

DISPROPORTIONATE MINORITY CONTACT IN THE JUVENILE JUSTICE SYSTEM:
AN INVESTIGATION OF RACIAL DISPARITY IN PROGRAM REFERRAL AT
DISPOSITION

By

Nordia A. Campbell

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

Psychology - Master of Arts

2015

ABSTRACT

DISPROPORTIONATE MINORITY CONTACT IN THE JUVENILE JUSTICE SYSTEM: AN INVESTIGATION OF RACIAL DISPARITY IN PROGRAM REFERRAL AT DISPOSITION

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Disproportionate minority contact (DMC) has plagued the juvenile justice system since its inception. Historically, racial minority youth have also received harsher punishments at the disposition stage when compared to White youth (Moore & Padavic, 2010). Furthermore, research has indicated that these disparities exist despite the use of risk assessment tools, which are theoretically used to reduce human biases in case management decisions. Therefore, the current study aims to investigate the role of race in a particular dispositional decision—program referral—after taking risk assessment into account. Using a sample of juvenile offenders (N = 2,739) from a midsized Midwestern county, the study used the Youth Level of Service/Case Management Inventory (YLS/CMI) to determine if risk assessment variables and race were predictors of program referral. Specifically, the study examined whether risk score and cluster type predicted program referral, and if race moderated the relationships found. This study adds to the literature, as there is a lack of previous research investigating program referral as a point of racial disparity in the juvenile justice system. Results indicated that race predicts program referral, such that minority youth are more likely to be programmed than their White counterparts, even after controlling for risk cluster type. Future directions for research on DMC, as well as practical implications for juvenile court officials are discussed.

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To mommy for all that you continue to do

ACKNOWLEDGEMENTS

I thank God for never leaving me, my family for supporting me, my friends for encouraging me,
and my partner for loving me through it all.

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INTRODUCTION

The US Juvenile Justice System was established in 1899 with the benevolent purpose of transforming delinquents into productive citizens through court-advised treatment (Snyder & Sickmund, 2006). At its inception, juvenile courts focused on the welfare of the juvenile and finding appropriate means by which juveniles might be rehabilitated, rather than punished. However, by the 1980s a substantial misperception of increases in serious juvenile crime led to more punitive laws regarding the treatment of juvenile offenders. And by the 1990s, significant changes emerged in state legislatures aiming to treat juveniles more like criminals (Snyder & Sickmund, 2006).

Today, most states seek to find a balance between punishment and rehabilitation, as juvenile delinquency has become a serious social problem that is increasingly affecting the lives of numerous youth in the United States. The most recent delinquency statistics indicate that juvenile jurisdictions across the United States handled 1,058,500 delinquency cases in 2013 (Sickmund, Sladky, & Kang, 2015). This is a slight decrease from the 3,700 delinquency cases handled per day in 2010, but still a substantial increase from the 1,100 cases that were processed daily in 1960 (Puzzanchera & Hockenberry, 2013). Therefore, although the rate of delinquency seems to be decreasing in recent years, there is still much work to be done. It is critically important to address the delinquency problem, as the number of delinquency cases processed by the juvenile courts has certainly increased over time.

Most states are addressing the issue of delinquency by processing each youth that comes in contact with the system through a number of stages that each allow for further processing, transfer, or release. Figure 1 is presented below to provide a simplified view of the stages of delinquency case processing in the juvenile justice system. It is important to note that this is

does not typically take place instead informal or formal processing usually follows intake. Youth who are informally processed are often diverted out of the judicial system and mandated to work with a community organization as a sanction. On the contrary, a juvenile offender who is formally processed can be dismissed from the system, transferred to criminal court, or sent to the adjudication stage. Adjudication is the stage at which a decision is made regarding responsibility for the suspected offense. If the youth is deemed responsible, the case moves to the final stage—disposition; if not, the youth is released from the system. At disposition, a youth might receive a variety of sanctions, such as intervention programs, residential placement, or probation, all of which can be revoked and replaced with an alternative sanction. The youth will ultimately be released following the successful completion of the ordered sanction.

Introducing the Current Study

Given the outline of the case flow presented above, we will now discuss the focus of the present study in relation to the points in the system noted above. The present study is concerned with the final stage of the system: disposition. Specifically, this study focused on a particular disposition dichotomy: probation versus intervention programs. In relation to the diagram, the study is concerned with the point in Figure 1 where “probation or other non-residential disposition” is noted. At its core, the purpose of the study is to determine how juvenile offenders are referred to intervention programs as opposed to just receiving probation as their dispositional sanction.

This investigation of the mechanisms behind referral to court-ordered intervention programs hypothesizes three possible predictors of referral. The first two variable - risk score and cluster type - are derived from risk assessment, which is theoretically marked as the underlying source of decision-making in the juvenile justice system. Specifically, risk

assessment tools have long been used in the juvenile justice system to predict future offenses, determine supervision levels, inform treatment regimens, and guide dispositional decisions (Hoge, 2002). Therefore, risk score and cluster type are expected to be predictors of program referral because the literature suggests that these ought to be guiding decision-making tools regarding a juvenile's dispositional outcome.

The third hypothesized predictor of program referral is race. In other words, this study sought to determine if race played a role in whether juveniles were sanctioned with probation or prescribed an intervention program after risk score and cluster type are taken into account. Race was included in the study because racial and ethnic disparities have been prevalent in the juvenile justice system since its inception. In fact, studies have suggested that disproportionate minority contact (DMC) occurs at every stage or decision-making point of the system (Davis & Sorensen, 2013; Leiber, Bishop, & Chamlin, 2011; Kempf-Leonard, 2007). Recent statistics have concluded that among all race/ethnicities, minority youth are least likely to receive probation as a dispositional outcome as it is the most lenient of all possible dispositions (Puzzanchera & Hockenberry, 2013). Also, one study found that minority youth are less likely to receive probation and more likely to receive harsher outcomes such as detention and transfer to criminal court when compared to their White counterparts (Moore and Padavic, 2010). However, racial disparity has not yet been investigated at program referral.

It was important to investigate patterns of program referral because some theories have suggested that juvenile justice interventions could potentially have negative effects, rather than the purported positive intentions (Gatti, Tremblay, & Vitaro, 2009; Helmond, Overbeek, & Brugman, 2012; Petitclerc, Gatti, Vitaro, & Tremblay, 2013). Despite its importance, however, programming as a dispositional outcome has often been overlooked in the literature, and instead

studies have been more apt to highlight more serious outcomes, such as detention and transfer to the criminal justice system. Nonetheless, it is critical to investigate programming decisions because they could possibly be doing more harm than good, especially if youth are being referred to programs under biased circumstances. Many researchers have emphasized the iatrogenic effects of juvenile justice programs because of their nature of aggregating youth offenders, which provides the opportunity to further learn negative behavior and develop a criminal network (Warr, 2002; Van Ryzin & Leve, 2012; Helmond, Overbeek, & Brugman, 2012). Furthermore, the investigation of whether or not race plays a role in program referral is particularly important because of the concept of DMC and supporting theories, such as social conflict theory and labeling theory, as well as larger systems of racism and oppression.

Disproportionate minority contact (DMC) warranted the inclusion of race as a predictor in this study because it posits that minority juvenile offenders are more likely than their White counterparts to come in contact with and be processed through each stage of the juvenile justice system (Piquero, 2008). The supporting theory—social conflict theory—suggests that this occurs because minorities are viewed as a threat to the social order, and thus keeping these youth in the system longer allows those in power to maintain control of the existing social order (Petrocelli, Piquero, & Smith, 2008). Yet another theory—labeling theory—suggests that labeling youth as criminals will make them more likely to engage in further criminal behavior, which allows for recurring contact with the juvenile justice system, and eventually the criminal justice system (Bernburg, Krohn, & Rivera, 2006). Therefore, as minority youth are being further processed into the system, as suggested by the DMC literature, they have more opportunities to internalize their criminal label, thus increasing their likelihood of exhibiting further criminal behavior.

Furthermore, the acknowledgment and acceptance of this criminal label by significant others (e.g. family members, peers, justice system officials) magnifies this effect.

Moreover, at the core of DMC are racism and other oppressive forces such as bias, discrimination, and prejudice. Historical backgrounds in slavery and racialized hate have caused racial disparities within several areas of society, as a result of bias and discrimination against groups perceived as inferior, and the juvenile justice system is no exception. Therefore, this study was important in its efforts to determine if racial biases have pervaded an area of the juvenile justice system that is often left uninvestigated—program referral. The following literature review covers juvenile processing, judicial programs at the disposition phase, disproportionate minority contact (DMC), and its relevance in the context of the juvenile justice system. This review of the literature seeks to highlight the importance of investigating DMC at the disposition phase, specifically as it relates to programming for juvenile offenders.

LITERATURE REVIEW

Effects of Juvenile Court Processing

As discussed above, youth enter into the juvenile justice system and are processed through multiple stages before arriving at a dispositional outcome. The perspective taken in this study reflects the idea that youth who encounter the juvenile justice system experience its iatrogenic effects and are paradoxically further criminalized throughout their tenure as juvenile offenders (Gatti, Tremblay, & Vitaro, 2009). Labeling theory suggests that while in the juvenile justice system, youth are labeled as criminals and subsequently act as such due to the internalization of their given labels (Dodge, Dishion, & Lansford, 2006). A related theory, deviant peer contagion, posits that these youth are also given the opportunity to develop friendships through dispositional sanctions that place them in group settings (Warr, 2002).

Therefore, youth in the juvenile justice system tend to experience the negative effects of the system. The literature has consistently demonstrated that youth who are involved in the juvenile justice system during adolescence, as well as those who receive harsher punishments, are more likely than their counterparts to be involved in the criminal justice system as adults (Paschall, Ornstein, and Flewelling, 2001; Lambie & Randell, 2013; Aizer & Doyle, 2013; Munyo, 2014). As a result, a youth who may have engaged in deviant behavior on a single occasion will become more likely to be involved in adult criminal behavior after being labeled by the court system and being exposed to deviant peers. Specifically, adolescents who report prior system contact are twice as likely as those who do not to have future contact with both the juvenile and criminal justice systems (Paschall, Ornstein, and Flewelling, 2001).

Moreover, juvenile delinquency is not only significantly correlated with adult recidivism, but also with inhibited school performance and unemployment issues (Aizer & Doyle, 2013). Specifically, being processed through the system decreases one's likelihood of completing high school (Aizer & Doyle, 2013) and attending an institution of higher education (Livingston & Miller, 2014). Beyond education and employment, juvenile processing is also related to negative mental health consequences among other health related issues (Lambie & Randell, 2013). Given these negative effects of processing, it is important to investigate dispositional decisions as a point of further processing. Further processing may have potential iatrogenic effects on juvenile offenders, especially those who are referred based on discriminatory practices.

Intervention Programs at the Disposition Stage of the System

The juvenile justice system has long relied on partnerships with community-based intervention programs to reduce recidivism and facilitate positive outcomes in juvenile offenders. However, research has suggested that judicial programming may have unintended negative

effects on youth because they tend to bring together juvenile offenders, who teach each other further delinquent behavior through the development of negative peer groups (Warr, 2002; Dodge, Dishion, & Lansford, 2006; Van Ryzin & Leve, 2012). Therefore, there is evidence suggesting that judicial intervention programs are not always beneficial for juvenile offenders (Gatti, Tremblay, & Vitaro, 2009).

It is of utmost importance to investigate the mechanism by which youth are referred to programs in order to ensure that programming is being given to youth for appropriate reasons, rather than via biased decision-making. Further, it is essential to study programs and how youth are referred to them because if specific principles are not guiding the decision-making process then it is possible that youth who are known to experience bias and discrimination in the system (i.e. minority youth) may be at risk for experiencing the negative effects of judicial programs rather than their purported positive intentions.

Under nonbiased circumstances, some judicial intervention programs may have positive effects for youth. There exists a plethora of intervention programs designed for youth offenders, but according to Lipsey and colleagues (2007; 2009; 2010), they are not successful under all circumstances. How programs are selected for youth (i.e. risk assessment or race), the dosage of programming prescribed by court officials, and other aspects of programming are important factors in determining the effectiveness of judicial programs (Lipsey et al., 2009).

Dowden and Andrews (2000) identified a need principle, a responsivity principle, and a risk principle as the three general principles for selecting intervention programs for youth offenders. The risk principle states that a youth's level of risk, as determined by the youth's risk score on a particular risk assessment tool, should predict the intervention program selected for the youth (Andrews & Bonta, 2006). The need principle calls for a focus on the youth's

criminogenic needs (as determined by their cluster types in the present study) and asserts that youth can only yield successful results from a program if it appropriately caters to their specific needs (Andrews & Bonta, 2006). The responsivity principle asserts that offenders should be assigned to programs delivering services in a manner that is consistent with their overall risk, need, and learning styles and abilities (Andrews & Bonta, 2006).

Therefore, given the data available, the present study will focus on programming in a specific juvenile jurisdiction as it relates to the risk and need principles. The participants' risk score and cluster types are expected to predict the programming outcome as Dowden and Andrews (2000) would suggest. The study's specific focus is whether or not these principles (i.e. risk principle–risk score and need principle–cluster type) are the only sources of decision-making or if there are non-criminogenic factors (i.e. race), which may serve as biased influences on the decision-making process.

In the context of this study, the sample used is appropriate for studying program referral because the theoretical processes by which youth are referred to intervention programs meet the aforementioned principles. The need and risk principles are thought to be met because youth are theoretically referred to specific programs based on their risk score and cluster type, which are identified through the administration of a risk assessment tool, namely the Youth Level of Service/Case Management Inventory (YLS/CMI). However, further investigation is necessary to determine if in fact these principles are being followed and ultimately if risk assessment is indeed the underlying factor of the decision-making processes related to program referral.

