AGE AND SENTENCE LENGTH:
EFFECT ON OFFENDERS’ LEVEL OF AGGRESSION

A Project

Presented to the faculty of the Division of Social Work
California State University, Sacramento

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SOCIAL WORK

by

Tsz Ying Chui

SPRING 2015
AGE AND SENTENCE LENGTH:
EFFECTS ON OFFENDERS’ LEVEL OF AGGRESSION

A Project

by

Tsz Ying Chui

Approved by:

__________________________________, Committee Chair
Teiahsha Bankhead, Ph.D., LCSW

____________________________
Date
Student: Tsz Ying Chui

I certify that this student has met the requirements for format contained in the University format manual, and that this project is suitable for shelving in the Library and credit is to be awarded for the thesis.

__________________________, Graduate Program Director  _______________________

S. Torres, Jr.  Date

Division of Social Work
The purpose of this research study is to understand male inmates’ aggression levels when age at the time of the crime is compared to an inmate’s current age and their convicted sentence length. This researcher is interested in the change of inmate aggression levels over time and investigating the interrelationship between aggression level and age and length of sentence. The design of this study is a descriptive quantitative secondary data analysis. A secondary sample of (N=340) male inmates was used to conduct the analysis. A 108 questions survey were distributed to participants of a restorative justice program at San Quentin State Prison. The study disaggregated inmates into two categories: older and younger than 30 years old. Furthermore, an aggression composite was computed using the inmates’ responses. The findings show that aggression level do change over time among inmates serving indefinite and definite sentences. In addition, results show young inmates with life without parole sentencing scored higher in aggression level older inmates with a definite sentence length. From the findings of the study, one could state that younger offenders are at increased risk of committing violent infractions. In addition, although older offenders serving life without parole are perceived to be dangerous, it is neither cost
effective nor beneficial to continue to confine older inmates in overly restrictive settings as older inmates are less aggressive than younger inmates.

_______________________, Committee Chair
Teiahsha Bankhead, Ph.D., LCSW

_______________________
Date
ACKNOWLEDGEMENTS

Mom and dad: You made sacrifices in your life so I can have a higher education. Mom, I can still remember all the missed opportunities for vacation because you had to pay for our education. You are a perfect depiction of a “tiger mom.” Dad, you encouraged me to pursue a career in which I will enjoy and love. I am incredibly fortunate to have your support and encouragement every step of the way. Both of you have molded me into the person I am today, and I am proud to be your daughter.

Honey badgers: You are all my mentors and the very reason why I am pursuing this field. Thank you for your patience, guidance, and encouragement. Thank you for fostering the clinical being in me because I will eventually venture back and join the team.

Fantastic four-ever: You guys made this process so much more bearable, fun, and entertaining. I will never forget our car rides to Target, our failed dinner and movie night, and our random lunch and ice cream adventures. In my moment of stress, you all gave me an excuse to stop, to take a breath, and to laugh at the ridiculous process.

JP: You drove two hours to spend countless hours on the weekends at the coffee shop with me. You nagged and reminded me to finish my thesis. You were so obnoxiously persistent. Thank you for your tenacious reminders and your unconditional love and support.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgements</th>
<th>vii</th>
</tr>
</thead>
<tbody>
<tr>
<td>List of Tables</td>
<td>xi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xii</td>
</tr>
</tbody>
</table>

## Chapter

1. **Background of Problem**
   - Statement of Research Problem: 5
   - Study Purpose: 6
   - Theoretical Framework: 6
   - Definition of Terms: 8
   - Assumptions: 9
   - Social Work Research Justifications: 9
   - Study Limitations: 9

2. **REVIEW OF THE LITERATURE**
   - Classification: 11
   - Age of Offenders: 14
   - Length of Sentence: 23

3. **METHODS**
   - Study Objectives: 30
   - Study Design: 31
Sampling Procedures ................................................................. 31
Data Collection Procedures .......................................................... 32
Instruments ................................................................................. 32
Data Analysis ................................................................................ 33
Protection of Human Subjects ......................................................... 33

4. STUDY FINDINGS AND DISCUSSIONS .................................. 35
   Overall Findings ........................................................................ 36
   Demographic Data ..................................................................... 36
   Specific Findings ...................................................................... 44
   Correlations ............................................................................... 48
   Interpretations of the Findings ..................................................... 57
   Summary ................................................................................... 59

5. CONCLUSION, SUMMARY, AND RECOMMENDATIONS ........... 61
   Age Matters ............................................................................... 61
   Sentencing as a reliable tool to predict inmate aggression .......... 62
   Age and sentencing ................................................................... 63
   Summary of Study ..................................................................... 64
   Implications for Social Work ...................................................... 65
   Recommendations ..................................................................... 67
   Limitations ................................................................................. 69
   Conclusion ................................................................................ 70
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Tables</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Participants’ identification of aggressive act</td>
<td>44</td>
</tr>
<tr>
<td>2. Participants’ anticipated reactions to questions</td>
<td>45</td>
</tr>
<tr>
<td>3. Participants’ responses in extreme situations</td>
<td>47</td>
</tr>
<tr>
<td>4. Correlation between aggression level and age components</td>
<td>49</td>
</tr>
<tr>
<td>5. Correlation between aggression level and sentencing length</td>
<td>50</td>
</tr>
<tr>
<td>6. Correlation between aggression level and CDCR risk level</td>
<td>51</td>
</tr>
<tr>
<td>7. Aggression composite between inmates with and without a parole date</td>
<td>52</td>
</tr>
<tr>
<td>8. Comparative analysis of yes vs no scheduled parole date</td>
<td>52</td>
</tr>
<tr>
<td>9. Aggression level in comparison to sentence type</td>
<td>53</td>
</tr>
<tr>
<td>10. Independent t-test of sentencing types</td>
<td>53</td>
</tr>
<tr>
<td>11. Crosstab comparison of sentence type and young vs old</td>
<td>54</td>
</tr>
<tr>
<td>12. Chi-square results</td>
<td>54</td>
</tr>
<tr>
<td>13. Aggression composite among young and old age groups</td>
<td>55</td>
</tr>
<tr>
<td>14. Independent t-test of aggression between young and old age groups</td>
<td>55</td>
</tr>
<tr>
<td>15. Mean score of aggression and sentencing among young vs old</td>
<td>56</td>
</tr>
<tr>
<td>16. Independent t-test of aggression levels in differing sentence types</td>
<td>56</td>
</tr>
</tbody>
</table>
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age of Participants</td>
<td>36</td>
</tr>
<tr>
<td>2.</td>
<td>Age of Participants’ first incarceration</td>
<td>37</td>
</tr>
<tr>
<td>3.</td>
<td>Race or ethnic groups of participants</td>
<td>38</td>
</tr>
<tr>
<td>4.</td>
<td>California Department of Corrections and Rehabilitation (CDCR) risk level</td>
<td>39</td>
</tr>
<tr>
<td>5.</td>
<td>Current sentence length</td>
<td>40</td>
</tr>
<tr>
<td>6.</td>
<td>Current sentence</td>
<td>41</td>
</tr>
<tr>
<td>7.</td>
<td>Convicted crime type</td>
<td>42</td>
</tr>
</tbody>
</table>
Chapter 1

As the trend of the prison population experiences unpredictable change, criminological researchers continue to investigate predictive factors, individual and environmental, for the purpose of identifying inmates who are at an increased risk of committing assaultive infractions in prison. The task of reducing violence between inmates is one of the most challenging tasks to achieve successfully (Wooldredge & Steiner, 2013). Others offer suggestions for inmates violent: 1) American prisoners are simply more violent people as evidenced by substantial sample of prisoners convicted for violent offenses, 2) inmate’s behaviors are gradually worsening in prison, 3) prison organization is based on coercion to gain compliance, and 4) violence is a reliable form of communication that demands order (Conrad, 1966). However, it is also argued that the environment affects prison violence as it creates opportunities for physical confrontations between dissimilar inmates and opportunities to victimize those perceived as easy targets because of their individual factors (e.g. age, race, education, etc.) (Wooldrege & Steiner, 2013).

This researcher became interested in the knowledge base of inmate’s aggression level due to involvement in child welfare and mental health. Through this researcher’s work experience, this researcher has encountered numerous individuals arrested and serving a definite sentence length for aggravated assault (e.g. domestic violence, homicide, and non-negligent manslaughter). It is also during these interactions that this researcher have witnessed conspicuous and genuine remorse of inmates for their crime.
Hence, this researcher was motivated to explore the change of aggression levels in inmates and to entertain the possibility of transitioning convicted felons into the general population prison and society as incarcerating inmates for extended length of time has the adverse effect of fostering co-dependency of the criminal justice system rather than annihilating the cycle of violence within communities. Furthermore, after completing the literature review, it is this researcher’s understanding that predicting the future dangerousness of inmates is a daunting and an almost impossible task. While several factors (e.g. age, prior criminal history) prove to be reliable and consistent indicators of inmate aggression, it is vital to assess each inmate on an individual basis. Most importantly, this thesis will serve importance to criminal justice department and policy makers in that it will expand the current research of inmates’ aggression levels while incarcerated, look at the effectiveness of current policies, and contribute to implementing more cost effective strategies used in prisons.

Background of the Problem

The prison industry in the United States had experienced an unprecedented period of growth from 1980 to 2001 with the population expanding from 329,821 to 2,100,146 (California Department of Justice, 2002). Scholars have suggested two primary explanations to account for the growth: cohorts of the baby boom were passing through the correction systems (French & Gendreau, 2006) and policies stemming from the get tough on crime campaign resulted in more prison sentences adjudicated by judges and the enforcing of tough and strict practices by probation officers and parole boards (Langan, 1991). Since then, the prison population has decreased significantly, and half of the
decrease in the correctional supervision rate since 2007 was attributed to the increase in
the size of the U.S. adult population (Department of Justice, 2013). As of the most recent
Bureau of Justice (2013) report, an estimated 6,899,000 persons remains to be under the
supervision of adult correctional systems (Department of Justice, 2014). With
approximately 16,204 inmates in 18 institutions, 24,246 in privately-managed facilities,
and 14,226 inmates in community-based facilities, the magnitude of incarcerated
individuals is alarming (US Department of Justice, 2015). Between 2002 and 2010, total
state corrections expenditures fluctuated between $53.4 billion and $48.4 billion
(California Department of Justice, 2014). Furthermore, despite the decline of 2.1%
persons in the population from 2010 to 2013, it is estimated about 1 in 35 adults in the
United States is to encounter and be under some form of correctional supervision at
year-end 2013. In addition, in 2010 alone, state expenditures totaled $1.9 trillion dollars
and states spent about three-quarters of the corrections budget on correctional institutions,
such as state prisons and residential work release units (California Department of Justice,
2014). It is estimated another 1,574,700 persons are currently being held in state and
federal prisons, an increase of approximately 4,3000 inmates from yearend 2012.
Additionally, the number of inmates sentenced to more than a year in state or federal
prison has increased by 5,400 persons from 2012 to 2013.

Specific to California, the Department of Justice (2001) begun to record official
crime rates in 1952 in efforts to provide some transparency and to gather understanding
of the nationwide trend of crime rate. According to California Department of Corrections
and Rehabilitation (CDCR) (2014), CDCR total institutional population increased 6.0
percent from 2004 to 2007, followed by a 23.3 percent decrease from 2007 through 2013. Male population numbers resembled the total population, the proportion of male offenders within the total population increased slightly from 2004 to 2013, 93.5 percent to 95.5 percent, respectively; and, the incarcerated population being of predominantly African American and Hispanic ethnic backgrounds (California Department of Justice, 2014). Furthermore, the projection data suggests the felon commitment rate will increase 12.7 percent (California Department of Justice, 2014).

