and participants provided their assessments of the photographed individual’s suitability for the position. The results indicated that the individual with a visible tribal tattoo was rated the most negatively, and was viewed as less suitable for the job than those without tattoos (Burgess & Clark, 2010). Interestingly, the participants viewed the individual with the contemporary or “cute” tattoo design to be almost indistinguishable from the non-tattooed individual, proposing a modern association for contemporary tattoo designs. The study concluded that individuals with traditional tattoos are still prone to negative associations, and those associations determine how the tattooed individuals are perceived by others.

On the contrary, in a study where 74 percent of men and 56 percent of women had visible tattoos, there were no significant differences in the attitudes, self-esteem, or motives of those with easily concealed tattoos and visible tattoos (Swami, 2011). The study indicated that the physical act of acquiring a tattoo is more important than it’s visibility, supporting the suggestion that tattoo acquisition does not completely revolve around investing in one’s appearance or attempting to distinguish one’s self from others (Tiggemann & Hopkins, 2011).

Research has indicated that individuals with tattoos considered themselves more risky, creative, unique, and adventurous than those without tattoos (Drews & Probst, 2000). In a study of 520 college students, 19 percent of whom had tattoos, 56 percent of respondents obtained their tattoos while in college, 36 percent as juniors or
seniors in high school, and one in 8th grade (Armstrong, Faan, Owen, Roberts & Koch, 2002). The majority of the students viewed tattoos positively, and perceived individuals with tattoos to be unique, self-confident, and interesting. In addition, there was a significant relationship between the number of tattoos a student had acquired and the number of people he/she thought had tattoos; students with tattoos thought there were more tattooed people their age, while the students without tattoos thought there were less (Armstrong, Faan, Owen, Roberts & Koch 2002). The study concluded that tattoos were popular among college students because their skin provided a way to promote their own image or identity, and that most students viewed tattoos as art—not deviant behavior (Armstrong, Faan, Owen, Roberts & Koch, 2002).

Tattooing has mainly been associated with males, as they have long been associated with the masculinity of servicemen and criminals (Adams, 2009). Consequently, little research exists on the relationship between tattooed females and crime. In a study of 518 participants that were mostly female, more than 13 percent had one tattoo, about 3 percent had two tattoos, and about 2 percent had three or more tattoos (Koch, Roberts & Cannon, 2005). There was clearly a positive relationship between the participants' interest in tattoos, number of tattoos, and likelihood of obtaining a (or another) tattoo; the more they considered themselves to have control over their own behavior, the less likely they were to be interested in obtaining a tattoo or more tattoos (Koch, Roberts & Cannon, 2005). Research has indicated that female inmates with tattoos were more likely to be involved in fights, violate prison rules, and receive harsher punishments. In addition, tattooed female prisoners were more likely to have been placed in all four types of institutions (juvenile facilities, reformatories, jails,
The perceptions of others regarding the visibility of tattoos has a profound effect on whether or not one will acquire a tattoo, along with the number of tattoos acquired. In a study of 401 tattooed men and women, 54 percent had one tattoo and 45 percent had multiple tattoos, with the majority of the tattoos located on the back or lower back, upper arm, shoulder, and ankle (Doss & Hubbard, 2009). Most of the participants considered their tattoos to have a communicative value, and there was a positive relationship between a high level of visibility and high communicative value. Individuals with only one tattoo who were higher in public self-consciousness had more visible tattoos when they thought others would not view them in negative ways, and those with multiple tattoos who were higher in public self-consciousness had less visible tattoos when they thought others would view them in negative ways.

Despite the controversial nature of tattoos, acquiring and flaunting tattoos is widely popular. As negative attitudes surrounding the presence of tattoos are commonly associated with delinquent behavior, the visibility of tattoos might indicate risky behavior and elevated levels of aggressiveness or violence. The proposed research intended to reveal the level of violent crime associated with tattoos, along with the significance of tattoo content and level of visibility in violent offenders versus non-violent offenders.