It follows then that the system must first identify which youth are appropriate for specific programs through assessing their level of risk and need, and subsequently providing the necessary resources (Underwood, Dresner, & Phillips, 2006). However, there is a possibility that

this may not always be the case. Some youth might be receiving inappropriate programming if court personnel hold beliefs about certain groups of youth that might suggest the necessity of programming without consulting the results of the youth's risk assessment administration. For example, research has suggested that the judicial system operates selectively by targeting minority youth for harsher punishments (i.e. programming) as opposed to more lenient dispositions such as probation (Moore and Padavic, 2010; Puzzanchera & Hockenberry, 2013). In other words, minority youth might receive unwarranted programming due to biases and discriminatory beliefs held by judicial decision-makers.

Bridges and Steen (1998) investigated how court officials' perceptions of offenders influenced their classification, assessment, and final recommendation for punishment and found that perception do in fact play quite an instrumental role in the decision-making process. Specifically, they found pronounced differences in officers' attributions of the causes of crime by White versus minority youth, which in turn contributed significantly to differential assessment of risk and disposition recommendations after adjusting for legal and offender characteristics (Bridges & Steen, 1998).

Graham and Lowery's (2004) also found that police officers and juvenile probation officers held negative stereotypes towards Black juvenile offenders and as a result, were more likely to endorse harsher punishments for Black youth than for their counterparts. In their study, participants in a racially primed condition (exposed to words related to the category Black) reported more negative trait ratings, greater culpability, increased expectations for recidivism, and endorsed harsher punishments than those in the race-neutral category (Graham & Lowery, 2004). Given these perceptions, it is important to determine whether the recommended intervention is informed by risk assessment or by stereotypical perceptions due to the youth's

demographic characteristics. If in fact referral to specific programs is not on the basis of the youth's needs and risks, as determined by their risk scores and cluster types, then referral to a particular program may be unwarranted and potentially ineffective or iatrogenic for youth.

Therefore, the present study recognized the possibility of placing a youth into a program, which is not necessarily responsive to his/her need, instead of putting the youth on probation due to stereotypical perceptions of the youth. Furthermore, studying the mechanisms behind programming is especially important because inappropriate programming may create opportunities for negative outcomes rather than the intended outcomes of the program.

DISPROPORTIONATE MINORITY CONTACT

Racial minority youth have been historically proven to receive harsher punishment in the juvenile justice system. In one study, researchers found that minority youth were significantly more likely than their White counterparts to receive a secure confinement disposition (Guevara, Spohn, & Herz, 2004). Among several others, Moore and Padavic's (2010) also yielded results indicating that Black girls were more likely to receive harsher dispositions than White girls, such that Black girls were 1.19 times more likely to be committed to a detention facility and 1.50 times more likely to be transferred to adult court than White girls. Hence the goal of the current study in determining whether minority youth are more likely to receive a more severe disposition than White youth when considering judicial programming.

It was hypothesized that greater proportions of minority youth would be referred to juvenile intervention programs than to standard probation because this is consistent with the racial disparities, which have been prevalent throughout other stages of the juvenile justice system. Furthermore, the likelihood of being placed on formal probation has increased over time for all racial groups except Black youth. Between 1985 and 2010, the likelihood of receiving

probation rose from 57% to 63% for White youth, from 40% to 62% for American Indian youth, and from 64% to 68% for Asian youth. However, the likelihood of receiving probation decreased from 61% to 57% among Black youth (Puzzanchera & Hockenberry, 2013). Racial disparities are evident at the disposition stage as Black youth are least likely to receive the most lenient sanction and most likely to receive the more severe sanctions.

The disposition phase is only a small reflection of these disparities however, as the entire juvenile justice system is plagued with what has become known as disproportionate minority contact (DMC). Disproportionate minority contact (DMC) is defined as a ratio of the proportion of a given minority group in the general population relative to the proportion of said minority group that is in contact with the juvenile justice system (Kempf-Leonard, 2007). Throughout the years, the effects of racism and discrimination have been seen in a plethora of studies (see Table 1) that have investigated and revealed DMC at various stages of the juvenile justice system.

On a larger scale, recent statistics indicate the presence of DMC in today's juvenile population. Specifically, in 2010, although White youth accounted for 76% of the US juvenile population and Black youth only accounted for 16%, 33% of the delinquency cases handled involved Black youth and only 64% involved White youth (Puzzanchera & Robson, 2014). Furthermore, between 1997 and 2010, the delinquency caseload decreased for all racial groups; however, there was a 31% decrease among cases involving White youth and only a 19% decrease among cases involving Black youth (Puzzanchera & Hockenberry, 2013). Given these statistics, several studies have sought to investigate the presence of DMC throughout the juvenile justice system; a number of these studies are summarized in the table below.

Table 1. Summary of the DMC Literature

POLICING							
Author	Race	Control Variables	% of Non-White Participants	Measures Employed	Standardized Measure	Methodological Issues	Findings – Factors that influence DMC
Jacobs, 1979	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Unemployment *SES		*Census *Mean Family Income	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Race was confounded with control variables	*SES *Race
Chambliss, 1994	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Neighborhood – study's only IV			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Race is not directly observed	*Urban Neighborhoods (race)
NY Attorney General's Office, 1999	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Crime Rates		*Official arrest data *Interrogation cards	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Police self-report interrogation cards	*Race
Petrocelli, Piquero, & Smith, 2003	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Crime Rate *SES	59.8%	*Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Only official census data used	*Crime rate *Race
Ayres & Borowsky, 2008	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			*Stop and arrest records	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Not generalizable to juveniles	*Race
Crutchfield et al., 2009	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Prior Police Contact *Neighborhood	55%	Self-administered Survey	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Self-report	*Race *Neighborhood

Table 1. (cont'd)

Stewart et al., 2009	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Neighborhood *Family *Perceptions of Bias	100%	*Schedule of Racist Events *FACHS *Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Self-report *No comparison group	*Race *Neighborhood
SUMMARY	86% included race	71% included control variables	43% noted the Non-White percentage of their samples	Only 28% used surveys to consider self-reported experiences of biased policing	0 studies had a standardized measure	Self-report most frequently identified as methodological critique	100% found race effects 57% found other significant variables, but race was not eliminated
ARREST							
Author	Race	Control Variables	% of Non-White Participants	Measures Employed	Standardized Measure	Methodological Issues	Findings – Factors that influence DMC
Leiber, 2002	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Self-reported by states	*Race *Legal Factors
Petrocelli, Piquero, & Smith, 2003	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Crime Rate *SES	59.8%	*Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Only official census data used	*Crime rate *Race
Huizinga et al., 2007	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Delinquency *Legal Factors *Extralegal Factors	Study 1: 49% Study 2: 85% Study 3: 54%	*Self-reported survey *Official court arrest records	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Self-reported delinquency *Use of secondary data not designed to study DMC	*Race

Table 1. (cont'd)

Kirk, 2008	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Neighborhood		*Family Environment Scales Survey *Census *PHDCN Community Survey	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Race was confounded with control variables	* Race
Crutchfield et al., 2009	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Prior Police Contact *Neighborhood	55%	Self-administered Survey	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Self-report	*Prior police contact *Race *Neighborhood
Fite, Wynn, & Pardini, 2009	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Early Risk Factors		*Antisocial BH Screening *Demographic Questionnaire *CB Checklist *TR Form *RPAC Form *Discipline Sc *Peer DL Sc	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Only boys in sample with oversampling of high-risk boys *Confounded IVs *Black/White sample *Examined only domain specific arrest	*Early risk factors *Race
Kakade et al., 2012	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Substance Use *Illegal Behavior *SES	35%	National Longitudinal Survey for Youth 1997	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Blacks/Whites sample *Self-reported illegal behavior.	*Race *SES

Table 1. (cont'd)

SUMMARY	100% included race	100% included control variables	57% reported race-related data on their sample	14% did not indicate the measures employed 14% used both self-report and official arrest data, which is ideal	0 studies included a standardized measure	Self-reported data most often found as methodological critique	100% identified race effects
ARREST RATES BY OFFICIAL AND SELF-PORTED DATA							
			Official Record (UCR)		Self-Report Victimization (NCVS)		
Violent Arrests by Race							
	Black		53.3%		25.1 per 1000		
	White		44.8%		22.2 per 1000		
<i>Source: UCR and NCVS, 2013</i>							

Table 1. (cont'd)

PRE-ADJUDICATION DETENTION							
Author	Race	Control Variables	% of Non-White Participants	Measures Employed	Standardized Measure	Methodological Issues	Findings – Factors that influence DMC
Sampson & Laub, 1993	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	* Poverty *SES		*County and City Data Book *Census *National Juvenile Court Data Archive (NJCDA)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*The county is the unit of analysis not the youth	*Poverty *Racial Inequality
Secret & Johnson, 1997	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Variables *Extralegal Variables *Neighborhood	13.6%	*Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Self-reported Court data	*Race
DeJong & Jackson, 1998	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Extralegal Variables *Legal Variables *Neighborhood	39.4%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Data self-reported by state	*Extralegal Variables – Single-parent households
Leiber, 2002	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Data self-reported by state	*Race *Legal Factors

Table 1. (cont'd)

Marsh & Patrick, 2003	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Official records	*Race
Ray & Alarid, 2004	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Age *Legal Factors *Neighborhood	63.2%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Differences across counties analyzed	*Race *Neighborhood
Leiber & Fox, 2005	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal factors *Extralegal factors	30%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Measures of IVs not identified	*Race
Guevara, Herz, & Spohn, 2006	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Youth Characteristics *Case Characteristics *Legal Characteristics			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Black/White sample	*Race *Gender * Interaction of Race & Gender
Rodriguez, 2007	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Neighborhood *Legal Factors *Extralegal Factors *Detention Tool	46%	*Detention Screening tool	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Unidentified tool	*Neighborhood

Table 1. (cont'd)

Mallett & Stoddard-Dare, 2010	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Risk Assessment	37%	*MAYSI-2 *Y-LSI	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Only severe and chronic offenders were included in the sample *Validity of assessment not discussed	*Risk Assessment *Race
Rodriguez, 2010	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors	50%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Extra-legal variables not comprehensive	*Race
Leiber & Boggess, 2012	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors *Detention Tool	49%	Detention screening instrument	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Pilot Instrument developed and only validated by staff at the lead state agency	*Race *The structured detention instrument
SUMMARY	100% included race	91% included control variables	66% indicated the percentage of Non-White participants in their study	58% does not indentify the measures used	25% included standardized measures	Critiques of self-reported data or official data as well as validity of measures used most often found.	16% did not find race effects when other variables were taken into account

Table 1. (cont'd)

ADJUDICATION							
Author	Race	Control Variables	% of Non-White Participants	Measures Employed	Standardized Measure	Methodological Issues	Findings – Factors that influence DMC
Secret & Johnson, 1997	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors *Neighborhood	13.6%	*Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Self-reported Court data	*Legal Factors
DeJong & Jackson, 1998	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Extralegal Variables *Legal Variables *Neighborhood	39.4%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Data self-reported by states	*Neighborhood – Single-parent households
Ray & Alarid, 2004	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Age *Legal Factors *Neighborhood Type	63.2%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Differences across counties analyzed	*Legal Factors
Leiber & Fox, 2005	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Detention *Legal factors *Extralegal factors	30%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*The influence of race via detention is not considered.	*Pre-adjudication Detention *Legal Factors

Table 1. (cont'd)

Leiber & Johnson, 2008	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Age *Legal Factors *Extralegal Factors	35%	*Classification scheme for age	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Sample restricted to males	*Race *Age
Rodriguez, 2010	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors	50%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Extra-legal variables not comprehensive	*Legal Factors
Leiber, Bishop, & Chamlin, 2011	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extra-legal Factors	38%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Black/White sample *Possible history effects between time 1 and time 2	*Race
SUMMARY	100% included race	100% included control variables	100% reported the Non-White percentage in their samples 71% had less than 50% of Non-White participants	29% reported information on the measures employed	0 used a standardized measure	Self-report most commonly found. Large variety in methodological issues.	28% of the studies presented here reporting race effects after other variables were considered

Table 1. (cont'd)

DISPOSITION							
Author	Race	Control Variables	% of Non-White Participants	Measures Employed	Standardized Measure	Methodological Issues	Findings – Factors that influence DMC
Sampson & Laub, 1993	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	* Poverty *SES *Legal Factors		*County and City Data Book *Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*The county is the unit of analysis not the youth *Intervention programs not considered	*Poverty
Secret & Johnson, 1997	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors *Neighborhood	13.6%	*Census	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Self-reported Court data *Intervention programs not considered	*Race
DeJong & Jackson, 1998	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Extralegal Variables *Legal Variables *Geographic location	39.4%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Data self-reported by states *Intervention programs not considered	*Race
Ray & Alarid, 2004	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Age *Legal Factors *Neighborhood Type	63.2%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Differences across counties analyzed *Intervention programs not considered	*Race *Neighborhood

Table 1. (cont'd)

Leiber & Fox, 2005	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Detention *Legal factors *Extralegal factors	30%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*The influence of race via detention not considered. *Intervention programs not considered	*Pre-adjudication Detention *Race
Guevara, Herz, & Spohn, 2006	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Youth Characteristics *Case Characteristics *Legal Characteristics			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Black/White sample *Intervention programs not considered	*Race *Gender *Interaction of Race and Gender
Leiber & Johnson, 2008	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Age *Legal Factors *Extralegal Factors	35%	*Classification scheme for age	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Sample restricted to males *Intervention programs not considered	*Legal Factors
Moore & Padavic, 2010	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Age *Legal variables			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Intervention programs not considered	*Legal Factors
Rodriguez, 2010	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extralegal Factors	50%		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Extra-legal variables not comprehensive *Intervention programs not considered	*Race *Legal Factors

Table 1. (cont'd)

Leiber, Bishop, & Chamlin, 2011	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	*Legal Factors *Extra-legal Factors	38%	*Legal history: prior record and supervision status	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Black/White sample *Possible history effects between time 1 and time 2 *Intervention programs not considered	*Race
Davis & Sorensen, 2013	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			*CJRP *UCR	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	*Focus only on incarceration as disposition outcome. *Intervention programs not considered	*Race
SUMMARY	100% included race	91% included control variables	36% did not report the percentage of Non-White participants	55% did not indicate the measures employed	0 included a standardized measure	None of the studies considered intervention programs at disposition.	27% did not find race effects on DMC after considering other factors
SUMMARY OF ALL STAGES	96% included race. Race was not included 1 article on policing	89% included control variables	48% did not report the percentage of Non-White participants	37% did not indicate the measures employed	11% included standardized measures	An array of methodological issues was indentified.	77% found race effects 70% found race effects when other variables were included in the model. 45% found other significant variables, but these variables did not eliminate the effect of race.

