# LONELINESS, VIOLENCE, AGGRESSION, AND SUICIDALITY IN INCARCERATED YOUTH

By

ILSE DEYANIRA CARRIZALES

Bachelor of Arts in Psychology
St. Edward's University
Austin, TX
2007

Master of Science in Educational Psychology
Oklahoma State University
Stillwater, OK
2009

Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
July, 2013

LONELINESS, VIOLENCE, AGGRESSION, AND

SUICIADLITY IN INCARCERATED YOUTH

Dissertation Approved:

John Romans, Ph.D.

Dissertation Adviser

Donald Boswell, Ph.D.

Valerie McGaha, Ph.D.

Carrie Winterowd, Ph.D.

Jesse Mendez, Ph.D.

# ACKNOWLEDGEMENTS

This dissertation would not have been possible without the help of various individuals. I would like to thank my family, especially my parents Jose and Leticia. Without your encouragement, love, and support I would not be where I am today. You have taught me the meaning of hard work and that anything is possible. I am grateful to have a wonderful partner, Joe Salazar, by my side through all the ups and downs. I couldn't have done it without you. You have always encouraged me and helped me get through various struggles all while keeping me sane.

I would also like to thank my friends for making this process easier by providing laughs, fun times, and incredible support. Specifically, I would like to thank Gabrielle Johnson, friend, colleague, and trusty research assistant. Your help and support were instrumental to this project, thank you for being there.

I am very fortunate to have had a great advisor and support system throughout my time at OSU, Dr. John Romans. Thank you for believing in me and helping this idea become a reality. Without your guidance and support this would not have been possible. I would also like to thank my dissertation committee and Dr. Steve Grissom for helping me develop this idea into a meaningful project.

Further, I would like to express my utmost appreciation to the juvenile facility where this research was conducted. To the facility's Administrator of Programs, thank you for your collaboration and flexibility with my dissertation, it has been a pleasure working with you. To the facility's Superintendent and Assistant Superintendent, thank you for giving me the privilege to conduct research at your facility with your staff and residents. To the facility's Juvenile Justice Specialist and Juvenile Security Officers, thank you for taking time from your busy schedule to assist me with my dissertation.

Last but not least, I am grateful to the to Ronald E. McNair Scholar's Program at St. Edward's University. Not only did you instill the foundational skills that I needed to complete my doctorate, but you helped me see that my dream was more than just a dream. Thank you for supporting me in every way possible, I am forever grateful.

Name: Ilse Deyanira Carrizales

Date of Degree: JULY, 2013

Title of Study: LONELINESS, VIOLENCE, AGGRESSION, AND SUICIDALITY IN INCARCERATED YOUTH

Major Field: Educational Psychology with a specialization in Counseling Psychology

Abstract: Many adolescents are incarcerated for committing aggressive and violent acts yearly. Juvenile facilities are frequently at maximum capacity or are experiencing overcrowding, providing more opportunities for juveniles to be aggressive. While juvenile violence and aggression have had much attention in previous research, minimal research has been conducted with adjudicated juveniles detained in secure facilities. Suicidality is also increasing in both the general juvenile population and in the incarcerated juvenile population and there is a gap in the literature when looking at aggressive, violent and suicidal behaviors within a secure juvenile facility. This study investigated the effects of loneliness on the aggressive and violent behaviors expressed towards staff and peers as well as suicidal ideations and attempts from incarcerated juveniles in a secure juvenile facility. Further, the study investigated the relationship of protective factors such as involvement, strong social support, strong attachment and bonds, positive attitude towards intervention and authority, strong commitment to school, and resilient personality traits with loneliness, aggression, violence, and suicidality.

A total of 60 incarcerated juveniles volunteered to participate in this study. Results revealed juveniles who reported experiencing higher levels of aggression also reported having higher levels of loneliness and higher levels of suicidality. Participants who reported higher levels of loneliness also reported higher levels of suicidality. A significant relationship was not found with aggression and violence, nor with aggression and suicidality. Protective factors were not significant in regards to predicting suicidality and loneliness. Positive Attitude Towards Intervention and Authority was found to be a significant predictor of aggression. Those reporting having higher levels of protective factors (Prosocial Involvement, Strong Social Support, Strong Attachments and Bonds, Positive Attitude Towards Intervention and Authority, Strong Commitment to School, Resilient Personality Traits) reported lower levels of violence. Strong Social Support and Positive Attitude Towards Intervention and Authority were both significant predictors in predicting violence.

TABLE OF CONTENTS

Page

Page

LIST OF TABLES

Table Page

# INTRODCTION

Loneliness, Violence, Aggression, and Suicidality in Incarcerated Youth

*"The definition of insanity is doing the same thing over and over and expecting different results"- Benjamin Franklin (Woodward, 2008)*

Aggression, violence, suicidality, and loneliness affect incarcerated juveniles on a daily basis. If changes are not made regarding treatment and programs, juveniles will continue to suffer. Juveniles in custody have been steadily declining since 2006 by approximately 12% ,yet overcrowding is still a problem in many facilities (Hockenberry, Sickmund, & Sladky, 2011). Although the amount of incarcerations has decreased, the number of juveniles being adjudicated for a violent crime has increased. In 2008, an estimated 2.11 million juveniles were arrested by law enforcement agencies in the United States. In addition, juveniles were involved in one in ten murders and in one in four arrests for robbery, burglary, larceny, and motor vehicle theft that occurred in 2008 (Puzzancher, 2009). Violence is being carried over in juvenile facilities from the streets causing an increase in juvenile assaults on peers as well as on staff.

Much like the "boys will be boys" concept, violence in secure juvenile facilities is often disregarded as something that is not preventable and as something that is expected in that specific environment. The reality is that peer-on-peer violence is a prominent feature in the life of detained juvenile delinquents and more research is necessary in order to reduce assaults on peers as well as on staff. There is virtually no empirical research on aggressive behaviors, specifically assaultive behaviors, in secure juvenile facilities (Farmer, 2000). In order to change the aggressive and assaultive behavior that occurs within secure juvenile facilities, changes must be made to how that specific behavior is treated.

*Residential Facilities*

There are various residential facilities that juveniles can be sent to as a form of punishment or as a way to restrict their freedom. Youth are placed in residential facilities after being adjudicated delinquents or youthful offenders for committing an offense. They may also be placed in a detention center of facility after being arrested or as a place to await their court hearing ("OJJDP Statistical Breifing Book," 2011). According to Office of Juvenile Justice and Delinquency Prevention (OJJDP) Statistical Briefing Book, on October 24, 2007 there were 86,927 juvenile offenders being held in residential placement facilities. Concurrently, there were more 17 year olds, approximately 23,000, that were placed in a residential placement than any other age group ("OJJDP Statistical Breifing Book," 2011). Of those 86, 927 offenders, 75, 101 offenders were males ranging from approximately 12 years to 18 years old. Furthermore, 11, 826 incarcerated youth are females (Sickmund, M., Sladky, T.S., and Kang, W., 2011).

There are various types of juvenile residential placement facilities; this research will be conducted in a medium security juvenile center. Examples of residential placement

facilities include “detention center, shelter, reception/diagnostic center, group home/halfway house, boot camp, ranch/forestry/wilderness camp/marine program, training school/long-term secure facility, or residential treatment care” (Hockenberry, et al., 2011, p. 3). All facilities vary in their degree of security such as the use of fences, walls, and surveillance equipment ("OJJDP Statistical Breifing Book," 2011).

According to the Juvenile Residential Facility Census (JRFC), 734 facilities (30%) identified themselves as being detention centers and held 40% of juvenile offenders in 2008. Many facilities that were identified as detention centers were also identified as residential treatment centers, training schools, and shelters.

Secure detention centers are one type of placement and are primarily used for holding juveniles while they await their court date for adjudication, disposition, or long-term placement. Not all youth awaiting their court dates are held in detention, only those whom are believed to be a threat to the community or are expected to not appear at their court hearing. Although detention centers are usually temporary, some youth are sent to detention as part of a disposition order as a sanction for their probation violation ("OJJDP Statistical Breifing Book," 2011).

Due to a high number of juvenile incarcerations, as of 2008, 3% of juvenile facilities were at maximum bed capacity or exceeded their standard bed capacity to the point where juveniles slept in make-shift beds (cots, roll-out beds, mattresses, and sofas) or beds from other units such as from the nursing clinic (Hockenberry, et al., 2011). Once a facility surpasses maximum occupancy, operational functions of the facility are in danger of being impaired. Overcrowding does not just refer to relying on makeshift beds, it refers to when juvenile delinquents occupy most or all of the facility that may lead to breaking fire codes.

Twenty-five percent of facilities included in the census reported they were at or over capacity of their standard beds and were relying on makeshift beds (Hockenberry, et al., 2011). Overcrowding creates a dangerous environment for juveniles and puts them at risk for being assaulted. In order to create a safe environment, it is imperative that more research is conducted specifically within the incarcerated population in order to identify the source of aggressive behavior and in turn reduce assaults in secure juvenile facilities.

A disproportionate amount of minorities are placed in juvenile residential facilities. Minorities, according to the custody data, are "Blacks, Hispanics, American Indians/Alaskan Natives, Asians/Pacific Islanders, and those identified as "other race" ("OJJDP Statistical Breifing Book," 2011). Custody data obtained by OJJDP indicate that in 2007 approximately 66% of incarcerated youth were minorities while 34% were white. Out of the 66%, 41% were Black, 21% Hispanic, 2% American Indian, and 1% Asian. OJJDP defined the "Hispanic" category as including people of "Latin American or other Spanish culture origin regardless of race" ("OJJDP Statistical Breifing Book," 2011). In other words, "for every 100,000 non-Hispanic black juveniles living in the U.S., 738 were in a residential placement facility on October 24,2007, for Hispanics the rate was 305, and for non Hispanic whites it was 157" ("OJJDP Statistical Breifing Book," 2011).

*Mental Health*

Multiple studies have found that mental disorders and emotional and behavioral problems are more prevalent in the juvenile justice system than in the general population (Penn, Esposito, Stein, Lacher-Katz, & Spirito, 2005). Incarcerated juveniles have higher rates of psychiatric disorders that range from 3 to as many as 10 times higher than the general population. Juvenile delinquents tend to be diagnosed primarily with behavioral disorders

such as conduct disorder, oppositional defiant disorder, and substance abuse/substance dependence. All of which are believed to be predictive of violent behavior (Gammelgård, Koivisto, Eronen, & Kaltiala-Heino, 2010). Research findings are contradictory because some studies assert that aggressive behaviors are associated with externalizing behavior only, yet internalizing disorders have also been linked to aggressive behaviors. Depression and anxiety, both internalizing behaviors, have been shown to increase the risk of aggressive behaviors (Gammelgård, et al., 2010). Symptoms of depression and anxiety are common in incarcerated youth and according to the first Survey of Youth in Residential Placement (SYRP), fifty-two percent of juveniles in custody reported feeling lonely "too much of the time" (Sedlak & McPherson, 2010).

A study that investigated the rates of psychopathology in juvenile delinquents found that males with "major depressive disorder, dysthymic disorder, panic disorder, separation anxiety disorder, social and specific phobia, posttraumatic stress disorder (PTSD), alcohol dependence, ADHD combined, conduct disorder, oppositional defiant disorder, and generalized anxiety disorder" were significantly more likely to be suicidal than those without any of the listed mental health issues (Plattner et al., 2007).

