

8-2022

FORMAL AND INFORMAL LABELING OF ADOLESCENTS: THE CONSEQUENCES OF CUMULATIVE DISADVANTAGE ON DEVIANCE DURING EMERGING ADULthood

Chijioke Onyekonwu

Follow this and additional works at: <https://scholarworks.lib.csusb.edu/etd>

 Part of the [Criminology and Criminal Justice Commons](#)

Recommended Citation

Onyekonwu, Chijioke, "FORMAL AND INFORMAL LABELING OF ADOLESCENTS: THE CONSEQUENCES OF CUMULATIVE DISADVANTAGE ON DEVIANCE DURING EMERGING ADULthood" (2022). *Electronic Theses, Projects, and Dissertations*. 1530.
<https://scholarworks.lib.csusb.edu/etd/1530>

This Thesis is brought to you for free and open access by the Office of Graduate Studies at CSUSB ScholarWorks. It has been accepted for inclusion in Electronic Theses, Projects, and Dissertations by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

FORMAL AND INFORMAL LABELING OF ADOLESCENTS: THE
CONSEQUENCES OF CUMULATIVE DISADVANTAGE ON DEVIANCE
DURING EMERGING ADULthood

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Criminal Justice

by
Chijioke Onyekonwu
August 2022

FORMAL AND INFORMAL LABELING OF ADOLESCENTS: THE
CONSEQUENCES OF CUMULATIVE DISADVANTAGE ON DEVIANCE
DURING EMERGING ADULthood

A Project
Presented to the
Faculty of
California State University,
San Bernardino

by
Chijioke Onyekonwu
August 2022

Approved by:

Alexis Norris, Committee Chair, Criminal Justice

Shuryo Fujita, Committee Member

Douglas Weiss, Committee Member

© 2022 Chijioke Onyekonwu

ABSTRACT

Despite the recent developments in labeling theory, there are still a lot of gaps in research on this theory. To begin with, studies continue to attach too much attention to the effects of formal labeling to the neglect of informal labeling. Secondly, prior research has not paid full attention to a variety of mediating factors involved in the relationship between informal labeling, formal labeling and delinquency.

This study seeks to address these limitations by investigating the overall effects that formal and informal labeling has on young people while considering the differential impact of mediating variables. The data for the study comes from a posthoc survey of late adolescents between the ages of 18 and 24 in a public university and committee college in southern California.

Due to COVID-19 restrictions, survey recruitment and administration involved the use of internet communications technology. The independent variable for the study was informal sanctions and contact with the system following a criterion delinquency at Time 1 which was during middle adolescence. The dependent variable was delinquency at time 2. Mediating variables included attachment to parents and peers, broken down into communication and closeness as well as self-perception. The study employed a path analysis to trace and describe the directed dependencies among these variables. The final sample size consisted of 132 late adolescents between the ages of 18 and 24.

Findings that showed support for the hypothesis in many ways. The path analysis results found that contact with the system at Time 1 was significant factor in predicting future delinquency at Time 2. Also, attachment to parents and peers meant reduced likelihood to reoffend in Time 2. This is in line with other studies that have been done on this topic. Although it showed no support for the hypothesis in stating that contact with the system at Time 1 impacts self-perception, it opens room for future research on this particular result.

One likely implication of the findings from this study is that delinquency in early adolescence leading to contact with the criminal justice system may lead to higher delinquency at later times.

TABLE OF CONTENTS

ABSTRACT	iii
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER ONE: INTRODUCTION	
The Problem	1
Labels	2
Current Study.....	5
Outline of Research	7
CHAPTER TWO: LITERATURE REVIEW	
Concept of Labeling Theory.....	9
Societal Reactions and Criminal Development.....	9
Test of Labeling Theory	12
Labeling and Informal Sanction	14
Labeling and Deviant Self-Perception.....	17
Labeling and Parental Attachment.....	18
Cumulative Disadvantage	20
Current Study.....	21
Hypothesis	22
CHAPTER THREE: METHODOLOGY	
Participant Recruitment	25
Sample Description	26

Survey Administration.....	27
Operationalization of Variable.....	28
Dependent Variable.....	28
Delinquency.....	28
Independent Variable	30
Formal Labeling.....	30
Informal Labeling	30
Mediating Variable.....	31
Descriptive Statistics.....	34
Analytical Approach.....	39
 CHAPTER FOUR: RESULTS	
Path Analysis Result.....	42
H1. Formal Labeling Effects on Time 2.....	42
H2. Informal Labeling Effects on Time 2.....	43
H3. Formal Labeling Effects and Self-Perception on Time 2	43
H4. Informal Labeling Effects and Self-Perception on Time 2	44
H5. Formal Labeling Effects and Attachment on Time 2.....	44
H6. Informal Labeling Effects and Attachment on Time 2.....	44
Delinquency 1 Effects on Delinquency 2	45
Delinquency 1 Effects on Formal Labeling	45
Delinquency 1 Effects on Informal Labeling.....	45
 CHAPTER FIVE: DISCUSSION	
Limitations	53

Directions for Future Research.....	54
APPENDIX A: SURVEY	56
APPENDIX B: INSTITUTIONAL REVIEW BOARD APPROVAL	60
REFERENCES	62

LIST OF TABLES

Table 1. Demographic tatistics of Study Participants	34
Table 2. Administrative Statistics of Sample Survey.....	35
Table 3. Variable Description.....	36
Table 4. Summary Statistics	48

LIST OF FIGURES

Figure 1. Hypothesis Table.....	23
Figure 2. Path Analysis.....	47
Figure 3. Correlation Matrix	49

CHAPTER ONE

INTRODUCTION

The Problem

Labeling theory is built upon symbolic interactionism specifically explicates causal paths from prior deviance to later deviance; it may also be traced to Mead's self-concept theory. To this effect, it suggests that being labeled a deviant or a delinquent increases the risks of future delinquency (Lee, 2018). Prior to Mead's self-concept theory that development of the self begins during childhood (Mead, 1934), Cooley (1902) cited in Kavish et al (2016) had introduced the idea of "looking glass self" and the concept that an individual's self-view was formed based on the way the individual felt the society viewed him or her, and how s(he) reacted to his or her perceptions of their views. Proponents of the labeling theory have continued to seek a better understanding on how social control agencies (including the juvenile justice system), react and respond to the juvenile behaviors which subsequently create deviance (Branch et al., 2012). Juvenile delinquent behavior was considered a product of the society, environment or simply an attribute of the youths and this was linked to socioeconomic deprivation and the recommendation to either punish or treat these juveniles (Branch et al., 2012).

A deviant in this aspect has been defined by labeling theorists as one who has had a negative label applied to them in response to a suspected behavior.

To this effect, social responses to the labeled individual may change, causing a divide and an isolation between the individuals and members of the society.

Deviance may then come to function as a form of defense and an adjustment to the problems created by the societal reactions (Mahoney, 1974). Owing to the new identity formed, he begins to associate with deviant peers as he considers himself an outsider according to Becker (Mahoney, 1974).

The attachment of a deviant label on an adolescent is not without its challenges for the adolescent in question. Further research into the potential difficulties that labeling creates among affected adolescents and information gleaned from the findings would, hopefully, pave a pathway that will lead to better options in order to obviate these problems. Thus, research seeking to achieve this objective would be extremely valuable in combating the issues associated with the labeling process.

Labels

Most studies examine formal labeling imposed by the justice system to the neglect of informal labeling by families and peers which may be as impactful on the adolescence as contact with the criminal justice system (Lee, 2018). *Formal labels* are applied to individuals who have come in contact with educational or correctional systems with the authority to officially label the individual as a deviant. There are claims that the transformation of an individual by means of marking the person as a deviant could lead to increased criminal behavior or secondary deviance (Kavish et al., 2016).

Informal labels are applied to individuals by someone without the official or professional authority to distinguish between deviant and non-deviant behavior. There are claims that parents are the primary sources of informal labels, and these informal labels can have a direct effect on an individual's self-concept or self-esteem (Kavish et al., 2016). *Stigmatization* occurs when a publicly acknowledged attribute disqualifies an individual from full social acceptance. This is to say, being publicly identified as an offender is an important cause of stigmatization. The stigmatized individual is disqualified from social acceptance and made to bear the consequences of their actions. This disqualification creates further consequence which could graduate into further criminality and involvement in illegal activities and organizations. Also, there is the fear and worry of what others think of them, furthermore, creating a divide and distance between them and the non-stigmatized people (Ericson, 1977).

Becker (1963) is of the opinion that to be labeled a criminal is to be automatically assigned a status which people use to identify a person publicly and therefore causes them to treat the person as a deviant and an outsider. It is likened to having a disease which is visible to others which makes people shift away from an individual. It is difficult to eradicate since we live in a society where criminal records are easily accessible.

Owing to all these understandings about labeling, it is important to note that most scholars are of the opinion that it generally leads into cumulative disadvantage which now changes the perception of the individual after they have outgrown the adolescence stage. The crimes done in the past now act as a

barrier against future legitimate endeavors. To this effect, the compounding effects of these issues now follow them into adult life.

Cumulative disadvantage refers to the connected and compounding disadvantages that follow certain people over the course of their lives. It proposes that the disparities between certain groups do not in fact remain constant but instead increase as they advance through a temporal process such as getting old (Zane, 2018).

Laub and Sampson (1993) also define cumulative disadvantage as the conception that previous engagement in crime inhibits future favorable opportunities and can also be linked to engagement in future crimes. It can be argued that cumulative disadvantage could be the result of initial crime which affects an individual's bond to society; this may also affect an individual's self-concept having had a stigmatizing effect, creating more room for the acceptance of a deviant identity. While primary deviance is believed to have a negligible effect on the emotional development of the individual, secondary deviance develops as a means of defense, attack or adjustment to issues created by the reaction of the society to primary deviance (Sampson and Laub, 1995).