Table 1 specifically outlines each study, the stage at which DMC was investigated, whether or not race was included, the control variables included, the percent of minority participants represented, the measures employed, whether or not a standardized measure was included, any methodological critiques to consider when interpreting the study, and the study's key outcomes as it pertains to factors related to DMC. The purpose of the table is to provide an overview of the large body of DMC studies that exist in the literature, and equip the reader with information necessary to accurately interpret the findings.

As mentioned above, Table 1 includes methodological characteristics related to each study, some of which the current study aims to improve upon. For example, unlike many of the above studies, the data that will be used in the present study will not be reported by specific states, instead it will be gathered from a specific juvenile jurisdiction using the Youth Level of Service/Case Management Inventory (YLS/CMI). Many of the studies above did not identify the measure employed by the court from which they obtained the data for their study, possibly because some jurisdictions may not have a standardized manner in which to collect this data. However, the YLS/CMI, which is central to the current study, is a standardized measure that is administered to juvenile offenders by court officials. Therefore, it serves as a self-reported measure, but court officials are also privy to official records in order to validate youth's response when necessary. Thus, the measure has both a self-report and an official aspect, which is ideal for DMC studies.

Further, the present study has the data readily available to provide information on the percentage of minority participants included in the sample, and as you will see below the data utilized for this study includes a larger percentage of minorities than many of those above. It is important to obtain an adequate proportion of minorities in a study of this type because race is at

its core and is fundamental to all DMC studies. Moreover, the current study will include more than merely Black and White youth in the sample. In some of the studies above, the minority population only included Black youth; however, it is important to include other minority races in order to capture the full extent of DMC by accounting for biases toward other racial groups, such as Hispanics.

Table 1 illustrates that DMC occurs at every stage or decision-making point of the system (Davis & Sorensen, 2013; Leiber, Bishop, & Chamlin, 2011; Kempf-Leonard, 2007). The body of research presented here examined various stages of juvenile justice processing and produced mixed findings, indicating consistent racial disparities at some stages and not at others. Specifically, most studies illustrated consistent DMC at policing, arrest, and pre-adjudication detention. While at adjudication and disposition, some studies reported a corrective effect in which minorities were unlikely to receive the harshest outcome, while others still found that minorities were being treated worse than their White counterparts. There are also meta-analyses that have added to this area of research by reviewing the state of DMC at different points in time (Pope, Lovell, & Hsia, 2002; Leiber, 2002; Davis & Sorensen, 2013). Despite the inconsistency in findings across the DMC literature, it is important to note that two decades after the 1994 Office of Juvenile Justice and Delinquency Prevention (OJJDP) mandate to work towards a more just system, DMC still exists at various stages of the juvenile system. This indicates that there is still much work to be done in order to reduce and ultimately eliminate racial disparities and its negative effects on minority youth.

In an effort to contribute to the work ahead, the current study investigated DMC in an area that is largely understudied in this body of literature: intervention programs as possible disposition sanctions prescribed to court adjudicated youth. Referral to intervention programs by

the court is actually an additional decision-making point within disposition. Therefore, DMC may potentially be detected at program referral because the decision makers at this point may potentially introduce bias and discrimination. As can be seen from Table 1, none of the studies that examined DMC at disposition sought to understand the role of racial biases or discrimination in program referral. Alternately, many disposition studies tend to focus primarily on detention or incarceration; a small number of studies also examined transfer to adult court and diversion programs, but none included court intervention programs.

Also, Table 1 illustrates three studies that included risk assessment in order to determine if it reduced biases and promoted objectivity in decision-making. However, none of these studies were using risk assessment to enhance objectivity at disposition, all three studies were related to pre-adjudication detention. To fill this gap, the present study included standardized risk assessment and its role at the disposition stage, specifically at program referral. To enhance the reader's understanding of the relationship between risk assessment and DMC, a brief overview of risk assessment and its purpose in the juvenile justice system will be included in a later section.

Explaining Disproportionate Minority Contact

The most common explanations for DMC are differential involvement, differential selection, or a combination of both. Differential involvement is the idea that minority youth are overrepresented at each stage of the juvenile justice system because they commit more crimes, for more extended periods in their lives, and they commit more of the types of crimes that lead to formal processing by the courts. There are few studies that have investigated the differential involvement perspective in comparison to those that focus on differential selection.

Among these, findings of official justice system records have indicated that Black youth commit more serious violent offenses and illustrate a greater persistence in offending, with a similar but less pronounced pattern among Hispanics (Piquero, 2008). However, when reviewing self-reported data, studies have found little evidence of racial/ethnic differences in the prevalence and frequency of self-reported offending (Piquero & Brame, 2008; Piquero, Schubert, & Brame, 2014). Moreover, National Crime Victimization Survey data has indicated a decline in racial disparities among offending behavior between 1980 and 2008 (Steffensmeier, Feldmeyer, Harris, & Ulmer, 2011). Therefore, self-reported data has suggested that offending behavior does not account for the disparities observed in the juvenile justice system.

The other explanatory perspective, differential selection, suggests that a combination of uneven surveillance, profiling, and arrest practices in minority neighborhoods produce greater reported crime and arrests causing more minorities to come in contact with and progress through the juvenile justice system (Piquero, 2008). This explanation is rooted in the idea that racial bias and discrimination plagues the juvenile justice system and as a result a minority youth and a White youth who commit the same crime will experience differential treatment throughout the court process. A large body of research exists that focuses on this perspective and provides overwhelming evidence that DMC exists at every stage of the court system (see Table 1): from police targeting minority neighborhoods and crimes affiliated with minorities to Black youth receiving harsher dispositions when compared to their White counterparts (Petrocelli, Piquero, & Smith, 2003; Huizinga et al., 2007; Mallett & Stoddard-Dare, 2010; Leiber, Bishop, & Chamlin, 2011; Davis & Sorensen, 2013).

There is also a third explanation that is prominent in the DMC literature, which is comprised of a combination of both differential involvement and differential selection. This

explanation holds that minority youth do in fact commit more crimes, but that they are also suffering from the effects of biased and discriminatory decision-making by police officers and court officials, as well as differential reporting by victims and observers based on the offender's race (Piquero, 2008; D'Alessio & Stolzenberg, 2003). One study suggested that differential involvement is the cause of DMC in the early stages of the system, while differential selection is the cause of DMC in later stages (Bishop, Leiber, & Johnson, 2010). The idea here is that as youth progress through the system there is more opportunity for subjective decision-making, which may introduce bias into the system.

Other researchers have utilized qualitative methods to seek an understanding of the causes of DMC from the perspectives of minority youth and stakeholders. Kakar (2006) conducted focus groups consisting of representatives from law enforcement, court facilities, schools, families and communities, community and faith-based organizations, businesses, and grass roots organizations. Similar to the first two explanations discussed above, the groups discussed six categorical reasons for DMC, which can be classified as systematic bias (i.e., differential selection) and characteristics of the community and the youth (i.e., differential involvement). These six categories are system factors (i.e. bias, inadequate resources, higher police presence, etc.), social factors (neighborhood environment, lack of role model, inadequate services, etc.), family/parental factors (conflict, lack of concern, family history, etc.), educational factors (poor academic performance, dropout, truancy, etc.), individual factors (temperament, friends, lack of motivation, etc.), and economic factors (poverty, lack of employment, inadequate resources, etc.).

The common theme, which emerged from the stakeholders' responses, was an emphasis on characteristics of the community and the juvenile as the primary cause of DMC (Kakar,

2006). This reflects the perspective of differential involvement. On the other hand, the youth perspective reflected an opposing emphasis on the juvenile justice system as the source of DMC, as the differential selection perspective might suggest. There were no gender differences in youth perceptions of DMC, indicating that both boys and girls believed that African American youth were treated more poorly by the courts. Also, the focus groups indicated that minority youth believed that they were stereotyped as troublemakers and were targeted for punishment while similar behavior by White youth was ignored or simply characterized as behavioral problems (Kakar, 2006).

Moreover, minority youth in another study reported the belief that court officials with decision-making power were White and had little or no empathy for the circumstances surrounding their behavior. They believed that the negative behaviors of White youth were often justified by personal or family circumstances, but that those of minority youth were not viewed in context (Graves, et al., 2008). Essentially, the youth's perspective was often that DMC is caused by discrimination and bias rooted in a lack of empathy for the social and structural factors that plague minority youth.

Whether either or both of these explanations are true, it remains problematic that DMC exists. Therefore, as Piquero (2008) suggested, determining which explanation matters most should not be the focus, instead understanding how each contributes to DMC and how they can be used to reduce it should be the primary focus of this work. Along with these three perspectives, DMC is embedded within much larger societal issues such as racism, discrimination, bias, prejudice, and stereotyping. In addition to discussions about the parameters of DMC, these historical problems have led to a number of theories that have advanced in attempts to explain DMC.

Social Conflict Theory

Social conflict theory, one of the central themes in social research, has been prominently employed to explain DMC. It suggests that conflict arises from biased and prejudicial social structural arrangements that exist between those who rule and those who are ruled within a given society. Social conflict requires two groups: those with only general civil rights—the dominated, and those with authority over the former—the dominator (Dahrendorf, 1958). The dominators have an interest in preserving the status quo, while the dominated have an interest in changing the status quo. As a result, these two groups are in constant conflict because of their opposing interests (Dahrendorf, 1958; Jacobs, 1979; Sampson & Laub, 1993; McDonald, 2003).

Social conflict theory draws heavily on notions of bias, discrimination, and prejudice. It is consistent with the very premise of this theory that one group may experience the negative effects of biases in order for the other to maintain the status quo. In the American society, the dominators are usually White and the dominated minority. From a criminal justice perspective then, most Whites fail to acknowledge the discrimination within the system and instead choose to attribute racial disparities to differential involvement as explained above. On the other hand, minorities, who are often the dominated, identify discrimination at every stage of the system, just as the DMC literature suggests (Hurwitz & Peffley, 2010).

Social conflict theory is relevant to the issue of DMC in the juvenile justice system because the conflict theory holds that the law and law enforcement officials are used by the dominators to control the dominated as a means of minimizing the threats posed to their interests by the opposing group (Petrocelli, Piquero, & Smith, 2008). The ascendant group is able to control the opposing group because they possess economic resources, which equate to power in a capitalist society, such as the US. The power possessed by the dominator introduces racially

biased and prejudiced contextual, organizational, and attributional mechanisms that act to continually create and reproduce racial and ethnic disparities in both the juvenile and criminal justice systems in order to keep the dominators in power (Barak, 2010). Thus, when economic resources are distributed unequally, there is a greater potential for social conflict to arise from a need to maintain order (Jacobs, 1979).

As a result, minority youth come in contact with the juvenile justice system at higher rates than Whites because minorities are viewed as a threat to the existing social order. Whites maintain criminal stereotypes about minorities and view cultural differences as threatening. These stereotyping tactics are perpetuated by the media's construction of youth crimes with the racialized ideologies, languages, and practices that promote Black criminality (Farmer, 2010). In addition to stereotyping, social conflict theory suggests that it is necessary for Whites to utilize crime control methods, such as increased aggression and biased and excessive punishment, in order to limit minorities' ability to change the status quo (Petrocelli, Piquero, & Smith, 2008). This theory would then view DMC as a way in which to maintain control over minorities in the juvenile justice system. This may manifest in the form of increased criminalization, formal processing, and restrictive placement (Sampson & Laub, 1993).

A common example of the mechanisms that may be in place to maintain control over minorities is the existence of federal and state drug laws that adversely impact poor communities. Perhaps the most common of these are laws that mandate more punitive responses to crack cocaine, which is more prevalent in poor, minority communities, and more lenient treatment for powder cocaine, which is more likely to be seen in affluent, White communities (Lacey, 2013). Lynch (2011) examined case studies related to these unjust crack cocaine laws and reported links to institutionalized racism during the War on Drugs. This selective drug law

enforcement is only one example in which powerful White dominators have exercised social control over poor, minorities.

The juvenile justice system may be referred to as a social control agency, established by elite Whites, who perceive minority youth as a threat to their dominant societal position (McDonald, 2003). It is logical from this perspective that minority juvenile offenders will be treated more severely than Whites at each stage of the juvenile justice process in an attempt to suppress this perceived dangerous group of minority youth. In fact, numerous studies (see Table 1) have found that after controlling for legal and extra-legal variables, race/ethnicity and social status remain significant predictors of the decision-making process at every stage of the system (Lieber & Johnson, 2008; Piquero, 2008). Therefore, DMC exists and may be explained by the social conflict theory, as minority juvenile offenders are disproportionately involved in the juvenile justice system as a means for the dominant White group to maintain the current social order and reduce perceived threat.

Labeling Theory

Labeling theory became a popular sociological perspective in the area of deviance in the 1960s, and has since gained much support and criticism throughout the years. According to this theory, all human beings sometimes behave in a manner that could be described as deviant; however, only certain individuals tend to be labeled for this behavior. As a result, those who are negatively labeled for deviance take on certain characteristics that are associated with the assigned identity (Erikson, 1962; Goode, 1975). Labeling theory terms the initial behavior that causes the labeling “primary deviancy”, and the behavior that results from negative labeling, “secondary deviancy” (Goode, 1975). Essentially this secondary deviancy occurs because the process of labeling changes the individual’s social situation in that others begin to view them as

deviant and subsequently, their self-image changes, causing them to internalize the label and view themselves as deviants (Paternoster & Iovanni, 1989). Finally, these changes in one's social status and self-concept lead to a self-fulfilling prophecy of increased involvement in deviant behavior and eventually in a deviant career (Erikson, 1962; Goode, 1975; Paternoster & Iovanni, 1989; Lemert, 1996).