Although antisocial behavior is considered to be relatively normal during adolescence, those involved in serious and repeated criminal behavior tend to suffer more from severe mental disorders such as antisocial tendencies (Gammelgård, Koivisto, Eronen, & Kaltiala-Heino, 2008). Antisocial behavior seems to be prevalent among incarcerated youth. These behaviors include being oppositional by violating rules and being aggressive. The breaking of social rules includes stealing, fighting, and vandalism to name a few. Aggression has been linked as being a predictor of antisocial behavior and one study even

asserted that physical aggression in kindergarten age children was the best predictor of future property crimes (Wasserman et al., 2003).

Adolescents with high anxiety, inhibition, and neuroticism are at risk for becoming antisocial. Adolescents who are anxious tend to keep to themselves and tend to be associated with conduct disorder (Zara & Farrington, 2009). Studies have found that inhibited children are not able to regulate their affect due to possible high right frontal lobe activation. It is difficult for these children to make friends and they become socially unprepared, vulnerable and inexperienced do deal with external, stressful, and antisocial influences in their future (Zara & Farrington, 2009).

*Loneliness*

All humans are said to be social by nature. Many theorists assert that humans possess a need to belong and that this need develops a desire to form and maintain positive interpersonal relationships (Heinrich & Gullone, 2006). The need to belong varies on a person by person basis in intensity and in how the need is met, yet a common way in satisfying the need to belong is by experiencing positive interactions with other individuals (Heinrich & Gullone, 2006). If the need to belong is not met, people begin to feel a sense of deprivation that manifests itself through loneliness, depression, and anxiety (Heinrich & Gullone, 2006). A person may be seen as being socially isolated because of the small number of relationships they may have however this does not necessarily make them lonely (Gierveld, 1998).

Loneliness is often seen as a negative experience, yet for many years philosophers have spoken about loneliness in a positive light. Positive loneliness, also known as "*Einsamkeit*", is described as the "voluntary withdrawal from the daily hassles of life and

oriented towards higher goals, such as reflection, mediation and communication with God" (Gierveld, 1998, p. 73). Positive loneliness is different than the loneliness that will be explored in this study. The definition of loneliness relating to this study is "the unpleasant experience that occurs when a person's network of social relationships is deficient in some important way, either quantitatively or qualitatively" (Gierveld, 1998, p. 73). Furthermore, loneliness involves a person's perception, their experiences, and their evaluation of their isolation. Loneliness is known to cause multiple health problems such as an increase in depression, sleeping problems, and a decrease or increase in appetite (Gierveld, 1998).

Loneliness has also been linked to aggressive behaviors. People who behave aggressively towards others tend be rejected by peers because they often have distorted and deficient social information-processing mechanisms. For example, aggressive children tend to become angry in situations where non-aggressive children perceive the situation differently and don't become angry. This can also be due to having hostile attributional biases and cue-detection deficits (Kassinove, 1995).

*Anger vs. Aggression*

Due to the increasing numbers of assaults leading to injuries in juvenile facilities, great attention has been turned to anger and research is being conducted on how to decrease and control anger. Many juvenile facilities throughout the United States have attempted to segregate juveniles according to their crime although studies have indicated prior behavior is not always indicative of future aggressive behavior (Cornell, Peterson, & Richards, 1999). For example, those who committed a sexual offense are housed under the same unit so that they could receive the necessary treatment. Those who committed violent crimes or display aggression and violence while incarcerated tend to be housed under the same unit. The

segregation does not always work as juveniles get moved to a different unit either for their safety and protection or because they are causing too much trouble in their original unit. JRFC data reported nineteen percent of juvenile facilities sent a resident to the emergency room (ER) due to injuries from an interpersonal conflict and nineteen percent for "other" reasons not specified (Hockenberry, et al., 2011).

Some theorists assert that anger leads to aggression, while others assert this is not necessarily the case. A person can be aggressive without feeling anger. Averill used a metaphor to describe the relationship between anger and aggression and stated that "…anger can be likened to an architect's blueprint. The availability of a blueprint does not cause a building to be constructed, although it does make construction easier. In fact, without a blueprint, there might not be any construction at all" (Averill, 1997, p. 188).

In the past, anger has been used interchangeably with aggression yet they are two different concepts. A definition for anger is that it is "a negative, phenomenological (or internal) feeling state associated with specific cognitive and perceptual distortions and deficiencies, subjective labeling, physiological changes, and action tendencies to engage in socially constructed and reinforced organized behavioral scripts" (Kassinove, 1995, p. 7). Anger is seen as the main predictor for aggressive behavior though it is not necessary for anger to be present in order for aggressive behaviors to occur (Cornell, et al., 1999). Anger varies in frequency, intensity, and duration and is expressed uniquely through various behaviors such as yelling, sulking, glaring, or leaving (Kassinove, 1995).

Aggression can be physical or verbal, can be direct or indirect, and can occur in the absence of the aspects of emotions such as physiological arousal (Kassinove, 1995). Aggression is described as "acts that inflict bodily or mental harm on others" and is different

from violence because "aggression is confined to those acts that cause less than serious harm" (Christle, Jolivette, Nelson, Disabilities, & Gifted, 2000, p. 242). Examples of aggressive behaviors are hitting, pushing, shoving, throwing an object, etc. Aggression is not a feeling or emotion, as emotions are internal and aggression is an external condition, (Kassinove, 1995).

Aggressive behaviors do not always cause physical harm. Aggressors in classroom settings or prison can yell, verbally threaten, or manipulate someone in order to "preserve dominance and power in a hierarchy" (Kassinove, 1995, p. 8). According to the literature, just because a person is aggressive does not imply that they are violent and vice versa. At the same time, findings have indicated that there is strong relationship between those who are aggressive and those that are violent.

*Violence*

Violence, while seen as being a pertinent problem in schools, is often disregarded as being a problem in incarcerated settings by those not actually in incarcerated settings (Ward & B., 2008). It is almost expected, by society and inmates, that the social climate in incarcerated settings is a violent climate. There are various reasons that violence is used inside of facilities such as to "assert, establish and restore relationships or to achieve personal protection as a preemptive strike" to name a few (Ward & B., 2008, p. 10).

Incarcerated youth deserve protection from violent and aggressive acts just as the general "free" community does. While incarcerated, non-violent youth are often exposed to violence and they themselves become victims to violent acts due to being housed with violent juvenile delinquents (Ward & B., 2008). It is difficult to assess future violent behavior as there are multiple factors that influence these acts of violence. Age seems to be the

predominant factor at least with younger delinquents; the best predictor for older delinquents seem to having antisocial peers, being affiliated with a gang, and not having positive social ties (Zagar, Busch, Grove, & Hughes, 2009). Other risk factors that have been identified are being form a low socio- economic status, having had a prior violent offense, and abusing alcohol and substance.

*Suicidality*

"Suicide is the third leading cause of death in adolescents, and a prior suicide attempt is seen as being the single most important risk factor for death by suicide" (Sedlak & McPherson, 2010, p. 2). Suicidal ideations are reportedly higher in the incarcerated youth population than the general population. Suicide is 4.6 times more common in secure juvenile facilities than in the general population (Suk et al., 2009) with death rates being 4 times higher than in the general population (Plattner, et al., 2007). Past suicide attempts in incarcerated youth is at twenty-two percent making it more than twice the rate for the general adolescent population (Sedlak & McPherson, 2010). Approximately 21.5% detained male youth reported having suicidal ideations compared to 6.7% of the male youth in the general population (Suk, et al., 2009). Results from a census conducted by JRFC revealed that 6% of facilities took a resident to the ER due to a suicide attempt. In addition six juvenile offenders died while in custody due to suicide while in the facility (Hockenberry, et al., 2011). A study conducted with delinquent adolescents found that males who scored high on suicidal ideations scored higher on delinquency than males who scored low on suicidal ideations (Suk, et al., 2009). Delinquency is a legal term used to describe the perpetration of a criminal offense by an adolescent (Rohde, Seeley, & Mace, 1997). This study indicated that

internalizing problems may be a main predictor of aggression in incarcerated youth (Suk, et al., 2009).

Even though incarcerated delinquent youth are a high risk group, that specific population is still understudied. Research in suicidality in detained juveniles is in its infancy stages. The first study on suicide relating to juveniles in confinement was completed in 2004 and there are still minimal studies that conduct research specifically in secure juvenile facilities (CDC, 2012). Even though the general consensus seems to be that psychopathologies such as depression, bipolar disorder, and disruptive disorders are the main predictors of suicidality in the general population, specific predictors of suicidality in incarcerated youths is yet to be defined. Research that has been completed has not always been able to be replicated (Plattner, et al., 2007).

Although male adolescents have a lower rate of suicide attempts than female adolescents, males have a higher completion rate. Research on suicidality has focused on risk factors and has identified that incarcerated adolescents diagnosed with oppositional defiant and conduct disorder are more likely to attempt to commit suicide (Suk, et al., 2009). Some risk factors for suicidality that have been identified from previous studies are (Rohde, et al., 1997, p. 165)

> "being Caucasian, history of previous suicide attempts, psychiatric disorder (especially depression, conduct disorder, or substance abuse), aggression and antisocial behavior, exposure to suicidal behavior by others (most commonly family members or friends), history of abuse, elevated levels of stressful life events, poor coping and problem-solving skills, impaired social skills, lack of

social support, impulsivity, access to lethal means, and lack of parental monitoring."

The first national survey on suicide among incarcerated juveniles was conducted by the National Center on Institutions and Alternatives (NCIA) in 2004 revealing how research about suicidal incarcerated youth is still in its infancy (CDC, 2012). Findings indicated that approximately 120 juvenile suicides occurred between 1995 and 1999. Of those 110 suicides, 41.8% occurred in Training Schools/Secure Facilities, 36.7% in Detention Centers, 15.2% in Residential Treatment Centers, and 6.3% in Reception/Diagnostic Centers. Differences in race and gender were also identified. Caucasians committed suicide more than any other race accounting for 68.4% of the victims. Males (76.7%) were the victims of suicide more often than women. Of those who committed suicide, 70% were between 15 and 17 years old with the mean being 15.7 years old (CDC, 2012).

Even though violence has been linked to suicide, 69.6% of the victims were nonviolent offenders. Furthermore, 74.3 % of those who committed suicide were reported to have a history of mental illness and 53.3% were on psychotropic medicines at the time of their death. Also, 69.6% had attempted suicide previously or had displayed suicidal behavior that was followed by suicidal ideation or threat (CDC, 2012).

Risk factors that have been previously identified in other research were supported in this study. For example, 73.4% of the victims had a substance abuse history, 44.3% had a history of emotional abuse, 34.1% had a history of emotional abuse, 27.8% had a sexual abuse history, and 37.9% were raised in a single parent household. Even though loneliness was not accounted for, 74.4% of the victims had been in single-occupancy room and 50% were on room confinement status at the time of their death (62% had been in room

confinement multiple times) (CDC, 2012). Room confinement can also be interpreted as isolation which may have lead to feeling lonely.

Most suicide interventions are based on research conducted on the adult inmate population and their suicidal behavior, but the study conducted by NCIA provides enough data to support the need for future research based specifically on incarcerated juvenile delinquents (CDC, 2012). This would allow better interventions to be developed and for proper training to occur.

*Protective factors*

While risk factors have been researched for many years, protective factors have virtually been ignored. Protective factors are known to be able to alleviate the risk of violence (Rennie & Dolan, 2010). They are "characteristics or conditions that interact with risk factors to reduce their influence on violent behaviors" (Woodward, 2008). A study conducted by Rennie and Dolan (2010) found that juveniles that reported having protective factors were older at the time of their first arrest than those that did not report having protective factors. Results also indicated participants reported having at least one positive attachment to a prosocial adult as a protective factor and rarely reported having a strong commitment to school.