The criminal justice system plays an important role in the process of labeling, with labeling viewed as the "segregating" and "stigmatizing" effects of social control efforts (Sampson and Laub, 1995). Based on findings from the research on cumulative disadvantage done by Sampson and Laub, (1995), they found that initial contact with the justice system has a negative impact on later opportunities for the adolescent in many ways including but not limited to

attachment with conventional others, perception of oneself and being able to attain gainful employment. Individuals who had initial run-ins with the system end up being more likely to be arrested or even sent to adult prison in later adolescence. An official label has the capacity of negatively impacting a person's self-concept, conventional activities and even associations with conventional others, fostering increased likelihood to persist in crime. It is therefore important that, as much as possible, adolescents who do not have to go through this pathway are prevented from doing so, in order to reduce the burden that crime poses on the society.

Current Study

This study attempts to contribute to theoretical development by investigating informal labeling in conjunction with potential mediating variables and showing how important this concept is in relation to subsequent offending. Getting caught for deviant activity may have differential effects depending on who detects the behavior and whether formal or informal sanctions result. Using self-report online anonymous surveys from a public university and community college in southern California, this study aimed to test the explanatory power of an informal and formal labeling with a path analysis that tracked labeling during middle adolescence on outcomes experienced in late adolescence while considering the effects of mediating factors. The objective of this study therefore was centered on investigating **how early involvement in delinquency and**

being labeled a troublemaker or delinquent affected self-perception and behavior in early adulthood.

Adolescence is the period of transition between childhood and adulthood. It involves various physical, cognitive, emotional, sexual and social changes during that time which can lead to anxiety and worry for both the adolescent and their families. Research has identified three main stages of adolescence which include: Early, Middle and Late adolescence (Allen, 2019).

Early adolescence stage is between the ages of 10-13 at which stage, children often grow more rapidly with noticeable changes in their bodies that could inspire curiosity and anxiety in them. On the other hand, middle adolescence stage is between the ages of 14-17 at which stage they begin to experience physical changes from puberty and interests in romantic and sexual relationships, need for independence and concerns about their appearance. The final stage is the period between 18 and 21 where they begin their journey towards adulthood, having a stronger sense of individuality and personal identifiable values. Their focus is more geared towards their future, and they may be both physically and emotionally separated from their families based on independence (Allen, 2019). Since past errors may not easily be forgiven, not only by close family, but the society at large, it is important to examine the relationship between labeling in middle adolescence and its impact on the adolescent during the late adolescence stage of their life. This focus is chosen over early adolescence because it is the stage in which potential recall and recollection would be easy. Specifically, does labeling arising from offenses

committed in middle adolescence lead to deviant behavior in late adolescence? It is hoped that findings gleaned from this study will contribute to the body of knowledge on the labeling theory and efforts targeted at developing responses to early delinquency in order to prevent future deviance and social ostracization.

Outline of Research

Chapter two began by presenting the theoretical framework on which this study is based. Drawing upon the works of Tannenbaum (1938), Lemert (1951), and Becker (1963), this chapter explains the central arguments of labeling theory and then summarizes current research that investigates the effects that labeling has on adolescents. Next, the text reviews factors that may function as mediating variables, mediating the causal relation between formal and informal labeling and subsequent delinquency, specifically self-perception and attachment to conventional others. Chapter two concluded with the research questions and hypotheses generated from the literature review.

Chapter three described the proposed research methodology. Participant recruitment as well as survey administration were discussed in this chapter. In order to do this, a path model was introduced that grouped variables and determined the extent to which they impact each other, denoted with a positive or a negative symbol. This is essential as it describes the directed dependencies among the variables. A factor analysis was also used to describe the validity amongst the correlated variables gotten from the path in response to unobserved latent variables.

Chapter four contains the results of the current investigation. Significant differences in descriptive variables were found between the middle and late adolescence. This chapter also provides a summary of the results. Results from the path analysis showed considerable support for the hypotheses presented. There was a significant positive relationship between delinquency in middle adolescence and delinquency during late adolescence, being delinquent at middle adolescence led to more delinquency at later adolescence. Also, there was a significant positive relationship between contact with the system and self-perception. Being in contact with the justice system affected the way the adolescents perceived themselves and this finding has also been seen in other studies where contact with the system was observed to create a negative self-perception which ultimately resulted in being accepted by deviant peers.

Discussions of the study as well as support for hypotheses and literature is discussed in Chapter 5. According to the philosophy of labeling, the study found evidence to support the argument that labeling an adolescent can trigger negative side-effects as evidenced in the study. However, the current study is not without limitations, including validity threats related to having a small sample size. The discussion offers suggestions for the improvement of future research. Hopefully, this study will open up more areas for research in labeling and subsequent deviant behavior.

CHAPTER TWO

LITERATURE REVIEW

Concept of Labeling Theory

Labeling theory offers a typically sociological approach, centering on the role of social labeling in the development of crime and deviance (Bernburg, 2009). In an attempt to profile the root causes of deviant behaviors, the context of labeling was derived (Goode, 1975). It is premised on the assumption that once individuals have been labeled or described as deviants, they are confronted with new problems arising from both their reactions and that of others, to the negative stereotypes attached to the deviant label; this is despite other causes and conditions that may also have led to the deviant behavior (Becker, 1963; Lemert, 1967, as cited in Bernburg, 2009, Tannenbaum, 1938). The process through which deviant behavior begets labels and results in continued deviance involves several factors, including negative reactions from society, deviant subculture and effects of stigmatization in relation to labeling theory.

Societal Reactions and Criminal Development

In his work, Tannenbaum used the term “dramatization of evil” to describe the processes through which societal reactions that label an individual, results in a person becoming the thing they are portrayed to be, no matter what the

individual tries to do to be reformed (Tannenbaum 1938). Criminals form over time through a sequence of processes that involve tagging (labeling), defining, identifying, segregating, describing the individual to the extent where the individual is now forced to identify himself as a delinquent person. He posited that criminal behavior originated as youths transition into the world of adults (Tannenbaum 1938).

Tannenbaum (1938) believed that through the process of segregating or isolating the child, that child is forced into relationships with others who have been similarly tagged and together a gang ensues, and it becomes a means of escape and security for the child. Tannenbaum was also of the opinion that dealing with the delinquent should be viewed as dealing with a group and not an individual. It could be a small gang of delinquents or criminals who are in contention with the morals of the society. According to Tannenbaum (1938), crime was considered to be a maladjustment that exists because of conflict between a group and the community at large. The individual's adjustment to a specific group therefore made him maladjusted to the larger society since that group (deviant group) conflicts with the society, thus, crime becomes a normal activity to the delinquent, opening up a pathway for the formation of a career in crime (Tannenbaum, 1938). Just like a regular career in which everyone has a part to play, the individual also has a part to play. However, this is not facilitated without the help of older people in the game who act as role models to these young people. These are the people the younger ones answer to and report their activities to (Tannenbaum 1938). The delinquent goes through a hardening

process in which he solidifies his actions and his affiliation to his gang and enmity with the community. It takes the form of aggression and resistance on the part of the delinquent and punishment on the part of the community. Owing to the already brewing conflict between the delinquent and the community, the delinquent becomes more and more hardened; at this stage, the situation reaches its climax which leaves no other option than for formal agents to be called in to deal with the delinquent individual/group (Tannenbaum 1938).

Lemert (1951) cited in Branch et al. (2012) “emphasized the effect of social control system on the occurrence and form of deviant behavior and crime”, asserting that deviant behavior is borne out of what people do or fail to do which ushers them into public focus as deviants. He described it as the deviation from the normal behavior and acceptance of a maladjusted or deviant behavior. Based on this assumption, Lemert (1951) defined norms as the “limits of variation in behavior explicitly or implicitly held and recognized in retrospect by members of a group or society” and maintained that sometimes norms are overlooked but people tend to be aware of norms only when they are breached. Stating that deviation is criminal only if the society reacts to it as such, Lemert (1951) claimed that criminals are those who have been selected by a clear substantive and adjective law as can be obtained in the courts. An individual is therefore tagged such if the label could be backed up by laws that the society abides by.

Becker (1963), on the other hand, proposed that deviance was initiated by people with prejudice against the poor and powerless individuals in the society. He posited that societies are made up of various groups with their own rules and

norms, noting that an individual may be a member of several of these groups and what constitutes a deviant behavior in one group may be totally acceptable in another group (Becker, 1963). Defining deviance as anything that shifts away too widely from the average or from the normal way of doing things, Becker further opined that the degree to which an act will be treated as deviant depends not only on who committed the act but also on who perceives that he has been hurt by the act (Becker, 1963). Individuals who have been labelled deviant across different groups, according to Becker (1963), share one label, they are regarded as outsiders.

One thing stands out amidst all these views; the suggestion that the formal reaction to crime becomes a channel for development of criminal careers and in turn an increase in antisocial behaviors. To this effect, labeling theory proposes that formal punishment stigmatizes an offender in various ways which has the unintended outcome of increasing future delinquent behaviors (Restivo & Lanier, 2015).

Tests of Labeling Theory

Research shows that formal labeling is the strongest predictor of secondary delinquency since the transformation of an individual's identity could possibly lead to increased criminal behavior. For instance, Kavish (2016), measured formal labeling by tracking self-reported arrests listed by participants in the study during Wave 3 using a dichotomous variable 1 = yes and 0= no to indicate that an individual was either formally or not formally processed. He found

that formal labeling was highly predictive of Wave 3 delinquency involvement even after controlling for respondents' previous delinquency involvement. On the other hand, Restivo & Lanier (2015), measured formal labeling/involvement with formal criminal justice system as arrest and this was done by asking respondents how often in the past two years they have been arrested, been to court or held in jail or juvenile detention. Arrest was measured with a dichotomous self-reported item and responses were coded as "1" arrested or "0" not arrested in the past two years. Their initial analyses documented at least one arrest in the previous two years in almost a quarter of the sample population (Restivo and Lainer, 2015).

Furthermore, labeling impacts negatively on an individual's chances in the society by limiting or completely blocking them from possibilities that are available and accessible to others. Akers et al. (2017), is of the opinion that being branded with a label comes as a result of who you are and not what you have done which inherently leads to segregation in the society as we see it today. They noted that even for the same law-violating behavior, members from less powerful groups were more likely to be officially labeled and punished than those from more powerful groups (Akers et al., 2017). Formal contact or labeling has also been noted to have the capacity to transform one's identity as soon as the label has been attached and could inherently lead to increased criminal behavior or secondary deviance.