Since reinstating the death penalty in 1976, there has been an increase of inmates held under death sentence. Of the 219, 298 inmates held in the federal prison system, at yearend 2013, 35 states and the Federal Bureau of Prisons held 2,979 inmates under sentence of death (Department of Justice, 2013). Furthermore, prisoners under sentence of death in 2013 were 56% white, 42% black, and 14% of unknown ethnicity with 98% being male and 2% being female (Department of Justice, 2013).

In better understanding the trends, it will be helpful to explore how crime is defined, perceived, and measured. According to Department of Justice (2001), crime is defined as any specific act prohibited by law for which someone can be punished by the government. Regarding society’s perception, the societal definition of crime is dependent of the trends and changes in morals, values, and attitudes change, which can result in some crimes being more criminalized as compared to others (Department of Justice, 2001). For instance, in most recent years, California has chosen to criminalize more severe drunken driving and to lessen criminal penalties for the possession of small amounts of marijuana (Department of Justice, 2001). As the prison industry is
punishment based, Department of Justice (2001) explains crimes and punishments are classified by the seriousness of the offenses such as a felony, a misdemeanor, and an infraction. Crimes are disaggregated as violent, property, and drug-related. Statistics relied on participation of federal, state, and local respondents. Annual surveys of probation and parole are distributed to probation and parole agencies in the United States that supervise adults (Bureau of Justice Statistics, 2013). Further, annual surveys of jails collect data from nationally representative sample of local jails each year. The census of jails, aimed at studying the nation’s jails and their inmate population, was conducted in five-year increments from 1972 to 2006. Also at this time, the Bureau of Justice expanded the reporting into the Deaths in Custody Reporting Program, an annual collection that provides national, state, and incident-level data on persons who dies while in physical custody of the state departments of corrections (Bureau of Justice Statistics, 2013).

Statement of the Research Problem

Serious crimes such as homicide poses as a severe threat to the safety of society. As research have indicated that younger inmates being predominantly involved in violent infractions, it is imperative for researchers and the judicial system to study the relationship between aggression levels, inmate’s age, and length of sentence, specifically comparing the types of sentencing statute. As there is an upward trend of specifically the graying population and no real cost effective solution in providing rehabilitative services and reintegration plan, the current quantitative analysis is necessary as it will allow this researcher to investigate the relationship between inmate’s aggression level, age, and
length of sentence in entertaining the idea of transitioning inmates into the general population. The research problem in this research study is to determine if there is a difference in aggression levels among inmates within the same types of sentencing and between inmates of different sentencing types. Also, does the aggression level of an older inmate differ than the aggression level of a younger inmate?

**Study purpose**

The primary purpose of the study aims to contribute to current research of aggression levels among inmates while looking at the interrelationship between inmates and their age, length of sentence, and aggression level. The secondary purpose is to investigate further any differences in research of aggression levels and the amount of sentence served. Furthermore, this study also aims in answering the question “does the aggression level of inmates sentenced for an extensive length of time change;” “are younger inmates more aggressive than older inmates;” “does sentencing type accurately predict aggressive characteristics of inmates?”

**Theoretical framework**

This study will reference the deprivation and importation theories to identify potential correlates of inmate misconduct. The deprivation model suggests that prison misconduct is a reflection of how inmates adapt and cope with the pains inflicted by the prison environment (Steiner, Butler, & Ellison, 2014) as they are deprived of their freedom, liberty, and movement (Dhami et al., 2007). It is posited that prison conditions influence inmate behavior in that the prison environment places a number of restrictions; however, inmates form stratification systems to meet their needs, reduce conflict among
other inmates, and isolate themselves from the harshness of the prison environment (Steiner et al., 2014). Clemmer (1940) provided the example that inmates adapt to their restrictions and use available resources made accessible to them. Similarly, prison life is perceived to be so sterile that any interference with privileges could trigger an outburst of individual violence (Lahm et al, 2008). In response, inmates who commit misconduct acts and utilize illegitimate means violate prison rules in order to satisfy certain needs regardless of the consequences and repercussions.

On the other hand, the importation theory suggests deviant misconduct subculture values are brought inside correctional facilities when offenders are sentenced to prison (DeLisi, Trulson, Marquart, Drury, & Kosloski, 2011). Essentially, inmates import their roles from outside of prison into the prison culture they are entering; and, inmates’ behaviors are merely extensions of previously held values, motivations, and attitudes (Lahm, 2008). For instance, if an inmate had a violent past in the environment where toughness and physical exploitation are vital survival tools, it is highly likely that the inmate’s characteristic will also mirror values of using physical force and toughness while in prison (Lahm, 2008). Furthermore, researchers argue that rather than seeing prison social systems as indigenous and unique, offenders may perceive to it be rather familiar as the prison system has similar characteristics to subcultures of the underprivileged communities (Sorensen, Wrinkle, & Gutierrez, 1998). Examples of these individual level characteristics that were manifested prior to incarceration include inability to cope under conditions of adversity, depression, anger, impulsivity, etc. (Hochstetler & DeLisi, 2005).
Some researchers have tested the relative validity of the importation and deprivation models, and found measures of the importation approach to have better predictors of inmate misconduct (Dhami et al; Walters & Crawford). However, rather than adopting an either/or approach to understanding the adaptations to imprisonment and to identifying correlates of inmate violence, it is suggested to view both approaches as compatible (Dhami).

**Definition of terms.** The following is a list of definitions of terms used throughout this study:

**Aggression** is broadly understood to encompass physical acts of misconduct ranging from verbal belligerence, to threats, to self-injury, to property damage, to assaults (Cunningham, Reidy, & Sorensen, 2008).

**Inverse relationship** indicates as one variable increases, the other variable responds in the opposite direction.

**Age** is the chronological term of how many years an individual has lived. For the purpose of this study, the chronological age of an inmate is segregated into two different measures: young and old for correlational tests. Young inmates is defined as inmates of chronological age 29 years and below. Older inmates is defined as inmate of chronological age 30 years and above.

**Length of sentence** is the amount of time, measured in years, an inmate is convicted of which was adjudicated by the representation of the judicial system.
Assumptions

This research is based on two presumptions. First, rate of violence in prison is unmanageable and remains an unresolved issue endangering the safety of other inmates serving a length sentence and correctional staff. Secondly, a cost analysis of maintain correctional facilities have been thoroughly perused and the current state and federal spending expenditure is the most cost effective.

Social worker research justifications

Over the past few decades, as federal and state prison population have increased dramatically (Kim & Peterson, 2014). Furthermore, it is a common assumption that a capital defendant, or someone sentenced to life without parole, if not executed, will engage in serious violence in prison (Cunningham, Reidy, & Sorensen, 2008). However, research has indicated this not necessarily true, specifically for the graying offenders in the federal prison system. Therefore, benefits of this research study is pertinent to future social workers, as it will expand their knowledge and understanding of aggressive tendencies of inmates. Furthermore, this researcher is hopeful that this study will social workers to advocate for rehabilitative services, adequate healthcare, and cost effective polices of inmates, as they too are individuals deserving of justice.

Study limitations

As with all research studies, this research presents limitations in that it is exclusively a quantitative analysis of secondary data sample gathered from the Insight Prison Project (IPP) at San Quentin Prison. This study is designed to investigate correlations between aggression levels of inmates and their age and length of sentence.
Furthermore, as previous research has studied the relationship between aggression levels and inmate’s age and length of sentence, respectively, this study is designed to further support the current research. This study will not provide the reader with a systematic guideline of how to predict assaultive characteristics in inmates. Furthermore, this study will not provide the reader with policy recommendations. This study will share and discuss results of the study that may be important to consider when designing, modifying, or implementing new policies. Lastly, as the study used secondary data sample, there will be no contact between this researcher, the participant, or the facilitators of the Insight Prison Project. This limits the study in that the instructions presented to the participants is unknown to this researcher.
Chapter 2

Review of the Literature

Inmates convicted of violent crimes, such as homicide, are perceived to have committed a heinous and flagrant act. It is often assumed these individuals are feral, dangerous, and aggressive. Furthermore, the overused and widely denounced defense claim of an inmate’s continual threat to society is routinely used during one’s death sentenced or life without parole indictment (Edens et al., 2005). Therefore, there has been much research in designing objective classification procedures and identifying predictive factors to determine inmates most likely to offend (Cunningham et al., 2005). For the purpose of this paper, I will focus on the literature thoroughly discussed specifically of classification, age, and length of sentence.

Classification

Inmate misconduct continues to be a universal problem in state prisons. Hence, a large body of criminological research has focused on the criminal career paradigm to address the issue, which encompasses the onset, desistance, frequency, and persistence of the crime (Harris, 2012). According to the California Department of Corrections and Rehabilitation (CDCR), with approximately 132,911 inmates in prison currently, the role of CDCR is to maintain safety and order within the correction facilities in a cost-effective manner. In an effort to maintain such safety, inmate classification implemented by the CDCR remains a continued practice, despite what recent research on jury deliberations has shown, juror’s assessment to be highly subjective, (Sorensen & Pilgrim, 2000) and previous research (White, 1980) has cautioned, identifying disciplinary risk of inmates to
be limited and inaccurate. As Piquero (2012) shared, inmate identification and classification is one of the most difficult tasks, and yet critical to the efficient management of prison operations (Bench, 2003). Furthermore, Cunningham & Sorensen (2006) argue that inmate classification remains vital and necessary because it serves the purpose in developing proactive and preventive measures. The goal of incapacitating dangerous offenders is to assess the potential threat of capital murder defendants and to ensure the safety of the public (Sorensen & Pilgrim, 2000). Furthermore, the identification of factors associated with prison violence is imperative since such factors have an immediate practical application at admission to prison (MacKenzie, 1987).

A prison classification procedure is developed to determine the security level of the inmate’s sentence (Sorensen & Cunningham, 2010) as well as to identify the inmate’s likelihood to offend (Berk, 2006). Computation of the classification score by CDCR Reception Center is derived by various factors, including the inmate’s background and current offense. Through the prison classification procedure, inmates most likely to commit serious violent offenses are segregated into greater preemptive incapacitation (Sorensen & Cunningham, 2010) with one of the most popular strategies to place the higher risk inmates in more restrictive surroundings (Berk, 2006). Specifically, the classification procedures include assigning inmates into low, moderate, or high level security, which addresses three inmate managements and concerns: internal security, external security, and prisoner needs (Sorensen and Cunningham, 2008). Internal security reflects the likelihood of misconduct, assigning the inmate to a type of housing, level of supervision, and mix of inmates (Sorensen & Cunningham, 2008). External security
reflects escape motivation with assignment to facilities with varying securities (e.g. fences, gun towers, detention centers, etc) (Sorensen & Cunningham, 2008).