Protective factors seem to be just as important to evaluate as risk factors when developing risk management programs and creating interventions (Rennie & Dolan, 2010). Rennie and Dolan (2010) recommended that clinicians working with high-risk adolescents must help the adolescent cultivate at least one protective factor in order to reduce the risk of re-offending and to build resilience of temperament. Protective factors seem to be one of the only factors that give a plausible explanation as to why two individuals with the same risk

factors differ in that one offends and the other does not. It seems as if protective factors serve as some sort of shield that counteracts risk factors (Woodward, 2008).

As of today, there are very few risk assessments that include protective factors. The Structured Assessment of Violence in Youth (SAVRY) is one of the first and few risk assessments that include protective factors. Six protective factors that past literature has indicated reduce the likelihood of violent behavior are included in the SAVRY. Little data has been published regarding the specific protective factors as research on the SAVRY protective factors is in its infancy. One of the few studies that has explored protective factors examined the impact of the SAVRY-protective factors on desistance from violent re-offending youth. Results indicated that protective factors do buffer or mitigate the risk of violent re-offending. In addition, strong social support and strong attachments to prosocial adults were seen as two of the more significant protective factors. The greater the amount of the protective factors that were being analyzed the more significance they had in predicting a violent re-offense (Rennie & Dolan, 2010).

The study conducted by Rennie and Dolan was "the first study of its kind to examine the individual protective factors and the optimum number of protective factors needed to buffer re-offending. It needs replication" (Rennie & Dolan, 2010, p. 19). Their study is indicative that protective factors are an essential component of risk management (Rennie & Dolan, 2010). Many juvenile centers currently assess for risk factors and not for protective factors, perhaps focusing on building protective factors would be more beneficial than identifying risk factors (Woodward, 2008).

## Present Study

Research relating to incarcerated juveniles tends to focus on behaviors before or after incarceration. There is a gap in the literature relating to incarcerated juveniles and their behaviors and experiences while incarcerated. The goal of this research is to fill the gap in the literature and raise awareness as to the needs of incarcerated juvenile delinquents and how they are impacted by feelings of loneliness, aggressive behaviors, violence, and suicidality. The long term goals of this study will be to assist in developing better programs and treatment for incarcerated juveniles in order to decrease suicidality, aggressive, and violent behavior within juvenile centers.

# METHODOLOGY

## Participants

Data were collected from 60 juvenile delinquents residing in a Midwestern secure juvenile facility. All male juveniles residing at the facility were given the opportunity to participate in the study. Participants from all program levels participated in this study. Participants are placed in certain program levels based on their date of admission and have to meet certain requirements to advance to the next level. All participants enter on Orientation and work their way up to Community level meaning they are ready to be a part of the community. Adjustment level is a disciplinary level when they have to "adjust" their behavior and they lose their privileges. According to the handbook of the Midwestern facility this study was conducted, the Orientation phase begins when the juvenile is admitted to the treatment program. Awareness emphasis for the juvenile to become aware of issues, learn new ways of coping, identifying problem behaviors and feelings, and to develop appropriate self-control behavior. The Practice level is when a juvenile is supposed to refine the skills they learned during the Awareness level. During the Practice level, juveniles are expected to relate in a positive manner to peers and authority figures. During the Leadership level, juveniles are expected to expand and build on their new skills learned during the Awareness and Practice levels.

The juveniles are now expected to demonstrate positive leadership qualities by assisting their peers through positive support. The final level, Community, expects the juveniles to comply with all expectations of the previous levels on an automatic basis. Juveniles in the Community level should demonstrate appropriate and positive behavior of a member of the community. During this level, the juveniles begin to reintegrate into the community through short-term supervised passes to community settings with their family or guardian. The program is designed to be completed in 9 months if the juvenile does not make any mistakes. All juveniles are allowed to have 3 hours of visitation per week unless they are on the Adjustment level or on suicide watch. All juveniles also have the opportunity to be involved in various programs such as: Aggression Replacement Training Groups, Process Groups, Mentoring, Monthly Birthday Parties, Chemical Dependency Groups, Chapel Programs, Community Events/Outings, Boy scouts, Structured Recreation Activities, AA/NA, Fitness Incentive Program, Career Technology Education, Parenting, and Gang Intervention Treatment. The following is a list of levels in order of rank: Orientation (n= 7), Awareness (n= 13), Practice (n= 21), Leadership (n= 2), Community (n= 4), and Adjustment (n= 9). A total of 14 participants were Caucasian, 34 African American, 1 Latino/Hispanic, and 7 Native American.

**Procedures**

After approval from the Institutional Review Board (IRB) as well as from the secure juvenile facility, juveniles were invited to participate and asked to complete a paper survey. The surveys were administered inside the juvenile facility where the juveniles reside during a free period in their schedule. Participants were informed of the purpose of the study and that participation was voluntary. In addition it was made clear

to participants that their participation or lack of participation would not affect their length of time of incarceration, their treatment while incarcerated, or latter arrest. All participants were briefed on confidentiality, anonymity, and on the importance of answering honestly. The participants were asked to complete various questionnaires. All participants received the same survey but each packet had a unique random ordering of the instruments. It took approximately 30 minutes to complete the entire packet. Instructions and the first question were read to all participants as example of how to complete the packet. All surveys were kept in a locked filing cabinet inside of the juvenile facility in order to ensure the participants confidentiality. All surveys were coded once the process was complete in order to assure anonymity.

Every participant who participated in the project was entered into a raffle for a chance to win one $25 gift card that was added to their State account to use while detained in the facility. In addition, every participant who fully completed the questionnaires received a popular snack item, a toaster pastry, as compensation for their time and effort. Toaster pastries are highly valued and desired by incarcerated juveniles.

**Measures**

Participants were asked to complete a series of scales that assisted in the understanding of the impact of loneliness on aggression and suicidal ideations/attempts.

**Structured Assessment of Violence Risk in Youth (SAVRY)**. Risk of violence and protective factors were assessed by using the *Structured Assessment of Violence Risk in Youth (SAVRY;* Bartel, Borum, & Forth, 2003). The SAVRY is a "structured professional judgment" (SPJ) tool that is used to assess violence risk in adolescents (ages 12-18 approximately). The SAVRY consists of six protective factors and 24 risk factors.

Protective factors explored by the SAVRY are Prosocial Involvement, Strong Social Support, Strong Attachment and Bonds, Positive Attitude Towards Intervention and Authority, Strong Commitment to School, and Resilient Personality Traits). Risk factors are divided into three categories: *Historical, Individual, and Social/Contextual (Borum, Lodewijks, Bartel, & Forth, 2010)*. There are a total of ten historical risk factors, eight social/contextual risk factors, and eight individual risk factors (Rennie & Dolan, 2010). The SAVRY gives the opportunity for additional risk factors and other protective factors to be added or considered ("Structured Assessment of Violence Risk in Youth,"). Risk ratings are categorized as low, moderate, or high and can be quantified as 0, 1, or 2 with the higher score reflecting greater risk. Interrater reliability from various studies using intraclass correlation coefficients (ICCs) has ranged from .80 to .97 for the SAVRY total score (McGowan, Horn, & Mellott, 2011). Interrater reliability for the SAVRY summary risk rating was .77. The initial validation study for the SAVRY Risk total indicated that there was a significant correlation with the Youth Level of Service/Case Management Inventory (YLS/CMI) and the Hare Psychopathy Checklist: Youth Version (PCL:YV) among offenders .89 and .78 (Borum, et al., 2010). The SAVRY is seen as a strong assessment for adolescent risk violent especially when paired with actuarial testing ("Structured Assessment of Violence Risk in Youth,").

The SAVRY was not administered to the participants; it was completed for each participant using the participant's file as well as from talking to their social worker. The primary researcher and a trained research assistant collected the data. In order to test for inter-rater reliability, both researchers completed the SAVRY on the same 15 participant's files and compared the outcomes. The researcher's data for the same 15

participants had to match at least 95% with the trained research assistant to be deemed valid and reliable. After the results were deemed reliable, the files were equally distributed.

**Aggression Questionnaire.** The Aggression Questionnaire (AQ) was used to assess aggression. The AQ is a 34 item instrument that is an updated version of the Buss-Durkee Hostility Inventory (BDHI). It is a self-report measure that is to be used with individuals age nine and older. Participants are asked to rate each description of aggression on an intensity scale ranging from 1 to 5 (1- Not at all like me, 5-Completely like me). Physical Aggression (PHY), Verbal Aggression (VER), Anger (ANG), Hostility (HOS), and Indirect Aggression (IND) are five scales that are measures, the total AQ score measures the participant's overall level of anger and aggression. The AQ takes approximately 25 minutes to administer and complete. The AQ is described as being reliable and valid, and sufficiently gauges aggression when properly administered. Reliability for the Total Score was .90 and above (Martin, Martin, Dell, Davis, & Guerrieri, 2008).

The AQ was administered in a paper format alongside the UCLA Loneliness Scale and the Suicide Probability Scale. Cronbach's Alpha scores were calculated for the sample.

**UCLA Loneliness Scale (Version 3).** The level of loneliness was assessed by using the UCLA Loneliness Scale (Version 3). The UCLA Loneliness Scale (Version 3) consists of 20 statements assess an individuals' unique experience of loneliness. The UCLA Loneliness Scale (Version 3) is a revised version of the initial version of the UCLA Loneliness Scale. One reason for the revision is that the original UCLA

Loneliness scale only contained items that were worded with a negative connotation. Version 3 contains 10 negatively worded and 10 positively worded items. Participants are asked to rate the statements by rating them using 1 to 4 (1- Never, 2 – Rarely, 3- Sometimes, 4- Always). Higher scores indicate a greater degree of loneliness. The loneliness scale is said to be a reliable instrument and has a coefficient alpha that ranges from .89 to .94 and test-retest reliability of r=.73 over a 1 year period. Significant correlations with other measures of loneliness were used as a way to measure convergent validity. The UCLA Loneliness Scale (Version 3) is significantly correlated (.65) with the NYU Loneliness Scale and with the Differential Loneliness Scale (.72) (Russell, 1996).

**Suicide Probability Scale (SPS).** The Suicidal Probability (SPS) was used to assess suicidal ideations. It is a 36 item self-report measure created to assess suicide risk in adults and adolescents ages 13 years and older. Participants are asked to rate their subjective experiences by using a four point Likert scale ranging from "None or a little of the time" to "Most or all of the time". Administration, scoring, and interpreting is said to take less than 20 minutes with administration itself taking just 5-10 minutes. The SPS consists of four clinical subscales, Hopelessness (HP, 12 items), Suicide Ideation (SI, 8 items), Negative Self-Evaluation (NSE, 9 items), Hostility (HS, 7 items). The internal consistency of the total scale is .93, the HP is .85, the SI is .88, the HS is .78, and the NSE is .58. SPS appears to be a highly reliable instrument with Alpha and test-retest reliabilities of .93. Concurrent validity was investigated by correlating the items with the items on the Minnesota Multiphasic Personality Inventory (MMPI). Results indicated that the correlations had a median of .27 and ranged between -.19 and .54. Internal

consistency alpha coefficients range between .62 and .93 on each scale with an estimated internal consistency for the entire scale at an alpha of .93 (Cull & Gill).

**Demographic Information.** Demographic information was collected from the participant's file and includes age, gender, race/ethnicity, and their program level (see appendix, table 1).