Kavish, Mullins & Soto (2016), asserted that some of the criminogenic effects that a formal label could have include inability to vote, hold public offices and most importantly inability to access legitimate opportunities which like a

spiral, leads them back to the life of crime hence, the continuation of secondary deviance. Attachment of a formal label or contact with the justice system has a significant indirect effect on criminal and non-criminal outcomes in later years. In testing these assumptions, Kavish, Mullins & Soto (2016), carried out a study that analyzed the effects of formal contact/label with the justice system.

The study included samples obtained from the National Longitudinal Study of Adolescent Health on adolescents in grades 7 to 12. The study measured formal contact by retroactively tracking self-reported arrests listed by adolescents and included a dichotomous variable with (yes =1) denoting that the respondents were officially in contact with the justice system and (no =0) denoting responses that indicated that the individual was not formally processed.

Results from this study done by Kavish, Mullins & Soto (2016), showed that formal labeling was found to be the strongest predictor of further delinquency involvement in respondents. This supported the hypothesis that formal labels significantly increased subsequent delinquency. Respondents who reported having had contact with the justice system ended up committing more crimes in later years. The self-report contact with system items highlights the adverse effects official formal contacts can have on future behaviors (Kavish, Mullins & Soto 2016).

Labeling and Informal Sanction

As the name implies, informal labels are labels which have been applied to individuals by someone who has no official authority to create a difference

between deviant and non-deviant behaviors. These types of labeling are often the results of reactions from parents, peers and society. It is influenced more by societal reactions to and perceptions of the offender. Informal labeling, however, is not limited to the reactions from parents, peers and society; school sanctions and even sanctions from peers at school may also be types of informal labeling. Research has lent credence to the fact that reactions from parents, teachers and peers to an individual's behavior could influence the delinquency level (Brownfield & Thompson, 2005).

In operationalizing informal labeling, Kavish (2016), used school stigmatization and parental labeling as measures of informal labeling. For school stigmatization, he used a four-item index which looks at whether they have ever been in trouble at school, been expelled, been suspended, or repeated a grade with higher scores indicating more experiences of school stigmatization. In assessing parental labeling, parents of the study participants were asked if they believe their child had a bad temper and their answers coded dichotomously as yes=1 and no=2; study participants were asked to respond either yes or no to the question on if they were often rebuked or corrected by their parents (Kavish, 2016).

Results from the study showed that no support for the hypotheses in that it school stigmatization was insignificant in predicting secondary delinquency because it is unrelated to future delinquency. This was however chiefly attributed to inaccurate account for school stigmatization and labeling experiences. The same can be said about parental labeling as this study showed that it did not

have a significant impact on future delinquency. This could also be attributed to the fact that these variables were measured differently under different stigmatizing themes.

Kavish, Mullins & Soto (2016), further examined this assumption in a study which investigated the role of informal sanctions in reducing further delinquency. The study sample was obtained from the National Longitudinal Study of adolescent Health, encompassing adolescents between Grades 7 and 12. The variables included in their analysis were such informal measures as school stigmatization and parental labeling. With regards to school stigmatization, respondents' experiences were summed using a three-index item which reflect stigmatizing school experiences. They were asked if they ever got in trouble at school, suspended or even expelled. Higher scores were indicative of more stigmatizing experiences. On the other hand, parental labeling was evaluated through a parent questionnaire survey administered to the study participants where they were asked questions about what their parents thought of them in relation to getting in trouble and being a rule breaker (Kavish, Mullins & Soto, 2016).

Results from their study showed support for the hypothesis that introduction of informal sanction would inherently reduce further delinquency. School stigmatization had a significant impact on Wave 3 delinquency scores. The relationship between school stigmatization and Wave 3 delinquency was negative meaning that school stigmatization resulted in decreased Wave 3 delinquency.

Labeling and Deviant Self-Perception

Labeling theory also notes that an official deviance label inherently promotes the development of deviant self-meanings (Kroska, 2017). Liberman and Akiva (2014) noted that an important mechanism in labeling theory is the refocusing of a youth's self-concept towards deviant self-perception because of the placement of a delinquent label thus promoting the hypotheses that the labeled individual is prone to further deviance. The self-perception which the deviant internalizes becomes a major mode of adaptation to their feelings of stigmatization. It helps them create a permanent refuge where they establish an environment that is conducive to their interests and needs. This also helps protect them against criticism and common problems of adjustment with members of the society. They use this refuge they have formed to maintain and sustain their deviant identity while receiving validation from the negative sets of people (Davis, 1972).

Stiles & Kaplan (2000) noted that negative self-perceptions not only instigate the adoption of deviant patterns but lead to feelings of strain on the individual. Stiles, Liu & Kaplan (2000), carried out a study that looked at the mediating effects of negative self-meanings on 9, 335 adolescents. The study included negative self-meanings as an intervening variable in testing the hypothesis that negative self-meanings has an adverse effect on deviance. Negative self-meanings were measured using Cronbach's six-item measure like: "At times, I think I am no good at all", "I feel disgusted with myself", "All in all, I

am inclined to feel that I am a failure”, “I certainly feel useless at times”. The study findings from Stiles, Liu & Kaplan (2000), showed that negative self-meanings create more room for deviance and pulls the individual further into a web of crime.

Labeling and Parental Attachment

Griffin & Griffin (1978) noted that an individual's first experience with the outside world usually comes from the family which is the first unit the individual knows with family being a child's first agent of socialization. It may therefore be safe to assert that the quality of this experience helps determine whether that individual would engage in normal or deviant behaviors. The role of the parents cannot be overemphasized, and parental interaction plays a significant role in the personality development of the child. The role of a parent does not just stop at being a parent or providing the basic needs for the child. A parent's availability in the life of the child provides the child with a secure base from which to explore and learn. In fact, adolescents whose parents have undergone some form of incarceration as a result of criminal behaviors may end up also going down the same path in life, becoming delinquent or also getting incarcerated, for want of better role model.

Nelson & Rubin (1997) supported Griffin & Griffin (1978), by asserting that attachment provides a sense of security which stems from the social bond established between parents and children; this observation may be generalized to the society. In contrast, the absence of these bonds or attachment may lead to

an association with deviant and unconventional others whose influence would be detrimental to the lives of these adolescents.

To investigate the hypothesis about the role of parental attachment in juvenile delinquency, Nelson & Rubin (1997), carried out a study that encompassed 133 adolescents between the ages of 13 and 18 recruited from local schools in the Washington state region. The study included a self-report survey completed by participants, an attachment inventory adapted from Armsden & Greenberg's (1987), an inventory of Parent and Peer Attachment and an adapted delinquency questionnaire Index of Delinquency Measures Seydliitz, (1993). The Parent and Peer attachment inventory included items like "My parents respect my feelings", "I talk to my parents about everything", "I tell my parents about my troubles and problems".

Results from this study found that there was a significant relationship between attachment to parents and juvenile delinquency. This supported the hypothesis that juveniles who commit delinquent acts experience less parental attachment. This, they likened in support for the social control theories in that if the attachment is strong enough, adolescents would obey the norms of the society on their own accord.

Results from this study by Nelson & Rubin (1997) and Griffin & Griffin (1978), supports the hypothesis that the less attached the adolescents were to their parents, the more delinquent they were likely to be. Individuals who committed delinquent acts will report less attachment to conventional others. There was a significant inverse relationship between delinquency level and

parental attachment, providing support to the belief that when familial relationships are weak, adolescents are not given the support structure necessary for them to become high-functioning members of the society.

Cumulative Disadvantage

Makarios et al (2017), note that the very concept of cumulative disadvantage connotes that criminal behavior carries on into later years because early criminal tendencies and behavior have negative consequences that hinder the development of healthy traits related to other facets of life. They proposed a study to test this notion by using adolescent arrest as a measure of cumulative disadvantage. It was conceptualized as a variable which bridges the gap between early delinquency and poor social adjustment in adulthood. This was done by tallying up the total number of arrests reported during the first two waves.

The findings suggested that adolescent criminal involvement adversely affected a variety of social domains in early adulthood. Arrest which was used as a measure of cumulative disadvantage was found to be associated with antisocial behaviors in early adolescence. Participants who were arrested were more likely to be high school dropouts, less likely to go to college and more likely to engage in a variety of antisocial behavior. The findings support the notion that criminal tendencies experienced in early adolescence has a cumulative disadvantage on later years.

With the understanding gotten from past literature on the formal and informal effects of labeling on adolescence, the current study would take a focus into how mediating variables could mitigate against labeling, looking at attachment to parents and peers and self-perception on college age adolescence between the ages of 18 and 24 with a focus on how past delinquencies affect future delinquency as a result of informal and formal labeling experiences.

Current Study

This study was undertaken to explore the discourse on labeling theory and hopefully, improves upon the existing knowledge by evaluating the impact of formal labeling (measured by contact with justice system), and a relatively unexplored form of informal labeling (peer and parents' stigmatization) on future delinquency. The research also explores the idea of self-perception and attachment as mediating variables. Finally, through the process of a path analysis, the present research determines if formal and informal labeling during middle adolescence causes an increase or decrease in delinquency at late adolescence.

Hypotheses

In general, it is hypothesized that reported delinquency during middle adolescence (between ages of 15 and 17) will be associated with greater delinquency at late adolescence (between the ages of 18 and 21). However, drawing from the literature reviewed above, several factors are involved that may mitigate this association. See (Fig.1).

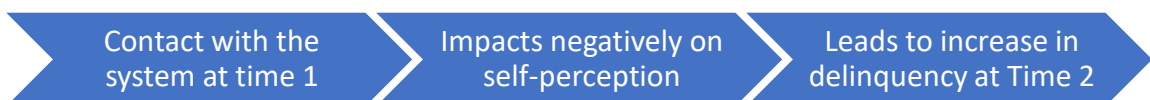
H1. Formal labeling Effect on Time 2. Formal contact with the system at Time 1 is predicted to increase the effects of reported delinquency at Time 2. Specifically, delinquency during middle adolescence (between the ages of 15 and 17) that results in formal contact with the system would be associated with higher delinquency at Time 2 (between the ages of 18 and 24). It could be depicted thus.