Research presented in this literature review revealed the relationship between tattooed individuals and crime, and how the content and visibility of tattoos might carry certain implications. Tattoos can signify one's status, affiliations, or identity as a convict, as names, slogans, religious symbols, erotic figures, and dangerous weapons have long been popular themes among prisoners' tattoos. Despite tattoos' rising
popularity among mainstream society, individuals with tattoos are still viewed negatively, and tattoos continue to remain most prevalent among prisoners and criminals.
METHOD

Methodology

This study’s sample of inmates was selected through purposive nonproportional quota sampling to reach the targeted sample quickly and with minimal restrictions. This method was chosen because the research was conducted around a predefined group (female offenders with a tattoo or tattoos), and served a very specific need or purpose. Purposive quota sampling allowed the researcher to select a sample on the basis of knowledge of a specific population and its components, and allowed the researcher to judge which population would be the most useful or representative (Babbie, 2010). Very few DOCs had in-depth inmate population databases available to non-employees that included profile data such as type of offense, scars, markings, or tattoos. A minimum of 40 offenders from each offense type group were selected, allowing for additional samples to be obtained if needed to provide an in-depth analysis for each sub-group.

Research Design

The research proposal was a descriptive study that used a mix of quantitative and qualitative methods to answer the research questions. A probability theory approach was used in this retrospective cross-sectional design using an existing database of a sample of female offenders. The probability theory approach provided the basis for estimating the characteristics of the population and for producing a representative sample (Babbie, 2010). The study involved secondary analysis of data collected for another purpose other than research; the Florida Department of Corrections (FDOC) inmate population archival database was chosen because it contained data relevant to the study’s goal. The focus of the secondary analysis was on factors (such as having a tattoo) apparent in a female offender’s profile to determine the
relationship, if any, between type of crime and tattoos’ location/visibility and type. Secondary data analysis allowed for savings in time, feasibility, and a necessary level of unobtrusiveness. However, the retrospective cross-sectional design did not allow for guaranteed data reliability.

Procedures

The population of interest was identified through the use of a personal computer with Internet capabilities using the web-browser Internet Explorer to access the FDOC’s Corrections Offender Network database. The DOC’s inmate population was searchable by name, DOC number, race, sex, age, eye color, height, offense, county of commitment, and current location. For the purpose of this study, the inmate population was searched by type of offense (assault and battery, drug, murder, property, robbery, and sex). A minimum of 40 offenders from each offense type were selected through purposive nonproportional quota sampling.

In order to conduct efficient data collection and analysis, a record for each sample group was maintained to keep track of offenders and their individual sub-groups. Each offender’s type of offense, name (names were not included in the study, but were used solely for keeping track of the data), number of tattoos (if any), location of the tattoo(s), and type of tattoo were recorded.

In this study, offenders were selected by constraining the DOC inmate population by sex and by each type of offense. The search was limited to 50 matches per page. The initial offender list appeared in alphabetical order by last name, with each offender’s release date and birth date.

For the sub-group sample based on the presence of a tattoo or tattoos, the
offenders from each page were copied and pasted from the database to an excel spreadsheet. Binary coding methods were used to document the presence of tattoos among these offenders: (0= no tattoos; 1= has a tattoo or tattoos). For the sub-group based on number of tattoos, the number of tattoos (if any) were recorded under each offender’s name. For the sub-group sample based on tattoo location, offenders assigned with a 1 (has a tattoo or tattoos) had the number of tattoos recorded under 1, 2-3, 4-5, and 5 or more tattoos. The location of each tattoo was documented under the appropriate site, along with the type of tattoo, and the data was entered into the automated content analysis computer program for analysis.

This research project followed Regis University’s research guidelines, and all data and information maintained for this project were stored in a secured file within the researcher’s control. In compliance with the Academy of Criminal Justice Sciences’ (ACJS) Code of Ethics, the researcher avoided unethical use of criminal justice knowledge, and respected the rights of those accused or convicted of committing crimes (“Code of Ethics”, 2000). The researcher was committed to open access to knowledge when possible, recognized the limits of her expertise, reported any financial support for the research, provided adequate information regarding the measures used in the research, and did not expose subjects to more than minimal risk of personal harm (“Code of Ethics”, 2000). Lastly, the researcher acknowledged that information about offenders obtained from records that are open to public scrutiny were not protected by guarantees of confidentiality or privacy (“Code of Ethics”, 2000).