**Statistical Analysis**

The data were analyzed using SPSS Version 21 software. Descriptive statistics and frequencies were calculated for the demographic variables in order to evaluate their distributions and assess frequency of responses among participants. Correlations and simple and multiple regressions were used to conduct the analysis of the data. The following includes a list of research questions with their corresponding statistical procedures:

1. Are feelings of loneliness related to aggression, suicidality, and violence in adolescence?

   A correlational analysis was conducted in order to explore the relationship between feelings of loneliness and aggression, suicidality, and violence in adolescence.

2. Do protective factors (Prosocial Involvement, Strong Social Support, Strong Attachment and Bonds, Positive Attitude Towards Intervention and Authority, Strong Commitment to School, and Resilient Personality Traits) predict aggression, violence, suicidality, and loneliness?

   A serious of multiple regressions were conducted to determine what protective factors (Prosocial Involvement, Strong Social Support, Strong

Attachments and Bonds, Positive Attitude Towards Intervention and Authority, Strong Commitment to School, Resilient Personality Traits) are most predictive of aggressive, violent, and/or suicidal behaviors.

3. Do aggression, loneliness, suicidality, and protective factors predict violence?

A multiple regression analysis was conducted to determine if violence was able to be predicted by aggression, loneliness, suicidality, and/or protective factors. A simple regression was then conducted to further explore the significant predictor variables for violence.

# RESULTS

Data were reviewed prior to analysis, for incomplete surveys, normal distribution, and data-entry errors. The original sample size was 60 however upon review four surveys had various pages incomplete so they were not used as part of the analysis. Further, three surveys had a couple of questions unanswered. Due to the small amount of missing data, a Missing Values Analysis was computed to observe the descriptive statistics and pattern of missing values according to the statistical procedure developed by Rubin (1996). Variables included in this procedure were Loneliness, Suicidality, and Aggression. According to Little's MCAR (Missing Completely At Random) Test: Chi Square = 28. 638, (df 30, p=.537) the data are missing completely at random. In other words, the pattern of missing data does not depend on the data values. Correlations and regressions were executed after missing variables were controlled for by estimating means, standard deviations, covariances, and correlations using EM (expectation-maximization).

The EM method was chosen as only a small amount of data were missing. EM "assumes a distribution for the partially missing data and bases inferences on the likelihood under that distribution" (SPSS, p. 10). It is a two step method; E step finds the expectations of the missing data and then uses it as a substitute for the missing data while the M step maximizes the likelihood of the parameters that are computed as though the missing data had been filled in. The missing values are not directly filled in and instead functions of them are used in the log-likeihood (SPSS).

**Descriptive Statistics on Research Measures**

Means and standard deviations for the measures that were administered can be found in the appendix (table 2). Cronbach's alpha coefficients were used for each measure to test for reliability and results indicated all measures had high internal consistency.

The mean score for aggression was 98.76 ($n = 55$, $SD = 20.22$, $\alpha=.896$) indicating medium levels of aggression within this sample of incarcerated juveniles. The mean score for loneliness of 51.65 ($n = 55$, $SD = 7.82$, $\alpha = .757$) indicates these juveniles reported experiencing medium levels of loneliness. The mean score for suicidality of 75.89 ($n = 53$, $SD = 15.34$, $\alpha =.877$) indicates medium levels of suicidality were reported by the participants. The measures for violence and protective factors were completed for all 60 participants. The mean score for violence of 22.95 ($SD = 8.17$, $\alpha = .848$) indicates medium levels of risk of violence. The mean score for protective factors of 3.91 ($SD = 1.76$, $\alpha = .708$) indicates incarcerated juveniles report having medium levels of protective factors.

A Pearson r correlation was calculated to explore the relationship between feelings of loneliness, aggressive behaviors, suicidality, violence, and protective factors. As expected, aggression, suicidality, and loneliness were found to be significantly and positively inter-correlated. Aggression was found to be positively correlated with loneliness ($r = .409$, $p = .002$) and suicidality ($r = .583$, $p = .000$); however aggression was not significantly related to violence ($r = .074$, $p = .589$). As expected, loneliness was positively correlated with suicidality ($r = .533$, $p = .000$), though it was not significantly related to violence ($r = -.145$, $p = .285$). Furthermore, violence was negatively correlated

with protective factors (r = -.672, p = .000). Suicidality was negatively correlated with protective factors ( r = -.068, p = .618) as was predicted but was not significant. Correlations on the diagonal are displayed in the appendix (table 3).

To further analyze the data, a series of multiple regressions were conducted to determine which of the following protective factors are most predictive of aggression, violence, and/or suicidality: Prosocial Involvement, Strong Social Support, Strong Attachments and Bonds, Positive Attitude Towards Intervention and Authority, Strong Commitment to School, Resilient Personality Traits. A canonical correlation could have been used if the protective factors were continuous variables. Results of the first multiple regression indicated that the predictor variables of the six protective factors account for 15% ($R^2$= .152) of the shared variance in aggression, although it was not statistically significant [F(6,49) = 1.467, p=.209]. Positive Attitude Towards Intervention and Authority was the only variable that contributed significantly to the prediction of aggression [t = -2.416, p = .019].

A multiple regression with the dependent variable of loneliness indicated the six protective factors accounted for 10% ($R^2$= .101) of the shared variance although it was not statistically significant [F(6,49) = .915, p=.492]. None of the protective factors seems to contribute significantly to the prediction of loneliness. Protective factors accounted for 10% ($R^2$= .103) of the shared variance of suicidality and was not statistically significant [F(6,49) = .941, p=.474]. Protective factors accounted for 52% of ($R^2$= .526) of the shared variance of violence, a statistically significant amount [F(6,49) = 9.074, p=.000]. Strong Social Support [t = -3.291, p = .002] and Positive Attitude Towards Intervention and Authority [t = -3.162, p = .003] both contributed significantly to the prediction of

violence. Unstandardized coefficients (b) and standardized regression coefficients (β) are displayed in the appendix (tables 4-7).

A multiple regression analysis was conducted to determine if aggression, loneliness, suicidality, and/or protective factors predicted violence. Taken together, the aggression, loneliness, suicidality, and protective factors accounted for 47% ($R^2$= .472) of the shared variance in the violence, a statistically significant amount [F(4,51) = 11.384, p=.000]. If used with a different sample, approximately 43% of the variation in violence would be known. The protective factors variable was the only variable that contributed significantly to the prediction of violence [t = -6.42, p = .000]. Aggression, loneliness, and suicidality were not positively correlated with violence; therefore it is understandable why they do not contribute significantly to the regression equation. The full model prediction equation is Violence'= 36.343 + .64 Aggression - .097 Loneliness - .035 Suicidality – 3.09 Protective. Table 8, in the appendix, displays the full model unstandardized and standardized regression coefficients with t-values.

A reduced model of a simple regression was then conducted to further explore the significance of total protective factors to violence. Protective factors was the only predictor used in this model and accounted for 45% of the variation in violence, a significant amount [F(1,54) = 44.42 , p=.000]. By using the protective factor as the only predictor variable, the reduced model maximized the F-value and significance. Further, 44% of the variation in violence would be accounted for if these parameter estimates were used in future samples. Table 9, in the appendix, displays the reduced model unstandardized and standardized regression coefficients with t-values. The reduced model prediction equation is Violence' = 35.128 – 3.115 Protective.

# DISCUSSION

Violence excessively affects adolescents and young adults in the United States. According to the CDC (CDC, 2012), in 2010 juveniles under the age of 18 accounted for 13.7% of all violent crime arrests and 22.5% of all property crime arrests. That same year, 784 juveniles were arrested for murder, 2, 198 for forcible rape, and 35, 001 for aggravated assault (CDC, 2012). Although homicide rates have decreased in recent years, rates remain high. A great amount of research and programs are being set in place to prevent youth violence in the community and in schools although the gap still remains in regards to incarcerated youth. This study adds to existing literature by investigating incarcerated juveniles and their experiences while incarcerated. Further, this is one of few studies that investigated the individual impact SAVRY protective factors have on violence risk prediction and prevention.

Goals of this study were to explore reasons behind violent behavior and how to help decrease violence while incarcerated in order to keep incarcerated juveniles, officers, and staff safe. The results of this study should assist in identifying characteristics that may lead certain individuals to be more at risk for aggressive, violent, and suicidal behavior.

It is also expected that the results of this study will help identify ways to decrease aggressiveness, violence, loneliness, and suicidality amongst juvenile delinquents while incarcerated. Studying protective factors is essential; it will assist in guiding the development of prevention programs and policies in the communities and in secure juvenile facilities.

When looking at correlations between the five variables of violence, aggression, suicidality, loneliness, and protective factors, results indicated that the higher levels of aggression that someone exhibits, the higher levels of loneliness they are experiencing. Social isolation has been identified as a risk factor for aggressive behavior for other studies (Ferguson et al., 2005). Evidence has suggested loneliness and lack of friendships may contribute to future aggression and to the development of antisocial behavior and later adjustment problems. Aggressive youth tend to associate with aggressive peers and this often leads to developing problems such as conduct disorder, school drop-out, and delinquency (Farmer, 2000). One study involving elementary school children found that those children with social isolation were at particular risk for aggressive behaviors (Ferguson, et al., 2005). Research with mentally ill and incarcerated youth remains sparse in this area.

Higher levels of aggression were also significantly correlated with higher levels of suicidality. Due to minimal research being conducted in this area, results were difficult to find to compare these results. A study with juvenile psychiatric inpatients found there was a significant link with violent offenders with suicidal ideation. Violent offenders who were also suicidal had higher levels of impulsivity meaning violent

behavior and self destruction may be linked by poor impulse control and behavioral regulation (Ferguson, et al., 2005)

As expected, the results revealed higher levels of loneliness were related to higher levels of suicidality. Previous studies have identified risk factors for suicide attempt of completion as being a person's age, being Caucasian, history of suicide attempts, psychiatric disorder, aggression, antisocial behavior, impaired social skills, lack of social support, and lack of parental monitoring. The study also found that rates of suicide were elevated amongst incarcerated juveniles (Rohde, et al., 1997). Further, Rhode's, Steely's, & Mace's study identified stressful life events, low social support (greater loneliness, fewer close relatives), and past suicides to be significant predictors with incarcerated males.

As previous studies have reported, the current results indicated the more protective factors a participant reported having, the less violent behavior they displayed. A study investigating the interaction effects of the SAVRY protective factors with juveniles, concluded if a juvenile were to have at least one protective factor, the risk of re-offending or committing a crime would be significantly reduced (Rennie & Dolan, 2010). Rennie and Dolan also concluded protective factors should be seen as an essential part of risk management and are just as important as investigating risk factors. Research investigating protective factors is in its infancy in comparison to research regarding risk factors (Rennie & Dolan, 2010).

Although results were not significant, possibly due to a small sample size, protective factors and suicidality had a negative correlation as was expected. A previous study conducted by Walsh and Eggert found attending school was the most significant

predictor of suicide risk (Puckett, 2010). Strong social support seems to be connected with strong commitment to school. The longer an adolescent remains in school, the more likely they are to receive positive support from an adult, especially if they do not have positive support in their familial environment (Puckett, 2010).

The correlation between violence with aggression was not significant although past studies have shown a strong relationship with violence and aggression. A previous study found that juvenile offenders with childhood aggression commit more delinquent acts than those without childhood aggression (Martin, et al., 2008). However, delinquent acts do not necessarily mean violent acts. As was previously mentioned, not all aggressive people commit violent acts and not all violent people commit violent acts due to aggression. A reason violence and aggression may not have been related in this study is because violence and aggression are both acts that inflict harm except aggression is confined to acts that inflect less than serious harm unlike violence (Christle, et al., 2000). In other words, one does not cause the other and instead are just different in the degree of harm they inflict.