Labeling theory is clearly relevant to the juvenile justice system in that juvenile offenders tend to commit crimes and then a select group is labeled as a result. The selection of a particular group to be labeled and what causes the selection of this group make this theory relevant to the topic of DMC. Labeling theory has origins in the social conflict theory discussed above.

Paternoster & Iovanni (1989) first identified the need for a well-organized, powerful majority group that fears minority groups as necessary for labeling to occur; second, conflict orientation manifests as a result of the opposing interests and differential power among the two groups. This tends to lead to the group in power becoming hostile towards the minority group, and labeling this group with negative attributes, which in turn restricts normal, pro-social activities and opportunities from the minority group (Paternoster & Iovanni, 1989). Furthermore, the internalization of the deviant label leads to further deviant activities, which are often facilitated by the acceptance of the label and subsequent association with other deviant peers, who are also accepting of their deviant label (Paternoster & Iovanni, 1989).

Paternoster and Iovanni (1989) also highlighted the role of political and economic oppressive forces that create the delinquency statutes or laws that form the premise of what is deemed delinquent conduct. Conflict between those in power and those with little or no power influences which "extralegal" characteristics are selected to determine whom those who hold social control decide to label. And subsequently, the experience of being labeled by those in

power results in the alteration of the individual's identity, an exclusion from pro-social opportunities, and thus, further involvement in delinquent behavior.

The group selected to be labeled is typically comprised of minority offenders who are perceived as a threat to White groups who hold the power of labeling deviant youth. Studies have shown that minority youth are often viewed in a more negative light than their White counterparts as a result of racist and discriminatory undertones that pervade our society. For example, one particular study sought the underlying causes of minority youth being adjudicated delinquent and found that the primary cause is the idea that negative behavior of White youth is often viewed simply as a result of youth while this view is rejected for minorities (Henning, 2013). In other words, minority youth were being adjudicated at higher rates than Whites because they are perceived as troublesome and dangerous while similar negative behavior of White youth is recognized as simply the result of their youth.

Further research that has found evidence for this negative perception of minority youth include the belief that young Black males were “morally impoverished ‘super-predators’” that ought to be housed in secure detention facilities (Jackson & Pabon, 2000, p. 512). Recent research has continued to find support for the negative effects of labeling theory on minority youth (Lieberman, Kirk, & Kim, 2014; Wiley, Slocum, & Esbensen, 2013). Therefore, minority offenders are disproportionately assigned negative labels that contribute to future offense, which aligns well with the differential involvement combined with the differential selection explanation of DMC. Primary deviance, as mentioned above, is deviance that all human beings sometimes engage in. Secondary deviance, however, may be viewed as differential involvement as a result of internalized labels. Therefore, secondary deviance takes into account the societal

responsibility and oppressive forces that differentially selects minority youth to be labeled, which causes differential involvement in deviant behavior.

Street Codes

On the opposite end of the spectrum, there is also support for the differential involvement perspective. To this end, research on delinquency and violence in general, has suggested that urban communities tend to create and promote violent subcultures in which minority residents seek to attain social status through social displays governed by codes of violence (Anderson, 1998). Within this system, social status is attained through acts of violence and intimidation, displays of nerve and courage, and demonstrations of manhood and honor in efforts to acquire respect on the streets, gain protection from violence, or avoid humiliating circumstances (Matsueda, Drakulich, & Kubrin, 2006).

Anderson's (1998) code of the street thesis has received much attention over the years and has been investigated in several urban communities across the nation as a result. Intravia, Wolff, Stewart, & Simons's (2014) study found that perceptions of police discrimination was significantly related to adopting the street code, such that African American youth who had experienced racial discrimination from the police were more likely to adopt the codes of the street than those who had not. Negative interactions with the police generally cause Black youth to feel alienated from mainstream society and thus, less inclined to depend on the judicial system and law enforcement personnel for help and assistance (Anderson, 1998; Piquero et al., 2012). As a result, urban communities comprised of African American families are forced to develop their own social order in which they feel obligated to provide safety for themselves against their neighbors who are violent and aggressive.

Within this system, developing a violent reputation is critical in the streets; not only does it build respect, but it also tends to prevent against future victimization. Acts of violence that are likely to augment respect include assaulting others who have dared to enter one's neighborhood or "turf," initiating fights or "throwing the first punch," and stealing from or "sticking up" neighboring individuals (Piquero et al., 2012). This is well aligned with the differential involvement perspective used to explain why Black youth are more pronounced in the juvenile justice system than Whites because it suggests that Black youth engage in committing crimes at higher rates because their neighborhoods demand this behavior. Furthermore, Anderson (1998) distinguished between "decent" and "street" families, but noted that even "decent" families that try to instill middle-class values, rather than street values, in their children recognized the importance of ensuring that their children understand the street codes and knew how to defend themselves against children from "street" families.

Therefore, it is important to recognize that although not all Black youth come from families that endorse or encourage the codes of the street, many of them still have to abide by these codes in order to protect themselves. Thus, even within the perspective that minority youth are responsible for committing the crimes that cause them to come in contact with the juvenile justice system at higher rates than White offenders, there are still implications regarding the social structures that causes these youth to feel the need to be more involved in violence than their White counterparts. At the core of the codes of the street is the idea that minorities must protect themselves because the law fails to do so. Therefore, DMC explained even from the perspective of differential involvement in criminal behavior by minority youth still implies that Black youth are forced by social and structural biases to take part in such crimes.

RISK ASSESSMENT

In an effort to address DMC in the juvenile justice system, the OJJDP recommended standardized risk assessments as a best practice tool (Onifade et al., 2009). The literature has demonstrated that risk assessment tools have long been used in the juvenile justice system to predict future offenses, guide dispositional decisions, determine supervision levels, and inform treatment regimens (Hoge, 2002). Furthermore, risk assessment may be important to the reduction of DMC because it has the potential to increase objectivity, equity, and consistency in decision-making (Gottfredson & Moriarty, 2006; Mallet & Stoddard-Dare, 2010). Most juvenile jurisdictions across the US utilize a specific risk assessment tool to increase the objectivity of decisions being made at various stages. In addition to the OJJDP, this is possibly also a result of the Juvenile Detention Alternatives Initiative (JDAI) implementing risk assessment as a core component in detention decisions in over 100 jurisdictions across the US (Chappell, Maggard, & Higgins, 2013). Other general risk assessment tools may inform multiple stages of system processing and help to reduce the influence of personal prejudices and biases of the decision-maker. Within the body of risk assessment literature, Onifade et al. (2006) was able to identify 16 risk assessment tools used to predict delinquency and recidivism; however, only three among these has been validated more than once.

The three most widely used risk assessment tools are the Child and Adolescent Functional Scale (CAFAS), the Youth Level of Service/Case Management Inventory (YLS/CMI), and the North Carolina Assessment of Risk (NCAR). The three have been validated in multiple studies and have consistently yielded a moderate to strong relationship between each of the instruments and both general and violent reoffending (Catchpole & Gretton, 2003; Flores, Travis, & Latessa, 2003; Schwalbe, 2004; Onifade et al., 2008; Schmidt, Campbell, & Houlding,

2011). However, this study will focus on the YLS/CMI and its potential to reduce DMC in the juvenile justice system.

The YLS/CMI was developed by Hoge and Andrews (2002); it is comprised of 42 items across eight domains including Offense History, Family Circumstances, Education/Employment, Peer Relationships, Substance Use/Abuse, Leisure/Recreation, Personality/Behavior, and Attitudes/Orientation. The instrument is typically administered at intake by a juvenile court officer, who records the answers to each item. The answers are then tabulated, and the youth is assigned a risk score and risk level, which are then used by court officials to determine individual treatment plans for juvenile offenders. The risk classification offered by the developers is based on cutoff scores that separate low, moderate, and high risk youth. Specifically, scores less than 9 are considered low risk, scores less than 23 are moderate risk, and scores greater than 22 are high risk (Flores et al., 2003).

In recent years, researchers have used the YLS/CMI subscales in conducting a cluster analysis to identify differences within the low, moderate, and high risk categories (Onifade et al., 2008). This technique produced four unique cluster types that assist court officials in identifying areas of need for each youth, as indicated by the subscales that youth in each cluster type tend to score especially high on. The first of these is the negligible risk cluster, which is comprised of youth with low cumulative risk and below average risk scores on all subscales. The second, the environmental needs cluster consists of moderate risk youth, who tend to peak in risk on the leisure activities, delinquent peer involvement, and offense history subscales. The third cluster type is the family needs cluster, which is made up of youth in the moderate risk group with high risk peaks on four of the eight subscales (family, education, personality, and attitudes). The final cluster is characterized as high risk, indicating a high cumulative risk score

and higher than average scores on all eight subscales (Onifade et al., 2008). The formation of these cluster types has improved the instrument's usefulness beyond the traditional risk levels, and is therefore, included in the current study.

Although the YLS/CMI is theoretically a uniform measure that decreases the influence of human bias, it is important to note that despite findings of generally strong predictive validity, studies have also found differential predictive validity by race/ethnicity, whereby race moderates the relationship between risk score and recidivism (Schmidt et al., 2006; Onifade et al., 2009; Moore & Padavic, 2011). Therefore, it is possible that the tool is actually exacerbating racial biases or that court officials are not adhering to risk assessment outcomes for particular youth. One common example of disregarding the risk assessment outcome is referred to as an override, which is the decision to detain or release a youth even if it contradicts the recommendation of the risk score and risk level determined by the risk assessment tool. An override may be appropriate and necessary when aggravating or mitigating factors are present; however, it also has the potential to compromise the integrity of the risk assessment process by reintroducing human biases into the decision making process (Chappell, Maggard, & Higgins, 2013).

For instance, it is common to find detention override rates upward of 50% despite a proposal by the National Council on Crime and Delinquency that overrides should be at or less than 15%. It is promising, however, to find that override rates have decreased from 32.5% in 2006 to 11.8% in 2009 (Chappell, Maggard, & Higgins, 2013). Nevertheless, it is important to note that despite this decrease, Blacks were approximately 33% less likely to receive a mitigating override than White youth, suggesting that court officials are not providing the same degree of leniency to Black youth as they are to Whites (Chappell, Maggard, & Higgins, 2013). Moreover, Mallet and Stoddard-Dare (2010) found that the use of standardized risk assessment scores did

not eliminate racial biases in detention decision-making. Therefore, although some studies might indicate an adherence to risk assessment tools, and imply a shift towards more objective decision-making, there is still a need to investigate the true mechanisms behind decision-making at the dispositional stage.

THE PRESENT STUDY

The present study probed the decision-making process related to the referral of juvenile offenders to various intervention programs as a dispositional sanction. There were four intervention programs that were included: an alternative school, an evening reporting program, a family support service program, and a sex offender program. The objective was to determine the role of the YLS/CMI as opposed to the offender's race/ethnicity in the decision to refer youth to one or more of these intervention programs as opposed to the decision to place youth on probation. The study aimed to answer the following research questions.

Question 1a. Do risk scores predict program referral?

Question 1b. If so, does race moderate the relationship between risk score and program referral?

Question 2a. Do cluster types (derived from risk scores) predict program referral?

Question 2b. If so, does race moderate the relationship between cluster types and program referral?

Significance of the Present Study

The existing literature illustrated that DMC pervades the juvenile justice system; however, there appears to be variation in the level of DMC from stage to stage. While some researchers have identified DMC at earlier stages of the system, others have found that by the adjudication stage DMC begins to decrease. Although these studies have made valuable

contributions to the DMC literature, they leave a resounding question unanswered. This question aligns with the purpose of the present study, and argues that DMC have not been extensively investigated. In other words, the current body of DMC literature does not represent DMC at every stage of the system.

A pivotal stage left unexamined is program referral; Table 1 illustrates that thus far DMC studies have neglected to examine this stage (or substage, perhaps) and instead tend to stop at typical disposition outcomes such as detention. The investigation of DMC at program referral is critical because it is through these intervention programs that youth ought to be rehabilitated and granted the opportunity to circumvent possible negative outcomes such as poor educational outcomes, low levels of labor force participation, and poor family formation (Piquero, 2008). If DMC does in fact exist at this stage, resulting in youth being referred to programs not entirely based on their risk and need, then it may potentially be robbing minority youth of their chance to achieve positive and possibly life-changing outcomes from programs that are well aligned with their risk and needs.

Moreover, despite the studies that demonstrate a corrective effect, indicating a decrease in DMC at later stages of the system, Table 1 identifies several methodological issues that may be responsible for these results. Most pronounced among these perhaps is the confounding of race with extralegal factors that are being found to account for differential processing of youth throughout the system. Thus, although program referral is on the backend of the system, which may appear to be less plagued by DMC, it is still important to investigate racial disparities at this stage.

The current study aimed to fill this gap by uniquely contributing an investigation of DMC at the program referral stage to the DMC literature. Specifically, the study provided a

preliminary answer to whether or not racial disparities exist in program referral. It also increased our understanding of the role of risk assessment versus non-criminogenic factors (such as race/ethnicity) in program referral. Furthermore, by examining DMC at this referral stage, it has the potential to spark a new area of DMC research and in doing so it will also foster another way in which to improve upon the treatment of minority juvenile offenders.