The purpose of labeling inmates is to identify probable behaviors of inmates and to appropriately accommodate for the inmate’s expected behaviors by assigning prison classification of maximum, medium, and minimum security (Bench, 2003). However, some argue contemporary classification systems have evolved into no clear-cut objectives (Bench, 2003) and question the effectiveness of predicting the dangerousness of an inmate since such methods are questionable and inaccurate (Berk, 2006). Classification schemes, although beneficial, relies heavily on historical information available in operational databases that do not identify the individual-level differences obtained from the use of psychologically based assessment instruments (Diamond & Mgaletta, 2006). In a study conducted by Berk, Kriegler, and Baek (2006), only a small number of predictive factors that accurately forecast serious inmate misconduct was found. As a result, the usefulness of forecasting an inmate’s likelihood of committing serious offenses is skeptical due to a lack of research supporting such preconception (Berk, 2006). However, it is also argued through earlier research that classifying inmates during scarce prison space was overwhelmingly helpful (Berk & de Leeuw, 1998). Specifically, inmates at high risk were found to engage in any form of misconduct, including minor infractions (Berk, 2006). While traditional inmate classification is not readily agreed upon, Cunningham & Sorensen (2006) argue that inmate classification remains vital and necessary because it serves the purpose in escape prevention and responses to legislative requirements.
With hopes to mitigate such inaccuracy and to identify attributing factors, Berk, Kriegler, and Baek (2006) conducted a study to assess the effectiveness in predicting the aggressiveness of inmates based on the factors included in the CDCR index. Per the CDCR index-forecasting tool, predictive factors include age at first intake, current sentence length, gang affiliation, mental illness diagnosis, prior convictions, among others. Using data from nearly 10,000 inmates, results yielded auspicious forecasting measures, in that higher risk inmates were younger with long criminal records, were in active gang affiliations, and sentenced to long prison terms.

**Age of Offenders**

Of the research looking at individual-level factors (e.g. age, race, ethnicity, gender), the strongest and most consistent finding is the inverse relationship between age and aggression in prison (Flanagan, 1980; Sorensen & Pilgrim, 2000; Sorensen & Wrinkle, 1996; MacKenzie, 1987). Berk, Kriegler, and Baek (2006) refer to younger inmates with long criminal records, have active gang affiliations, and sentenced to long prison terms as the “perfect storm.”

Upon investigating the aggression levels between the younger and older inmate populations, Cunningham and Sorensen (2006) conducted a study in attempt to predict the institutional violent misconduct based on factors available at conviction and admission and to investigate the applicability of risk factors of prison violence. The purpose of the study was to refine the risk assessment and inmate classification utilized by institutional facilities. The study applied the Risk Assessment Scale for Prison (RASP-Potosi scale), a logistic regression scale, to 14,088 inmates incarcerated at the Florida
Department of Corrections (FDOC) in the 2002 calendar year. The results supported other studies in that age of the inmates was the strongest predictor of violence, with younger inmates more likely to commit violent acts and older inmates least likely to commit violent rule infractions (Cunningham & Sorensen, 2006). Specifically, inmates younger than 21 years of age were 5.8 to 8.8 times more likely to commit violent acts compared to older inmates of 36 to 40 years of age who were ¾ times as likely to commit violent acts (Cunningham & Sorensen, 2006). Furthermore, those of 21 to 25 years age were 1.6 to 2.2 times as likely to commit violent acts while inmates in the older than 40 years age group were half as likely to commit violent acts as those age 31 to 35 (Cunningham & Sorensen, 2006). In another study that investigated the predictive factors involved violent institutional misconduct among high-security inmates, Cunningham & Sorensen (2007) found the inverse age-aggression relationship to also be applicable for high-security inmates. Inmates were disaggregated into six categories: younger than 21 years old, 21 to 25 years old, 26 to 30 years old, 31 to 35 years old, 36 to 40 years old, and older than 40 years old. Among the sample of 24,514 inmates, inmates under 21 years of age were 3.5 times more likely to commit violent acts than the reference group (inmates age 31 to 35 years old). Inmates in the 21 to 25 years old group were 63% more likely to commit violent acts, and inmates age 36 to 40 years old were 13% less likely to commit violent acts. Most significantly, inmates older than 40 years old were half as likely to commit a violent act than those aged 31 to 35 (Cunningham & Sorensen, 2006).

Although the age of the inmate is essential to criminological research, other factors should also be considered and perused, including the inmate’s age upon entrance,
one of the most influential predictors of prison violence (Cunningham et al., 2005; MacKenzie, 1987). To expand the research, Cunningham et al (2011) investigated the extent to which individual-level factors (e.g. age, race-ethnicity, education, prison gang, prior criminal history, conviction offense, etc.) are prevalent among the worst offenders. The study sample was based on archival data and reports of 111 inmates on Texas death row from 1989 to 2008, with the inmates’ mean age upon entrance be 25 years of age. As expected, the study found age to be the strongest negative predictor. In addition, consistent with previous research, the prevalence and frequency of violence related misconduct were inversely related to the severity of the incident. According to Cunningham and Sorensen (2011), 59.5% of offenders engaged in potentially violent misconduct while 48.2% were involved in assaults and only 7.3% of assaults resulted in more than first-aid injury. In addition, results found several predictors that will reduce the likelihood of inmates conducting violent infractions, including inmates being older than 30 years of age at entrance to death row, having normal-high intellectual functioning, and having used a gun as the only weapon. It is hypothesized the inmate’s intellectual functioning is inversely related to violent rule infractions because higher functioning inmates have developed alternative forms of expression. Furthermore, exclusively using a weapon is negatively correlated with potential violent misconduct since it is hypothesized that an inmate’s use of a weapon exhibits premeditation and less impulsivity of the offender (Cunningham & Sorensen, 2011).

While the inmate’s age upon the first entry into prison is considered to be a strong predictor of prison misconduct (MacKenzie, 1987), Piquero et al., (2007) posits the early
onset of criminality is a reliable predictor of chronic offending and criminal versatility. The age-crime curve, in that the rate of crime decreases gradually as the age increases, is well accepted among criminology research (Bench & Allen, 2003). However, such age-crime curve is not true of sexual offenders when compared to non-sexual offenders (Smallbone et al., 2008). With an objective to better understand the criminal careers of sexual and nonsexual offenders, Harris (2013) compared subgroups of nonsexual and sexual offenders. The subgroups consisted of 700 men convicted of a sexual offense at Massachusetts Treatment Center for Sexually Dangerous Persons (MTC) in Bridgewater, Massachusetts between 1959 and 1991. Offenders were aggregated into four onset groups: sexual, violent, property, and miscellaneous. The violent onset category encompassed participants whose first official charge was a nonsexual violence such as a homicide, assault, robbery, battery, and dangerous or negligent acts inflicting bodily harm. The results indicated that participants in the property and violent onset groups had earlier onsets, with more than 50% of the violent onset group, 80% of the property onset group, and 35% of the sexual participants being charged before their eighteenth birthday. Comparably, 15% of participants in the sexual offenders group began their criminal career after the age of 30 while 3.5% of property onset offenders and 8% of violent onset offenders met the same criteria. Furthermore, results supported Piquero et al.’s (2007) hypothesis that the age crime is different for sexual and nonsexual offenders as 10% of sexual onset occurred after the age of 35 but no one from the violent group and 1% from the property group had their initial onset after the age of 35. Akin to sexual offenders, nonsexual offenders had been found to peak in mid-adolescence; however, sexual
offenders observed to have a second peak in the mid to late 30s (Harris, 2013). Specifically, the results indicated 40% to 45% of sexual offenses are preceded by nonsexual offense of violence and property crimes (Harris, 2013).

Aside from distinguishing the age-crime curve among sexual and nonsexual offenders, it is also important to look at the different factors associated with nonsexual offenders. The number of inmates in federal and state correctional facilities is increasing with a vast majority of inmates being relatively young. Inmates of 50 years of age and above are also on the rise, more than doubling between 1994 and 2001 (Kerbs & Jolley, 2009). In the year of 2030, it is estimated one third of the United States population will be 55 years of age and older (Williams et al., 2006). With a rise of older inmates, it is beneficial to address some significant concerns pertaining specifically to the older inmates that indirectly affects the structure, effectiveness, and implementation of prisons. As compared to younger prisoners, older inmates tend to be in poorer health evidenced by the increased reporting of health problems (e.g. learning, speech, vision, health, physical or mental) as inmates move up in the age brackets (Maruschak & Beck, 2001). It is posited the health of an older prisoner deteriorates more quickly than younger prisoners; thus, a 50-year-old inmate may have a physiological age 10 to 15 years older than their chronological age (Mitka, 2004). On average, older prisoners have three serious medical problems: chronic health conditions, substance abuse, and dependence problems (Marquart, Merianos, & Doucet, 2000). Currently, a significant proportion of older inmates require and are legally entitled to medical treatment; however, they are not receiving adequate medical care and are at risk of medical neglect (Kerbs & Jolley,
Prisons are directed to provide a community standard of care for serious medical problems, including dental care, acute care, and general medical, nutritional, psychiatric, and long-term care (Kratcoski & Pownall, 1989). However, older prisoners require a specialized level of care that is often overlooked. Furthermore, without a proper understanding of the older inmate population, there has been much debate about the reasons contributing to younger and older inmate behaviors (Ellis, Grasmick, & Gilman, 1974).

Younger inmates have been found to be involved in more disciplinary infractions, inmate-inmate assaults, inmate-staff assaults, and more reported conflicts with others (MacKenzie, 1987) while older inmates have been easier to supervise and incur fewer disciplinary infractions (Goetting, 1984; Cunningham & Sorensen, 2007). Comparably, older inmates are less likely to escape, violate prison rules, or receive disciplinary reports (Goetting, 1984). Furthermore, though older inmates are presumed to be more dangerous as they have nothing to lose, younger inmates are perceived to be highly susceptible to peer pressure and impulsive due to their lack of experience and consideration of consequences (Ellis et al., 1974) and older inmates pose less of a security threat than younger inmates (Kerbs & Jolley, 2009). To further investigate the relationship between an inmate’s age and the adjustment in prison, White (1980) obtained and reviewed disciplinary records of a criterion of 25 adjusted and maladjusted inmates who were housed at a federal correctional facility in a minimum-security compound. The combined group ranged from ages of 18 to 56 years old. The Adjustment to Prison (AP) scale index was applied and a MMPI score was computed for each inmate, which includes the
inmate’s sentencing history, age, and ethnic background. Results found that maladjusted inmates tend to be younger than older inmates who are more mature, less rebellious, and more accepting of rules and authority (White, 1980). In another study, MacKenzie (1987) examined the aggressive behavior of prison inmates as a function of age. Two hundred fifty adult male participants were selected through random sampling from four close-security prisons (Somers in Connecticut, Stillwater from Minnesota, Logan from Illinois, and Stateville from Illinois). Inmates were categorized into eight age groups, with categories in 5-year intervals beginning with the category of 19 years old and concluding with those 50 years of age or older. The mean age of the inmates was 28.3 years old.

Findings indicated the interpersonal conflicts with prisoners and guards peaked in the early twenties and declined rapidly as age of the inmate increased; after age 30, the number of prison misconduct events became stagnant. MacKenzie (1987) suggests there is a discrepancy in misconduct incidents between older and younger inmates because internal variables motivate older inmates while external variables motivate younger inmates. Older inmates are moreover interested in obtaining internal tranquility and homeostasis, which in a structured environment is conveyed through caring responses. When older inmate conflicts occur, it is suggested it results from attempts to remove bothersome inmates, which is insignificant to the internal goals of younger inmates. For younger inmates, external variables attributing to their aggression include gaining status. It was hypothesized that one reason for the difference in behavior for the age groups were caused by difficulties and stress experienced by the youngest group; however, there was no indication that the age groups that were highest in conflict or in misconduct were more
anxious than those of different age groups. Furthermore, it was found that increased anxiety accompanied by increased conflicts with guards, and interpersonal conflicts only pertained to younger inmates and not to the older inmates. It is posited that younger inmates direct their anger toward individuals perceived to be oppressors or provokers of their difficulties (MacKenzie, 1987). Furthermore, older inmates engaging in fighting are despised and regarded as unintelligent; however, in contrast, younger inmates engaging in similar altercations are feared by others and gain status for being strong and capable of protecting themselves (MacKenzie, 1987). Results indicated that the expression of anger differs over the lifespan as young inmates are more impulsive since they fail to recognize the costs and consequences of aggression (MacKenzie, 1987). Wilson and Herrnstein (1985) suggests maturity influences the inmate’s impulse control as younger inmates get into trouble as a result of their attitude.