Sample

The population of interest were female offenders from the FDOC inmate
database. Convicted offenders from the FDOC’s Corrections Offender Network comprised this study’s sampling frame, which was accessible through the FDOC’s website, http://www.dc.state.fl.us/ActiveInmates/. Offenders categorized by female sex and types of offenses were utilized, and divided into groups of assault and battery, drug crime, murder, property crime, robbery, and sex crime. The groups were further divided into the following sub-groups:

Tattoo:

YES or NO

Number of Tattoos:

1
2-3
4-5
5 or more

Location:

Face
Neck
Arm
Ankle
Breast
Leg
Chest
Stomach
Back
Running Head: CRIMES COMMITTED BY TATTOOED FEMALE OFFENDERS

Butt
Ear
Hip
Thigh
Toe
Wrist
Shoulder
Fingers/Hand

Type of Tattoo:

Religious
Design
Erotic
Name/Initials
Sayings
Non-aggressive Animals
Floral
Aggressive/Masculine
Fantasy
Food
Love
Drugs/Alcohol
Insect
Place(s)
Directed content analysis and unobtrusive methods were used to measure the observations that were gathered in this research effort. Unobtrusive measures, like collecting records and data from a collection of existing data, allowed for data collection without directly involving human subjects; this measure ensured the feasibility of this study, as prison populations are vulnerable, and access to personal records was limited. Research question one, regarding the relationship between tattoos and type of crime committed, was measured using binary coding to document ratio measurement: 0= no tattoos; 1= has a tattoo or tattoos. Research questions two through seven, regarding the percentage of offenders with tattoos, and the type and location of the offenders' tattoos, were assessed through conventional content analysis and assisted by computer automated methods to identify patterns in the data. Research question eight, regarding the visibility of tattoos, was measured using a five-point scale (1= rarely visible, 2= only visible in underwear, 3= visible in shorts, t-shirt, and open shoes, 4= visible in trouser, long sleeves, and covered shoes, and 5= always visible).

The measures utilized in this study allowed for the collection and measurement of data without directly impacting the sample population, as this greatly influenced the feasibility of the study.
This descriptive study used a mix of quantitative and qualitative methods to answer the research questions, along with a retrospective cross-sectional research design. The sample selection, measures, research design, and procedures outlined in this research proposal provided a secondary analysis for determining the relationship between tattoos and types of crime committed by female offenders, along with tattoo content and location.
The purpose of this retrospective study was to identify the types of crimes most strongly associated with tattooed female offenders. The working hypothesis for the study was: the frequency of tattoos will be higher among violent female offenders in relationship to non-violent offenders. The expected minimum sample of female offenders from the Florida Department of Corrections’ offender database was 240, with the study yielding a final sample of 376 offenders. Through the use of chi-square tests, valuable information was obtained from the sample of female offenders and an analysis of these findings follows.

The information collected from the secondary data analysis included each offender’s type of crime committed, with independent variables consisting of the number of tattoos (if any), type of tattoo(s), and the location of tattoo(s). Tattoo locations included ankle, arm or arms, back, breast, butt, chest, ear, eyes, face, fingers, foot, groin, head, hand, hip, knee, leg, lip, neck, shoulder, stomach, thigh, toe, wrist, and other (location undisclosed by the offender database). Each tattoo was assigned a visibility ranking, based on the scale of 1 = rarely visible, 2 = only visible in underwear, 3 = visible in shorts, t-shirt, and open shoes, 4 = visible in trouser, long sleeves, and covered shoes, and 5 = always visible. Each tattoo was also assigned a ranking based on its type or content, based on 1 = name, initials, or numbers, 2 = design, 3 = aggressive or masculine, 4 = love, 5 = religious, 6 = flower(s), 7 = non-aggressive animal, 8 = insect, 9 = sayings, 10 = place(s), 11 = fruit/food, 12 = erotic/sexual, 13 = cartoon character, 14 = dot(s), 15 = dice/gambling, 16 = eye(s), 17 = drug/alcohol, and 18 = fantasy.

Of the 376 female offenders, 34.7% (131) offenders did not have tattoos, while
65.3% (245) of offenders had acquired one or more tattoos (refer to Table 1). Of the offenders convicted of committing robbery, 77.9% (60) had tattoos; 71.6% (48) of offenders convicted of drug crimes had tattoos; 66.7% (32) of offenders convicted of property crimes had tattoos; 63.4% (45) of offenders convicted of assault or battery had tattoos; 54% (34) of offenders convicted of murder had tattoos; and 52% (26) of offenders convicted of sex crimes had tattoos.