Filling this gap with the present study may help to develop strategies to mitigate the negative effects of DMC by suggesting unbiased rehabilitative practices. If DMC exists at the stage that youth are supposed to be rehabilitated then this could potentially be more detrimental than DMC at all other stages. Essentially, intervention programs are often the youth's last opportunity to change his/her negative behavior, but if youth are not fairly being referred to these programs then discriminatory referral patterns may contribute profoundly to negative outcomes for minority youth. In other words, this would suggest that DMC at the program referral decision-making point robs minority youth of the opportunity to become rehabilitated and turn their lives around. This in turn contributes to minority youth becoming a part of a hellish cycle characterized by recurring criminalization, which not only negatively affects them and their families, but also the society that is structured to continually oppress them.

METHODS

Sample

The current study was conducted using secondary data from a mid-sized juvenile jurisdiction in a Midwestern state. The participants were youth who were on the jurisdiction's delinquency or truancy caseload between 2008 and 2014. The final sample ($N = 2,739$) included youth who were either only on probation or on probation and referred to at least one of the four programs represented in the study. All participants were administered a YLS/CMI assessment between the timeframe above, and received both a risk score and cluster type as a result. Figure 2 depicts the process of arriving at the final sample and Table 2 provides descriptive information on the sample. The section following the diagrams will describe the programs represented in this study.

Figure 2. Sample Break-down

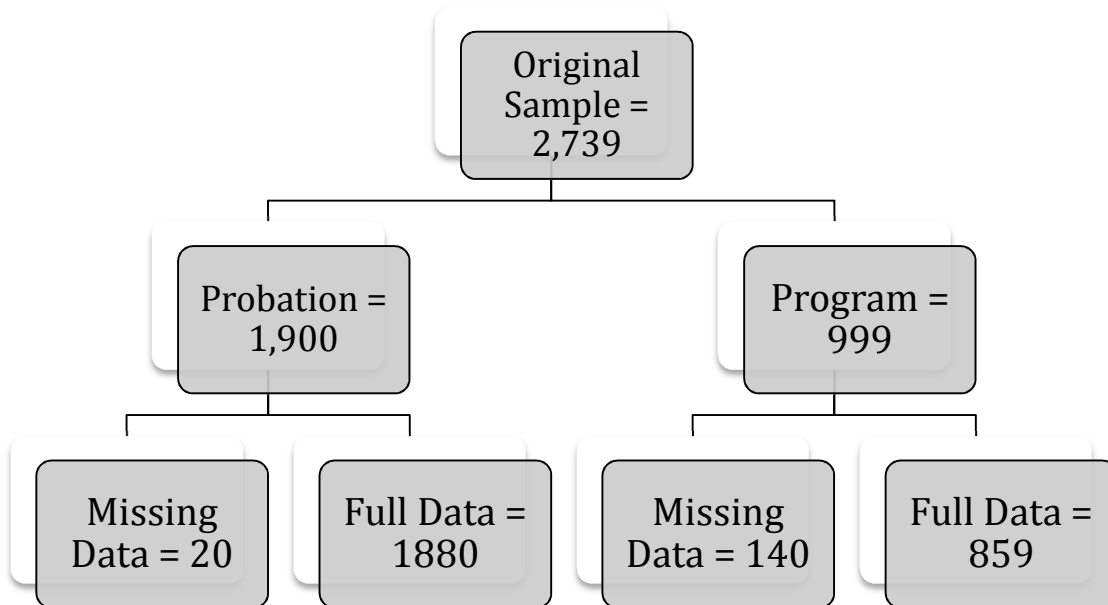


Figure 2: There are 2739 youth in the total sample. Of this total, 859 are in at least one of the four programs and 1,880 comprise the group consisting of youth who are only on probation. Twenty youth were removed from the original sample of youth on probation while 140 youth were removed from the original program sample because their data were incomplete.

Table 2. Sample Characteristics

Variable		Full Sample		Probationers		Program Involved	
		N	%	N	%	N	%
Sample Size		2739	100	1880	68.6	859	31.4
Gender							
	Male	1766	64.5	1164	61.9	602	70.1
	Female	973	35.5	716	38.1	257	29.9
Race							
	White	1005	36.7	718	38.2	287	33.4
	Minority	1734	63.3	1162	61.8	572	66.6
		M	SD	M	SD	M	SD
Age		14.42	1.43	14.57	1.41	14.09	1.43

Intervention Programs as a Dispositional Alternative

The four intervention programs included in this study serve as representations of possible dispositional outcomes for juvenile offenders in the jurisdiction under investigation. These programs were chosen because they exemplify Dowden and Andrews (2000) guiding principles for juvenile interventions. The programs met the need and risk principles because youth are theoretically referred to these programs based on their needs and risk levels, which are identified through the administration of a risk assessment tool (the YLS/CMI). They also met the responsivity principle because the programs are designed to respond to the specific needs of the youth they served.

Further, the researcher combined the four programs described herein to create a program-involved group because they all serve as dispositional outcomes that are considered to be harsher than probation. Therefore, although there are differences across programs, the researcher's focus was not on program-specific referrals. Instead, the focus on the mechanisms that drive a dispositional sanction of referral plus probation as opposed to just probation justifies the combining of the four programs. Combining these programs allowed the researcher to investigate differences across groups and differences in referral patterns using a larger sample of youth who were sanctioned to probation in addition to being referred to a judicial program. The program to which a youth is being referred, therefore, has no bearing on the researcher's investigation of whether or not a youth was referred to any program in addition to probation as opposed to simply being placed on probation. Moreover, these programs were combined because they all utilize a common theoretical referral strategy, namely risk assessment, in order to refer youth in a standardized manner. In other words, the risk levels and need categories yielded from the risk assessment tool are theoretically used to guide whether or not a particular program is appropriate for a specific youth. Thus, it is reasonable to combine four different programs given that this combining has no influence on the examination of referral patterns that causes some youth to be sanctioned to probation while others receive sanctions of probation plus a judicial program.

The Alternative School

The alternative school was essentially a day treatment program with an educational as well as a behavioral component, which provided treatment and support to juvenile offenders referred by the court. Youth who are referred to this program are usually chronically suspended or expelled from the public school system, have no major health disorders, and have an IQ above 70. In addition, the youth's risk assessment must indicate that he/she is moderate or high risk and

belongs to the environmental needs, family needs, or high risk cluster types. The referral process begins with the youth's juvenile court officer (JCO) formally referring the youth to the alternative school by providing the program's interview committee with a staffing packet as well as the student's records from his/her previous school. The staffing packet varies across youth, but always includes a completed referral form, the JCO's case management inventory, court reports, and psychological evaluations. Once this information is received, the interview committee, comprised of the school's principal, a court representative, and the director of one of the partnering organizations, reviews the information to ensure that the youth is a good match for the program. If the referral is deemed appropriate, then the youth is subsequently interviewed and tested using the Woodcock Johnson. The Woodcock Johnson serves as a screening tool, which indicates the need for additional attention or learning accommodations; the results of the Woodcock Johnson are also verified using the student's previous academic records. After the interview and testing process is completed, then the youth is admitted into the program.

The alternative school began in 2007 and was initially operated by a partnership between three agencies: the court system, a local school district, and a local non-profit organization. This partnership between the three agencies focused on providing moderate and high risk juvenile offenders with a path to learning the life-skills necessary to be productive members of society while earning their high school diploma. In 2011, a fourth partnership was added with a nonprofit vocational rehabilitation organization, which enhanced the youth's educational experience by providing individualized services surrounding vocational training and person-centered, future-focused planning. Together these agencies strove to help the youth maximize their potential and eliminate self-defeating behaviors.

Consistent with each agency, the program included four primary components: an educational component, which functions similarly to a combined middle and high school; a legal component, which was characterized by increased involvement of security and court officials in the day-to-day activities of the school; a behavior treatment and support component, which focused on correcting the youth's anti-social behavior; and a vocational component, which served as a method to prepare the youth to become working, productive members of society. Within the behavioral component was a key element of the program—a form of cognitive-behavioral treatment called Aggression Replacement Training (ART). ART was designed to promote pro-social behavior by addressing factors that contribute to aggression. Ultimately, the primary goal of the program was for each student to graduate with a high school diploma and at least one year of vocational work experience, while also reducing recidivism.

The Evening Reporting Program

The second program examined by this study was an evening reporting program, which was operated by the court system in partnership with a local nonprofit organization. Youth are referred to the evening reporting program if they are moderate or high risk and belong to the environmental needs or high risk cluster types. Other factors, such as IQ, are also taken into account but do not dictate whether or not referral to the program is appropriate. Instead these additional factors are used in designing specific programming for youth. The program develops individualized plans for each youth based on the youth's cognitive ability as well as their levels of motivation. Cognitive ability is indicated in the youth's JCO's case management inventory while motivation is assessed using an assessment named How I Think (HIT), which is administered to the youth on the first evening of attending the program. Once the youth is

admitted into the program, they are divided into two groups based on their risk levels and subsequently, receive the components of the programs within their assigned groups.

This program provided a form of cognitive-behavioral treatment called Thinking for a Change (T4C), which consisted of cognitive restructuring, social skills development, and the development of problem solving skills. The program lasted for 20 weeks and aimed at teaching youth how their thoughts and feelings are connected to their actions, how to recognize the risk in their thinking and subsequently, choose an alternate course of action in order to ultimately reduce recidivism.

Family Support Services (FSS)

Family Support Services (FSS) was the third program. It was included in the jurisdiction's programs and services as an opportunity for juvenile offenders and their families to restore balance and learn to function together effectively. Many of the juvenile offenders included in this study came from families that are disrupted by many contextual factors, and are sometimes further disrupted by the youth's involvement in the court. Therefore, youth who are referred to this program must be moderate risk and must belong to the family needs cluster type. Furthermore, in order to be referred to this program, the youth's parent(s) must demonstrate an inability to control behavior or appropriately parent their child. This program is also mandatory for all youth and parents of youth who were referred to the alternative school program.

The program aimed to strengthen parenting skills, provide support for parents in stabilizing the home environment, and to assist in an early return home of the juvenile. Youth and their families were referred to FSS if the youth's case was in the truancy or delinquency division and showed signs of a possible need for additional support in parenting skills. Judges or

juvenile court officers were also more likely to refer a youth to FSS if the youth scored in the moderate-risk domain of the YLS/CMI.

This program was characterized by group meetings, intensive casework services, and other outside services. Groups meetings were held for both the youth and their parents; specifically parent support groups meet weekly and youth support groups, in the form of a rational behavioral therapy group, met as needed. Intensive casework services included risk assessment, goal setting, weekly meetings with an FSS worker, bi-weekly meetings in the youth's home, additional contact throughout the week, as well as assistance obtaining outside services and mastering new skills. Outside services was a component of this program that may lead to additional programming for the juvenile and their family, which may potentially have iatrogenic effects of over-programming.

Sex Offender Program (SOP)

The sex offender program, as its name implies, was a community-based assessment and treatment program for juvenile offenders who have been brought to the court's attention for Criminal Sexual Conduct charges or other related offenses. Once a juvenile sex offender enters the court system the appropriate JCO is informed and all appropriate releases of information are obtained. The youth is then assessed by the JCO, and referral to the program is mandatory for all youth with a sexual conduct charge. Following referral, the youth and his/her family are assigned a start date and treatment begins on said date.

The program was staffed with highly skilled clinicians and juvenile court officers who were equipped with specialized training to interact with this population. SOP focused on encouraging youth to take responsibility for his or her actions; replace unhealthy sexual and nonsexual interests; improve social skills, self-esteem, coping skills, and impulse control; and

reframe attitudes and thinking patterns that promotes offending. It also aimed to increase the offender's capacity of empathy for others; teach youth to identify and learn to interrupt the cycle of offending by understanding the relationship between thoughts, feelings, and behavior; develop sound relapse prevention skills; and lead productive and pro-social lives.

These goals were accomplished through the program's core components: assessment, treatment, skill building, case supervision, restorative justice, and mentorship. Throughout the course of the program, practitioners followed the healthy relations curriculum, which was designed specifically for youth who had been brought to the court's attention for inappropriate sexual behavior. This curriculum taught youth about important matters such as legal boundaries, victim empathy, urge control, and healthy boundaries.

Significance of Intervention Programs in the Present Study

Though many of these programs were well-intentioned and many have produced positive outcomes among youth who participate, they all had an important commonality. They brought together juvenile offenders, who might potentially learn negative behaviors from each other, thus producing the well-known iatrogenic effect of juvenile justice programming (Van Ryzin & Leve, 2012; Helmond, Overbeek, & Brugman, 2012). Furthermore, through an investigation of the referral patterns of the juvenile offenders for whom participation in these programs are prescribed, the present study aimed to establish the role of race/ethnicity and risk assessment recommendations in the decision-making process at this stage. As mentioned above, youth were supposed to be referred to the intervention programs described above based on their risk levels and need categories, as determined by the YLS/CMI. However, the use of this tool at the referral decision-making point may only be theoretical, especially since JCO discretion has been noted as a common aspect of the referral process. It may very well be the case that racial biases were

substituting or supplementing the risk assessment tool as the informant of the decision regarding whether youth should receive probation or programming. Thus, the procedures below will outline the manner in which the present study will investigate the role of risk assessment and race in program referral.

Procedures

Youth were selected for inclusion in this study if they were adjudicated delinquent and administered an initial YLS/CMI assessment between 2008 and 2014. The group of interest was referred to at least one of the four programs under investigation between this timeframe, while the remainder of the sample was only on probation. Referral patterns were established by comparing those who were on probation to those who were involved in a court program.

Measures

The measure used to establish risk score and cluster type is the Youth Level of Service/Case Management Inventory (YLS/CMI). As discussed above, the YLS/CMI has 42 items that are divided into eight domains. The domains are Offense History, Family Circumstances, Education/Employment, Peer Relations, Substance Abuse, Leisure & Recreation, Personality/Behavior, and Attitudes/Orientation (Hoge, Andrews, & Leschied, 2002). Each item across the domains is scored dichotomously (yes or no), indicating whether or not risk is present, the scores are then summed and the total risk score is used to determine the youth's risk level: low, moderate, and high (Flores et. al., 2003).