In addition to evaluating the inmate’s adjustment, the prison environment contributes to the inmate’s likelihood of aggression. It is posited that a young inmate may perceive the institutional setting or situation to be more hostile, bothersome, and stressful as compared to older inmates who may have developed a functional understanding of the institutional setting and operations (MacKenzie, 1987). Previous findings of increased assaults and misconduct in prison suggested crowding to perpetuate the inmate’s reaction to lash out aggressively. However, MacKenzie’s (1987) results did not indicate that anxiety with a stressful environment would lead to serious misbehaviors. Having said that, it is assumed that younger and older inmates have different understandings of consequences resulting from disciplinary infractions. Ellis et al (1974) conducted a study
to investigate the conditions within prison and the non-prison identities and experiences, looking specifically at the association between each group variables (e.g. age, race, violent offenders, time incarcerated, and education) alleged to be causally related to aggressive behavior in prisons. The study consisted of 278 inmates serving a sentence in 55 North Carolina prisons. Results found a strong correlation both between age and between percentage incarcerated for violent crimes and aggressive transgressions (Ellis et al., 1974). Furthermore, it is posited that younger inmates view violent infractions differently than older inmates, in that violent behaviors are necessary and beneficial in gaining status. For some inmates the gratifications contingent on the aggressive misconduct outweigh the costs (e.g. getting hurt, losing a specific privilege, or being denied visitors) and are more motivated to behave aggressively as they have nothing to lose and the chance of being caught and punished is unlikely. While gratifications are perceived to be equally salient for young and adult inmates, Ellis et al (1974) found this not to be true and posited younger inmates are rewarded for their violent behavior with status. Because status is so important, individual or group interactions among younger inmates are then directly related to status gain and can be highly contentious, volatile, and easily escalate into physical altercations in fear of disparaging the inmate’s reputation. In addition, results also indicated prison personnel (Ellis et al., 1974) adopt different expectations of younger and older inmates. For instance, violent behaviors of younger inmates are often overlooked and condoned as they are seen as blowing off steam while it is frowned upon when older inmates behave similarly since the expectation is that they should have learned to control themselves.
Length of sentence

A number of factors associated with risk of institutional misconduct have been reported, and predicting long-term violence likelihood of inmates continues to be a motivator for researchers and politicians. While some factors are expected, others are counterintuitive, including the inverse relationship between inmates serving long sentences and their rate of disciplinary infractions. Research has found inmates serving long sentences to have lower rates of disciplinary infractions compared to inmates serving a short, definite sentence (Flanagan, 1980; Sorensen & Pilgrim, 2000). In addition, contrary to much prison lore, inmates who are sentenced to life without parole (LWP) were not found to be more dangerous compared to inmates who are serving moderate to long sentences of 5 to 10 years (Berk, Kriegler, & Baek, 2006). It is posited that the prevailing use of the federal and state sentencing statute schemes advances longer sentences, and results in a stacking effect where cohorts of younger inmates are held without any access to parole or early release options (Kerbs & Jolley, 2009).

Within the past several decades, there has been a fundamental change in the approach to punishing convicted felons in the U.S. The vast majority of states rely heavily on the indeterminate approach in which parole boards were the primary decision makers and the actual prison time served was determined by the inmate behavior within the prison environment (Bales & Miller, 2012). In other words, inmates were provided incentives from good behavior, including reduction in length of imprisonment. In contrast, the implementation of determinate punishment emerged in the 1980s, which restricts the use of parole release and reduces the incentives to abide by institutional rules
(Bales & Miller, 2012). To better understand the impact of the change from indeterminate to determinate punishment strategy, Bales & Miller (2012) examined the current policy and whether it has resulted in an increased likelihood and level of prison misconduct. The study captured data of 305,228 felony offenders who were sentenced to serve their sentence in the Florida Department of Corrections Offenders Based Information System (OBIS). The binary logistic regression analyses were used to disaggregate the four dependent variables (violent, property, drugs, and disorderly). Findings indicate longer length of stay are highly associated with an inmate’s likelihood of committing at least one infraction specific to the study. Furthermore, results show inmates sentenced under the determinate policy are significantly more likely to engage in prison misconduct during their sentence within the first, third, sixth, and ninth months of incarceration, and during their first, second, third, and fourth year (Bales & Miller, 2012). Inmates serving determinate punishment have 30.3% greater odds of committing an infraction and 56.3% odds of committing an infraction than indeterminate inmates during their entire course of imprisonment. It is suggested survival becomes more common during the middle and latter months of an inmate’s sentence tenure (Sorensen & Pilgrim, 2000).

Researchers investigated the stages of incarceration by constructing a base rate of violence committed by 6,390 incarcerated murderers to determine the expectations of capital defendants (Sorensen & Pilgrim, 2000). The findings indicated inmates who do commit violent acts do so in their initial stages of incarceration and it was unlikely for an inmate to become involved in an initial act of violence after being incarcerated for ten or more years. Specifically, half of the group that committed a violent act did so within their
first two years of their incarceration. The study calculated an estimated rate of committing a violent act over eleven months of incarceration to be 11% while 80% of inmates survive over the 9+ years without committing an act of violence (Sorensen & Pilgrim, 2000).

To further the understanding of incarceration patterns, an experimental scale for the assessment of prison violence risk among maximum security was developed. Predictors of violent misconduct conducted by inmates on the inmate’s prevalence rate of violent misconduct was the focus of the analysis. Without a reliable forecasting tool to quantify the risk of serious prison violence, Cunningham et al (2005) designed the Risk Assessment Scale for Prison (RASP) tool, a logistic regression analysis was conducted of demographics, offense, and sentence related data that was available at conviction and admission in a large sample of maximum-security inmate. The RASP tool was applied to a diverse spectrum of maximum security inmates (e.g. convicted murderers, mainstreamed death-sentenced inmates, property offenders, and inmates convicted of nonlethal violent offenses) that consisted of 2,595 inmates who served at least six months at Potosi Correctional Center (PCC) in the Missouri Department of Corrections. Overall, the relationship was negative, in that inmates serving shorter sentences are more likely to commit violent infractions and inmates serving shorter sentences are less likely to commit violent infractions. Results indicated those serving 1 to 5 year sentences were twice as likely to commit violent acts compared to those serving sentences longer than 20 years. Furthermore, those serving 6 to 10 years were nearly 60% more likely to commit violent acts and those serving 11 to 20 year sentences were nearly 40% more likely to
commit violent acts in comparison to those sentenced to terms of imprisonment exceeding 20 years. In addition, results indicated longer periods of incarceration are associated with an increased prevalence of violent misconduct among prison inmates because the likelihood of violent misconduct is not uniformly distributed across a prison sentence. Additionally, being sentenced to life or death was a risk-reducing factor while a sentence of 6 to 10 years in particular was associated with an increased risk of violent misconduct in prison (Cunningham et al., 2005).

Cunningham and Sorensen (2007) further investigated the utilities of factors identified in predicting institutional misconduct among high security inmates. The study recruited 24,517 male inmates serving their sentence at Florida Department of Corrections (Florida DOC). The inmates had served an average of 6 years and 3 months. High security confinement included inmates being maintained within an armed perimeter or under direct-armed supervision outside the confines. This analysis utilized multiple operational definitions for inmate misconduct including disciplinary infractions of any sort, potentially violent rule infractions, assaults, assaults with injuries, and assaults with serious injuries. Further, term sentences were disaggregated into four categories (less than 6 years, 6 to 10 years, 11 to 20 years, and 20 or more years). A logistic regression model was used to test the relationship between the factors and prison violence. In addition to the factors analyzed, Cunningham and Sorensen (2007) found violent infractions among inmates held in close custody to be consistent with what has been observed in previous research, severity of misconduct increased while the frequency and prevalence rate markedly decreased. Almost half of the inmates incurred a disciplinary
write-up; however, only 14.67% were sanctioned for misconduct representing potentially violent infraction, 4.51% for an actual assault, 0.78% for an assault with injuries, and 0.30% for an assault with serious injuries. Further, Cunningham and Sorensen (2007) suggests the low prevalence rates, particularly for assaults with serious injuries, do not represent the popular media characterizations of ubiquitous shanking in high-level security prisons. It was acknowledged the study’s results were determined only by the documented incidents of disciplinary infractions and is not associated with unreported injuries; however, it was hypothesized assaults with serious injuries would go unreported and without attribution. Also, it was suggested while identifying discernible risk factors has an important role in prevention and targeting security resources, it is unlikely that a risk model based on factors upon admission can be developed to provide full proof assurance in predicting violent misconduct in prison as there are multiple contributors to prison violence beyond individual variables. In a prison setting, they may include structural, environmental, and institutional factors. McCorkle, Miethe, and Drass (1995) found that poor prison management was an important predictor of institutional assault. Cunningham & Sorensen (2007) suggests serious violence in prison is difficult to anticipate as its interpersonal relationship is indeterminable.

Mentioned earlier, a common practice to ensure the safety of inmates and staff is to segregate the most dangerous inmates, where prison inmates are confined on a distinct unit commonly characterized as “death row.” The segregation of death-sentenced inmates from the general population are ostensibly driven by an assumption that death sentenced inmates represent an imminent hazard to correctional inmates and staff. While there are
variations in policies, the conditions of confinement nationwide typically emphasize austere, rigid, and isolated conditions. However, since 1991, death sentenced inmates in Missouri have been fully integrated with the general population of the Potosi Correctional Center (PCC). Cunningham, Reidy, and Sorensen (2005) conducted a study to compare the rates of institutional violent misconduct of death-sentenced inmates with other inmate groups under common conditions of confinement. The sample consisted of 3,403 inmates confined at PCC during the study period of January 1991 to January 2002. Participations included 149 inmates sentenced to death, 1,054 life without parole for first murder inmates, and 2,199 parole eligible inmates. The death-sentenced inmates were older, with an average age of 34.8 years old. Results indicated that overall, death sentenced and life without parole inmates were significantly less likely than parole eligible inmates to be involved in violent misconduct (Cunningham, Reidy, & Sorensen, 2005). However, although the parole eligible inmates committed a significantly higher rate of assault misconduct, the death-sentenced inmates exhibited a higher prevalence rate (percentage of inmates involved) of violent misconduct (Cunningham, Reidy, & Sorensen, 2005). Cunningham et al (2005) hypothesized that higher prevalence rates were a result of the increased time at risk. In other words, death sentenced inmates had been confined at PCC significantly longer than the life without parole and parole eligible inmates: 6.7 average years for the death sentenced compared to 4.3 and 1.5 average years for the life without parole and parole eligible inmates, respectively.