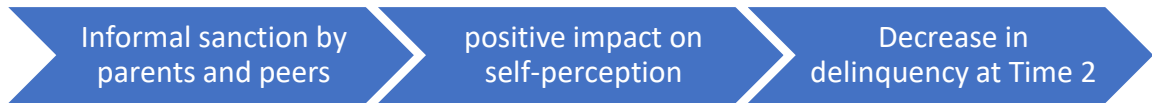
H2. Informal labeling Effect on Time 2. Informal labeling attached to an individual by parents and peers at Time 1 is predicted to reduce the effects of reported delinquency at Time 2.



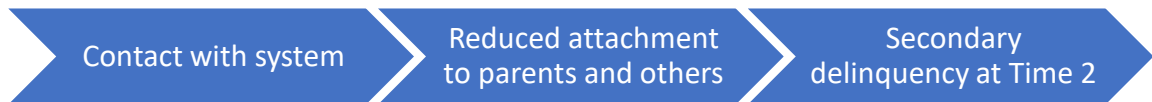
H3. Formal labeling Effects and Self-perception on Time 2. Contact with the system at time 1 is predicted to have a negative impact on self-perception at Time 1 which leads to secondary delinquency at Time 2. Specifically, having been in contact with the system at time 1 would impact the way the individual views themselves which in turn impacts delinquency at Time 2.



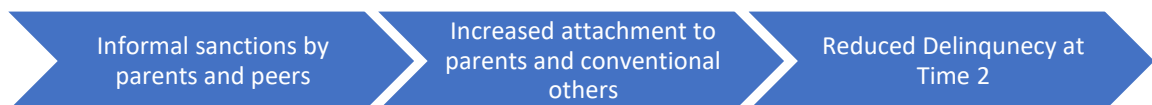
H4. Informal labeling Effect and self-perception on Time 2. Informal labeling by peers and family at middle adolescence is predicted to impact positively on self-perception at time 1 which then leads to reduced delinquency at Time 2.



H5. Formal labeling Effects and attachment on Time 2. Contact with the system at Time 1 is predicted to affect attachment to parents and conventional others negatively. This therefore leads to more delinquency at Time 2 since there is no warmth from parents and peers as these adolescents rather turn to further delinquency.



H6. Informal labeling Effects and attachment on Time 2. Informal sanctions by parents and peers at Time 1 is predicted to increase attachment to parents and conventional others which in turn now leads to a reduction in delinquency at Time 2.



CHAPTER THREE

METHODOLOGY

Participant Recruitment

The sampling protocols targeted college students between 18 and 24 years of age. Participants were recruited from a public university and community college in southern California and snowballing method of sampling. because a substantial proportion of the student body of both schools is comprised of individuals within the target age group. Due to COVID-19 social distancing concerns and the public university's policy, all recruitment was by means of digital media. Participants were recruited through social media and other online communication forums. Several digital media platforms were used to reach out to individuals who might qualify and have an interest in participating in an online, anonymous survey.

To begin with, criminal justice faculty members were invited to share an invitation with students through Blackboard. Invitations were also posted on the Center for Criminal Justice Research social media pages, as well as research social media accounts (e.g., Instagram and Twitter). In addition, the research team emailed invitations to colleagues at various post-secondary education programs nationally, as well as friends, family and associates that are of the target age or may know people in the target age. To snowball the sample, respondents were further invited to share the invitation with anyone else they knew who fit the selection criteria.

As part of the consenting process, which was built into the digital survey administration, respondents carried out a self-screen for eligibility before participation. The eligibility question included the question “Are you between 18 and 24 years of age?”. The research team did not carry out any direct screening.

Sample Description

Owing to the poor turnout of participants in the survey during the first wave which kicked off in the summer of 2021, a renewed effort at participant recruitment occurred in the fall semester with the optimism that more participants would be recruited, since more students that fit the age group were taking classes at the time. This gave room for comparisons. The first wave questionnaire was distributed in the summer of 2021 and had a total number of 49 participants with a mean response of 71% (n=35) people completing the survey. Wave 2 questionnaire, with a total number of 170 participants was distributed in the fall of 2021 with a total of 74% (n=97) completing the survey.

A total of 219 participants, made up of both wave 1 and wave 2 respondents were approached for the study and made up the initial sample with 132 completing the survey. Over 25% of the participants chose not to disclose their gender. Out of those who did which was a total of 92 participants, 20% were males while 80% were females.

Survey Administration

To ensure anonymity, the survey was administered through Survey Monkey. Survey Monkey was used because it is not subject to the public university's software licensing decisions, and secondly, the anonymity settings and data capture features of this platform conform to ethical standards set by the Institutional Review Board. Furthermore, survey monkey is equivalent to other software (e.g., Qualtrics) ensuring that data collection satisfies the Institutional Review Board specifications. Invited participants were able to access the survey through a dedicated survey URL link and a QR code.

Restricting the sample to people in late adolescence (18-24) and asking them to retrospectively describe experiences from early and middle adolescence was expected to improve potential recall thereby increasing the validity of data gathered. This is because the study was focused on trying to obtain an understanding of how these participants lived and acted in those stages of their lives in relations to offending and also find out if they experienced any labeling effects. Data collection involved a post-hoc survey completed online by participants. The focus of the anonymous survey was on questions which identified past misconducts and current ones.

The respondents' responses remained anonymous, and the same questions were asked in a consistent manner to all the participants. Responses were available only to the researcher and participants were asked not to copy each other's answers (if they were friends or family members) or share the details of the survey with each other. To ensure validity, the questionnaire was pilot tested using a few participants to ensure that content was clear and concise,

without ambiguity. Participants were also encouraged to respond to the questions as accurately as possible.

Operationalization of Variables

World Health Organization classifies adolescence period into early, middle and late adolescence. The early adolescence stretches between the ages of 10 and 14, the middle adolescence is between 15 to 17 while the late adolescence stretches between 18 to 21 years. As earlier defined, the theory of cumulative disadvantage attempts to explain differentiation of individuals over time, based on their previous disadvantages in life. Since the purpose of the study was to find out how prior labeling impacts adolescents, the variables that were selected as the independent variables focused on behavior during middle adolescence (high school) and the dependent variable targeted the current period wherein respondents are at the late adolescent stage of development (college).

Dependent Variable

Delinquency

Drawing upon Becker (1963), delinquency is defined as actions which appropriate agents of control perceive as deviant and if discovered, results in the application of a label thereby creating a stigma for the individual. Drawing upon the National Youth Survey, deviance was measured with Huizinga & Ageton (1985) 15 item scale on delinquency. The scores for this 15-item index ranged from 0 to 60 with high positive scores indicative of high delinquency. These

scores were generated as a result of reverse coding. Delinquency at time 2 is the dependent variable while delinquency at time 1 is the control variable. The exact same items were measured at both stages of adolescence (between ages 15 and 17 and ages 18 and 24). Respondents were asked to indicate on a scale from 0 (Never) to 4 (Often) how many times they were:

- Loud, rowdy, or behaved in disorderly conduct in a public place
- Had sexual relations with someone against their will
- Broke into a building or vehicle (or tried to break in) to steal something or just look around
- Had sex with someone more than 2 years younger or older than me
- Drank alcohol/got drunk
- Drove a motor vehicle without a license
- Drove a motor vehicle while intoxicated
- Attack someone with a weapon
- Involve yourself in a gang fight or gang related activity
- Skip classes without an excuse
- Run away from home or stayed away overnight
- Use or sold marijuana or pot
- Take something that did not belong to you
- Stole something from a store
- Bully someone.

Independent Variables

Formal Labeling

Formal labeling are labels that have been applied to individuals who have had dealings or have come in contact with the correctional systems (Kavish, 2014). For this study, contact with the justice system captures the extent to which the adolescent was in contact with the justice system for adolescent crimes committed between the ages of 15 and 17. The five items used in this summative index were scored using a dichotomous response set 1=Yes or 0=No. Contact with the system took the form of asking participants if they were:

- Detained by the police
- Sent to juvenile hall
- Placed on juvenile probation
- Went to juvenile court
- Sent to a community teen court or school mediation program.

The total score ranged from 0 to 5 with high scores indicating that more formal sanctions were experienced.

Informal Labeling

Informal labeling is generally defined as a deep discrediting attitude which aims to reduce the individual from a whole and usual person to a tainted, discounted one (Goffman, 1959). For this study, informal labeling was represented as informal sanctions in middle adolescence and involved measures drawn from two set questions on parental and peer stigmatization from the National Youth Survey (Elliott et al., 1989). Parental stigmatization involved

measures asking them to think about what their parents thought about them in high school, and this was coded on a scale of 2 (strongly agree) to -2 (strongly disagree). The same items were measured for peer stigmatizations. The items included:

- You were a rule breaker
- You were always in trouble at school
- You were always in trouble at home
- You were frequently stopped by the police.

Mediating Variables

Parental attachment is defined as a strong link between parents and children and is concerned with the relationship the adolescent feels/felt with their parents/primary guardians at certain periods of their lives. The items used here involved evaluating for communication and closeness. For communication, the questions had to do with asking them to think about their relationship with their parents or primary guardians during the periods under study (15-17, and 18-24) and respond to three statements. It included time 2 because they could have had a fall out or even no longer lived with these people. They were not combined as the focus was on later delinquency.

- My parents/guardians and I candidly talk about everything
- I frequently talk about my thoughts and experiences away from home with my parents/guardians
- My parents/guardians and I have frequent conversations.

Responses were recorded on a scale valued from -2 (strongly agree) to -2 (strongly disagree). Total scores on the summative communication index ranged from -6 to 6 with high positive score indicative of more/ stronger communication with parents/guardians. The mean for this index was .23 while the standard deviation was 7.128. The Cronbach alpha for these items was .862 indicating good reliability and consistency. This covered communication for both times 1 and 2.

Closeness also involves how connected the adolescents felt to their parents/guardians during the periods under study. Respondents were asked how close they felt to the following people:

- Parents/guardians you lived with
- Relatives you did not live with (e.g., aunt)
- Teachers, coaches, or other adults at school
- Other adults from the community (e.g., pastor, youth center, recreation center staff).