Additionally, the risk score is also used to determine the youth's cluster type: negligible risk, environmental needs, family needs, and high risk (Onifade et. al., 2008). The negligible risk cluster was described as the lowest risk behavior, associating youth with relatively minor charges. The environmental needs cluster indicated youth who had charges stemming from a

need in the domains of leisure activities and peer associations. The family needs cluster was characterized by moderate risk youth, who were involved in severe family conflict and exhibited need in four of the eight domains. And the high risk cluster described youth with a tendency to score high in all domains of risk, with severe problems coping in and adapting to mainstream society (Onifade et. al., 2008).

Proposed Analyses

To answer the research questions, two moderated binary logistic regression analyses were conducted. In the first model, risk score and race served as the predictor variables while program referral served as the criterion. In the second model, the independent variables were cluster type and race, and the dependent variable remained program referral. This technique allowed for the determination of the main effects of all predictor variables on program referral as well as the interaction effects of the risk assessment variables and race on program referral.

Since the YLS/CMI was theoretically the determinant of program referral, it was expected that risk score and cluster type would predict program referral. Given the literature discussed above, it was also anticipated that there would be a main effect of race on program referral. However, it was unclear from the literature if race would serve as a moderator of the main effects between risk assessment and program referral. Therefore, the moderated analyses sought to determine if the relationships between risk score and program referral and between cluster type and program referral changed as a function of race. In other words, these analyses sought to discover if these relationships are different for White youth and minority youth.

RESULTS

Descriptive Statistics

Prior to investigating the study's research questions, descriptive statistics were calculated for youth involved in programs as well as those who are solely on probation. The variables used to describe each group include risk score, risk level, and cluster type (Table 3). As shown in Table 3, the average risk score was significantly higher among those in the program-involved group than among those who were not involved in programs. Similarly, a significant Pearson's Chi-square indicated that risk level is also significantly different across the two groups. In the case of risk level, moderate and high risk youth were more likely to be involved in programs, while low risk youth were more likely to be in the no-program-referral group. Also, cluster type was found to be significantly different across groups, such that youth belonging to the negligible risk and family needs cluster types were least likely to be involved in programs whereas those in the environmental needs and high risk cluster types were most likely to be involved in programs.

The no-program-referral group could be described as moderate risk (59.4%), belonging to the negligible risk cluster type (37.5%) with an average risk score of 13.25 ($SD = 7.19$). The opposing group, comprised of youth referred to court programming, was also characterized as moderate risk (69.4%), mostly belonging to the environmental needs cluster type (29.7%) and having an average risk score of 16.75 ($SD = 6.43$). It is important to note that although the two groups did not appear to differ in their risk level, they clearly had different needs as suggested by their cluster types.

Also, the sample description above highlights the differential racial makeup of each group (see Table 2); thus, a chi-square test was conducted to determine if there is a significant difference in race across groups. A significant Pearson Chi-Square $\chi^2(1, N = 2,739) = 5.8, p =$

.02 indicated a significant difference in the racial composition of youth who were in programs versus those who were not, such that minority youth were more likely than White youth to be involved in programs.

Further, a series of independent samples t-tests between proportions were performed to determine whether there were statistically significant differences between the proportions of White and minority youth in the full sample and the proportions of those in programs; similar analyses were conducted for both groups in the full sample and on probation. These tests were conducted to determine if there was significant overrepresentation of minority youth in programs and underrepresentation of minorities on probation. The results indicated that the difference between the proportion of minorities in the full sample and the proportion of those in programs was the only significant difference ($t(3596) = 2.13, p < .05$).

Table 3. Risk Scores, Risk Levels, and Cluster Types by Program Referral

	Program Referral	No-Program-Referral	Test of Differences across Groups
	M (SD)	M (SD)	
Risk Score	16.75 (6.43)	13.25 (7.19)	$t(2737) = 12.20^{**}$
Risk Level	<i>n (%)</i>	<i>n (%)</i>	
Low	99 (11.5)	536 (28.5)	
Moderate	596 (69.4)	1117 (59.4)	
High	164 (19.1)	227 (12.1)	$X^2(2) = 103.08^*$

Table 3. (cont'd)

Cluster Type			
Negligible Risk	151 (17.6)	705 (37.5)	
Environmental Needs	255 (29.7)	527 (28.0)	
Family Needs	199 (23.2)	267 (14.2)	
High Risk	254 (29.6)	381 (20.3)	$X^2(3) = 125.30^*$

Note. * $p < .05$ ** $p < .01$

Question 1a. Do risk scores predict program referral?

Question 1b. If so, does race moderate the relationship between risk score and program referral?

First, it is important to note that race was entered into the model as a categorical variable while the continuous variable, risk score, was grand-mean centered before it was entered to ensure that the main effects and the interaction effect would not be correlated. Failure to do so would likely produce inaccurate findings for the main effects of the variables in the model. Further, a moderated logistic regression analysis was used to answer these research questions because this statistical technique produces information on the incremental increase of the likelihood of program referral as a function of risk score and race as well as information on the effect of the interaction term.

A moderated logistic regression analysis was employed to investigate if risk score predicted program referral, and if race plays a role in this relationship. The results of the regression model are presented in Table 4 below. Table 4 indicates that both risk score and race were significant predictors of program referral, but that race did not moderate this relationship.

As illustrated in the table, risk score significantly predicted program referral with an $OR = 1.07$, $CI [1.06, 1.08]$, which means that for every one unit increase in risk score, juvenile offenders were 1.07 times more likely to be placed in a court program. The main effect of race on program referral was also found to be significant, such that minority youth were more likely to be involved in programs than White youth ($OR = .91$, $CI [.83, .99]$).

Although the interaction between risk score and race did not reach significance, it is important to recognize that the p value is near significance. Therefore, to further explore this finding, the researcher examined the proportion of minority youth in each risk level. Risk level was used, as it is simply another way in which risk score may be characterized based on the cut off scores outlined above. Table 5 indicates that there may in fact be some interaction between risk and race as minority youth are more like to be placed in the moderate risk group and less likely to be in the low risk group.

Table 4. Logistic Regression Predicting Program Referral by Risk Score and Race

Full Sample ($N = 2739$)	Variable	B	SE	Wald	P value	$Exp(B)$
	Risk Score	.07	.01	117.39	< .01	1.07
	Race	-.09	.04	4.35	.04	.91
	Risk X Race	-.01	.01	2.74	.10	.99
	Constant	-1.83	.10	318.27	< .01	.16

Risk score was grand mean centered prior to the analysis.

Table 5. Race by Risk Level

Variable	<i>White</i>	<i>Minority</i>
Low Risk	255 (40.2%)	380 (59.8%)
Moderate Risk	605 (35.3%)	1108 (64.7%)
High Risk	145 (37.1%)	246 (62.9%)
Total	1005 (36.7%)	1734 (63.3%)

Question 2a. Do cluster types predict program referral?

Question 2b. If so, does race moderate the relationship between cluster types and program referral?

A second logistic regression, with cluster type and race entered as categorical variables, was conducted including cluster type, race, and the interaction between cluster type and race. The goal of this analysis was to identify the relationship between cluster type and program referral, and subsequently to determine the impact of race on this relationship. As shown in Table 6, both the main effects of cluster type and race are significant predictors of program referral. The interaction between the two variables was also found to be a significant predictor of the outcome variable (see Table 6).

The model demonstrated that cluster type is a predictor of program referral with a significant Wald Chi-Square $X^2(3, N = 2,739) = 104.67, p < .01$. This indicated that program

referral changes as a function of the cluster category to which youth belong. This analysis also confirmed the significant main effect of race, which was highlighted by the first model (see Table 4). In this analysis (see Table 6), a youth's racial category (i.e., White or minority) predicted program referral such that minority youth were more likely to be in programs. Furthermore, the interaction between cluster type and race is a significant predictor of program referral ($X^2(3, N = 2,739) = 7.90, p = .04$). Put simply, youth of color are more likely to be referred to programs even when controlling for cluster type.

This interaction effect was expected as Table 2 indicates that minorities are more likely to be in programs (66.6%) and Table 7 indicates that minorities are more likely to be in the environmental needs group (65.9%) than in any other cluster type. Furthermore, Table 8 outlines the differential racial make-up of the youth in each cluster type among those who were in programs and those who were not. Here, it is clear that minority youth are both more likely to be categorized as environmental needs and if in environmental needs placed in programs.

Table 6. Predicting Program Referral by Cluster Type

Full Sample	Variable	Wald	P value
		Chi-Square	
(N = 2739)	Cluster Type	104. 67	< .01
	Race	4.31	.04
	Cluster X Race	7.90	.04

Table 7. Race by Cluster Type

Variable	<i>White</i>	<i>Minority</i>
Negligible	325	531
Risk	(38.0%)	(62.0%)
Environmental	267	515
Needs	(34.1%)	(65.9%)
Family Needs	166	300
	(35.6%)	(64.4%)
High Risk	247	388
	(38.9%)	(61.1%)
Total	1005	1734
	(36.7%)	(63.3%)

Table 8. Race by Program Referral For Each Cluster Type

Full Sample	Variable	<i>White</i>	<i>Minority</i>
(N = 2739)			
Negligible Risk (n = 856)			
	Program	63	88
		(41.7%)	(58.3%)
	No Program	262	443
		(37.2%)	(62.8%)

Table 8. (cont'd)

Environmental Need (n = 782)		
Program	69	186
	(27.1%)	(72.9%)
No Program	198	329
	(37.6%)	(62.4%)
Family Needs (n = 466)		
Program	67	132
	(33.7%)	(66.3%)
No Program	99	168
	(37.1%)	(62.9%)
High Risk (n = 635)		
Program	88	166
	(34.6%)	(65.4%)
No Program	159	222
	(41.7%)	(58.3%)
Total	1005	1734
	(36.7%)	(63.3%)

Furthermore, in order to determine the effect race on program referral for each cluster type, a simple slopes analysis was used to follow-up the significant interaction effect. The results of this analysis are presented in Table 9. The findings outlined in Table 9 confirmed the proportions presented above, indicating that environmental needs was the only cluster type for which race significantly predicted program referral. In other words, for youth in the

environmental needs category, race was a significant predictor of program referral such that minority youth were 1.10 ($CI = 1.03, 1.18$) times more likely to be involved in judicial programs than White youth.

Table 9. Simple Regression for Predicting Program Referral for Each Cluster Type

Full Sample (N=2739)	Variable	<i>B</i>	<i>SE</i>	Wald	P value	<i>Exp(B)</i>
Negligible Risk						
	Race	.10	.09	1.10	.30	1.10
	Constant	-1.52	.09	277.70	< .01	.22
Environmental Need						
	Race	-.24	.08	8.37	< .01	.78
	Constant	-.81	.08	94.38	< .01	.44
Family Needs						
	Race	-.07	.10	.58	.45	.93
	Constant	-.32	.10	10.35	< .01	.73
High Risk						
	Race	-.15	.08	3.21	.07	.86
	Constant	-.44	.08	27.62	< .01	.64

DISCUSSION

To date, research examining disproportionate minority contact (DMC) in the juvenile justice system has failed to investigate juvenile justice programming. This exploratory study was an attempt to fill this gap by determining whether or not DMC exists at the disposition phase, particularly in court programming, in a Midwestern juvenile jurisdiction. First, the study sought to unveil the mechanisms behind referral to court programs by investigating whether risk score and cluster type were predictors of program referral. Second, the study's key purpose was to identify the role of race in the process of program referral. This was accomplished by determining whether race moderated the relationships between risk score and program referral and between cluster type and program referral.

As expected, risk score and cluster type were both found to be significant predictors of program referral. And aligned with the DMC literature, race was also found to be a significant predictor of program referral. However, race only moderated the relationship between cluster type and program referral; it was not found to moderate the relationship between risk score and program referral.

Risk score and cluster type were presumed to be predictors of program referral because the literature suggest that a primary purpose of risk assessment is to guide case planning, which include deciding whether or not a youth should be programmed (Hoge, 2002). Of the two, risk score was most closely a derivative of the risk assessment tool that was used, in which higher risk scores indicated youth with higher levels of risk. In turn, a high risk level would suggest that a youth needed more intensive treatment in order to be rehabilitated (Andrews & Bonta, 2006). Therefore, the positive relationship that was found between risk score and program referral was expected because it suggested that an increase in risk score is predictive of a greater likelihood of

receiving the more intensive disposition – program referral plus probation (as opposed to only being placed on probation).

Cluster type was similarly believed to be a predictor of program referral because an individual's cluster type is indicative of one's domain of need (i.e. environmental need) (Onifade et. al., 2008). And since Andrews and Bonta (2006) included need as one of the guiding principles for programming juveniles, the researchers accurately presumed that one's need category would be related to whether or not there was a need for programming to fulfill identified needs rather than simply placing a youth on probation.

Also, race was found to be a moderator of the relationship between cluster type and program referral. This was not surprising, as previous research (Mallett & Stoddard-Dare, 2010; Leiber & Bogges, 2012) has found race effects even after accounting for the role of risk assessment variables. It is interesting, however, that the simple slope analyses revealed environmental needs as the only cluster type in which race significantly predicted program referral. In other words, this key finding indicates that having environmental needs is more likely to lead to program referral for minority youth than for White youth.

As discussed above, minority youth are more likely to be in the environmental needs cluster type, as well as more likely to be programmed than their White counterparts within this cluster. Therefore, it is intuitive that this is the only cluster type for which race significantly predicts program referral. Table 7 supports this interpretation of the finding by indicating that minority youth are found in the greatest proportion in the environmental needs group when compared to minorities in all other cluster types. It is also interesting to note that minorities are less likely to be placed in programs if they are in the negligible risk group, and more likely to be placed in programs if they are in any of the remaining three cluster types.

Moreover, race should not be a determining factor of whether or not youth with environmental needs are referred to programs. According to Onifade et al. (2008), youth who are identified as having environmental needs are moderate risk with high scores on the leisure activities, delinquent peer involvement, and offense history subscales. In other words, all youth, regardless of race, have the same unmet needs within these three domains. Therefore, White and minority youth should, in theory, have the same probability of being referred to a judicial program. Nonetheless, the results indicate that this is not the case, as minority youth with environmental needs are more likely than their White counterparts to be referred to intervention programs rather than simply placed on probation.