The practice of integrating death-sentenced inmates in the general population of a maximum prison is strongly supported by the results of the study (Cunningham et al,
29

2005). Specifically, during the 11 years of mainstreaming death row inmates at PCC, death sentenced inmates committed no homicides of staff or inmates, and no attempted murders. Further, their rates of assaults (major and minor) observed were no higher compared to those of life without parole inmates which representing only 20 to 25% of the rate of assaults. Conventional assumptions that death sentenced inmates requires super-maximum security protocols to prevent serious institutional violence were not supported. This finding that death sentenced inmates are not disproportionately violent when integrated into a general population of a maximum security institution has the implication that managing death sentenced inmates is a long-term proposition for correctional departments. Further, holding death-sentenced inmates is substantially more expensive to operate than holding the general population. With a total of 448 death sentenced inmates in the Texas Department of Criminal Justice in 2002, the total expenditure to maintain a highly segregated confines was over 3 million dollars, with the daily per inmate cost on death row population being $60.32 compared to $40.71 for an inmate held in general confines. By integrating death-sentenced inmate into the general population, in such an era of shrinking state and correctional budgets, it becomes increasingly important to allocate higher security resources to inmates who warrant this confinement.
Study objectives

Inmate misconduct in correctional facilities can create problems both for other inmates and for staff (Arbach-Lucioni, Martinez-Garcia, & Andres-Pueyo, 2012), and aggression can be understood as a means of obtaining something or disposing of someone or something (Ellis et al, 174). Prison violence has received significant theoretical, methodological, governmental, and policy attention (Piquero, Jennings, & Barnes, 2012). However, despite such widespread interest in producing a more reliable forecasting tool, the development of techniques and actuarial models that quantify the risk of serious prison violence has proven elusive (Cunningham et al., 2005). As a result, it is believed that altering the forecasting tool and the predictors to more accurately identify inmates most likely to offend will enhance prison safety and practices (Berk, Kriegler, & Baek, 2006).

In this study, the interrelationship between aggression levels and factors of age and length of sentence are examined. The purpose of the study is to explore the relationship of a male inmate’s aggression levels when compared to their age and length of sentencing. With a better understanding of violent infractions, professionals working with these individuals could be made aware of misconceptions of this stigmatized population.
Study design

The research study is a descriptive quantitative research design. A descriptive design was most appropriate to study the correlation between the aggression levels and inmate’s age and length of sentence. The research question is: “Do inmates’ aggression levels change over time and what is the relationship between aggression level and different variables?” The purpose of the study is to contribute to the current research examining the correlation between an inmate’s aggression level and the age and sentence length, respectively. The independent variables in the research include inmate’s current age and length of sentence. The dependent variable is the inmate’s aggression level. The data was collected during the Restorative Justice Program curriculum assessment at San Quentin Prison. A survey questionnaire were distributed to inmates participating in IPP while serving their sentence at San Quentin State Prison. This researcher was provided the secondary data, collected from the survey questionnaires. This researcher has no relations to the participants of the Restorative Justice Program.

Sampling procedures

A 108 questions survey designed by the Insight Prison Project (IPP) was distributed to imprisoned inmates incarcerated at San Quentin State Prison. Respondents were participants of IPP. Furthermore, restrictions to the sample were necessary. This researcher applied purposive sampling because the focus of the study is to investigate the change in aggression levels of male inmates. The method used to select the participants for the study sample was due to the limited availability and accessibility to data sets of prison inmates. The exclusion criteria included excluding all data files of female inmates.
while taking into consideration incomplete sections of the survey questionnaire. Total sample n=340.

**Data collection procedures**

This researcher met with Professor Teiahsha Bankhead to obtain permission to utilize data sample set from the Insight Prison Project (IPP). With verbal permission, this researcher was provided access to secondary data during the academic year of 2015 collected from the Insight Prison Project (IPP). This researcher downloaded the computerized data files that did not have any identifiers of the research participants, and placed a password protection. Furthermore, with the focus of the current study to investigate the change of aggression levels of male inmates, all computerized data files of female respondents were excluded (n=115). After this research study, this researcher will destroy the identifiable data by 2016.

**Instruments**

A survey designed by the restorative justice program was distributed to inmates completing their sentence at San Quentin State Prison and participants of the restorative justice program. This researcher was provided computerized data file of incarcerated inmates’ responses. The survey consisted of 108 questions, which asked questions of basic demographics, childhood and family, criminal justice involvement, crime, sentence, and parole. The survey was organized into three types of questions: scaling, true or false, and a vignette. The scaling questions were embedded inventories measuring an inmate’s aggression, compassion, and impulsivity with twenty-nine questions about aggression, twenty-five questions about compassion, and twelve questions about impulsivity. Lastly,
the case scenario asked five scaling questions and five open-ended explanations to illicit feelings, thoughts, and reactions of the case scenarios.

**Data analysis**

The SPSS program was used to analyze the responses from the survey. As this researcher received a computer file, it was not necessary for the researcher to insert data or code the results in the software. However, the researcher did review the secondary data for errors and missing data. This researcher computed an aggression score derived from the embedded Buss-Perry scale (Bernstein & Gesn, 1997). In addition, of the total male inmates, participants were disaggregated into young and old categories. Young inmates consisted of participants 29 years old and below. Old inmates consisted of participants who were 30 years old and above. This researcher used correlational tests to determine the relationship between aggression level and other variables. Using the data, this researcher created graphs attached in Chapter 4 to illustrate the results and correlations via Pearson’s r. Furthermore, an independent t test was applied among the young vs old participants and the different types of sentencing to investigate the difference in aggression.

**Protection of human subjects**

The Institutional Review Board process approved this research project as exempt from risk in the letter of approval #14-15-069. Each participant’s privacy and confidentiality was protected, as each participant’s recognizable identifier is not included in the secondary data set available to this researcher. Furthermore, this researcher will uphold participant confidentiality by placing a password protected protection on the
electronic files. Furthermore, this researcher will report results using aggregated findings only.
Chapter 4

Study Findings and Discussions

The research has found a strong inverse association between age and aggressive behaviors, with younger inmates being at an increased risk of committing violent infractions when compared to older inmates ($t=1.134$, $p=.017$). Furthermore, a similar inverse relationship was found between length of sentence and aggressive level (Kerbs & Jolley, 2009). In response, this research study is designed to examine the change of offender’s aggression levels in relation to the inmate’s current age and sentence length. With what seems to be a never-ending increase of the inmate population, this research study aims to further the current research and expand the understanding of offender’s aggression level. This research study is designed as a secondary data analysis of secondary data from the restorative justice program. A 108 survey question was distributed to voluntary participants of the restorative justice program. Of 550 respondents, the total sample size of 340 respondents selected through purposive sampling, excluding all female participants.
Overall Findings

Demographic Data

Figures 1 through 7 depict participants’ demographics (n=340). The first demographic question was the age of the participants, ranging from 21 to 70 years of age. Figure 1 illuminates the age of participants categorized into nine years increment: 20 to 29, 30 to 39, 40 to 49, 50 to 59, and older than 60 years. The sample size n=334 showed the most participants in the 50 to 59 year olds age group, which is 34% of the total participants. The second largest category of participants was 30 to 39 year olds age group, which is 25% of the total population. The third largest category of participants was the 40 to 49 year old age group, which is 24% of the total population. The fourth largest category of participants was the 60+ years old age group, which is 10% of the total population. The smallest category of participants was the 20 to 29 year old age group, which is 5% of the total population. The mean age of participants was 47 years old.

Figure 1. Age of Participants.
Figure 2. Age of Participants’ First Incarceration.

In addition to measuring an inmate’s current age, the offender’s age at initial incarceration was also reported. The ages ranged from 6 to 67 years old. Similar to an inmate’s current age, the ages at first incarceration were categorized into four-year increments, 6 to 10, 11 to 15, 16 to 20, 21 to 25, 26 to 30, 31 to 35, 36 to 40, 41 to 45, 46 to 50, and older than 51 years. The sample (n=332), as seen in Figure 2, yielded 30% (n=99) of the sample have been first incarcerated in the age group of 16 to 20 years of age. The second largest category (n=91) consisted of first incarceration in the 11 to 15 year age group, which is 27% of sample. The third largest category (n=59) was 21 to 25 years of age, which is 17% of sample. The mean age of participant’s first incarceration was 20 years old. The median was 18 years old, and the mode was 14 years old.
In regards to the respondent’s racial or ethnic distribution, total results (n=332) aggregated into the four categories of White, Black, Hispanic, and other. Research from the literature had shown a sentencing disparity with Blacks and Hispanics as the targeted population. This was not reflected in the sample in this research study. As seen in Figure 3, (n=123) the largest group consisted of approximately three-fourths (36%) consisted of black participants. However, the second largest group (n=93) consisted 27% of White participants. The third largest group (n=72) consisted 21% of participants who identified as “other.” As in the study, the category “other” included offenders who affiliated with Asian ethnic group, Native American ethnic group, and Mexican or African American or European descent. Lastly, the current research study indicates the smallest category of race or ethnic groups (n=51) 15% Hispanics. It is important to note the disparity from the expected racial distribution may be more of a reflection of the people who drawn to
restorative justice programs rather than groups who actually represent population inside the prison system.

Regarding the CDCR risk level, Figure 4 illustrates the frequency measure of inmates (n=227) serving the sentence length in disaggregated risk levels. Risk levels separated into five categories of low, low medium, moderate, moderate high, and high. As seen in Figure 4, a little under half (n=98) 43% of participants occupy low risk level. The second largest category consists of low-medium risk level with (n=56) 24% of participants. The third largest category of occupancy was moderate risk level with (n=48) 21% of participants. The fourth largest category was moderate-high risk level with (n=18) 8% of participants. The smallest category of inmates was assigned to high risk level (n=7) 3% of participants.

*Figure 4.* California Department of Corrections and Rehabilitation (CDCR) Risk Level.
Of the 307 participants who responded to this question, Figure 5 illustrates the frequency of an inmate’s current sentence length, ranging from 1 to 78 years. The current sentence is categorized into four-year increments 1 to 5, 6 to 10, 11 to 15, 16 to 20, 21 to 25, 26 to 30, 31 to 35, 36 to 40, and more than 41 years. The mean years of current sentence length is 21 years, the median is 21 years, and the mode is 25 years. The largest category of sentence length is 21 to 25 years (n=80) 26% of participants. The second largest category of sentence length is 11 to 15 years (n=62) 20% of participants. The third largest category of sentence length is 6 to 10 years (n=38) 12% of participants. The fourth largest category is 16 to 20 years (n=36) 11% of participants. The fifth largest category of sentence length is 26 to 30 years (n=35) 11.4% of participants. The sixth largest category is 31 to 35 years (n=18) 6% of participants. The seventh largest category is older than 41 years (n=17) 5% of participants. The eighth largest category of sentence length is 1 to 5 years.
years (n=14) 4% of participants. Lastly, the smallest category is being sentenced 36 to 40 years (n=4) 1% of participants.

Figure 6. Current Sentence.