Protective factors are rarely explored although the studies that have explored them indicate the greater the protective factors the less at risk an individual is for things such as violence, legal troubles, and suicidal ideations. When investigating whether protective factors, based on the SAVRY, were able to predict aggression, suicidality, violence, and loneliness, a series of regressions were conducted to explore all 6 protective factors independently. The protective factors explored are *Prosocial Involvement, Strong Social Support, Strong Attachments and Bonds, Positive Attitude Towards Intervention and*

*Authority, Strong Commitment to School, Resilient Personality Traits*. In regards to predicting loneliness and suicidality, the protective factors were not significant.

Positive Attitude Towards Authority was the only protective factor that significantly predicted aggression. A previous study found similar results when investigating other protective factors such as perceived loss of social support, and found that it did not function as a significant predictor of aggressiveness (Ferguson, et al., 2005). Results indicated the higher level of having a positive attitude towards authority, the lower levels of aggression a participant would experience. Authority figures such as teachers and school administrators have been known to play an important role in the development in resiliency. Resiliency is built when youth are provided with a positive and safe learning environment (Christle, et al., 2000).

Strong Social Support and Positive Attitude Towards Authority both were significant in predicting violence. Results indicated that the more a participant reported having a strong social support the less likely they were to be violent. Further the higher the level of Positive Attitude Towards Authority a participant reported the lower their level was of violence. Past research has affirmed how important strong social support is in reducing violent behavior. Many communities do not provide after school programs, adult mentors, or recreational activities and this may lead to antisocial behavior (Christle, et al., 2000). Researchers have also discovered that children in single-parent families, stepfamilies, and those with stressed parent-child relationship are more than twice as likely to be arrested by the age of 14, than those children residing with both biological parents (Martin, et al., 2008). This may be due to perceived lack of social support.

*Implications and Conclusions*

This study provided support for the argument that programs involving social support should be incorporated into residential treatment. For example, incarcerated juveniles may benefit from family therapy or family involvement in various activities. They would also benefit from being in a facility near their family, if their family is supportive. Studies have revealed that residents who have family involvement have shorter stays and better long term outcomes (*Community-Based Treatment for Youth and Families*, 2010). Having family involved in treatment would educate the families in mental health issues and will give them the opportunity to learn parenting skills leading to better long-term outcomes (*Community-Based Treatment for Youth and Families*, 2010).

Results from this study could assist practitioners, juvenile facility staff, treatment teams and the public to understand the need for prevention programs and policies that address risk and protective factors for violence amongst incarcerated juveniles. Programs should focus on promoting prosocial behavior, treatment involving families, treatment regarding reintegration into the community, treatment such as aggression replacement therapy, anger management, individual and group therapy, substance abuse treatment and most importantly creating a safe environment within juvenile facilities.

*Limitations*

As with most studies, this study had several limitations. A common limitation that affected this study was that data being collected was primarily self-reported data. Self-reported data may be inaccurate and prior research with the juvenile delinquent population indicates the inaccuracy of their self-report may be greater than the general

population. Additionally the current study is not an experimental study meaning the researcher did not intentionally manipulate participants' answers on the surveys; this limited the ability to make predictions and to generalize results to other secure juvenile facilities.

Furthermore, having a small sample size could have affected the overall significance of the variables. A small sample size limits the opportunity to explore results based on age, ethnicity, and gender. For example, this study was limited to all males due to not having sufficient females within the facility. Given the population, participants' reading level may have also been a limitation in this study. Although participants were encouraged to ask for help if necessary, they may not have felt comfortable asking for help due to being with various other peers.

This study collected data from only one Midwestern juvenile facility therefore the results may not be able to be generalized to other regions of the United States.

*Future Research*

It would be ideal for future studies to conduct a separate analysis in various secure juvenile facilities. A larger sample size that would include more diversity in gender, age, and ethnicity would be beneficial when conducting future studies. This would allow the researcher to explore various avenues more in depths and add to the significance in predicting risk factors.

Future studies should incorporate a follow-up component to further test the predictor variables. After identifying the variables predicting violence, a follow-up study would go one step further and provide data determining the accuracy of these variables.

Mental health should also be incorporated into future studies. Mental health problems have been linked to violence in the past and warrant further investigation.

It would be of interest to explore programs and treatment that juveniles are a part of while incarcerated, both mandatory and optional. Evaluation studies would be necessary to evaluate the efficacy of the treatment and programs. Residential treatment is evidence-based practice, meaning research has not identified residential treatment as an effect from of treatment. A 1999 U.S. Surgeon General's Reported discovered that youth who have displayed violent and aggressive behavior have not improved in residential treatment settings (*Community-Based Treatment for Youth and Families*, 2010).

Length of incarceration would also provide important information. Some studies suggest the longer a juvenile is incarcerated the more likely they are to become acculturated into the "prison" system. Incarcerated juveniles may learn antisocial or inappropriate behavior from being exposed to disturbed youth (*Community-Based Treatment for Youth and Families*, 2010).

# REFERENCES


Averill, J.R. (1993). Illusions of anger. In R.B. Felson & J.T. Tedschi (Eds.), *Aggression and violence: Social interactionist perspectives* (pp. 171-192). Washington, DC: American,Psychological Association

Borum, R., Lodewijks, H., Bartel, P. A., & Forth, A. E. (2010). Structured Assessment of Violence Risk in Youth (SAVRY). In R. K. Otto & K. S. Douglas (Eds.), *Handbook of violence risk assessment.* (pp. 63-79). New York, NY US: Routledge/Taylor & Francis Group.

Burton, J. M., & Marshall, L. A. (2005). Protective factors for youth considered at risk of criminal behaviour: does participation in extracurricular activities help? [Article]. *Criminal Behaviour & Mental Health, 15*(1), 46-64.

Carr, M. B., & Vandiver, T. A. (2001). RISK AND PROTECTIVE FACTORS AMONG YOUTH OFFENDERS. [Article]. *Adolescence, 36*(143), 409.

CDC. (2012). Youth Violence Facts at a Glance, 2013, from http://www.cdc.gov/violenceprevention/pdf/yv_datasheet_2012-a.pdf

Christle, C. A., Jolivette, K., Nelson, C. M., Disabilities, E. C. o., & Gifted, E. (2000). Youth aggression and violence [microform] : risk, resilience, and prevention (Vol.

E 602, pp. 1 v.). [Reston, VA: ERIC Clearinghouse on Disabilities and Gifted Education, the Council for Exceptional Children.

*Community-Based Treatment for Youth and Families*. (2010). Paper presented at the 23rd Annual Children's Mental Health Research & Policy Conference. http://rtckids.fmhi.usf.edu/cmhconference/zstuff/presentations/session16-3PDF_Thiele_Hunt.pdf

Cornell, D. G., Peterson, C. S., & Richards, H. (1999). Anger as a predictor of aggression among incarcerated adolescents. *Journal of Consulting and Clinical Psychology, 67*(1), 108-115. doi: 10.1037/0022-006x.67.1.108

Cull, J. G., & Gill, W. S. Suicide Probability Scale: Western Psychological Services, 12031 Wilshire Blvd., Los Angeles, CA 90025-1251; Telephone: 310-478-2061; FAX: 310-478-7838; Web: www.wpspublish.com.

Farmer, T. W. (2000). Misconceptions of peer rejection and problem behavior. *Remedial and Special Education, 21*(4), 194.

Ferguson, C., Averill, P., Rhoades, H., Rocha, D., Gruber, N., & Gummattira, P. (2005). Social Isolation, Impulsivity and Depression as Predictors of Aggression in a Psychiatric Inpatient Population. *Psychiatric Quarterly*, *76*(2), 123-137. doi: 10.1007/s11089-005-2335-1

Gammelgård, M., Koivisto, A.-M., Eronen, M., & Kaltiala-Heino, R. (2008). The predictive validity of the Structured Assessment of Violence Risk in Youth (SAVRY) among institutionalised adolescents. [Article]. *Journal of Forensic Psychiatry & Psychology*, *19*(3), 352-370. doi: 10.1080/14789940802114475

Gammelgård, M., Koivisto, A.-M., Eronen, M., & Kaltiala-Heino, R. (2010). Violence risk and psychopathology in institutionalised adolescents. [Article]. *Journal of Forensic Psychiatry & Psychology, 21*(6), 933-949. doi: 10.1080/14789949.2010.504857

Gierveld, J. d. J. (1998). A review of loneliness: Concept and definitions, determinants and consequences. *Reviews in Clinical Gerontology, 8*(1), 73-80. doi: 10.1017/s0959259898008090

Heinrich, L. M., & Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical Psychology Review, 26*(6), 695-718. doi: 10.1016/j.cpr.2006.04.002

Hockenberry, S., Sickmund, M., & Sladky, A. (2011). Juvenile Residential Facility Cencus, 2008: Selected Findings. *Juvenile Offenders and Victims: National Report Series* Retrieved 8/15/11, 2011, from http//www.ojjdp.gov

Kassinove, H. (1995). *Anger Disorders: Definition, Diagnosis, and Treatment*. Washington, DC: Taylor & Francis.

Loeber, R., & Burke, J. D. (2011). Developmental Pathways in Juvenile Externalizing and Internalizing Problems. [Article]. *Journal of Research on Adolescence (Blackwell Publishing Limited), 21*(1), 34-46. doi: 10.1111/j.1532-7795.2010.00713.x

Martin, D., Martin, M., Dell, R., Davis, C., & Guerrieri, K. (2008). PROFILE OF INCARCERATED JUVENILES: COMPARISON OF MALE AND FEMALE OFFENDERS. *Adolescence, 43*(171), 607-622.

McGowan, M. R., Horn, R. A., & Mellott, R. N. (2011). The predictive validity of the Structured Assessment of Violence Risk in Youth in secondary educational settings. *Psychological Assessment, 23*(2), 478-486. doi: 10.1037/a0022304

OJJDP Statistical Breifing Book. (2011) Retrieved 8/25/11, 2011, from http://www.ojjdp.gov/ojstatbb/corrections/qa08201.asp?qaDate=2007

Palermo, G. B. (2009). Editorial: Delinquency. *International Journal of Offender Therapy and Comparative Criminology, 53*(3), 247-248. doi: 10.1177/0306624x09335886

Parker, J. S., Morton, T. L., Lingefelt, M. E., & Johnson, K. S. (2005). Predictors of Serious and Violent Offending by Adjudicated Male Adolescents. [Article]. *North American Journal of Psychology, 7*(3), 407-417.

Penn, J. V., Esposito, C., Stein, L. A. R., Lacher-Katz, M., & Spirito, A. (2005). Juvenile Correctional Workers' Perceptions of Suicide Risk Factors and Mental Health Issues of Incarcerated Juveniles. *Journal of Correctional Health Care, 11*(4), 333-346.

Plattner, B., The, S. S. L., Kraemer, H. C., Williams, R. P., Bauer, S. M., Kindler, J., . . . Steiner, H. (2007). Suicidality, psychopathology, and gender in incarcerated adolescents in Austria. *Journal of Clinical Psychiatry, 68*(10), 1593-1600.

Puckett, T. (2010). *The influence of risk and protective factors on health-compromising behaviors among incarcerated juveniles.* 3424522 Ph.D., The University of Akron, Ann Arbor. Retrieved from http://UD4CL8NX8H.search.serialssolutions.com/?ctx_ver=Z39.88-2004&ctx_enc=info:ofi/enc:UTF-

8&rfr_id=info:sid/ProQuest+Dissertations+%26+Theses+Full+Text&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&rft.genre=dissertations+%26+theses&rft.jtitle=&rft.atitle=&rft.au=Puckett%2C+Theresa&rft.aulast=Puckett&rft.aufirst=Theresa&rft.date=2010-01-01&rft.volume=&rft.issue=&rft.spage=&rft.isbn=9781124229270&rft.btitle=&rft.title=The+influence+of+risk+and+protective+factors+on+health-compromising+behaviors+among+incarcerated+juveniles&rft.issn= ProQuest Dissertations & Theses Full Text database.