The environmental needs cluster type identifies leisure activities as a key subscale that youth tend to peak on. This suggests that youth may engage in and are at risk of continued engagement in delinquent behavior as a result of inadequate, positive leisure activities. However, research suggests that this is an area in which court officials' perceptions of juvenile offenders often lead to subjective decision making, which subsequently results in White and minority youth being treated differently. Specifically, Henning's (2013) research indicated that court officials were likely to view negative behavior of White youth as simply a result of youthfulness, while this view was rejected for minorities despite also being in their youth. In other words, minorities are often perceived as more dangerous and troublesome, and as a result in need of harsher punishment, than Whites despite committing the same act. A similar study also suggested that court officials are likely to use personal or family circumstances to justify negative behavior by White youth, but fail to view minority actions in context (Graves, et al., 2008). These studies might help us to begin to disentangle the moderator findings, which indicate that minority youth are receiving a harsher disposition than Whites despite having the same

needs as indicated by their cluster type.

The theories discussed herein may also lend insight to the underlying mechanisms that may be influencing these findings. For example, social conflict theory (Dahrendorf, 1958) may suggest that the behavior of minority youth is viewed as dangerous rather than as an exploration of one's youth because minorities are viewed as a threat to the group in power. This would align with the findings of the current study because minorities may in fact be treated harsher than Whites simply because they are viewed as a threat to the status. Thus, by serving more punitive sanctions to minorities, it is possible that the negative effects of increased involvement in the justice system will lessen the severity of the threat to the dominant White group.

Ultimately, this finding reveals DMC at the disposition phase, as race seems to play an important role even when cluster type is taken into account.

Although race was found to be a moderator of the effect of cluster type on program referral, race was not a moderator in the risk score model. Contrary to most of the DMC literature, race was not found to moderate the relationship between risk score and program referral. Race was expected to moderate these relationships because much of the DMC literature suggested that race remained a predictor variable even after risk assessment was taken into account (Mallett & Stoddard-Dare, 2010; Leiber & Bogges, 2012). However, this finding was not entirely surprising because program referral occurs at the disposition stage of the juvenile justice system, where some researchers have identified a corrective effect (Davis & Sorensen, 2013; Guevara, Spohn, & Herz, 2004). This effect suggested that DMC did not exist at the latter stages of the system as a result of court officials' attempt to correct and compensate for the discriminatory actions that contribute to DMC during the earlier stages of the system (Dannefer & Schutt, 1982).

Although the moderated logistic regression analyses did not identify race as moderator of the relationship between risk score and program referral, the main effects of race in both models suggest that race did play a role in the decision making process even after risk is accounted for. This suggested that although the role was not entirely clear, race did in fact play a role in program referral. It is a noteworthy finding that the theoretical purpose of risk assessment is being carried out in this particular jurisdiction; however, it is problematic that race still played a role in the process.

Furthermore, given that cluster type is a form of risk assessment that is derived from one's risk score, it was interesting that race was found to moderate the relationship between cluster type and program referral, but not between risk score and program referral. It is important to interpret this finding with caution as the p value is near significance (see Table 4), and the proportion of minority youth in each risk level (i.e. low, moderate, high) indicates that minorities are overrepresented in the moderate risk level. This suggests that although the interaction between risk score and race does not reach significance, race may still be playing a role in the effect of risk score on program referral. It is also possible that this contributes to the significant interaction discussed above as the environmental needs group consists primarily of moderate risk youth (Onifade et al., 2008).

Descriptive statistics also offered some interesting insights. First, the racial composition of youth who were in programs versus those who were not was significantly different, such that youth of color were found more among those in programs than those who were not. Furthermore, minority youth were disproportionately overrepresented in programs and underrepresented on probation, while the opposite was true for White youth. Minority youth comprised 63% of the general delinquency and truancy caseload while 67% of those in programs were minorities and

61% of those on probation were minorities. On the contrary, White youth comprised 36% of the full sample of youth in the delinquency and truancy divisions, while 33% of White youth were referred to programs and 38% were on probation.

Although these percentages did not demonstrate drastic over- or under- representation, they did indicate that minority youth were more likely to receive the harsher treatment when comparing programs versus probation. Moreover, despite these differences seeming small at first glance, the results of the independent samples t-test between proportions presented above indicate that the proportion of minorities in the full sample and the proportion of minorities in programs are statistically different. This suggests that minority youth are in fact overrepresented in programs. Furthermore, this overrepresentation contributes to the significant moderator findings discussed above. However, it has to be noted that while this effect is statistically significant, it is not large.

Recent statistics demonstrated that among all racial/ethnic groups, Black youth were least likely to receive probation because it was the most lenient among all possible judicial dispositions (Puzzanchera & Hockenberry, 2013). Also, across a select number of outcomes, Moore and Padavic (2010) found that Black girls were 1.27 times less likely to receive probation, 1.19 times more likely to be committed to a detention facility, and 1.50 times more likely to be transferred to adult court than White girls. These findings demonstrated that Blacks were least likely to receive a more lenient disposition such as probation and more likely to receive the harsher disposition available. Therefore, these authors might suggest the presence of DMC in this jurisdiction, at this particular stage, given the similarity between their findings and with those discussed here.

Further, the presence of the interaction term indicated that the effect of the predictor on

the outcome variable was different at different levels of the moderator variable. Therefore, the null finding of the moderated logistic regression examining risk score and race essentially suggested that the relationship between risk score and program referral did not change as a function of the youth's race. On the other hand, the significant finding in the cluster type model indicated that cluster type predicted program referral differently depending on the level of race (White versus minority).

Although the interaction did not reach significance in the risk score model, this finding is to be interpreted with caution because there was still a main effect of race. The main effect indicated that race is predictive of program referral even with the inclusion of risk score and cluster type in the models, as supported by Mallett and Stoddard-Dare's (2010) and Leiber and Bogges's (2012) studies. This implied that the goal of risk assessment to reduce biases in juvenile justice decision-making was not entirely being met in this sample of youth.

Limitations

Although this study yielded some interesting results, it was not without limitations. The use of archival data was a limitation because the researcher was unaware of possible systematic errors that might have been caused by the way in which the data was collected (Vieira et. al., 2009). This study also coded race as a dichotomous variable, which could potentially cause specific racial/ethnic differences to be overlooked in the study. The combining of minority groups also does not inform the reader of the specific ethnic groups that are represented in study. This is a result of the way in which the data was collected, indicating a limitation caused by the archival nature of the data used in this study. Additionally, race was also the only moderator variable that was included to investigate DMC, while previous studies might suggest the inclusion of additional variables related to race, such as gender, poverty, SES, and neighborhood

(Rodriguez, 2007; Kirk, 2008; Crutchfield et al., 2009; Kakade et al., 2012). Furthermore, although the programs discussed herein use a number of best practice guidelines and consist of evidence-based components, none of these programs have been rigorously evaluated, and therefore, there is no empirical data on their effectiveness or the inadvertent harm that they may cause to the youth involved.

Future Directions

This first attempt to explore DMC at program referral added to the literature; nonetheless, there is still much work to be done. Future research should consider replicating this study with different risk assessment tools to ensure that the results yielded are not specific to the YLS/CMI. Further, researchers should be primarily concerned with establishing a clearer understanding of the relationship between race and program referral when taking risk assessment into account. Currently, the literature on the effect of race on juvenile justice decision-making after controlling for risk assessment is equivocal at best (Rodriguez, 2007; Mallett & Stoddard-Dare, 2010; Leiber & Boggess, 2012). This calls for further research to solidify the nature of this relationship.

Researchers should also seek a more nuanced picture of the relationship between risk assessment and program referral. For example, subsequent studies could build on the current study by seeking to understand whether specific cluster types indicate which types of programs youth are placed in. Further, researchers should also consider disaggregating the programs and investigating whether race is a moderator of the relationship between risk and referral for specific programs and not others. With a disaggregated view of the data, researchers may also examine if minority youth are more likely to be placed into certain programs and reasons why that may be the case. Other distinct follow-ups to this study might investigate the role of risk assessment and race in program dosage and intensity. Lipsey et al. (2012) suggested that a

critical piece of whether or not programs have a positive effect on youth is the quantity and quality of the service they receive. Therefore, an important next step to inquire about is whether race has an impact on how much programming a youth receives and how intense the programming is.

Lipsey and colleagues (2012) might also suggest that another appropriate direction for future researchers is to investigate program outcome across race. The current study focused on whether or not race moderated the relationship between risk assessment variables and program referral. However, the study did not consider the role of race in the outcomes experienced by those who were involved in these programs. This is especially important because the goal of juvenile justice programming is to rehabilitate youth, and all youth, regardless of race, should have a fair chance at rehabilitation.

Implications and Conclusions

The current study partially supported the theoretical claim that risk assessment is used to guide juvenile justice case management, and thus decreases the impact of bias and discrimination on decision-making processes. It also implied that court officials should pay close attention to ensuring that demographic factors such as race does not have a role in the referral process. The findings suggested that risk assessment was central to decision-making, but that race is still involved. Therefore, it is important that court officials continue to receive training in the proper use of risk assessment tools in handling their caseloads to further obliterate the influences of racial/ethnic biases in decision-making processes.

This study was an important first look at DMC at the point of program referral. Youth of color has been disproportionately represented throughout the juvenile justice system since its inception, and therefore, it is vital that we continue to investigate such injustices in order to

eventually put an end to it. Moreover, these trends permeate into society beyond the justice system, and contributes to a damaging pipeline that denies minority youth a fair chance of successfully developing into adulthood.

The literature consistently demonstrated that youth who were involved in the juvenile justice system during adolescence, as well as those who receive harsher punishments, were more likely to be involved in the criminal justice system as adults than their counterparts (Paschall, Ornstein, and Flewelling, 2001; Lambie & Randell, 2013; Aizer & Doyle, 2013; Munyo, 2014). Juvenile incarceration was also significantly related to decreases in high school completion (Aizer & Doyle, 2013), decreases in post-incarceration higher education (Livingston & Miller, 2014), and negative mental health consequences (Lambie & Randell, 2013). Therefore, this study's focus on the role of race in the likelihood of youth receiving harsher punishment (i.e., programming rather than probation) was important because these experiences may have long-lasting effects on youth. Thus, this paper hopes to contribute to efforts, which aim at reducing and ultimately obliterating the racial disparities that plague court systems all across America.

REFERENCES

REFERENCES

- Aizer, A., & Doyle, J. J. (2013). Juvenile incarceration, human capital and future crime: Evidence from randomly-assigned judges. *NBER Working Paper Series*, 19102.
- Anderson, E. (1998). The Social Ecology of Youth Violence. *Crime and Justice*, 24, 65-104.
- Ayres I, Borowsky J. 2008. A study of racially disparate outcomes in the Los Angeles Police Department. *Prepared for the American Civil Liberties Union of Southern California*.
- Barak, G. (2010). Review essay: Three lenses on race, crime, and justice. *Crime , Law, & Social Change*, 53(3), 299-306.
- Baskin, D. A., & Sommers, I. (2014). Exposure to community violence and trajectories of violent offending. *Youth Violence & Juvenile Justice*, 12(4), 367-385.
- Bayer, P., Hjalmarsson, R., & Pozen, D. (2007). Building criminal capital behind bars: Peer effects in juvenile corrections. *NBER Working Paper Series*, 12932.
- Besemer, S., & Farrington, D. P. (2012). Intergenerational transmission of criminal behaviour: Conviction trajectories of fathers and their children. *European Journal of Criminology*, 9(2), 120-141.
- Bishop, D., Leiber, M., & Johnson, J. (2010). Contexts of decision making in the juvenile justice system: An organizational approach to understanding minority overrepresentation. *Journal of Youth Violence and Juvenile Justice*, 8(3), 213–233.
- Bjornstrom, E. E. S., Kaufman, R. L., Peterson, R. D., & Slater, M. D. (2010). Race and ethnic representations of lawbreakers and victims in crime news: A national study of television coverage . *Social Problems*, 57(2), 269-293.
- Catchpole, R., & Gretton, H. (2003). The predictive validity of risk assessment with violent young offenders: A 1- year examination of criminal outcome. *Criminal Justice and Behavior*, 30, 668-708.
- Chambliss, W. J. (1994). Policing the ghetto underclass: the politics of law and law enforcement. *Social Problems*, 41, 177–194.
- Chappell, A., Maggard, S., & Higgins, J. (2013). Exceptions to the rule? Exploring the use of overrides in detention risk assessment. *Youth Violence & Juvenile Justice*, 11(4), 332-348.