Figure 6 illustrates the frequency of current sentence among participants (n=320). The questionnaire consisted of “life sentence,” “determinate sentence” and “parole violation.” As seen in Figure 5, majority of participants (n=274) 80% is serving life sentence while (n=46) 13% is serving determinate sentence.
Regarding the crime types, Figure 7 illustrates the frequency of inmates’ convicted crime types, disaggregated into twenty categories of homicide, robbery, assault and battery, sex offense, kidnapping burglary, theft, vehicle theft, forgery/fraud, other property crime, possession, sale, possession for sale, manufacturing, other drug offense, arson, weapon possession, driving under influence (DUI), immigration, and other crime type. As seen in Figure 7, the largest category of crime type (n=201) includes 28% of inmates convicted of homicide. The second largest category of crime type includes (n=75) 10% of inmates convicted of robbery. The third largest category (n=69) is comprised of 9% of inmates convicted of assault and battery. The fourth largest category
(n=59) includes 8% of inmates convicted of weapon possession. The fifth largest
category (n=52) includes 7% of inmates convicted of burglary. The sixth largest category
(n=35) includes 5% of inmates convicted of possession. The seventh largest category
(n=33) includes 4.5% of inmates convicted of theft. The eight largest category (n=31)
includes 4% of inmates convicted of vehicle theft. The ninth largest category (n=30)
includes 4.1% of inmates convicted of possession for sale. The ninth largest category
includes (n=29) 3.9% of inmates convicted of DUI. The tenth largest category includes
(n=26) 3.5% of inmates convicted of kidnapping. The eleventh largest category includes
(n=22) 3% of inmates convicted of other type of crime. The twelfth largest category
shares a frequency (n=14) of 2% of inmates convicted of sex offense, other property
crime, and other drug crimes. The thirteenth largest category (n=12) includes 1.6% of
inmates convicted of sale of drugs. The fourteenth largest category (n=7) includes 1% of
inmates convicted of manufacturing drugs. The fifteenth largest category (n=6) includes
0.8% of inmates convicted of forgery/fraud. The sixteenth largest category includes (n=2)
27% of inmates convicted of immigration crime. Lastly, the smallest category (n=2)
includes 14% of inmates convicted of arson.
Specific Findings

Table 1

Participants’ identification of aggressive act

<table>
<thead>
<tr>
<th>Aggression Scale</th>
<th>Very Unlike Me</th>
<th>Unlike Me</th>
<th>Neither Like nor Unlike Me</th>
<th>Like Me</th>
<th>Very Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fight more than average</td>
<td>68.4%</td>
<td>23.3%</td>
<td>4.8%</td>
<td>1.8%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Feel like a powder keg</td>
<td>39.2%</td>
<td>33.2%</td>
<td>13.4%</td>
<td>11%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Seen as hotheaded</td>
<td>43.4%</td>
<td>37.3%</td>
<td>9.3%</td>
<td>7.5%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Participants were asked to indicate how applicable aggression questions were to them. Of 29 questions, three questions inquired about their identity in relation to aggressiveness. When asked if the respondents were involved in more fights than the average person, over half (68%) did not identify themselves as such answering with “very unlike me.” The second largest category when asked about the frequency of fights compared to the average person, 23% answered “unlike me.” The next largest category when asked about the frequency of fights compared to the average person, 5% answered “neither like nor unlike me.” Lastly, the same percentage of participants (2%) identified with being involved in more than fights than the average person. Furthermore, when asked if friends perceived them to be hotheaded, a majority of participants (43%) answered it was very unlikely and 37% unlikely of being perceived as a hothead. In comparison, 2% of participants responded to being very likely to be thought of as a
hothead by friends. In relation to an inmate’s self-identity, participants were asked if they felt like a powder keg ready to explode. The responses varied significantly as 39% of participants responded very unlikely, 3% of participants identified with this phrase, and 13% of participants responded neither identified nor identified.

Table 2

*Participants’ anticipated reactions to questions*

<table>
<thead>
<tr>
<th>Aggression Scale</th>
<th>Very Unlike Me</th>
<th>Unlike Me</th>
<th>Neither Like nor Unlikely</th>
<th>Like Me</th>
<th>Very Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urge to strike</td>
<td>58.2%</td>
<td>23%</td>
<td>11%</td>
<td>6.6%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Hit back</td>
<td>10.2%</td>
<td>16.2%</td>
<td>21.3%</td>
<td>29.7%</td>
<td>22.5%</td>
</tr>
<tr>
<td>Threatened people</td>
<td>34.2%</td>
<td>26.7%</td>
<td>15.9%</td>
<td>18.6%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Trouble controlling temper</td>
<td>47.6%</td>
<td>33.4%</td>
<td>12.6%</td>
<td>5.3%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Flare up quickly</td>
<td>24.3%</td>
<td>29.1%</td>
<td>21.4%</td>
<td>20.2%</td>
<td>5%</td>
</tr>
<tr>
<td>Argue when disagree</td>
<td>29.6%</td>
<td>41.1%</td>
<td>21%</td>
<td>7.1%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Frustration/irritation shows</td>
<td>14.5%</td>
<td>24%</td>
<td>22.6%</td>
<td>31.8%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

In addition to the questionnaire inquiring about participants’ identities, the reactions and responses were also explored. For the purpose of this research study, eleven questions were chosen to illustrate inmates’ reactions. This researcher is interested in
identifying potential factors that serve as motivators for inmates’ aggressive behaviors, such as presenting situational events and inmates’ reactions. When asked about the participants’ reaction when frustrated or irritated, 15% answered “very unlike me” and 24% stated “unlike me.” However, 32% of participants identified themselves as someone who would show their frustration and 7% responded with “very like me.” In regards to controlling participants’ temper, the majority of respondents (very unlike me and unlike me) disagreed with this statement as only 1% answered “very like me” and 5% with “like me.” In addition, it was asked if participants have a tendency of getting into verbal arguments when they find themselves disagreeing with others. Results indicate participants do not argue with others when conflict arises as 30% answered “very unlike me” and 41% stated “unlike me.”

Another question asked about the participants’ urge to strike another person. Over half (58%) of participants responded “very unlike me,” 23% responded “unlike me,” and 1% of participants answered “very like me.” Participants were then asked directly if they would hit back when another hits them, over one fourth (30%) of respondents indicated “like me” and 23% answered “very like me.” Unlike other questions, the smallest category of respondents (10%) who would retaliate after being hit answered “very unlike me” while 16% responded “unlike me.” Furthermore, of 333 respondents, 34% reported “very unlike” them and 27% reported “unlike” them when asked if they previously threatened people they know.

In regards to a participant’s responses when asked if they flare up and quickly overcome the issue, results were similar among the different responses. Of the participants,
24% of participants responded “very unlike me,” 30% answered “unlike me” while 20% identified with the statement of “like me,” 21% were unsure and answered “neither like nor unlike me” and 5% of participants answered “very like me.”

Table 3

*Participants’ responses in extreme situations*

<table>
<thead>
<tr>
<th>Aggression Scale</th>
<th>Very Unlike Me</th>
<th>Unlike Me</th>
<th>Neither Like nor Unlike Me</th>
<th>Like Me</th>
<th>Very Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provocation = hit</td>
<td>32.6%</td>
<td>30.8%</td>
<td>19.8%</td>
<td>13.8%</td>
<td>3%</td>
</tr>
<tr>
<td>Being pushed</td>
<td>34.5%</td>
<td>27.9%</td>
<td>14.7%</td>
<td>16.2%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Violence to protect</td>
<td>25.9%</td>
<td>29.8%</td>
<td>17.5%</td>
<td>17.2%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Broken things</td>
<td>35.1%</td>
<td>24.1%</td>
<td>13.1%</td>
<td>20.5%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

While aggressive responses are frowned upon, when an extreme situation unpredictably presents itself, an individual’s immediate response can inflict pain, harm, and even death. Table 3 presents various reactions. Results indicate participants are able to control their frustration and express themselves. However, it is questionable if the public and others are able to recognize and react to inmates’ aggressive characteristics. Hence, it is necessary to discuss the inmate’s reactions in extreme situations. Of the 29 questions, four questions inquire about extraordinary situations. One of the questions asked, if given enough provocation, will the participant hit back in retaliation, 33% of participants reported
“very unlike me” while 3% of participants identified with this. Interestingly enough, a little more than one-fourth of participants were unsure if this situation is applicable and 20% responded “neither like me nor unlike me.”

**Correlations**

Looking at the frequency graphs of the participant responses help to show the common themes, trends, and correlations in the data. From the trends that this researcher noticed, significance in the data was found by using Pearson’s r, crosstab, chi-squares. Figures 8 through 17 and Tables 4 through 7 illustrate the correlation between aggression level of inmates and various factors, including inmate’s current age, inmate’s age at initial incarceration, convicted crime, sentencing type, length of sentence, and CDCR risk level. Figure 15 through 16 and Tables 6 through 7 illustrate the difference of aggression levels between old and young inmates with similar or different sentence types.
Table 4

*Correlation between Aggression Level and Age Components*

<table>
<thead>
<tr>
<th></th>
<th>Aggression Composite</th>
<th>Current Age of Inmate</th>
<th>Age first incarcerated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression Composite</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.071</td>
</tr>
<tr>
<td></td>
<td>Level of Significance (p)</td>
<td>.202</td>
<td>.038</td>
</tr>
<tr>
<td></td>
<td>Frequency of response</td>
<td>325</td>
<td>320</td>
</tr>
<tr>
<td>Current Age of Inmate</td>
<td>Pearson Correlation</td>
<td>-.071</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Level of Significance (p)</td>
<td>.202</td>
<td>.202**</td>
</tr>
<tr>
<td></td>
<td>Frequency of Response</td>
<td>320</td>
<td>334</td>
</tr>
<tr>
<td>Age first incarcerated</td>
<td>Pearson Correlation</td>
<td>-.038</td>
<td>.202**</td>
</tr>
<tr>
<td></td>
<td>Level of Significance (p)</td>
<td>.504</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Frequency of Response</td>
<td>317</td>
<td>326</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

In Table 4, the aggression composite was compared to the inmate’s current age and to the inmate’s age during first incarceration. This researcher was interested in the interrelationship between the inmate’s aggression level, measured by an aggression composite score, and the different age components. Age components disaggregated into the inmate’s current age and the age of the inmate upon his initial incarceration. Using the Pearson’s r test, findings show an inmate’s current age is inversely related to the inmate’s aggression level, but is not statistically significant as shown by $r=-0.071$, $p=0.202$. As an inmate increases in age, an inmate’s aggression decreases, and vice versa. In regards to the inmate’s age upon initial entry into the judicial system, results indicate the age upon entry is inversely related to the inmate’s aggression level, but is not
statistically significant ($r=-0.038, p=0.504; 90\%$ confidence). In other words, the younger the inmate is upon his initial entry into the judicial system, the higher his aggression level is; and, vice versa, the older the inmate is when first entering the judicial system, the lower his aggression level is. However, statistical significance is weak meaning the relationship is not significant. The $r$ level is also very weak such that it is virtually a zero correlation. In addition, the inmate’s current age and age during initial incarceration is statistically significant ($r=0.202, p=0.00; 90\%$ confidence). The results indicate there is a positive correlation between the current age and age at entry in that if the inmate has an earlier incarceration age, it is likely the individual is younger now. In reverse, if the inmate has a later incarceration age, it is unlikely that the individual will be older.

Table 5

*Correlation between Aggression Level and Sentencing Length*

<table>
<thead>
<tr>
<th></th>
<th>Aggression Composite</th>
<th>Length of Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aggression Composite</strong></td>
<td>Pearson Correlation ($r$)</td>
<td>Level of Significance ($p$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Length of Sentence</strong></td>
<td>Pearson Correlation ($r$)</td>
<td>Level of Significance ($p$)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This researcher was also interested in exploring the correlation between an inmate’s aggression level and the length of sentence (Table 5). Findings indicate an inmate’s aggression level does not appear to be related to the inmate’s length of sentence. There is virtually zero correlation with no statistical significance (r=0.043, r=0.468).

Table 6

*Correlation between Aggression Level and CDCR Risk Level*

<table>
<thead>
<tr>
<th></th>
<th>Aggression Composite</th>
<th>CDCR Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression Composite</td>
<td>Pearson Correlation (r)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Level of Significance (p)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Frequency of response</td>
<td>325</td>
</tr>
<tr>
<td>CDCR risk level</td>
<td>Pearson Correlation (r)</td>
<td>.258**</td>
</tr>
<tr>
<td></td>
<td>Level of Significance (p)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Frequency of responses</td>
<td>218</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

The majority of the participants (n=98, 43% of participants), occupy the low risk level, and this researcher was interested in the correlation between the inmate’s aggression level and the CDCR risk level (Figure 10). Findings show there is a direct correlation between the aggression level and the CDCR risk level with statistical significance (r=0.258, p=0.00). This indicates inmates with higher CDCR risk level also
score higher in the aggression scale; and, vice versa, inmates with lower CDCR risk level score lower in the aggression scale.