Puzzancher, C. (2009). Juvenile Aressts 2008. *Juvenile Justice Bulletin* Retrieved 9/71/11, 2011, from https://www.ncjrs.gov/pdffiles1/ojjdp/228479.pdf

Rennie, C. E., & Dolan, M. C. (2010). The significance of protective factors in the assessment of risk. [Article]. *Criminal Behaviour & Mental Health, 20*(1), 8-22. doi: 10.1002/cbm.750

Rohde, P., Seeley, J. R., & Mace, D. E. (1997). Correlates of suicidal behavior in a juvenile detention population. *Suicide and Life-Threatening Behavior, 27*(2), 164-*175.*

*Rokach, A., &* Neto, F. (2000). COPING WITH LONELINESS IN ADOLESCENCE: A CROSS-CULTURAL STUDY. [Article]. *Social Behavior & Personality: An International Journal, 28*(4), 329.

Rokach, A., & Neto, F. (2005). AGE, CULTURE, AND THE ANTECEDENTS OF LONELINESS. [Article]. *Social Behavior & Personality: An International Journal, 33*(5), 477-494.

Rokach, A., & Orzeck, T. (2001). THE EFFECTS OF CULTURE ON THE MEANING OF LONELINESS. [Article]. *Social Indicators Research, 53*(1), 17.

Rubin, D. B. (1996). Multiple imputation after 18+ years. *Journal of the American Statistical Association, 91(434),* 473-489.

Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): Reliability, validity, and factor structure. *Journal of Personality Assessment, 66*(1), 20-40. doi: 10.1207/s15327752jpa6601_2

Saklofske, D. H., & Yackulic, R. A. (1989). Personality predictors of loneliness. *Personality and Individual Differences, 10*(4), 467-472. doi: 10.1016/0191-8869(89)90011-1

Saklofske, D. H., Yackulic, R. A., & Kelly, I. W. (1986). Personality and loneliness. *Personality and Individual Differences, 7*(6), 899-901. doi: 10.1016/0191-8869(86)90091-7

Scholte, E. M. (1992). Prevention and treatment of juvenile problem behavior: A proposal for a socio-ecological approach. *Journal of Abnormal Child Psychology: An official publication of the International Society for Research in Child and Adolescent Psychopathology, 20*(3), 247-262. doi: 10.1007/bf00916691

Sedlak, A. J., & McPherson, K. S. (2010). Youth's needs and Services: Findings From the Survey of Youth in Residential Placement. *Juvenile Justice Bulletin* Retrieved 8/21/11, 2011, from www.ojp.usdoj.gov/ojjdp

Spirito, A., & Esposito-Smythers, C. (2006). Attempted and completed suicide in adolescence. *Annual Review of Clinical Psychology, 2*, 237-266.

Structured Assessment of Violence Risk in Youth. Psychological Assessment Resources, Inc., 16204 N. Florida Avenue, Lutz, FL 33549-8119; Telephone: 800-331-8378; FAX: 800-727-9329; E-mail: custsupp@parinc.com; Web: www.parinc.com.

Suk, E., van Mill, J., Vermeiren, R., Ruchkin, V., Schwab-Stone, M., Doreleijers, T., & Deboutte, D. (2009). Adolescent suicidal ideation: A comparison of incarcerated and school-based samples. *European Child & Adolescent Psychiatry, 18*(6), 377-383. doi: 10.1007/s00787-009-0740-1

Thompson, M. P., Kingree, J. B., & Ho, C.-h. (2006). Associations Between Delinquency and Suicidal Behaviors in a Nationally Representative Sample of Adolescents. *Suicide and Life-Threatening Behavior, 36*(1), 57-64. doi: 10.1521/suli.2006.36.1.57

Unruh, D., Povenmire-Kirk, T., & Yamamoto, S. (2009). Perceived Barriers and Protective Factors of Juvenile Offenders on their Developmental Pathway to Adulthood. [Article]. *Journal of Correctional Education, 60*(3), 201-224.

Ward, S. K., & B. (2008). *Patterns of discrete social skills among incarcerated middle school youth with bullying and victimization problems.* 68, ProQuest Information & Learning, US. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2008-99020-483&site=ehost-live

Wasserman, G. A., Keenan, K., Tremblay, R. E., Coie, J. D., Herrenkohl, T. I., Loeber, R., . . . Delinquency, P. (2003). Risk and Protective Factors of Child Delinquency. OJJDP Child Delinquency Bulletin Series.

Woodward, T. G. (2008). Using Protective Factors to Change The Future of Corrections. [Article]. *Corrections Today, 70*(1), 76-77.

Zagar, R. J., Busch, K. G., Grove, W. M., & Hughes, J. R. (2009). CAN VIOLENT (RE)OFFENSE BE PREDICTED? A REVIEW OF THE ROLE OF THE

CLINICIAN AND USE OF ACTUARIAL TESTS IN LIGHT OF NEW DATA. [Article]. *Psychological Reports, 104*(1), 247-277. doi: 10.2466/pr0.104.1.247-277

Zara, G., & Farrington, D. (2009). Childhood and Adolescent Predictors of Late Onset Criminal Careers. *Journal of Youth and Adolescence, 38*(3), 287-300. doi: 10.1007/s10964-008-9350-3

# APPENDICES

## APPENDIX A:

## REVIEW OF THE LITERATURE

### History of Juvenile Delinquency

Approximately 2.4 million juveniles were arrested in the United States in the year 2000 with 100,000 of those crimes being for a serious crime such as aggravated assault, rape, and homicide (Palermo, 2009). Of those arrested, more than 110,000 juveniles were incarcerated in juvenile correctional facilities (Unruh, Povenmire-Kirk, & Yamamoto, 2009). Recidivism of violent criminal offenses after being released has been studied for many years and until now recidivism of aggressive and violent offenses while incarcerated has been consistently overlooked. Aggression and violence in juvenile facilities has been a growing problem and has removed the safety of incarcerated juveniles. Reducing aggressive and violent behavior while incarcerated will provide a safer environment for all juvenile delinquents and staff and will probably assist in decreasing recidivism of a violent criminal offense once they are released. It is necessary for research to be conducted in this field for the safety and well-being of those incarcerated as well as the community.

*Risk Factors*

The consensus among most professionals is that there is not just one single risk factor that leads a young child to become a delinquent and instead the greater the number of risk factors, the greater the likelihood of early juvenile offending (Wasserman, et al., 2003). Risk factors are "conditions that are associated with a higher likelihood of negative outcomes, such as engaging in problem behavior, dropping out of school, and having trouble with the law" (Carr & Vandiver, 2001, p. 409). Other factors that have been identified as being closely related to the risk of delinquency are showing signs of aggressive behavior at an early age, having problems sitting still or concentrating, abusing substances, and associating or being antisocial.

Adolescents that are believed to be at risk of offending or participating in criminal behavior are those whose parents have a history of being involved in criminal behavior, those who associate with delinquent peers, those that have many siblings and are raised in a large family that lives in a broken homes, and those who are not successful academically (Burton & Marshall, 2005). Once a child becomes older, the risk factors transition from individual and familial factors to peer influences, school, and community factors (Wasserman, et al., 2003).

Family seems to play an important part in both risk factors and protective factors. Lack of parental supervision, inadequate child-rearing practice, and child maltreatment all strongly impact a child's future behavior. Research findings indicate that a high-level of parent-child conflict, poor monitoring, and a low level of positive parent involvement are directly connected to early conduct problems. Children who have been victims of maltreatment or physical abuse have been linked to early offending. One study suggested

that 20% of abused children become delinquent at an early age (Wasserman, et al., 2003). Although not all abused children become antisocial or violent, when compared to children who have not been abused, one study found that victims of child abuse were more likely to accrue juvenile and adult arrests by the age of 25 (Wasserman, et al., 2003). A child does not need to be physically abused to be more at risk. Those that have witnessed verbal or physical abuse in their home were linked to having more problem behaviors at an early age than those who did not experience violence in the home.

A parent's psychopathology also affects their child's behavior. Children whose parents have antisocial personality disorder, suffer from alcohol and substance abuse, and suffer from depression have been linked to higher rates of psychiatric disorders when compared to their peers. Aggressive behaviors are said to occur more in some families than in others. The Cambridge Study in Delinquent Development followed 411 families and found that only 5% of families accounted for half of the juvenile criminal offenses. This pattern is connected to antisocial personalities. Antisocial adults tend to choose antisocial partners and in therefore they have increased levels of familial conflict, do not provide proper supervision, are hostile towards their children, and seem to pass on their antisocial behaviors to their children (Wasserman, et al., 2003).

Adolescents are influenced more by their peers than their families once they get older. Being associated with deviant peers is related to co-offending, joining gangs, and higher rates of delinquency. On the other hand, being rejected by peers has also been found to lead to future antisocial behaviors. One study conducted using third grade students found that those who were rejected by their peers displayed greater antisocial behavior by the time they were in sixth grade than their peers that were not rejected

(Wasserman, et al., 2003). Rejected children try hard to fit in and want to feel a sense of belonging. This need often leads them to engage in more antisocial activity in an effort to be accepted (Wasserman, et al., 2003).

*Protective Factors*

There is a great amount of research on risk factors yet minimal research on protective factors/resiliency and how they influence at-risk youth (Rennie & Dolan, 2010). Protective factors explain why two children may have the same risk factors yet only one offends. Protective factors are important to look at as they may account for the differences between offenders and non-offenders (Woodward, 2008). Studies that have looked at protective factors use them to explore recidivism; this study will use them to explore risk of offending while incarcerated.

Findings on research conducted with protective factors indicated that protective factors may be the key to discovering how to reduce youth criminal behavior (Carr & Vandiver, 2001). Protective factors have been linked to resiliency and individuals that are seen as having multiple protective factors are identified as being resilient (Burton & Marshall, 2005). Resiliency is an "individual's capacity to cope and rise above internal and external negative factors (risks), maintain a socially acceptable behavior under adversity, and reject maladaptive behaviors" (Palermo, 2009, pp. 247-248). In other words, it is the ability of an individual to remain socially healthy even though being faced with negative conditions. The assumption that all youth that are raised in criminogenic neighborhoods become criminals themselves is greatly flawed (Palermo, 2009).

Regardless of the grouping of protective factors, all protective factors are said to encompass an individual's social, emotional, economic, and educational influences and

therefore it should be acknowledged that personal and social factors do influence each other (Burton & Marshall, 2005).

*Violence*

In an effort to reduce violent offenses, the focus of past research has been on predicting violent acts based on risk factors. Males are most often identified as being violent, especially those with alcohol and substance abuse, low socioeconomic status, a prior violent offense, and a personality disorder. Some predominant risk factors that have been identified by various studies are having been exposed to violence, physical and sexual abuse, being raised in a dysfunctional family environment and being raised in a single-parent family (Zagar, et al., 2009).

Personality characteristics have also been explored as risk factors for future violent offenses. Individuals that are shallow, have low self-esteem, difficulties regulating emotions, difficulty controlling their emotions and impulses and have poor anger control are said to be more likely to commit a future violent offense than those without those characteristics (Parker, Morton, Lingefelt, & Johnson, 2005).