About 71% (32) of assault or battery offenders had multiple tattoos, ranging from 2 to 22 tattoos each; 73% (35) of drug offenders had multiple tattoos, ranging from 2 to 20 tattoos each; 79% (27) of murderers had multiple tattoos, ranging from 2 to 7 tattoos each; 84% (27) of property crime offenders had multiple tattoos, ranging from 2 to 20 tattoos each; 80% (48) of offenders who committed robbery had multiple tattoos, ranging from 2 to 29 tattoos each; and 69% (22) of sex crime offenders had multiple tattoos, ranging from 2 to 6 tattoos each.

The majority (39%) of the offenders’ tattoos were located on either the arm(s) or leg(s), with murderers being the most likely to have tattoos on their leg(s), and property crime offenders being most likely to have tattoos on their arm(s) (refer to Table 3). Of all the offenders, 10.8% had acquired tattoos on their hands, fingers or wrists, and 7.4% of offenders had tattoos on their faces, heads, or necks. The majority of the sample population’s tattoos were visible in shorts, a t-shirt, and open shoes, with offenders convicted of committing robbery most likely to have tattoos that were always visible, and those convicted of murder or sex crimes least likely to have tattoos that were always visible (refer to Table 2).

Across every type of crime, the most common type of tattoo was one that
contained names, initials, or numbers (refer to Table 4). In offenders convicted of assault or battery, the next most popular type of tattoos were designs (tribal symbols, Chinese symbols, stars, jewels, rainbows, astrological signs, etc.); sayings (“in loving memory”, “bullshit”, “100% bitch”, “ride or die”, “love is pain”, “RIP”, “never forgotten”, “boss lady”, “baby girl”, “smile now, cry later”, “karma”, “miss thang”, “mi vida loca”, “#1 Ace”, “lucky”, “blessed”, etc.); and flowers (primarily roses). In drug offenders, the next most popular type of tattoos were designs, aggressive or masculine (panthers, tigers, lions, daggers, dragons, skeletons or skulls, devils, grim reaper, guns, flames, snakes, sharks, tear drops, man pouring blood, scorpion, spider webs, “corrupt” symbol, pistols, etc.) and flowers. The next most popular type of tattoos in offenders convicted of murder were love (hearts), aggressive or masculine, and religious (praying hands, crosses, rosary beads, Virgin Mary, angels, etc.). In property crime offenders, the next most popular type of tattoos were designs, sayings, and aggressive or masculine; designs, aggressive or masculine, and sayings were the next most popular in robbery, and flowers, designs, and aggressive or masculine for those convicted of sex crimes. Tattoos described as “other” included a seashell, skillet, cab, man in moon, hill, locket, or were categorized by the FDOC as unknown or other.

Overall, aggressive or masculine tattoos only accounted for 9.4% of all offenders’ tattoos. In the aggressive or masculine category, offenders convicted of robbery had the most aggressive or masculine tattoos, followed by those convicted of committing drug crimes and property crimes. Offenders convicted of committing non-violent crimes were more likely to have aggressive or masculine tattoos than those convicted of committing violent crimes.
DISCUSSION

Even though the tattoo has clearly infiltrated mainstream society, tattoos have been associated with criminals for centuries, and researchers continue to argue that tattoos are a sign of low self-esteem, deviant sexual orientations, drug or alcohol abuse, aggressive personalities, and impulsiveness (Adams, 2009). Past studies have proven both sides of the theory that violent male offenders were more likely to have tattoos than non-violent male offenders, with little research existing on female offenders. Therefore, the purpose of this study was to expand current knowledge by examining the types of crimes most strongly associated with tattooed female offenders. It was hypothesized that the frequency of tattoos would be higher among violent female offenders in relationship to non-violent offenders. Analysis of the information gathered during this study led to the following findings, and suggested opportunities for future research.