Table 7

Aggression Composite between Inmates with and Without a Parole Date

<table>
<thead>
<tr>
<th>Scheduled Parole Date</th>
<th>Frequency</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Standard Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression Composite</td>
<td>Yes</td>
<td>65</td>
<td>74.4637</td>
<td>18.4748</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>232</td>
<td>68.5759</td>
<td>16.8331</td>
</tr>
</tbody>
</table>

Table 8

Comparative analysis of Yes versus No Scheduled Parole Date

<table>
<thead>
<tr>
<th></th>
<th>T-value</th>
<th>Level of Significance (p)</th>
<th>Degree of Freedom (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>2.439</td>
<td>.023</td>
<td>295</td>
</tr>
<tr>
<td>Equal Variances not assumed</td>
<td>2.314</td>
<td>0.015</td>
<td>95.800</td>
</tr>
</tbody>
</table>

In addition, Table 7 and 8 investigate the relationship between an inmate’s aggression level and inmates with or without a scheduled parole date. Findings indicate there is a statistically significant difference between the aggression level among inmates who have a parole date and those without a parole date. Table 8 yields the results from the independent t-test. As shown in Table 7, there is a difference of 6 points in aggression
level between inmates with a parole date and inmates without a parole date. Since $t=2.439$ ($p<0.05$), inmates without a scheduled parole date are more aggressive than inmates with a scheduled parole date.

Table 9

*Aggression Level in Comparison to Sentence Type*

<table>
<thead>
<tr>
<th>Sentence Type</th>
<th>Frequency</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life sentence</td>
<td>261</td>
<td>69.1237</td>
<td>17.00352</td>
<td>1.05249</td>
</tr>
<tr>
<td>Determinate sentence</td>
<td>44</td>
<td>76.0446</td>
<td>18.71872</td>
<td>2.82195</td>
</tr>
</tbody>
</table>

Table 10

*Independent T-Test of Sentencing Types*

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>T-value</th>
<th>Level of Significance (p)</th>
<th>Degree of Freedom (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal Variances not assumed</td>
<td>-2.298</td>
<td>0.025</td>
<td>55.617</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>-2.461</td>
<td>0.014</td>
<td>303</td>
</tr>
</tbody>
</table>

Table 9 and 10 investigate the relationship between inmate’s aggression levels and sentencing type. Figure 10 shows 85% of total inmates were convicted with life sentence and 14% had determinate sentencing. There was a difference in the aggression score of 5 points; inmates with determinate sentence were more aggressive compared to
inmates with a life sentence. The independent t-test yielded a t=-2.298, p= 0.025 (p<0.05), the difference in aggression level between life sentenced and determinate sentenced inmates is significant. Hence, it is likely inmates with a determined sentence will be found more aggressive than inmates with a life sentence.

Table 11

*Crosstab Comparison of Sentence Type and Young vs Old*

<table>
<thead>
<tr>
<th></th>
<th>Sentence Type</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Life Sentence</td>
<td>Determinate Sentence</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>29 years and under Frequency</td>
<td>10</td>
<td>1</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Old and Young</td>
<td>90.9%</td>
<td>9.1%</td>
<td>3.5%</td>
</tr>
<tr>
<td>30 years and above Frequency</td>
<td>259</td>
<td>44</td>
<td>303</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% within Old and Young</td>
<td>85.5%</td>
<td>14.5%</td>
<td>96.5%</td>
</tr>
<tr>
<td>Total</td>
<td>Frequency</td>
<td>269</td>
<td>45</td>
<td>314</td>
</tr>
<tr>
<td></td>
<td>% within Old and Young</td>
<td>85.6%</td>
<td>14.3%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 12

*Chi-Square Tests*

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Degree of Freedom (df)</th>
<th>Level of Significance (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.280a</td>
<td>2</td>
<td>.869</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.311</td>
<td>2</td>
<td>.856</td>
</tr>
<tr>
<td>Frequency of Valid Cases</td>
<td>320</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The result from crosstab test are presented in Tables 11 and 12 as the age of participants are separated into two groups: young (20-29 years old) and old (older than 30 years), and compared to the sentencing types (determinate sentencing and life sentence). As shown in the figure, majority of the participants were life sentenced (n=269, 85%). Further, the results also indicate the current age of inmates consist of those older than 30 years old (n=303, 96.5%). The chi-square statistics is 0.280 and level of significance is 0.869.

Table 13

Aggression Composite among Young and Old Age Groups

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of Participants</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression Composite</td>
<td>29 years old and under</td>
<td>14</td>
<td>77.7857</td>
<td>18.95411</td>
</tr>
<tr>
<td>30 years old and above</td>
<td>306</td>
<td>306</td>
<td>70.3081</td>
<td>17.20822</td>
</tr>
</tbody>
</table>

Table 14

Independent T-Test of Aggression between Young and Old Age Groups

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>T-value</th>
<th>Level of Significance (p)</th>
<th>Degree of Freedom (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>1.583</td>
<td>.114</td>
<td>318</td>
</tr>
<tr>
<td>Equal Variances not assumed</td>
<td>1.449</td>
<td>.169</td>
<td>13.998</td>
</tr>
</tbody>
</table>
Tables 13 and 14 investigate the aggression score among the young and the old. The young group is characterized as inmates of 29 years old and younger, and the old group is inmates of 30 years old and above. Results from the independent t-test yielded a mean aggression score for each group: 77.78 for young inmates and 70.30 for old inmates. The seven point difference between the groups was found not to be significant as p=0.114 (p>0.10, exceeding 90% confidence).

Table 15

*Mean Score of Aggression and Sentencing among Young vs Old*

<table>
<thead>
<tr>
<th>Sentence Type</th>
<th>Frequency</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 years old and under</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life sentence</td>
<td>10</td>
<td>80.900</td>
<td>18.4052</td>
</tr>
<tr>
<td>Determinate sentence</td>
<td>1</td>
<td>59.000</td>
<td></td>
</tr>
<tr>
<td>30 years old and above</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life sentence</td>
<td>247</td>
<td>68.884</td>
<td>16.84854</td>
</tr>
<tr>
<td>Determinate sentence</td>
<td>42</td>
<td>76.535</td>
<td>18.96956</td>
</tr>
</tbody>
</table>

Table 16

*Independent T-Test of Aggression Levels in Different Sentencing Types*

<table>
<thead>
<tr>
<th></th>
<th>T-value</th>
<th>Level of Significance (p)</th>
<th>Degree of Freedom (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal variances assumed</td>
<td>1.134</td>
<td>.017</td>
<td>9</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-2.454</td>
<td>.286</td>
<td>52.580</td>
</tr>
</tbody>
</table>
Of the 340 participants, the majority of the total participants were 30 years old and above: young group n=11, 6% of the total participants and old group n=287, 94% of the total participants. In addition, a majority of those inmates categorized in the young group had life sentencing, and over three-fourths of inmates categorized in the old group (n=247, 85%) had life sentencing. This researcher was specifically interested in combining an inmate’s age and their sentencing in comparison to their aggression score. Tables 15 and 16 yields results from an independent t-test. The results illustrate inmates 29 years old and younger with a life sentence has a mean aggression score of 80 while inmates 29 years old and younger with a definite sentence has a mean aggression score of 59. The twenty-one difference of score had a moderate significance as p=0.286. Furthermore, inmates 30 years and above with a life sentence had a mean aggression score of 68 and inmates 30 years old and above with a definite sentence has a mean aggression score of 76. The eight difference of score had moderate significance as p=0.286. In other words, inmates in the young group with a life sentence has a higher mean aggression score than inmates in the old group with a definite sentence.

**Interpretations of the Findings**

The overall findings suggest that a majority of participants are within the older age group and sentenced for life. As this researcher was interested in tracking the change in aggression level of inmates, the current age of inmates and the sentencing types were separated: old (30 years old and above) and young (29 years old and below); life sentencing and determinant sentencing. Specifically, the largest category of participants
was 50 to 59 year olds primarily identifying with the Black racial or ethnic group. Furthermore, a little under half of participants are segregated into the low CDCR risk level. In regards to sentencing, the sample includes inmates primarily serving a life sentencing with sentencing at a mean of 21 years. As shown in Tables 15 and 16, the majority of the participants were characterized in the old group with life sentencing. The smallest category included inmates in the young group with a determinant sentence.

The specific findings clearly show that inmates do not identify as being aggressive and do not consider themselves responding aggressively. Examples of aggressive responses include having an urge to hit back, threatening others, and arguing when in disagreement with others. Inmates were also presented with threatening or extreme case scenarios. While inmates continued to respond with “very unlike me,” the researcher noticed a significant increase of “neither like nor unlike me” responses compared to responses when asked if the inmate recognizing and identifying as an aggressive individual.

Furthermore, the specific findings also show the current age of an inmate does not predict their aggression level, and the inmate’s sentencing type is more predictive of the inmate reacting with aggressive tendencies. In regards to age, a level of significance was not found between an inmate’s current age and the inmate’s aggression. However, a level of significance was found between an inmate’s current age and inmate’s age upon first entry. Furthermore, in regards to sentencing, a level of significance was not found between an inmate’s aggression level and the length of their current sentence.
When the two factors, age and sentence, are combined and compared to the inmate’s aggression, the findings indicate younger inmates with a life sentencing are more aggressive compared to older inmates with a life sentence. This suggests the aggression level of inmates do change over time as evidenced by younger inmates scoring higher compared to older inmates who received a lower aggression score. It appears that the younger inmates are more aggressive than older inmates, despite the sentencing type.

**Summary**

The mean age for the sample of this study was 47 years old, and the mean age upon the inmate’s initial entry was 20 years old. The largest ethnic group was Black and categorized in the low CDCR risk level. A little under three-fourths of the population is serving a sentence length of 21-25 years. A majority of the sample was serving a life sentence and was convicted of homicide.

Inmates were asked if they identified as an aggressive person and viewed themselves as having aggressive personality. The majority of the participants, approximately 50% responded “very unlike me” or “unlike me.” When asked about their reactions in frustrating situations, hitting back and letting frustration or irritation show ranked the highest response of “like me” or “very like me.” Similarly, participants were asked to predict their responses in extreme or threatening situations. Approximately three-fourths of responses were “unlike me” or “very unlike me.” However, this researcher noticed an increased percentage of “neither like nor unlike me,” specifically when inmates were asked about their reactions in extreme case scenarios. Furthermore,
current age and sentencing were compared to predicting inmate’s aggression. Younger inmates with life sentence are more aggressive when compared to the overall population of older inmates by the correlation tests shown in Tables 11 and 12.
Chapter 5

Conclusion, Summary, and Recommendations

This study, based on quantitative data analysis, was able to show that being younger with a life sentence was correlated with a higher aggression rate. Secondary data was gathered from a one hundred and eight questions survey that was administered to inmates who were serving a sentence and were participating in the restorative justice program located at San Quentin Prison in California. An aggression score computed via SPSS was used for comparing the aggression, age, and sentence length.

As indicated, altering the prison classification tool will enhance the accuracy in predicting prison violence (Berk, Kriegler, & Baek, 2006). Revisiting the research questions posited, this study examined the inmate’s aggression levels and its interrelationship with inmate’s current age and the inmate’s sentencing. Furthermore, this study provides a first look into combining the inmate’s current age and inmate’s sentence length and its relationship to aggression.