Answers were coded on a scale of 1 = (Not close) to 4 = (Very close). Total scores on this summative index of adult closeness items ranged from 4 to 16 with high scores indicative of being very close. The mean score was 18.88 and the standard deviation was 4.601. The Cronbach alpha is .757 indicating good internal reliability and consistency. This covered both times 1 and 2.

Self-perception deals with one's observance of their behavior, attitudes, and emotions in an attempt to know themselves (Bem, 1972). For this study, self-perception was measured by asking the respondents to retrospectively examine

their lives and pick out what situations best define their esteem. It measured their self-esteem at Time 2, seemingly after what they had gone through in Time 1. Measures of self-perception/esteem were drawn from Rosenberg (1965). This 10-item index captures general feelings about oneself with the following statements:

- On the whole, I am satisfied with myself
- At times, I think I am no good at all
- I feel that I have a number of good qualities
- I am able to do things as well as most other people
- I feel I do not have much to be proud of
- I certainly feel useless at times
- I feel I am a person of worth, at least on an equal plane with others
- I wish I could have more respect for myself
- All in all, I am inclined to feel that I am a failure
- I take a positive attitude toward myself.

Responses were coded with a five-point scale, anchored with strongly agree (valued at -2) to strongly disagree (valued at 2). The summative index score ranged from -20 to 20 with high positive scores indicative of high self-esteem. The mean for these index items was 4.63 while the standard deviation was 6.163. The Cronbach alpha is 0.829 indicating more reliability.

Descriptive Statistics

Demographic statistics for this research was collected during both waves 1 and 2 survey administration and Table 1 displays the frequency distribution for the categorical variables. The highest ethnic group represented in the study was Black with a total of 64%, followed by Hispanics (19%) and Whites 9%. About 8% of the study sample was of mixed ethnicity. The mean age of the sample population was 23 years and while about 32% of the population had completed only the GED, 30% had completed their bachelor education.

Table 1. Demographic Statistics of Study Participants

Variable	
Age (Average age and SD)	23.7, 5.9 (n=94)
Variables	No of responses (%)
Gender	92 (100)
Male	18 (19.6)
Female	74 (80.4)
Race	100(100)
Black	64 (64)
Hispanic	19 (19)
White	9 (9)
Mixed	8 (8)
Education	93(100)
GED	29(31.2)
Associate	27(29)
Bachelor	28(30.1)
Masters	9(9.7)

The survey was recorded on survey monkey and run-on SPSS software. The software provided results for administrative details that were in the sample.

Out of the total number of surveys administered, 26% of respondents (n=44) did not complete the survey while 17% (n=29) partially completed it. Partial completion meant that the response could be used but would be limited while total completion includes every answer recorded in the survey. The total completion rate was 132. To avoid undue skewness, only those that partially completed the survey and those that completed the survey were included in the study. Participants took an average of 36 minutes to complete the survey with standard deviation of 4 hours.

Table 2: Administrative Statistics of Sample Survey

Row labels	
Survey completion	Count of RID (%)
Not Completed	44 (26)
Partially Completed	29 (17)
Completed	97 (57)
Total	170(100)
Time to complete survey (n=170)	Time (mins/secs)
Median time	0:10:08
Average time	0:35:46
SD	4:00:00

Table 3 is a description of the variables used in the sample. It shows the means and standard deviations for the variables. It was first inputted into SPSS and after the data cleaning, the variables were selected and indexed as well before finding the mean and standard deviation of each of them. For the

dependent variables, the mean and standard deviation of both delinquencies at both times 1 and 2 varied a lot. For instance, some items seemed to have continued more in time 2 than it was at time 1.

An example of this could be found in the theft item under Delinquency Time 1 and 2. While in Time 1, the mean was .88 and standard deviation was .977, in Time 2, the mean was .44 and standard deviation was .818. This shows a drastic reduction in theft for these participants in the survey. They may have outgrown those delinquent habits as they got older or for unknown reasons, these habits became less pronounced.

Table 3: Variable Description

Variables	Mean	SD	N
Self-esteem index	5.05	6.976	105
Self_rc	.46	1.101	105
Good	-.19	1.194	105
Number_rc	1.19	.777	105
Others_rc	1.17	.765	105
Proud	.11	1.354	105
Useless	.00	1.316	105
Worth_rc	.91	.900	105
Respect	-.50	1.285	105
Failure	1.00	.945	105
Positive_rc	.90	.827	105
Close-index	9.44	2.301	114
Close_par	2.84	.965	114
Close_rel	2.20	.874	114
Close_adults	2.32	.804	114
Close_others	2.07	.849	114
Comm-index	.11	3.564	114
Parents_talk	.20	1.305	114
Parents_thought	.13	1.360	114
Parents_speaking	-.22	1.309	114
Informal sanction			
Parent_rule	.68	1.281	115

Parent_troubles	1.27	.882	115
Parent_troubleh	.73	1.177	114
Parent_stop	1.63	.809	115
Friend_rule	1.02	1.076	115
Friend_troubles	1.24	.961	115
Friend_troubleh	.76	1.254	115
Friend_stop	1.70	.533	115
Friend_bully	.74	1.278	115
Contact time 1 index	.10	.437	105
None	.52	.502	100
Police	.05	.219	100
Hall	.01	.100	100
Probation	.01	.100	100
Court	.01	.100	100
Teenc	.03	.171	100
Del time 1 index	5.77	6.105	100
Weapon	.16	.393	101
Gang	.09	.452	100
Class	1.05	1.226	100
Run	.28	.740	100
Pot	.35	.978	100
Theft	.88	.977	100
Steal	.43	.844	100
Bully	.36	.659	100
Disorder	.69	1.002	100
Force	.03	.172	99
Break	.05	.219	100
Sex	.24	.534	100
Alcohol	.64	1.000	100
Drive	.44	.998	100
Dui	.08	.339	100
Del time 2 index	6.19	7.178	96
Weapon	.09	.437	96
Gang	.08	.474	96
Class	1.15	1.161	96
Run	.35	.846	96
Pot	.54	1.132	96
Theft	.44	.818	96
Steal	.33	.909	94
Bully	.18	.562	96
Disorder	.55	.905	96
Force	.09	.461	96
Break	.03	.175	96

Sex	.52	1.026	96
Alcohol	1.14	1.350	96
Drive	.55	1.085	96
DUI	.15	.542	96

Analytical Approach (Analysis)

Correlation matrix is concerned with finding out if there is a relationship between two variables that are being looked at and determining the strength of that relationship. Simply put, it is concerned with finding out the extent to which variables are related in a study. Thought to be a strong test of relationships among variables, the correlation matrix can be used also to measure the strength of the linear relationships between variables. It could be a positive or a negative correlation. A positive correlation is one which the scores range from +0.5 to +1. This is indicative of a strong positive correlation. The negative correlation is one in which the scores range from -0.5 to -1 meaning as one variable increases, the other decreases proportionally. However, if the score is 0, it simply means that there is no correlation or relationship between the variables. It however should not be mistaken that since correlation measures the strength of a relationship then it determines causation. This is where other statistical analysis come into play. For this study, I am using correlation matrix to determine the strength of the relationships of my variables. As stated in the abstract, the study is looking at an unexplored path which includes self-perception and parental attachment as mediating variables and as such, I would use correlation matrix to see if there is a relationship between these variables in conjunction with the independent and the dependent variables. This is useful because once I determine the strength of the relationships, it is easier to know if one variable influences the other.

As correlation matrix cannot on its own verify the cause-effect relationship among variables, path analysis is introduced in the study for this purpose. Path

analysis in definition is a statistical technique that analyses the relationship among variables in a model. It has been said to be composed of several regression procedures. It assesses the strength of different effects on an outcome and therefore the relationships between the variables are known as correlations and encompasses the hypotheses that has been posed. To this effect, it helps the researcher find out the best fit for a hypothesized model within the data set. Also, because it helps the researcher specify how variables relate to each other, it creates room for the development of logical theories influencing a particular outcome. This form of analysis has been used by various researchers in different fields like sociology, psychology, economics amongst others. Huang & Hsueh, (2007), employed this method of analysis in examining the relationship between intellectual capital and business performance in the engineering consulting industry. Alternatively, in Criminal Justice, Metcalfe, Pickett & Mancini (2015), used path analysis in explaining racialized support for punitive delinquency policies. The results from these studies provide support to this method of analysis in that it specifies all the causal linkages among the sets of variables introduced and identifies the most significant path involved in predicting an outcome.

To this effect, I employ the same method of analysis to identify the most significant pathway involved in predicting the outcome in my data set. This is important since the study is exploring an unexplored path, informal labeling with parental attachment and self-perception as mediating variables. This method of

analysis would be useful in finding out if these variables are significant enough to predict the outcome which is delinquency at Time 2.

CHAPTER FOUR

RESULTS

Results were analyzed based on the study hypothesis, with the objective of exploring the various variables (dependent variable-delinquency at time 2, independent variables-informal sanctions and contact with justice system and mediating variables-self-perception and attachment) and if they play a role on deviance during late adolescence. As indicated, this was done through path analysis shown below (Fig. 2).

Path Analysis Results

As depicted in Table 4, R is the correlation between the predicted values and the observed values of Y while R square is the square of this coefficient which indicates the percentage of variation or the percentage of the dependent variable variation that a linear model explains. In this study, the R value is .419 while the R square is .176. The significance was .031 while the F-value was 2.177 indicative of a large F value since the variation between the sample means is high relative to the variation.

H1. Formal labeling Effects on Time 2

The first hypothesis stated that the introduction of adolescents to the justice system at Time 1 will result to an increase in reported delinquency at Time

2. The findings from the path analysis supported the first hypothesis. Greater formal labeling was associated with increased delinquency at Time 2 while holding all other variables constant.

H2. Informal Labeling Effects on Time 2

The second hypothesis stated that an informal label attached to an adolescent usually by parents, peers and teachers at Time 1 will result in a decrease in reported delinquency at Time 2. The findings from the path analysis supported this hypothesis. Greater attachment to parents and peers was associated with decreased delinquency at Time 2 while holding all other variables constant.