To achieve an understanding of whether the hypothesis held value, the research utilized both quantitative and qualitative analysis in gathering and coding the data from a pre-existing public database. The findings from this study, as it pertains to studies dating back to 1958, validated some of the crimes commonly associated with tattooed offenders. This study sought to expand knowledge in the area of tattooed offenders by examining the frequency of tattoos in female offenders, along with the types of crimes committed by such offenders. The study revealed that there is a significant relationship between offenders and the presence of tattoos, as the majority of the sample offender population (65.3%) had at least one tattoo. However, the hypothesis was not supported, as offenders convicted of drug or property crimes were more likely than the violent offenders to have a tattoo or tattoos, and were more likely to have multiple
Highly visible tattoos have been most strongly associated with deviant behavior (Adams, 2009), as visible tattoos attract attention, can signify one's commitment to a criminal lifestyle, and can act as a status symbol. Offenders convicted of robbery had the most visible tattoos, especially on the fingers, face, wrists, and hands, followed by offenders convicted of assault or battery, and then property and drug crimes. Tattoos in the forms of dots, commonly on the hands, have been linked to thieves as a way to identify their level of criminality (Bronnikov, 1993). In this study, only 1.4% of the population had dot tattoos; however, most of those with dot tattoos had committed property crimes, and the dot tattoos were mainly on the face or hands, almost always visible.

Research has suggested a distinct relationship between tattoos and masculinity, which is evident in erotic figures and aggressive symbols. The masculinity or aggressiveness of the tattoos was evident in the form of fierce animals (such as tigers, lions, bears, panthers, and wolves), daggers or swords, guns or pistols, devils, skulls, and tear drops. Previous studies have concluded that tear drop tattoos indicated the number of people an inmate had killed, or the length of time he/she had served, and might demonstrate a toughness or level of masculinity (Demello, 1993; Manuel & Retzlaff, 2002). However, in the sample female offender population, only five offenders had tear drop tattoos; two were convicted of property crimes, two for robbery, and one for murder. Only 1.6% of the offender population had erotic or sexually suggestive tattoos, but the majority of those with erotic or sexual tattoos were convicted of violent crimes (assault/battery and robbery). This study revealed that aggressive or masculine
tattoos were most prominent in offenders convicted of non-violent crimes, disproving the hypothesis.

It is important to acknowledge that this study was limited by several different factors. As with any retrospective study, the investigator depended on the accuracy of the information contained in the FDOC public offender database, as she had no control over how the original data was collected. Due to purposive sampling methods, it might also prove difficult to avoid selection bias when choosing the sample population. The sample population was essentially a convenience sample of female offenders in one particular state.

Further analysis could focus on the relationship between past offenses and the number of tattoos, or the possible correlation between recidivism and the number of tattoos in female prisoners. Research should focus on female populations with tattoos and without, along with samples from the general female public vs. criminal populations, as little research on female-only samples exists. Future research could examine whether inmates are truly part of their own sub-culture characterized by their high frequency of tattoos and parallel levels of crime and deviance.
CONCLUSION

Despite tattoos' rising popularity in society, tattooed individuals are still associated with deviance, criminality, and negative associations. Differential association theory indicates that crime is learned through associations with criminal definitions, and past research has clearly demonstrated how others label tattooed individuals as deviant or as criminals. This study confirmed that there is a high frequency of tattoos among female offenders, but disproved the hypothesis that the frequency would be higher and more aggressive among violent offenders in comparison to non-violent offenders. Based on these findings, non-violent female offenders were more likely than violent female offenders to have a tattoo or tattoos, to have multiple tattoos, and to have aggressive or masculine tattoos. However, offenders convicted of violent crimes like robbery and assault or battery had the most visible tattoos, primarily located on the hands, face, fingers, and wrists.

According to sub-cultural identify theory, individuals create sub-groups in which their different identities surface, providing people with a sense of belonging to a group (Koch, Roberts, Armstrong, & Owen, 2010). When criminal sub-cultures exist, individuals learn to commit crime; these female offenders were provided with identities that might protect them while they are incarcerated, and the number of tattoos, their visibility, and content could possibly indicate the offenders' status in prison or level of crime, as criminal behavior can become chronic if reinforced.