Some studies have even focused on trying to predict violent behaviors by looking at infants. Studies conducted by Zagar and colleagues found that a mother's drug use and smoking during pregnancy and having poor nutrition might be a root cause of future violent behavior and deserves further research (Zagar, et al., 2009).

There are different types of violent offenses ranging in severity. One of the most serious types of violent offense is aggravated assault, which is an assault and battery of a high and aggravated nature. In other words, this occurs when a person threatens to harm someone and then proceeds to harm them physically in a very aggressive manner. Other

types of serious violent offenses are assault and battery with intent to kill, kidnapping, armed robbery, and arson of an occupied building (Parker, et al., 2005).

*Loneliness*

> "The longing for interpersonal intimacy stays with every human being from infancy throughout life; and there is no human being who is not threatened by its loss… the human being is born with the need for contact and tenderness" (Fromm-Reichmann as cited by Heinrich & Gullone, 2006, p. 695).

The definition and perception of loneliness varies across cultures however the implications of loneliness are still felt regardless of the culture (Rokach & Orzeck, 2001). Loneliness is very unique and varies among life stages, and different personalities such as extraverts and introverts. It is a multidimensional experience that is uniquely affected by "one's personality, history, and background" (Rokach & Neto, 2005). Loneliness is related, but not identical, to depression and is a unique psychological condition. Loneliness occurs when an individual perceives a lack of interpersonal and social relationships or sees those relationships as not being adequate (Saklofske & Yackulic, 1989).

Since loneliness is based on one's perception, certain individuals might view others as being lonely even though this may not be the case. For example, extroverts and introverts have different social needs and therefore different perceptions of loneliness. Extraverts are social, easy going, and are very people-oriented (Saklofske & Yackulic, 1989). They are known to be active and deliberate in seeking social contacts and situations as they feel they need to have people to talk to and therefore dislike being alone and even reading or studying alone (Saklofske, Yackulic, & Kelly, 1986). Extraverts

have lower levels of cortical arousal and therefore have a great need for simulation and therefore are more social and increase their interpersonal contact which reduces the likelihood of an extravert to experience loneliness. An extravert may experience loneliness when they are given limitations on their opportunity to interact with others on a regular basis. In general, if limitations are not placed, extraverts have been found to experience less feelings of loneliness than introverts (Saklofske & Yackulic, 1989).

Introverts are the opposite of extraverts and therefore their need for social interaction differs. Introverts are seen as being more withdrawn, reserved and "bookish" and tend to be satisfied with having few, but intimate interpersonal relationships (Saklofske & Yackulic, 1989). In addition, unlike extraverts they are okay reading and studying alone and prefer not to go out to parties and instead prefer to have a small gathering with intimate friends (Saklofske, et al., 1986). Introverts tend to feel lonely when they are not satisfied with the quality of their relationships as opposed to the quantity like extraverts (Saklofske & Yackulic, 1989). It is important to note the differences in loneliness among people in order to better treat the symptoms of loneliness accordingly. It is also important to realize that introverts by nature prefer to be more solitary and this is often confused for loneliness.

Loneliness varies from culture to culture though it has been more prevalent in the North American culture. The North American culture seems to encourage loneliness by placing emphasis on "individual achievement, competitiveness, and impersonal social relations" (Rokach & Neto, 2005, p. 478). People from individualistic cultures tend to be more vulnerable and susceptible to loneliness than those from collectivistic cultures. This is in part due to decline in face to face contact and a decline in primary support in

the North American society. For example, extended family and kinship relationships are not as important as it is in other cultures such as the Portuguese culture.

People of all ages are affected by loneliness and all experience it differently. Adolescence is a difficult stage and tends to be defined as being a storming period full of stress. During this time, adolescents tend to rely heavily on their peers and are most vulnerable to peer- pressure and behaving in a risky manner (Rokach & Neto, 2005). Adolescents seem to be very vulnerable to loneliness and don't seem to always be able to cope in a healthy manner. In the 1990's high school violence and school shootings were on a rise and the youth who opened fire and killed their fellow classmates and staff were described as being lonely and alienated by others. Adolescence is a time when people most want to "fit in", be included, and to feel loved and accepted. All those factors are important in shaping a person's identity. Research findings have indicated that adolescents tend to identify being lonely more often than older adults (Rokach & Neto, 2000).

Even though loneliness is prevalent and important during adolescence, most research relating to loneliness has tended to examine college students or adults. Loneliness leads to many negative consequences such as "depression, suicide, hostility, alcoholism, poor self-concept, and psychosomatic illnesses" (Rokach & Neto, 2000). Due to all of the negative consequences, it is necessary to further research the causes of loneliness, the effects of loneliness, and the coping positive and negative coping strategies related to loneliness among cultures and age groups.

*Suicidality*

Suicidal behaviors are closely related to delinquent behaviors which warrant more interventions for those in juvenile facilities (Thompson, Kingree, & Ho, 2006). Although no national data exists specifically about suicide attempts among incarcerated youth, the information that is available suggests that more than 11,000 incarcerated youth engage more than 17,000 suicidal incidents every year (Penn, et al., 2005). Delinquent adolescents are at higher risks for suicidal behavior given that they often have many of the recognized risk factors for suicidal behavior. They often have elevated levels of acute and ongoing stress (especially while incarcerated), psychiatric disorders such as conducted and substance use disorder, poor coping skills, little to no social support, and problems with being impulsive, hostile, and passive or avoidant (Rohde, et al., 1997). Suicide attempts are four times higher among incarcerated adolescents than the general youth population (Thompson, et al., 2006).

Researchers often attempt to filter out the factors that contribute to suicidal ideation from those that contribute to the progression from suicidal ideation to suicide attempt. Two factors that are hypothesized as contributing to the progression are being impulsive and being in a dangerous setting. A dangerous setting is seen as being a place where an adolescent has access to lethal means, have inadequate adult supervision, and where they are around others that are suicidal as well (Rohde, et al., 1997).

Although it is difficult to test predictors of suicidal ideations and attempts, Rohde, et al. (1997) ascertained major life events and depression are closely associated with suicidal ideation as well as suicidal attempt. In addition, they asserted depression, poor coping skills and inadequate support are more closely linked to suicidal ideation than to

attempt. Lastly, they believed that the strongest predictor of suicidal attempt was being in a dangerous setting and not suicidal ideation (Rohde, et al., 1997).

There are various emotions and factors that are connected to suicidality. Besides depression, anxiety and anger are important factors to explore. Those who attempt or complete suicide, may not always be depressed. Some adolescents with poor coping skills engage in suicidal behaviors as a way to deal with their anger. High anxiety is found more in adolescents who attempt suicide than those who are not suicidal. Adolescents with high anxiety tend to not be able to cope with perceived threats and expect the worst in negative situations resulting in overwhelming feelings of anxiety. In order to reduce their anxiety, and due to having poor coping skills, they tend to attempt suicide (Spirito & Esposito-Smythers, 2006).

Aggression and impulsive behaviors co-occur and are related to suicidal behavior in adolescents. One study found that in a sample of more than 3000 seventh-through twelfth-grade students, aggressive and violent behaviors increased as the level of suicidality increased as well (Spirito & Esposito-Smythers, 2006). A different study found that adolescents with conduct/oppositional defiant disorders are 13.2 times more likely to attempt suicide than other adolescents without conduct/oppositional defiant disorder. Adolescents that had been diagnosed with conduct or antisocial personality disorder were reported to be 4.4 times more likely to have attempted suicide than others without personality disorders. Various studies have found aggression to be a significant predictor of suicidal ideation when controlling for psychological disorders (Spirito & Esposito-Smythers, 2006).

Rohde et. al (1997) conducted a study to further explore and identify the correlates of current suicidal ideation and past suicide attempt in adolescents residing in a juvenile detention center. Findings related to suicide attempts indicate that for males, low social support and past suicide attempts were also predictors of suicide attempts. Differences in between males and females were found in that impulsivity, current depression, and younger age were the main predictors of suicidal attempt. Furthermore, findings with male delinquents revealed that low social support was more closely associated with suicidal ideation than attempt was supported (Rohde, et al., 1997).

Adolescent males complete suicide approximately 5 times more often than adolescent females. Although males are not necessarily more suicidal than females, they are more effective in their attempts. Females tend to overdose while males use firearms or hang themselves therefore success is more likely with males. White youth, like males, have higher completion rates than African Americans, Latinos, Native American and Asian/Pacific Islanders (Spirito & Esposito-Smythers, 2006).

*Internalizing vs. Externalizing Behaviors*

Problem behavior is sometimes classified into two main syndromes, externalizing behavior and internalizing behavior. Externalizing behaviors are behaviors that are oriented predominately towards the outside world such as aggression, lying, hyperactivity, and stealing. Internalizing behaviors are those that are geared inwardly, towards the child itself, such as loneliness, depression, anxiety, and social withdrawal (Scholte, 1992). Persistent disobedience, stealing, aggression, vandalism, gang fighting, and homicide are all examples of externalizing and delinquent behaviors (Loeber & Burke, 2011).

There are various personality traits that are seen as increasing the risk of developmental disorders such as low ego-resilience and poor ego control. Ego resilience is the ability to react in a flexible and persistent manner in problem situations. Low-ego resilience indicates adolescents will act in a stereotyped manner when faced with difficult and unusual demands by the environment. In addition, they do not try hard at new tasks, and instead give up easily.

On the other hand, ego-control is a bit different from ego-resilience and is "the ability to regulate impulses and feelings adequately" (Scholte, 1992, p. 251). High level of ego-control tends to mean that an adolescent will be anxious in new situations and will be rigid and inflexible. Adolescents with low ego-control are impulsive and demand to have their needs immediately satisfied (Scholte, 1992).

APPENDIX B:

Guardian ad litem Consent Form

Loneliness, Violence, Aggression, and Suicidality in Incarcerated Youth.

Guardian ad litem Consent Form

Dear Guardian ad litem:

My name is Ilse Carrizales and I am a Doctoral student in the Counseling Psychology Program at Oklahoma State University. I would like to include youth at your facility in a research project about their experiences at your medium security facility. Participants will be asked to complete three surveys that will take approximately 30-40 minute to complete. The surveys will contain questions about their experiences at the juvenile center as well as any problem behaviors that they may have experienced or may be experiencing. Participants will be administered the survey in a group of 10 in an available group room. All participants will be entered in a raffle for one $25 gift card that will be added towards their State account to use while residing in the facility. In addition, upon full completion of the survey, participants will receive a pop-tart for their time and effort.

With your permission, the researchers of this study will have access to the youth's overall disciplinary records for the time since being incarcerated at the current facility. As soon as this data is collected, all identifying information will be destroyed and replaced with a code. This code will be used for the sole purpose of linking the collected disciplinary records data with the original survey responses. Participant's assent form will be separated from the packet of questionnaires so that there is no way to associate their survey responses with their identity. The data will be stored securely in a locked filing cabinet within the facility and only the researchers of this study will have access to your survey responses. All electronic data will be stored in a password secured computer and file.

All information collected in this study is strictly confidential. No one except the primary researcher and her dissertation advisor will have access to individual responses. Any written results will include group findings and will NOT include individual information that would identify the participants.

There is minimal risk involved for participation in this study. There are no known risks associated with this project that are greater than those ordinarily encountered in daily life. There is a possibility that repressed emotions or thoughts may come to the surface after taking this survey. However, participants will be informed that they are free to discontinue the survey at any moment without consequence. If participants experience any discomfort, they will be referred to the psychological staff to receive help and support.