H3. Formal Labeling Effects and Self-perception on Time 2

The third hypothesis stated that contact with the system at Time 1 is predicted to have a negative impact on self-perception which impacts delinquency at Time 2. The findings from the path analysis did not support this hypothesis while holding all other conditions constant. This is because the p-value for the relationship between contact with system at Time 1 and self-perception is greater than 0.5 and so there is no significant relationship between these two variables. Although the hypothesis was not supported, the numbers were in the hypothesized direction. Greater self-perception was associated with decreased delinquency at Time2 while holding all other variables constant.

H4. Informal Labeling Effects and Self-Perception on Time 2

The fourth hypothesis stated that informal labeling by peers and family at early adolescence (between the ages of 15 and 17) is predicted to have a positive impact on self-perception which reduces delinquency at Time 2. The findings from the path did not support this hypothesis. This is because there is no significant relationship between the hypothesized variables. Greater self-perception was associated with decreased delinquency at Time2 while holding all other variables constant.

H5. Formal Labeling Effects and Attachment on Time 2

The fifth hypothesis stated that contact with the system at Time 1 is predicted to have a negative impact on attachment to parents and conventional others which then furthers delinquency at Time 2. The findings from the path analysis did not support this hypothesis in part since there was no significant relationship between the hypothesized variables. On the other hand, the p-value for the relationship between attachment to parents and peers and delinquency at Time 2 is greater than 0.5 so there is no significant relationship between attachment to parents and peers and delinquency at time 2.

H6. Informal Labeling Effects and Attachment on Time 2

The final hypothesis stated that informal labeling by parents and peers at Time 1 is predicted to increase attachment to parents which in turn leads to a

reduction in delinquency at Time 2. The findings from the path analysis supported this hypothesis. Greater informal sanction was associated with increased attachment to parents and peers at Time 2 while holding other variables constant. On the other hand, there was no significant relationship between attachment and delinquency at Time 2.

Delinquency 1 Effects on Delinquency 2

Although not included in the hypothesis, delinquency at Time 1 has a direct impact on delinquency at Time 2. This is supported by the findings from the path model which shows that greater delinquency at Time 1 was associated with increased delinquency at Time 2 while holding other variables constant.

Delinquency 1 Effects on Formal Labeling

There is also a significant positive relationship between delinquency at Time 1 and formal contact. This is because being labeled a delinquent is one side of the coin and then being in formally labeled is another side. They sometimes go hand in hand if not checked early. Most adolescent crimes involve some element of juvenile justice intervention which may in turn lead to secondary delinquency. Greater increase in delinquency at Time 1 is associated with increased formal labeling at Time 2 while holding other variables constant.

Delinquency 1 Effects on Informal Labeling

Greater increase in delinquency at Time 1 is associated with decreased informal labeling at Time 2 while holding other variables constant. More delinquent adolescents were less likely to be informally labeled by parents and peers. This is because being labeled a delinquent already has them looking out for those of similar label and this makes them less likely to even pay attention to what parents and peers say since the deed has already been done.

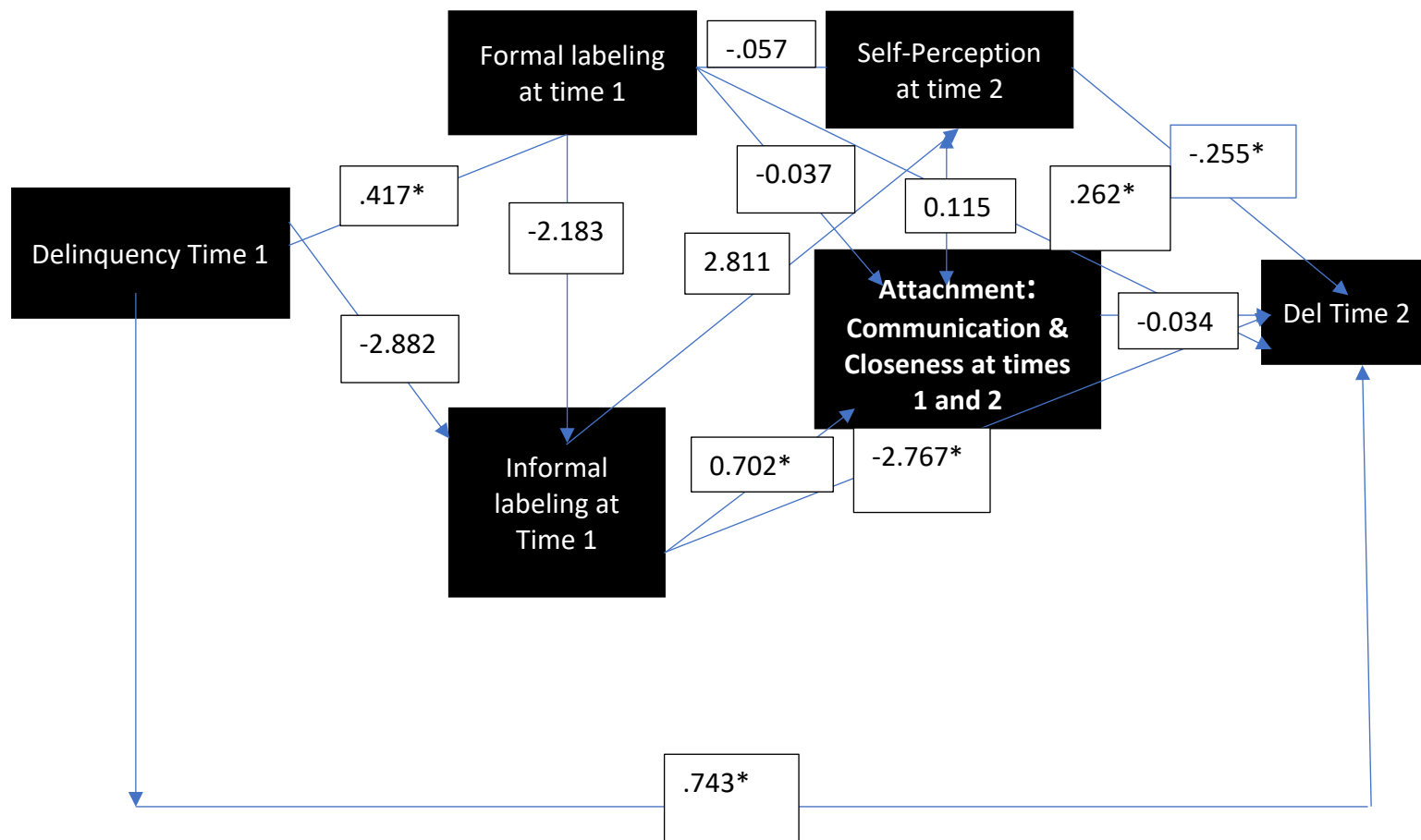


Figure 2: Path Analysis depicting the variables included in the cumulative disadvantage of deviance during emerging adulthood. Note. * $p < .05$

Table 4: Summary Statistics

Regression	R	R Square	Significance	F value
	.419	.176	.031	2.177

		Correlation Matrix ^a														
		PARENT_RULE	PARENT_TROUBLES	PARENT_TROUBLEH	PARENT_STOP	FRIEND_RULE	FRIEND_TROUBLES	FRIEND_TROUBLEH	FRIEND_STOP	FRIEND_BULLY	COMMUNICATION_INDEX	CLOSE_INDEX	SE_INDEX	SER_DEV_INDEX15	TOT_FORMALSANC	SER_DEV_INDEX18
Correlation	PARENT_RULE	1.000	.726	.633	.259	.565	.532	.566	.288	.293	-.079	.154	.327	-.437	-.303	-.349
	PARENT_TROUBLES	.726	1.000	.587	.383	.565	.665	.510	.305	.355	-.062	.150	.350	-.299	-.201	-.287
	PARENT_TROUBLEH	.633	.587	1.000	.178	.442	.484	.695	.273	.350	-.160	.247	.366	-.474	-.338	-.459
	PARENT_STOP	.259	.383	.178	1.000	.096	.361	.163	.474	.328	-.036	.113	.167	-.078	-.157	-.031
	FRIEND_RULE	.565	.565	.442	.096	1.000	.594	.427	.220	.224	.036	.159	.358	-.482	-.201	-.470
	FRIEND_TROUBLES	.532	.665	.484	.361	.594	1.000	.451	.489	.289	-.017	.124	.331	-.325	-.260	-.360
	FRIEND_TROUBLEH	.566	.510	.695	.163	.427	.451	1.000	.265	.320	-.206	.198	.406	-.353	-.309	-.347
	FRIEND_STOP	.288	.305	.273	.474	.220	.489	.265	1.000	.257	.043	-.020	.128	-.229	-.124	-.304
	FRIEND_BULLY	.293	.355	.350	.328	.224	.289	.320	.257	1.000	-.049	.107	.378	-.205	-.290	-.160
	COMMUNICATION_INDEX	-.079	-.062	-.160	-.036	.036	-.017	-.206	.043	-.049	1.000	-.432	-.170	.073	.059	.129
	CLOSE_INDEX	.154	.150	.247	.113	.159	.124	.198	-.020	.107	-.432	1.000	.285	-.071	-.096	-.163
	SE_INDEX	.327	.350	.366	.167	.358	.331	.406	.128	.378	-.170	.285	1.000	-.174	-.057	-.255
	SER_DEV_INDEX15	-.437	-.299	-.474	-.078	-.482	-.325	-.353	-.229	-.205	.073	-.071	-.174	1.000	.417	.743
	TOT_FORMALSANC	-.303	-.201	-.338	-.157	-.201	-.260	-.309	-.124	-.290	.059	-.096	-.057	.417	1.000	.262
	SER_DEV_INDEX18	-.349	-.287	-.459	-.031	-.470	-.360	-.347	-.304	-.160	.129	-.163	-.255	.743	.262	1.000
Sig. (1-tailed)	PARENT_RULE		<.001	<.001	.006	<.001	<.001	<.001	.002	.002	.223	.068	<.001	<.001	.001	<.001
	PARENT_TROUBLES	.000		.000	.000	.000	.000	.000	.001	.000	.274	.073	.000	.002	.026	.002
	PARENT_TROUBLEH	.000	.000		.042	.000	.000	.000	.004	.000	.061	.008	.000	.000	.000	.000
	PARENT_STOP	.006	.000	.042		.177	.000	.057	.000	.001	.365	.138	.053	.228	.065	.382
	FRIEND_RULE	.000	.000	.000	.177		.000	.000	.016	.014	.366	.062	.000	.000	.025	.000
	FRIEND_TROUBLES	.000	.000	.000	.000	.000		.000	.000	.002	.434	.117	.001	.001	.005	.000
	FRIEND_TROUBLEH	.000	.000	.000	.057	.000	.000		.005	.001	.023	.027	.000	.000	.001	.000
	FRIEND_STOP	.002	.001	.004	.000	.016	.000	.005		.006	.340	.425	.108	.013	.116	.001
	FRIEND_BULLY	.002	.000	.000	.001	.014	.002	.001	.006		.320	.151	.000	.023	.002	.061
	COMMUNICATION_INDEX	.223	.274	.061	.365	.366	.434	.023	.340	.320		.000	.050	.240	.284	.106
	CLOSE_INDEX	.068	.073	.008	.138	.062	.117	.027	.425	.151	.000		.003	.246	.176	.058
	SE_INDEX	.001	.000	.000	.053	.000	.001	.000	.108	.000	.050	.003		.046	.291	.006
	SER_DEV_INDEX15	.000	.002	.000	.228	.000	.001	.000	.013	.023	.240	.246	.046		.000	.000
	TOT_FORMALSANC	.001	.026	.000	.065	.025	.005	.001	.116	.002	.284	.176	.291	.000		.005
	SER_DEV_INDEX18	.000	.002	.000	.382	.000	.000	.000	.001	.061	.106	.058	.006	.000	.005	