Age Matters

The individual-level predictor of inmate misconduct of age and crime has been thoroughly examined (Wooldredge, Griffin, & Pratt, 2001). However, as there is a disproportionate ratio between the old and the young in this study, 11:303, the correlation scores do not show statistical significance when aggression level is compared to the age of the inmate. The study results indicate there is an inverse relationship between the inmate’s current age and the inmate’s aggression level. Due to the participants primarily being 30 years old and above, it is no surprise to this researcher that the study findings
were not statistically significant. In addition, though age shows a strong inverse relationship with prison misconduct or disciplinary infractions (Arbach-Lucioni, Martinez-Garcia, & Andres-Pueyo, 2012), it is also well established that individuals who initiate offending at an earlier age are at a greater risk of serious, long term, and frequent criminal offending (Piquero, Paternoster, Mazerolle, Brame, & Dean, 1999). In regards to the current study, findings show an inverse relationship between the offender’s aggression level and the inmate’s earlier age of initial offense. Though the study findings were not statistically significant between the aggression score and offenses at earlier ages, the results support Piquero et al’s (1999) hypothesis in that a positive correlation between the inmate’s current age and age upon the initial offense was founded.

**Sentencing**

In examining the relationship among inmates with different convicted sentencing and aggression scores, it has been shown that there is no correlation between the convicted sentence and the inmate’s aggression level. This study findings did not support previous research. Cunningham and Sorensen (2007) separated sentence length in four categories for 24,514 inmates, and found inmates serving 1-5 years were twice as likely to be violent in prison as compared to inmates serving 20 or more years. Furthermore, the study findings support the current research in that long-term inmates tend to avoid trouble. In addition, it is posited that higher infraction rates do not apply to long-term inmates as rule-violating patterns steady over the course of inmates’ incarceration (Sorensen, Wrinkle, Gutierrez, 1998).
Age and Sentencing

The high-risk inmates tend to be young individuals with long criminal records (Berk, Kriegler, & Baek, 2006). In assessing for violent prone inmates, the study findings indicate that younger inmates with an indefinite sentencing are indeed the “perfect storm” as they are more aggressive when compared to older inmates. By far, despite the disproportionality among young and old inmates, younger inmates with a definite sentence scored significantly higher in aggression when compared to older inmates serving a life without parole sentence. It is not of great shock that the findings blatantly show the younger population being more likely to offend and accrue violent infractions rather than the older population.

In addition, the research finding suggests inmates with a scheduled parole date are less aggressive when compared to inmates without a parole date as shown in Figure 11 and Table 4. This was also applicable to individuals with a definite sentence in that inmates are more aggressive if they have a certain date of being released from prison. Pertaining to the specific findings, older inmates with a definite sentence scored higher on the aggression scale than older inmates with a life sentence. Interestingly enough, the interrelationship between the scheduled parole date and aggression does not apply to younger inmates due to younger inmates with a life sentence scoring eleven points higher in aggression level compared to younger inmates with a definite sentence.
Summary of Study

In this sample, there was a high percentage of older inmates serving a life sentence. The concern that inmates without any hope for eventual release from prison represent a major disruptive force in the prison community was not supported by this research study. Despite the disproportionate discrepancy between the frequency of younger inmates as compared to older inmates, younger inmates scored significantly higher in aggression. The findings do not represent the common assumption in that inmates sentenced to life without parole have nothing to lose. Furthermore, the literature suggests a leveling off in institutional misconduct is often times adopted by inmates (MacKenzie, 1987). The inmates are more likely to offend during the first 5 years of their incarceration with a significant decrease of violent infractions after the initial 5 years characterize the infraction trend (Cunningham & Sorensen, 2006).

In addition, when age and sentencing types were aggregated and compared to aggression, younger inmates with a life without parole sentencing responded more aggressively than older inmates sentenced for life without parole. As expected, the research findings do not differ significantly from the current literature in that age is indicative of aggression as interpersonal conflicts peaks from the teens until sometime in the twenties (MacKenzie, 1987). What was unexpected, though, is that younger inmates scored a higher aggression level despite the positive correlation between having a scheduled parole date and an individual’s aggression level.
Implications for Social Work

This study has several important implications for social work. In regards to the classification system, it appears that the primary purpose of current external and internal classification systems is short-term control of our inmate population. Therefore, being able to establish that younger inmates require more attention and supervision as compared to the older inmates can lead to developing more effective programs and resources for inmates to address their aggression. The current research study has shown there is a positive correlation between aggression and the assigned CDCR risk level. Literature does not agree with the current findings in that there is a lack of evidence depicting control-based classification systems making prisons safer; however, it is posited increasing prison participation rates in programs will reduce violence and disorder in prison (Byrne & Hummer, 2007). To entice participation of offenders, the use of incentives, which could serve as an undue inducement for offenders, has been discussed to encourage participations in rehabilitative services offered in correction facility settings (Matheson, Forrestere, Brazil, Doherty, & Affleck, 2012).

In addition, the results indicate it is important to look at a variety of individual and environmental factors when predicting the inmate’s aggression level. It is mentioned the inmate’s aggression may be also attributed to stressful environmental factors perpetuating younger inmates’ likelihood of lashing out aggressively (Goetting & Howsen, 1986). As the federal and state prison population have increased dramatically, it also shows the current need of those incarcerated. Specifically, the current growth of the older adults in the federal corrections facilities is unprecedented in our nation’s history,
and this growth will continue over the next few decades with the last baby boomer turning 65 years of age in 2030 (Kim & Peterson, 2014). Most importantly, the aging prisoner population experiences ramifications in that older prisoners require more prison health care services than younger prisoners, and the older prisoners experience an accelerated aging when incarcerated which results in chronic health conditions or disabilities (Kim & Peterson, 2014).

To address the older inmates’ health needs, it is posited age segregation could help ameliorate the delivery service experiences in that it would allow correction facilities to design or relocate older inmates to facilities designed to care for and provide specialized health care needs of older inmates (Kerbs & Jolley, 2009). Furthermore, age segregation would help avoid costly outsourcing to community-based hospitals and associated costs for continuous and expensive supervision that is required while the prisoner is in community-based hospitals (Kerbs, 2000).

Astoundingly, literature indicates there is no comparative analysis demonstrating that death sentenced inmates or life without parole inmates represent a disproportionate risk of serious violence in prison (Lyon & Cunningham, 2005). As evidenced in the current research study, the results support current literature in that age is a stronger predictor of the aggression score as compared to convicted sentencing of life without parole and determinant sentencing. Furthermore, it could be beneficial to entertain the idea of mainstreaming death-sentenced inmates and life without parole inmates into the general population as their perpetration and assault rate is significantly lower compared to parole eligible inmates.
Recommendations

Given the data summarized above, it seems clear there are numerous avenues of research that would be valuable in relation to improving violent acting out during incarceration. There have been limited studies examining the effectiveness of the current utilization of risk measures and classification tools. As literature has indicated, the classification tools are routinely applied to predict dangerousness and needs of inmates; hence, the importance of thoroughly examining a more reliable and accurate tool.

Another recommendation, particularly in relation to the aggression composite derived in this research study, is for researchers to measure aggression through definitive acts of violent infractions. The aggression score was composed by responses of the participants to the survey questionnaire, rather than the physical behavior of violence – any disciplinary infractions, verbal minor assaultive behaviors with minimal injuries, serious assaultive behaviors requiring hospitalization, murder. However, it would also require studies to disaggregate aggression as studies currently combine aggression and violence into one general index which makes it difficult to gauge the severity of what is being predicted by the instruments when significance is noted.

Additionally, regardless of the evidence demonstrating that the likelihood of death sentenced inmates and life without parole sentenced inmates being a danger to society is low. Prosecutors commonly use the defense that the defendant poses as a danger and continual threat to society. Therefore, it is suggested that there be rehabilitative services enacted rather than sentencing the offender to life without parole or solidarity confinement as the conditions exacerbate and prolong some inmates’ criminality in
deleterious effects. In addition to the daunting task of convicting an offender to life
without parole, caring for offenders with such convictions are overwhelmingly costly. As
there is a continual surplus of older offenders, a suggestion is to transition inmates with
indefinite sentences to mainstream correction facilities. The literature shows that life
without parole offenders do not present to be violent (Cunningham et al., 2005). For
instance, the Missouri Department of Corrections reformed such “dungeon-like”
conditions and enacted progressive modifications in that housing and management of
death-sentenced inmates were relocated into the general population (Lyon &
Cunningham, 2005). Most importantly, the rate of violent misconduct among the
mainstreamed death-sentenced and life without parole inmates were half as likely to be
sanctioned for violent misconduct as compared to parole eligible offenders (Lyon &
Cunningham, 2005). Hence, it will be beneficial to consider different approaches in better
serving offenders who are presumed to be dangerous but do not pose as an imminent
threat.

Lastly, as aggression is understood as a tool of survival overshadowing the
perniciousness of the victimization in prison, it is important to understand the different
benefits, advantages, and reasons for reacting violently. Having a better understanding of
why offenders react aggressively would allow correction staff to meet the needs of the
offenders in an efficient and a safe manner. For instance, in future analysis of aggression
levels of offenders in correctional settings, prisons could address the misconduct
associated with status gain by offering alternative methods of establishing status and
ranks. Furthermore, the long-term purpose of correctional programs is to create change in
the inmates’ behaviors (Messemer & Valentine, 2004), and misconduct is sometimes associated with boredom. If so, it would benefit inmates to fill their days with constructive activities and programs to specifically promote productivity and rehabilitation, including work, education, treatment programming, and other prison activities.

**Limitations**

Although the study showed some correlations between the aggression level and the inmate, this study could have been expanded and extended in many ways. First, this study only examined the responses of the participants of the Insight Prison Project at San Quentin State Prison. Aggression score was calculated via responses of the inmate’s perception as it was not determined by an actual act such as a violent infraction. The current research study is limited in the external validity as correlation tests were compared to the computed aggression score as there is a possibility the results would have yielded some significance or lack of significance. For example, answering “very unlike me” when asked “I would use physical force if pushed enough” may not accurately reflect what is the actual response of the participants.

Furthermore, though the current method mitigates the potential for over-reporting or under-reporting of violent misconduct while incarcerated, the act of answering questions does not accurately depict how an inmate would respond when unexpectedly encounter an escalated situation. It is also important to consider the different outcomes of one specific scenario. There are multi-layered factors when encountering a disagreement.
that can either ameliorate or escalate the situation. Presenting snapshots of a situation to the inmate and scoring the response do not satisfy internal validity.

Second, as the aggression score is based on scaling questions, the scoring does not take into consideration open-ended answers. The benefits of open-ended questions allows respondents with an opportunity to further clarify or explain their reasoning.

Third, the accessibility of conducting research and obtaining information in a prison setting is overwhelmingly limited. Without full access to inmates, the study lacks internal validity. As the questionnaire is distributed to inmates while incarcerated, the environment may have had an indirect effect on the inmate’s response as the inmate may be under less distress as if the inmate was answering this questionnaire in their natural environment. In addition, the structure and constricts of the prison setting is significantly different compared to the natural environment which may present as a barrier to external validity.

Conclusion

This current study explores offenders’ aggression levels and such correlation to an inmates’ current age. The research study consisted of secondary data analysis of quantitative data collected from male inmates participating in programs offered by the restorative justice program at San Quentin State Prison.

Through this study, some of the findings include that a majority of the participants were young and sentenced to life without parole. In addition, the findings do not replicate what literature has shown, that age is one of the strongest predictors of aggression among inmates (MacKenzie, 1987; Cunningham et al., 2005; Sorensen & Cunningham, 2010;
Sorensen & Cunningham, 2009; Harris, 2012). However, the current study indicates there is a level of significance when combining age and type of sentence as the findings suggest offenders being convicted with a definite sentence score higher than inmates with an indefinite sentence of life without parole.
References