The disproved hypothesis resulted in new questions for future researchers to examine the relationship, if any, between past offenses, type of offense, and frequency of tattoos. Although this study focused on a small prisoner population from one state,
the commitment to a deviant lifestyle has been identified as a predictor of tattoo possession by many researchers, and the purpose of this study was successful in identifying the types of crime most commonly associated with female tattooed offenders. Future research to understand these findings will continue to provide valuable knowledge on issues involving criminal behavior, including the possible relationship between recidivism and the number of tattoos in female inmates, the relationship between past offenses and the number of tattoos, and the validity of prisoners’ sub-culture defined by their levels of crime and tattoo frequency.
References


Running Head: CRIMES COMMITTED BY TATTOOED FEMALE OFFENDERS


Schrader, A. M. (2000). Branding the other/tattooing the self: Bodily inscription among convicts in Russia and the Soviet Union. In Jane Caplan (Ed.) *Written on the*


Vail, A. (1999). Tattoos are like potato chips...you can’t have just one: The process of becoming and being a collector. Deviant Behavior, 20(3), 253-273.


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Table 1

Type of Crime and Tattoo Frequency

<table>
<thead>
<tr>
<th>CRIME</th>
<th>TATTOO</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no tattoo</td>
<td>has tattoo or tattoos</td>
</tr>
<tr>
<td>Assault/Battery</td>
<td>377</td>
<td>0</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>0.0%</td>
<td>36.6%</td>
</tr>
<tr>
<td>Drug</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>0.0%</td>
<td>28.4%</td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>29</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>0.0%</td>
<td>46.0%</td>
</tr>
<tr>
<td>Murder</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>0.0%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>0.0%</td>
<td>22.1%</td>
</tr>
<tr>
<td>Property</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>0.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Count</td>
<td>131</td>
<td>245</td>
</tr>
<tr>
<td>% within CRIME</td>
<td>34.7%</td>
<td>65.3%</td>
</tr>
</tbody>
</table>
Table 2

Tattoo Visibility and Type of Crime

<table>
<thead>
<tr>
<th>Tattoo Visibility</th>
<th>CRIME</th>
<th>Assault/Battery</th>
<th>Drug</th>
<th>Murder</th>
<th>Property</th>
<th>Robbery</th>
<th>Sex</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>rarely visible</td>
<td>Count</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>42.9%</td>
<td>14.3%</td>
<td>0.0%</td>
<td>28.6%</td>
<td>14.3%</td>
<td>0.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>only visible in</td>
<td>Count</td>
<td>10</td>
<td>11</td>
<td>5</td>
<td>10</td>
<td>14</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>underwear</td>
<td>% within</td>
<td>18.5%</td>
<td>20.4%</td>
<td>9.3%</td>
<td>18.5%</td>
<td>25.9%</td>
<td>7.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>visible in shorts,</td>
<td>Count</td>
<td>47</td>
<td>56</td>
<td>27</td>
<td>55</td>
<td>71</td>
<td>17</td>
<td>27</td>
</tr>
<tr>
<td>t-shirt, &amp; open</td>
<td>% within</td>
<td>17.2%</td>
<td>20.5%</td>
<td>9.9%</td>
<td>20.1%</td>
<td>26.0%</td>
<td>6.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>trousers, long</td>
<td>Count</td>
<td>94</td>
<td>85</td>
<td>60</td>
<td>87</td>
<td>159</td>
<td>40</td>
<td>52</td>
</tr>
<tr>
<td>sleeves, &amp; covered</td>
<td>% within</td>
<td>17.9%</td>
<td>16.2%</td>
<td>11.4%</td>
<td>16.6%</td>
<td>30.3%</td>
<td>7.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>shoes</td>
<td>Count</td>
<td>14</td>
<td>10</td>
<td>2</td>
<td>16</td>
<td>20</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>always visible</td>
<td>% within</td>
<td>21.2%</td>
<td>15.2%</td>
<td>3.0%</td>
<td>24.2%</td>
<td>30.3%</td>
<td>6.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>14</td>
<td>15</td>
<td>10</td>
<td>12</td>
<td>30</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>16.3%</td>
<td>17.4%</td>
<td>11.6%</td>
<td>14.0%</td>
<td>34.9%</td>
<td>5.8%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Count</td>
<td>182</td>
<td>178</td>
<td>104</td>
<td>182</td>
<td>295</td>
<td>70</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td>% within</td>
<td>18.0%</td>
<td>17.6%</td>
<td>10.3%</td>
<td>18.0%</td>
<td>29.2%</td>
<td>6.9%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
### Table 3