All participants will be asked to give his/her agreement to participate in this research by signing an assent from. Participants will be informed that there will be no penalty for choosing not to participate in this study, and that responses to the questionnaires will not affect their length of incarceration, treatment while incarcerated, or subsequent arrest or treatment decisions.

This study is part of a requirement for the primary researcher's completion of her Ph.D. If you have any questions concerning this study, please feel free to contact the primary researcher, Ilse Carrizales, or her advisor, John Romans, Ph.D. at (405) 744-6040. If you have questions about the general rights of research participants, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu. Your participation in this study is greatly appreciated.

Ilse Carrizales, M.S.
Counseling Psychology Doctoral Student
Oklahoma State University

**I DO/DO NOT (circle one) GIVE PERMISSION FOR THE YOUTH AT MY FACILITY TO PARTICIPAT IN THE RESEARCH STUDY DESCRIBED ABOVE**

Guardian Signature Date

Appendix C

Youth Assent Form

You are asked to take part in a project that will be looking at your experience at the medium security juvenile center as well as any problem behaviors that you may have experienced or may be experiencing. If you decide to participate in this project it will take you about 30-40 minutes to finish.

With your permission, I will have access to your disciplinary records for the time since you have been here. As soon as I get the information from your record, all information with your name will be destroyed and replaced with a code. This code will be used to match the information from your record with your original survey responses.

Everything that is collected will remain private. I will be the only one who will be able to see your individual results. Any written results will include group findings and will NOT include individual information that would identify you. Your assent form will be separated from your surveys so that there is no way to match who you are to your answers.

There is a chance that you may become upset after taking this survey since you will be talking about your experiences. If you feel upset or any other uncomfortable feelings after you finish with the project, please talk to one of the psychological clinicians. Whether you decide to participate or not, your responses to the surveys will not affect the amount of time you have to stay here, your treatment while you are here, or a later arrest.

Your participation in this project will help us better understand your experiences while you are here. You might also be helping some future residents have better treatment and programs. If you do participate and complete the survey, you will be given a pop-tart for your time and effort and you will also have a chance to win a $25 gift card that will be put into your State account for you to use while you are here. Your participation in this study is voluntary and you can choose to stop the survey at any time without being punished or penalized.

*I have read and fully understand the assent form. I understand that my participation is voluntary. By signing my name below, I am indicating that I freely and voluntarily agree to participate in this study.*

Signature Date

APPENDIX D:

Script

Hey everyone:

I am a doctoral student at Oklahoma State University in the Counseling Psychology program. I just want to thank you for taking your time to listen to me. I am trying to better understand your experiences at the medium security juvenile center as well as any problem behaviors that you may have experienced or may be experiencing. The project should not take more than 30-40 minutes.

It is completely up to you if you want to participate in the project and you may quit at any time. All information with your name will be kept separate from your answers on the survey so that nobody will be able to match who you are to your answers. If you take part in the project you will have a chance to win a $25 gift card that will be added to your State account to use while you are here. Also, after you completely answer all the questions in the survey, you will be given a pop-tart for your time and effort.

Your participation in this study will help to better understand your experiences while incarcerated and might also help others in the future. If you would like to participate in this project, please turn the page and begin. Please try your best to answer every question.

Thanks!
Ilse Carrizales, M.S.
Counseling Psychology Doctoral Student
Oklahoma State University

# APPENDIX E:

## Institutional Review Board Approval Letters

**Oklahoma State University Institutional Review Board**

Date: Thursday, November 01, 2012 Protocol Expires: 10/31/2013

IRB Application No: ED11184

Proposal Title: Loneliness, Violence, Aggression, and Suicidality in Incarcerated Youth

Reviewed and Processed as: Full Board
**Continuation**

Status Recommended by Reviewer(s): **Approved**

Principal Investigator(s):

Ilse Carrizales
434 Willard
Stillwater, OK 74078

John Romans
434 Willard
Stillwater, OK 74078

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature:

Shelia Kennison, Chair, Institutional Review Board

Thursday, November 01, 2012
Date

## Oklahoma State University Institutional Review Board

Date: Thursday, November 01, 2012 Protocol Expires: 10/31/2013

IRB Application No: ED11184

Proposal Title: Loneliness, Violence, Aggression, and Suicidality in Incarcerated Youth

Reviewed and Processed as: Full Board
**Continuation**

Status Recommended by Reviewer(s): **Approved**

Principal Investigator(s):

Ilse Carrizales
434 Willard
Stillwater, OK 74078

John Romans
434 Willard
Stillwater, OK 74078

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

Signature:

Shelia Kennison, Chair, Institutional Review Board

Thursday, November 01, 2012
Date

Tables

Table 1

*Demographics*

| | Min. | Max. | Mean |
|---|---|---|---|
| Age | 14.7 | 18.8 | 16.90 |

| Race | Frequency | Percent |
|---|---|---|
| African American | 34 | 60.7 |
| Caucasian | 14 | 24.0 |
| Native American | 7 | 12.5 |
| Latino/Hispanic | 1 | 1.8 |

| Level | Frequency | Percent |
|---|---|---|
| Orientation | 7 | 12.5 |
| Awareness | 13 | 23.2 |
| Practice | 21 | 37.5 |
| Leadership | 2 | 13.6 |
| Community | 4 | 7.1 |
| Adjustment | 9 | 16.1 |

Table 2

*Summary of Means and Standard Deviations*

| Measure | M | SD |
|---|---|---|
| Aggression | 98.76 | 20.22 |
| Loneliness | 51.65 | 8.02 |
| Suicidality | 75.89 | 15.23 |
| Violence | 22.95 | 8.17 |
| Protective | 3.91 | 1.76 |

Table 3

*Correlation Matrix for Aggression, Loneliness, Suicidality, and Violence*

| | Aggression | Loneliness | Suicidality | Violence | Protective factors |
|---|---|---|---|---|---|
| Aggression | - | .409* | .583** | .074 | .011 |
| Loneliness | | - | .533** | -.145 | .121 |
| Suicidality | | | - | .021 | -.068 |
| Violence | | | | - | -.672** |
| Protective Factors | | | | | - |

*p < .01, **p = .00

Table 4

*Multiple Regression Analysis Predicting Aggression*

| Variable | B | Standard Error | β | t |
|---|---|---|---|---|
| (Constant) | 92.745 | 7.375 | | |
| P1 | 4.689 | 6.054 | .118 | .775 |
| P2 | 5.657 | 5.820 | .139 | .972 |
| P3 | 12.340 | 7.762 | .238 | 1.590 |
| P4 | -14.223 | 5.886 | -.358 | -2.416** |
| P5 | -2.788 | 6.551 | -.066 | -.426 |
| P6 | -.578 | 8.089 | -.011 | -.071 |

*** p=.01*

*a. Dependent Variable: Aggression*

*b. P1 = Prosocial Involvement, P2 = Strong Social Support, P3 = Strong Attachments and Bonds, P4 = Positive Attitude Towards Intervention and Authority, P5 = Strong Commitment to School, P6 = Resilient Personality Traits*

Table 5

*Multiple Regression Analysis Predicting Loneliness*

| Variable | B | Standard Error | β | t |
|---|---|---|---|---|
| (Constant) | 49.243 | 3.013 | | |
| P1 | 3.051 | 2.473 | .193 | 1.234 |
| P2 | .126 | 2.378 | .008 | .053 |
| P3 | 3.976 | 3.171 | .193 | 1.254 |
| P4 | 1.098 | 2.405 | .070 | .457 |
| P5 | -4.646 | 2.676 | -.275 | -1.736 |
| P6 | .284 | 3.305 | .014 | .086 |

*a. Dependent Variable: Loneliness*

*b. P1 = Prosocial Involvement, P2 = Strong Social Support, P3 = Strong Attachments and Bonds, P4 = Positive Attitude Towards Intervention and Authority, P5 = Strong Commitment to School, P6 = Resilient Personality Traits*

Table 6

*Multiple Regression Analysis Predicting Suicidality*

| Variable | B | Standard Error | β | t |
|---|---|---|---|---|
| (Constant) | 75.940 | 5.765 | | |
| P1 | 3.052 | 4.732 | .101 | .645 |
| P2 | 4.439 | 4.549 | .144 | .946 |
| P3 | 2.026 | 6.067 | .051 | .334 |
| P4 | -6.948 | 4.601 | -.230 | -1.510 |
| P5 | -6.913 | 5.120 | -.214 | -1.350 |
| P6 | 2.788 | 6.323 | .071 | .441 |

*a. Dependent Variable: Suicidality*

*b. P1 = Prosocial Involvement, P2 = Strong Social Support, P3 = Strong Attachments and Bonds, P4 = Positive Attitude Towards Intervention and Authority, P5 = Strong Commitment to School, P6 = Resilient Personality Traits*

Table 7

*Multiple Regression Analysis Predicting Violence*

| Variable | B | Standard Error | β | t |
|---|---|---|---|---|
| (Constant) | 32.776 | 2.247 | | |
| P1 | -2.965 | 1.844 | .183 | -1.608 |
| P2 | -5.834 | 1.773 | -.352 | -3.291** |
| P3 | -1.118 | 2.364 | -.053 | -.473 |
| P4 | -5.670 | 1.793 | -.350 | -3.162** |
| P5 | -3.120 | 1.995 | -.180 | -1.563 |
| P6 | 1.292 | 2.464 | .061 | .524 |

*** p=.01*

*a. Dependent Variable: Violence*

*b. P1 = Prosocial Involvement, P2 = Strong Social Support, P3 = Strong Attachments and Bonds, P4 = Positive Attitude Towards Intervention and Authority, P5 = Strong Commitment to School, P6 = Resilient Personality Traits*

Table 8

*Multiple Regression Analysis Predicting Violence for Full Model*

| Variable | B | Standard Error | β | t |
|---|---|---|---|---|
| (Constant) | 36.34 | 6.03 | | |
| Aggression | .64 | .052 | .158 | 1.25 |
| Loneliness | -.097 | .127 | -.094 | -.761 |
| Suicidality | -.035 | .074 | -.066 | -.477 |
| Protective | -3.09 | .482 | -.667 | -6.42** |

*** p=.00*

*a. Dependent Variable: Violence*

Table 9

---

*Multiple Regression Analysis Predicting Violence for Reduced Model*

| Variable | B | Standard Error | β | t |
|---|---|---|---|---|
| (Constant) | 35.128 | 2.002 | | |
| Protective | -3.115 | .467 | -.672 | -6.665** |

*** p=.00*

*a. Dependent Variable: Violence*

VITA

Ilse Deyanira Carrizales

Candidate for the Degree of

Doctor of Philosophy

Thesis: LONELINESS, VIOLENCE, AGGRESSION, AND SUICIDALITY IN INCARCERATED YOUTH

Major Field: Counseling Psychology

Biographical:

Education:

Completed the requirements for the Doctor of Philosophy in Counseling Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2013.

Completed the requirements for the Master of Science in Educational Psychology at Oklahoma State University, Stillwater, Oklahoma in July, 2009.

Completed the requirements for the Bachelor of Arts in your Psychology at St. Edward's University, Austin, Texas in 2007.

Experience:

University of Texas Health Science Center San Antonio
*APA Accredited Pre-Doctoral Internship completed July 2013*

Training Sites: Cyndi Taylor Krier Juvenile Correctional Treatment Center
Kerrville State Hospital (Forensic hospital)

Training Director: Donald McGeary, Ph.D., ABPP

Professional Memberships:
American Psychological Association
American Psychological Association Graduate Student Group
National Latino/a Psychological Association
Southwestern Psychological Association
Student Affiliates of Division Seventeen, Society of Counseling Psychology