a. Determinant = .001

Figure 3: Correlation Matrix

CHAPTER FIVE

DISCUSSION

According to Sampson and Laub (1995), aggregate age-specific crime rates are highest in the late teenage years, declining abruptly during the adult years. They opined that antisocial and delinquent behavior in childhood has an eventual causal link to adult deviance and criminality.

Recent attempts to further understand labeling theory and its impact on the adolescent over the course of their early life appear to come to an agreement that deviant labeling tends to bring about situations that are conducive to crime and delinquent behaviors. The goal of this study was to examine the consequences of informal and formal labeling for ties to subsequent deviance and mediating variable (attachment and self-esteem). Although this notion is not new to labeling theory, there has been limited research on the mediating variables included in the study.

Formal labeling tends to embed the individual in deviant social groups inherently increasing the likelihood of subsequent deviance. On the other hand, informal labeling, seen in the light of parental, peers and societal reactions to deviance, plays a part in the continuation of deviance and could even lead up to delinquency at Time 2.

The results therefore lend support to the hypothesis in many ways. One of the findings from the path was that formal labeling at time 1 leads to an increase in delinquency at Time 2. This finding is supported by previous research (for instance, Sampson and Laub, 1997; Bernburg & Krohn, 2003; Chiricos et al., 2007; Kavish et al., 2016) where they traced the role of official intervention in early intervention and subsequent deviance involvement. They concluded that formal labels were the strongest predictor of secondary delinquency. An adolescent who has received formal label as a deviant are not allowed the same opportunities as unlabeled counterparts and therefore having this realization, get involved with similar others. The teenagers that experienced juvenile justice intervention are substantially more likely to report delinquency at Time 2.

Another finding of the study was in support of the hypothesis that informal labeling attached to an individual by parents and peers at Time 1 will result in a decrease in reported delinquency at Time 2. In contrast, Solomon (2015), noted however that label attached by parents to an individual resulted in feelings of exclusion and isolation from family, peers and even teachers.

This study did not support hypothesis 3 that stated that contact with the system at Time 1 is predicted to have a negative impact on self-perception which impacts delinquency at Time 2. The study found no significant relationship between Formal labeling at Time 1 and self-perception but found that an increase in self-perception decreased delinquency at Time 2. Being labeled by the system does not determine whether an individual's self-esteem would be impacted or not. In support of the findings, Valenty (2021), found that formal labeling

produced little to no changes in the self-perception variable and as such, was not significant enough for the study. In contrast to this study however, Valenty (2021), found that self-esteem led to secondary delinquency and was demonstrated by the negative changes in participants self-esteem.

This study did not support hypothesis 4 that stated informal labeling by peers and family at Time 1 is predicted to have an impact on self-perception thereby decreasing delinquency at Time 2. This however was not the case as the findings from the path did not support this hypothesis as there was no significant relationship between informal labeling and self-perception at time 1 but found that an increase in self-perception decreased delinquency at Time 2.

This study did not support hypothesis 5 that stated formal labeling at Time 1 is predicted to affect attachment to parents and conventional others negatively. The findings from the path analysis did not support this as there was no significant relationship between formal labeling and attachment to parents. In contrast, Nelson & Rubin (1997), found a relationship between attachment to parents and formal labeling. They were of the opinion that individuals who commit delinquent acts and go through the criminal justice system will report less attachment to conventional others.

Finally, another finding was in support of hypothesis 6 which states that informal labeling by parents and peers at Time 1 is predicted to increase attachment to parents and conventional others. The findings from the path support this finding and this had a significant relationship in the hypothesized variables.

Limitations:

Despite the effort to advance the literature by framing an appropriate modeling for labeling theory, the study is not without limitations. To begin with, the inclusion method might be porous since it involves an online survey. People turned in incomplete surveys or may have responded by filling out what they want the researcher to believe about them. This could cause a problem in terms of validity and reliability since it would not correctly contribute to the growing body of literature on the issue of juvenile labeling.

Another limitation concerns the representativeness of the sample. The sample for the present study was drawn from youths in Riverside City College and Cal State University, San Bernardino with a few respondents who were snowballed into the study. To this effect, information about delinquent behavior was solely based on the data available from these respondents and therefore is not generalizable to the general population and this may have been further impacted by the small sample size.

Another limitation in the present study is in the understanding that the variables that contributed to the construct of delinquency were variables that were selected based on the impact it could have on the study since we were looking at early and current adolescent behaviors. This study did not attempt to conclude that these are the only variables that could impact an adolescent in the time periods studied. There are other variables such as socio-economic factor of parents, among others which play a contributory role to the topic under study.

Therefore, interpretation of the present study would need to be accepted guardedly, based on the recognition that the construct used is not final and definitely not the ultimate judge of delinquency in adolescents.

Finally, since the independent variable seems to focus on the individual's past, there could be a problem of recollection and cloudy information since they might just inaccurately miss out some key events or have simply just forgotten them. This would also cause a problem in reporting. Further research needs to be done to shed more light, not just on the causative effects of labeling but also on how to help these adolescents overcome the stigma.

Directions for Future Research

Although this study attempted to evaluate all the hypotheses, it is recommended that future research should continue to evaluate the impact of labeling using specific models and trying out critical tests. These specific tests would allow researchers determine what variables accounted for labeling effects that have been used in previous research and support labeling theory.

This study used only path analysis as a statistical testing. Further statistical testing of the theory, especially on the mediating variables would allow criminologists settle the notion on whether labeling affects later delinquency. Also, future research could evaluate the role that the criminal justice system plays in regard to secondary juvenile crimes and delinquencies.

This research focused more on initial and later contacts as well as informal labeling, but future research could focus on determining if the actions

taken following contact with the system impacts recidivism or continued secondary deviance since that area was not explored effectively. It is believed that further research on labeling theory could benefit from the use of qualitative research methods geared towards understanding and identifying the motives for adolescent delinquent behavior as well as the relationships between the variables.

Adolescents who are at risk for delinquent behavior have a great need for close nurturing relationships with dependable family members-parents or guardians. This helps the adolescent experience unconditional support and an acceptance which is necessary for a healthy self-perception. It is recommended that such support systems are encouraged and fostered across different social structures.

APPENDIX A

SURVEY

Informal stigmatization and sanctions: Stigmatization is characterized by acts that are intended to mark someone out as having discrediting, anti-social behaviors. These can be heightened by negative reactions that further degrades the individual from both the members of the community and family and friends. Drawing from the NYS (Elliott et al., 1989), the proposed study will use two set questions on parental and peer stigmatization (see below). Response to this concept would be dichotomously coded (1=yes), (0=no).

Thinking about what your life was like when you were in high school, please indicate how much your parents would agree with the following statements.

- I was a rule breaker.
- I was always in trouble at school.
- I was always in trouble at home.
- I frequently got stopped by police.

Thinking about what your friends thought of you when you were between 15-18, please indicate how much they would agree with the following statements:

- Compared to my friends, I was the rule breaker.
- I got in more trouble at school.
- I got into more trouble at home.
- I was stopped by police more.

Delinquency: Studies have constantly shown that formal labeling is the strongest predictor of secondary delinquency. It exposes the individual to more opportunities to reoffend and persist in crime. Drawing from Huizinga & Ageton, (1985) National Youth Survey Instrument on delinquency, the proposed study would include a 10-item index that measures participants delinquency between the ages of 18 and 21 and between 15 and 17. (see below). Responses will be recorded with numerical rating scale where A=0, B=1-3, C=4-6, D= 7-9, E= 10 or more.

Between the ages of 18 and 21, how many times did you:

- Attack someone with a weapon
- Involve yourself in a gang fight or gang related activity
- Skip classes without an excuse
- Run away from home or stayed away overnight?
- Used or sold marijuana or pot?
- Taken something that does not belong to you
- Stolen something from a store
- Been loud, rowdy or behaved in disorderly conduct in a public place?
- Had sexual relations with someone against their will
- Broken into a building or vehicle (or tried to break in) to steal something or just to look around?

Between the ages of 15 and 17, how many times did you:

- Attack someone with a weapon
- Involve yourself in a gang fight or gang related activity
- Skip classes without an excuse
- Run away from home or stayed away overnight?
- Used or sold marijuana or pot?
- Taken something that does not belong to you
- Stolen something from a store
- Been loud, rowdy or behaved in disorderly conduct in a public place?
- Had sexual relations with someone against their will
- Broken into a building or vehicle (or tried to break in) to steal something or just to look around?