**Type of Crime and Tattoo Location**

<table>
<thead>
<tr>
<th>Crime</th>
<th>Tattoo Location</th>
<th>ankle</th>
<th>arm</th>
<th>back</th>
<th>breast</th>
<th>butt</th>
<th>cheek</th>
<th>ear</th>
<th>eyes</th>
<th>face</th>
<th>fingers</th>
<th>foot</th>
<th>groin</th>
<th>hand</th>
<th>head</th>
<th>hip to foot</th>
<th>knee</th>
<th>leg</th>
<th>lip</th>
<th>neck</th>
<th>other</th>
<th>shoulder</th>
<th>stomach</th>
<th>thigh</th>
<th>toe</th>
<th>wrist</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assault/Battery Count</strong></td>
<td>% within CRIME</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Count</td>
<td>% within CRIME</td>
<td>5.5%</td>
<td>16.1%</td>
<td>5%</td>
<td>8.2%</td>
<td>0.0%</td>
<td>1.6%</td>
<td>5.6%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.6%</td>
<td>3.8%</td>
<td>1.1%</td>
<td>8.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>3.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>20.9%</td>
<td>0.0%</td>
<td>7.7%</td>
<td>1.6%</td>
<td>8.2%</td>
<td>2.7%</td>
<td>0.0%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Murder Count</td>
<td>% within CRIME</td>
<td>10.7%</td>
<td>13.5%</td>
<td>0.0%</td>
<td>12.9%</td>
<td>6.9%</td>
<td>3.9%</td>
<td>3.9%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.1%</td>
<td>3.4%</td>
<td>5.1%</td>
<td>6%</td>
<td>3.4%</td>
<td>0.0%</td>
<td>1.1%</td>
<td>6%</td>
<td>1.1%</td>
<td>13.5%</td>
<td>8.3%</td>
<td>5.6%</td>
<td>8%</td>
<td>9.0%</td>
<td>5.1%</td>
<td>0.0%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Property Count</td>
<td>% within CRIME</td>
<td>2.6%</td>
<td>20.0%</td>
<td>0.0%</td>
<td>5.7%</td>
<td>1.0%</td>
<td>2.9%</td>
<td>4.8%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>1.8%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>7.6%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>29.5%</td>
<td>0.0%</td>
<td>1.9%</td>
<td>0.0%</td>
<td>9.5%</td>
<td>3.8%</td>
<td>1.9%</td>
<td>1.6%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Robbery Count</td>
<td>% within CRIME</td>
<td>3.3%</td>
<td>24.2%</td>
<td>0.0%</td>
<td>11.0%</td>
<td>1.6%</td>
<td>1.1%</td>
<td>8.2%</td>
<td>3.0%</td>
<td>0.0%</td>
<td>1.6%</td>
<td>1.6%</td>
<td>0.0%</td>
<td>3.8%</td>
<td>0.0%</td>
<td>2.7%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>14.8%</td>
<td>0.0%</td>
<td>8.9%</td>
<td>1.1%</td>
<td>4.9%</td>
<td>3.8%</td>
<td>2.2%</td>
<td>0.0%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Sex Count</td>
<td>% within CRIME</td>
<td>3.7%</td>
<td>23.7%</td>
<td>0.0%</td>
<td>7.8%</td>
<td>7.7%</td>
<td>5.4%</td>
<td>7.7%</td>
<td>3%</td>
<td>10.0%</td>
<td>3.4%</td>
<td>3.4%</td>
<td>0.0%</td>
<td>4.4%</td>
<td>3.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>29.0%</td>
<td>0.0%</td>
<td>6.6%</td>
<td>3%</td>
<td>5.4%</td>
<td>3.7%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>3.7%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Total Count</strong></td>
<td>% within CRIME</td>
<td>5.5%</td>
<td>20.4%</td>
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<td>7.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.3%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.8%</td>
<td>2.9%</td>
<td>0.0%</td>
<td>4.3%</td>
<td>0.0%</td>
<td>5.7%</td>
<td>0.0%</td>
<td>0.0%</td>
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### Table 4

Type of Crime and Tattoo Content

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