Self Esteem: This study would employ Rosenberg (1965), 10 item scale that deals with general feelings about oneself (see below). Responses would be coded as 0= strongly disagree, 1= disagree, 2= agree and 3= strongly agree.

Thinking about your life, please indicate how best these situations define your esteem:

- On the whole, I am satisfied with myself
- At times, I think I am no good at all
- I feel that I have a number of good qualities
- I am able to do things as well as most other people
- I feel I do not have much to be proud of
- I certainly feel useless at times
- I feel I am a person of worth, at least on an equal plane with others
- I wish I could have more respect for myself
- All in all, I am inclined to feel that I am a failure
- I take a positive attitude toward myself

Parental attachment: Closely modelling after social bond theory developed by Travis Hirschi, this element is concerned with the level of affection, sensitivity and ties an individual has to conventional others, in this respect, parents. This concept would be measured with a 3-item index (see below). Responses would follow an ordinal scale ranging from (1) strongly disagree to (5) strongly agree. The items are well suited with the theoretical conception that emotional bonds of direct and indirect parental controls help adolescents maintain discipline and good character.

Please indicate the extent to which you agree or disagree with these statements:

- My parents and I candidly talk about everything
- I frequently talk about my thoughts and experiences away from home with my parents
- My parents and I have frequent conversations

Miscellaneous

Please indicate your level of agreement with the following statements

- Punishing juvenile offenders is the best way to stop them from committing further crimes? 1=agree, 2= strongly agree, 3=disagree, 4= strongly disagree
- Providing treatment for juvenile offenders is better than punishing them? 1=agree, 2= strongly agree, 3=disagree, 4=strongly disagree.

Demographics

Are you at least 18 years of age?

- Yes
- No

What ethnicity do you identify with?

- Black or African American
- White
- Hispanic
- Others

What is your gender?

- Male
- Female
- I prefer not to answer

What is the highest level of education you have completed?

- No schooling
- Up to 12th grade but no diploma
- High school diploma
- Some college
- I prefer not to answer

Developed by Chijioke Onyekonwu

APPENDIX B
IRB APPROVAL

Fw: IRB-FY2021-297 - Initial: IRB Expedited Review Approval Letter

Gisela Bichler <GBichler@csusb.edu>
To: Chijioke Onyekonwu <006826502@coyote.csusb.edu>

Tue, Jun 1, 2021 at 9:53 AM

IRB approval notice.

Gisela Bichler, Ph.D.
Professor, Department of Criminal Justice
Director, Center for Criminal Justice Research
Coordinator, B.S. Intelligence and Crime Analysis

California State University, San Bernardino
5500 University Parkway
San Bernardino, CA 92407-2393
PH: (909) 537-5510
FAX: (909) 537-7025
Central office: (909) 537-5506

IMPORTANT/CONFIDENTIAL

This communication and any attachment is intended only for the use of the individual or entity to whom it is addressed. The message contains information which may be privileged, confidential and/or exempt from disclosure under applicable law. If the reader of this communication is not the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited.

From: do-not-reply@cayuse.com <do-not-reply@cayuse.com>
Sent: Monday, May 31, 2021 10:11 PM
To: Gisela Bichler <GBichler@csusb.edu>
Subject: IRB-FY2021-297 - Initial: IRB Expedited Review Approval Letter



May 31, 2021

CSUSB INSTITUTIONAL REVIEW BOARD
Expedited Review
IRB-FY2021-297
Status: Approved

Prof. Gisela Bichler
CSBS - Criminal Justice
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Professor Gisela Bichler:

Your application to use human subjects, titled "Formal and Informal Labeling of Adolescents: The consequences of cumulative disadvantage of deviance during emerging adulthood," has been reviewed and approved by the Institutional Review Board (IRB) of CSU, San Bernardino. The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk and benefits of the study except to ensure the protection of human participants. Important Note: This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses due to the COVID-19 pandemic. Visit the Office of Academic Research website for more information at <https://www.csusb.edu/academic-research>.

The study is approved as of May 31, 2021. The study will require an annual administrative check-in (annual report) on the current status of the study on May 30, 2022. Please use the renewal form to complete the annual report.

If your study is closed to enrollment, the data has been de-identified, and you're only analyzing the data - you may close the study by submitting the Closure Application Form through the Cayuse IRB system. Please note the Cayuse IRB system will notify you when your protocol is due for renewal. Ensure you file your protocol renewal and continuing review form through the Cayuse IRB system to keep your protocol current and active unless you have completed your study. Please note a lapse in your approval may result in your not being able to use the data collected during the lapse in your approval.

You are required to notify the IRB of the following as mandated by the Office of Human Research Protections (OHRP) federal regulations 45 CFR 46 and CSUSB IRB policy. The forms (modification, renewal, unanticipated/adverse event, study closure) are located in the Cayuse IRB System with instructions provided on the IRB Applications, Forms, and Submission Webpage. Failure to notify the IRB of the following requirements may result in disciplinary action.

- **Important Notice: For all in-person research following IRB approval all research activities must be approved through the Office of Academic Research by filling out the [Project Restart and Continuity Plan](#).**
 - Ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.
 - Submit a protocol modification (change) if any changes (no matter how minor) are proposed in your study for review and approval by the IRB before being implemented in your study.
 - Notify the IRB within 5 days of any unanticipated or adverse events are experienced by subjects during your research.
 - Submit a study closure through the Cayuse IRB submission system once your study has ended.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risks and benefits to the human participants in your IRB application. If you have any questions about the IRB's decision please contact Michael Gillespie, the IRB Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7026, or by email at mjgillesp@csusb.edu. Please include your application approval number IRB-FY2021-297 in all correspondence. Any complaints you receive regarding your research from participants or others should be directed to Mr. Gillespie.

Best of luck with your research.

Sincerely,

Nicole Dabbs

Nicole Dabbs, Ph.D., IRB Chair
CSUSB Institutional Review Board

ND/IMG

REFERENCES

- Abrah, P. B. (2019). Labeling theory and life stories of juvenile delinquents transitioning into adulthood. *International Journal of Offender Therapy and Comparative Criminology*, 63(2), 179-197.
- Barmaki, R. (2019). On the origin of "Labeling" Theory in criminology: Frank Tannenbaum and the Chicago School of Sociology. *Deviant Behavior*, 40(2), 256-271.
- Bernburg, J. G. (2009). Labeling theory. *Handbook on Crime and Deviance*, 130(1), 187-207.
- Bernburg, J. G., & Krohn, M. D. (2003). Labeling, life chances, and adult crime: The direct and indirect effects of official intervention in adolescence on crime in early adulthood. *Criminology*, 41, 1287-1318
- Branch, N., Gomes, R. C., Harrison, R., King, E., & Young, V. (2012). Reconsidering Labeling Theory: A Case Study of Juvenile Delinquency in Barbados, ProQuest Dissertations and Theses.
- Chiricos, T., Barrick, K., Bales, W., & Bontrager, S. (2007). The labeling of convicted felons and its consequences for recidivism. *Criminology*, 45, 547-581
- Cullen, F. T., & Jonson, C. L. (2016). Correctional theory: *Context and consequences*. Thousand Oaks, Calif: SAGE.
- Davies, S., & Tanner, J. (2003). The long arm of the law: Effects of labeling on employment. *Sociological Quarterly*, 44(3), 385-404.

- Davis, N. (1972). Labeling theory in deviance research: A Critique and Reconsideration. *The Sociological Quarterly*, 13(4), 447-474.
- Ericson, R. (1977). Social distance and reactions to criminality. *British Journal of Criminology*, 17(1), 16-29.
- Hadjimatheou, K. (2016). Criminal labeling, publicity, and punishment. *Law and Philosophy*, 35(6), 567-593.
- Jackson, D.B., & Hay, C. (2013) Conditional impact of official labeling on subsequent delinquency: considering the attenuating role of family attachment. *Journal of Research in Crime and Delinquency*, 50(2), 300-322.
- Kavish, D., Mullins, C., & Soto, D. (2016). Interactionist labeling: formal and informal labeling's effects on juvenile delinquency. *Crime and Delinquency*, 62(10), 1313-1336.
- Kroska, A., Lee, J., & Carr, N. (2017). Juvenile delinquency and self-sentiments: exploring a labeling theory proposition. *Social Science Quarterly*, 98(1), 73-88.
- Lee, J. (2018). Contextualizing informal labeling effect on adolescent recidivism in South Korea. *International Journal of Offender Therapy and Comparative Criminology*, 62(10), 3117-3134.
- Liberman, A. M. (2014). Labeling effects of first juvenile arrests: secondary deviance and secondary sanctioning. *Criminology*, 52(3), 345-371.
- Ward, R. (1971). The Labeling Theory: A Critical Analysis. *Criminology*, 9(2-3), 268-290.

- McGrath, A. (2014). The subjective impact of contact with the criminal justice system: the role of gender and stigmatization. *Crime & Delinquency*, 60(6), 884-908
- Mead, G. H. (1934). Mind, self, and society. Chicago, IL: University of Chicago Press.
- Restivo, E., & Lanier, M. (2015). Measuring the contextual effects and mitigating factors of labeling theory. *Justice Quarterly*, 32(1), 116-141.
- Rosenberg, M., Carmi, S., & Carrie S. (1989). Self-esteem and adolescent problems: modeling reciprocal effects. *American Sociological Review* 54(6) 118-125. <https://doi.org/10.2307/2095720>.
- Sampson, R., & Laub, J. (1995). Crime in the making: pathways and turning points through life. *Bibliovault Oai Repository, The University of Chicago Press*. 74(2). <https://doi.org/10.2307/3340743>.
- Schneider, A., & McKim, W. (2003). Stigmatization among probationers. *Journal of offender Rehabilitation*, 38(1), 19-31.
- Winnick, T., & Bodkin, A. (2009). Stigma, secrecy and race: an empirical examination of black and white incarcerated men. *American Journal of Criminal Justice*, 34(1), 131-150.