- Cohen, M. A., Piquero, A. R., & Jennings, W. G. (2010). Estimating the costs of bad outcomes for at-risk youth and the benefits of early childhood interventions to reduce them. *Criminal Justice Policy Review*, 21(4), 391-434.
- Crutchfield, R., Skinner, M., Haggerty, K., McGlynn, A., & Catalano, R. (2009). Racial disparities in early criminal justice involvement. *Race and Social Problems*, 1(4), 218-230.
- D'Alessio, S. J., & Stolzenberg, L. M. (2003). Race and the probability of arrest. *Social Forces*, 81(4), 1381-1397.
- Dahrendorf, R. (1958). Toward a theory of social conflict. *The Journal of Conflict Resolution (pre-1986)*, 2(2), 170-183.
- Dannefer, D., and R. Schutt. (1982). Race and juvenile justice processing in court and police agencies. *American Journal of Sociology* 87, 1113-1132.
- Davis, J., & Sorensen, J. (2013). Disproportionate minority confinement of juveniles: A national examination of black-white disparity in placements, 1997-2006. *Crime & Delinquency*, 59(1), 115-139.
- DeJong, C., & Jackson, K. C. (1998). Putting race into context: Race, juvenile justice processing, and urbanization. *Justice Quarterly*, 15(3), 487-504.
- Dixon, T. L., & Linz, D. (2000). Race and the misrepresentation of victimization on local television news. *Communication Research*, 27(5), 547-573.
- Dodge, K., Dishion, T., & Lansford, J. (2006). Deviant Peer Influence in Intervention and Public Policy for Youth. *Social Policy Report*, 20(1), 3-20.
- Doherty, E. E., & Ensminger, M. E. (2013). Marriage and offending among a cohort of disadvantaged african americans. *Journal of Research in Crime & Delinquency*, 50(1), 104-131.
- Dowden, C., & Andrews, D. A. (2000). Effective correctional treatment and violent reoffending: A meta-analysis. *Canadian Journal of Criminology*, 42, 449-467.
- Fagan, J. (2010). The contradictions of juvenile crime and punishment. *Daedalus*, 139, 43-61.
- Farmer, S. (2010). Criminality of black youth in inner-city schools: 'moral panic', moral imagination, and moral formation. *Race Ethnicity and Education*, 13(3), 367-381.
- Finzen, M. E. (2005). Systems of oppression: The collateral consequences of incarceration and their effects on black communities. *Georgetown Journal on Poverty Law & Policy*, 12(2).

- Fite, P., Wynn, P., & Pardini, D. (2009). Explaining discrepancies in arrest rates between Black and White male juveniles. *Journal of Consulting and Clinical Psychology*, 77(5), 916-927.
- Flores, A. W., Travis, L. F., & Latessa, E. J. (2003). *Case classification for juvenile corrections: An assessment of the Youth Level of Service/Case Management Inventory*. Cincinnati, OH: Division of Criminal Justice.
- Gatti, U., Tremblay, R., & Vitaro, F. (2009). Iatrogenic effect of juvenile justice. *Journal of Child Psychology and Psychiatry*, 50(8), 991-998.
- Gottfredson, S. D., & Moriarty, L. J. (2006). Statistical risk assessment: Old problems and new applications. *Crime and Delinquency*, 52, 178-200.
- Graham, S., & Lowery, B. (2004). Priming Unconscious Racial Stereotypes About Adolescent Offenders. *Law and Human Behavior*, 28(5), 483-504.
- Graves, K., Frabutt, J., Cabaniss, E., Gathings, M., Kendrick, M., & Arbuckle, M. (2008). DMC in the juvenile justice system: Listening to the voices of our youth. *Spaces for Difference: An Interdisciplinary Journal*, 1(2), 5-28.
- Guevara, L., Spohn, C., & Herz, D. (2004). Race, legal representation, and juvenile justice: Issues and concerns. *Crime & Delinquency*, 50(3), 344-371.
- Hartney, C., & Vuong, L. (2009). *Created equal: Racial and ethnic disparities in the US criminal justice system*. Oakland, CA: National Council on Crime and Delinquency.
- Helmond, P., Overbeek, G., & Brugman, D. (2012). Program integrity and effectiveness of a cognitive behavioral intervention for incarcerated youth on cognitive distortions, social skills, and moral development. *Children and Youth Services Review*, 34(9), 1720-1728.
- Henning, K. (2013). Criminalizing normal adolescent behavior in communities of color: The role of prosecutors in juvenile justice reform. *Cornell Law Review*, 98, 383-462.
- Hoge, R. D. (2002). Standardized instruments for assessing risk and need in youthful offenders. *Criminal Justice and Behavior*, 29, 380-396.
- Howell, J. C., & Lipsey, M. W. (2012). Research-based guidelines for juvenile justice programs. *Justice Research and Policy*, 14(1), 17-34.
- Huizinga, D., Thornberry, T., Knight, K., Lovegrove, P., Loeber, R., Hill, K., & Farrington, D. (2007). *Disproportionate minority contact in the juvenile justice system: A study of differential minority arrest/referral to court in Three cities*. Office of Juvenile Justice and Delinquency Prevention.
- Hurwitz, J., & Peffley, M. (2010). And justice for some: Race, crime, and punishment in the us criminal justice system. *Canadian Journal of Political Science*, 43(2), 457-479.

- Intravia, J., Wolff, K., Stewart, E., & Simons, R. (2014). Neighborhood-level differences in police discrimination and subcultural violence: A multilevel examination of adopting the code of the street. *Journal of Crime and Justice*, 37(1), 42-60.
- Jackson, R., & Pabon, E. (2000). Race and treating other people's children as adults. *Journal of Criminal Justice*, 28, 507-515.
- Jacobs, D. (1979). Inequality and police strength: Conflict theory and coercive control in metropolitan areas. *American Sociological Review*, 44(6), 913-925.
- Kakade, M., Duarte, C., Liu, X., Fuller, C., Drucker, E., Hoven, C., Fan, B., & Wu, P. (2012). Adolescent substance use and other illegal behaviors and racial disparities in criminal justice system involvement: Findings from a US national survey. *American Journal of Public Health*, 102(7), 1307-10.
- Kakar, S. (2006). Understanding the causes of disproportionate minority contact: Results of focus group discussions. *Journal of Criminal Justice*, 34(4), 369-381.
- Kassim, S. (2007). Fighting an invisible war: Black male youth and experiences of racial profiling in law enforcement: Implications for Social Work Practice. *Canadian Social Work*, 9(1), 48-65.
- Kempf-Leonard, K. (2007). Minority youths and juvenile justice: Disproportionate minority contact after nearly 20 years of reform efforts. *Youth Violence and Juvenile Justice*, 5(1), 71-87.
- Kirk, D. (2008). The neighborhood context of racial and ethnic disparities in arrest. *Demography*, 45(1), 55-77.
- Kochel, T., Wilson, D., & Mastrofski, S. (2011). Effect of suspect race on officers' arrest decisions. *Criminology*, 49(2), 473-512.
- Kramer, J. H., & Steffensmeier, D. J. (1978). Differential detention/jailing of juveniles - a comparison of detention and non-detention courts. *Pepperdine Law Review*, 5(3), 795-807.
- Lacey, C. (2013). Racial disparities and the juvenile justice system: A legacy of trauma. *The National Child Traumatic Stress Network*.
- Lambie, I., & Randell, I. (2013). The impact of incarceration on juvenile offenders. *Clinical Psychology Review*, 33(3), 448-459.
- Leiber, M. J. (2002). Disproportionate minority confinement (DMC) of youth: An analysis of state and federal efforts to address the issue. *Crime & Delinquency*, 48, 3-45.

- Leiber, M., Bishop, D., & Chamlin, M. (2011). Juvenile justice decision-making before and after the implementation of the disproportionate minority contact (DMC) mandate. *Justice Quarterly*, 28(3), 460-492.
- Leiber, M., & Boggess, L. (2012). Race, probation violations, and structured secure detention decision making in three jurisdictions. *Youth Violence and Juvenile Justice*, 10(4), 333-353.
- Leiber, M. J. and K. C. Fox. 2005. Race and the impact of detention on juvenile justice decision making. *Crime & Delinquency* 51, 470-97.
- Leiber, M., & Johnson, J. (2008). Being young and black: What are their effects on juvenile justice decision making? *Crime & Delinquency*, 54(4), 560–581.
- Lipsey, M. W. (2009). The primary factors that characterize effective interventions with juvenile offenders: A meta-analytic overview. *Victims and offenders*, 4(2), 124-147.
- Lipsey, M. W., & Cullen, F. T. (2007). The effectiveness of correctional rehabilitation: A review of systematic reviews. *Annual Review of Law and Social Science*, 3, 279-320.
- Lipsey, M. W., Howell, J., Kelly, M., Chapman, G., & Carver, D. (2010). *Improving the effectiveness of juvenile justice programs: A new perspective on evidence-based practice*. Georgetown University. Washington DC: Center for Juvenile Justice Reform.
- Livingston, L., & Miller, J. (2014). Inequalities of race, class, and place and their impact on postincarceration higher education. *Race and Justice*, 4(3), 212-245.
- Lynch, M. (2011). Crack pipes and policing: A case study of institutional racism and remedial action in cleveland. *Law & Policy*, 33(2), 179-214.
- Mallet, C., & Stoddard-Dare, P. (2010). Predicting secure detention placement for African-American juvenile offenders: Addressing the disproportionate minority confinement problem. *Journal of Ethnicity in Criminal Justice*, 8,91-103.
- MacDonald, J. (2003). The effect of ethnicity in juvenile court decision making in Hawaii. *Youth & Society*, 35(2), 243-263.
- Marsh, R. & Patrick, S. (2003). Disproportionate minority juvenile confinement in Idaho. Report to Idaho Department of Juvenile Corrections.
- Moore, L., & Padavic, I. (2010). Racial and ethnic disparities in girls' sentencing in the juvenile justice system. *Feminist Criminology*, 5(3), 263-285.
- Moore, L., & Padavic, I. (2011). Risk assessment tools and racial/ethnic disparities in the juvenile justice system. *Sociology Compass*, 5(10), 850-858.

- Munyo, I. (2014). The juvenile crime deliemna. *Review of Economic Dynamics, In Press*.
- Onifade, E., Davidson, W., Campbell, C., Turke, G., Malinowski, J., & Turner, K. (2008). Predicting recidivism in probationers with the youth level of service case management inventory (YLS/CMI). *Criminal Justice and Behavior*, 35(4), 474-483.
- Paschall, M. J., Ornstein, M. L., & Flewelling, R. L. (2001). African american male adolescents' involvement in the criminal justice system: The criterion validity of self-report measures in a prospective study. *Journal of Research in Crime & Delinquency*, 38(2), 174-187.
- Petitclerc, A., Gatti, U., Vitaro, F., & Tremblay, R. (2013). Effects of juvenile court exposure on crime in young adulthood. *Journal of Child Psychology and Psychiarty*, 54(3), 291-297.
- Petrocelli, M., Piquero, A., & Smith, M. (2003). Conflict theory and racial profiling: An empirical analysis of police traffic stop data. *Journal of Criminal Justice*, 31(1), 1-11.
- Piquero, A. (2008). Disproportionate minority contact. *The Future of Children*, 18(2), 59-79.
- Piquero, A., & Brame, R. (2008). Assessing the race-crime and ethnicity-crime relationship in a sample of serious adolescent delinquents. *Crime and Delinquency*, 54, 1-33.
- Piquero, A., Schubert, C., & Brame, R. (2014). Comparing Official and Self-report Records of Offending across Gender and Race/Ethnicity in a Longitudinal Study of Serious Youthful Offenders. *Journal of Research in Crime and Delinquency*, 51(4), 526-556.
- Pope, C. E., Lovell, R., & Hsia, H. M. (2002). *Disproportionate minority confinement: A review of the research literature from 1989 through 2001*. Office of Juvenile Justice and Delinquency Prevention.
- Puzzanchera, C., & Adams, B. (2010). *National disproportionate minority contact databook*. Washington, DC: National Center for Juvenile Justice for the Office of Juvenile Justice and Delinquency Prevention.
- Puzzanchera, C., & Addie, S. (2014). *Delinquency cases waived to criminal court, 2010*. Juvenile Offenders and Victims National Report Series.
- Puzzanchera, C. & Hockenberry, S. (2013). *Juvenile court statistics 2010*. Pittsburgh, PA: National Center for Juvenile Justice.
- Puzzanchera, C., & Robson, C. (2014). *Delinquency cases in juvenile court, 2010*. Juvenile Offenders and Victims National Report Series.
- Ray, K., & Alarid, L. (2004). Examining racial disparity of male property offenders in the Missouri juvenile justice system. *Youth Violence & Juvenile Justice*, 2(2), 107-128.

- Roberts, D. E. (2004). The social and moral cost of mass incarceration in african american communities. *Stanford Law Review*, 56(5), 2004.
- Rodriguez, N. (2007). Restorative justice at work: Examining the impact of restorative justice resolutions on juvenile recidivism. *Crime & Delinquency*, 53(3), 355-379.
- Rodriguez, N. (2010). The cumulative effect of race and ethnicity in juvenile court outcomes and why preadjudication detention matters. *Journal of Research in Crime and Delinquency*, 47(3), 391-413.
- Sampson, R., & Laub, J. (1993). Structural variations in juvenile court processing: Inequality, the underclass, and social control. *Law and Society Review*, 27(2), 285-311.
- Schmidt, F., Campbell, M., & Houlding, C. (2011). Comparative analyses of the YLS/CMI, SAVRY, and PCL:YV in adolescent offenders: A 10-year follow-up into adulthood. *Youth Violence and Juvenile Justice*, 9(1), 23-42.
- Secret, P. E., & Johnson, J. B. (1997). The effect of race on juvenile justice decision making in Nebraska: Detention, adjudication, and disposition. *Justice Quarterly*, 14(3), 445-478.
- Sickmund, M., Sladky, A., & Kang, W. (2015). "Easy Access to Juvenile Court Statistics: 1985-2013." Online. Available: <http://www.ojjdp.gov/ojstatbb/ezajcs/>.
- Snyder, H. N., & Sickmund, M. (2006). *Juvenile Offenders and Victims: 2006 National Report*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Steffensmeier, D., Feldmeyer, B., Harris, C. T., & Ulmer, J. T. (2011). Reassessing trends in black violent crime, 1980–2008: Sorting out the “hispanic effect” in uniform crime reports arrests, national crime victimization survey offender estimates, and u.s. prisoner counts. *Criminology*, 49(1), 197-251.
- Stewart, E., Baumer, E., Brunson, R., & Simons, R. (2009). Neighborhood racial context and perceptions of police-based racial discrimination among black youth. *Criminology*, 47(3), 847-887.
- Schwalbe, C. (2004). Re-visioning risk assessment for human service decision making. *Children and Youth Services Review*, 26, 561-576.
- Truman, J., Langton, L. (2014). *Criminal Victimization, 2013*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, National Crime Victimization Survey, 1993-2013.
- Uniform Crime Report (2013). *Crime in the United States*. U.S. Department of Justice, Federal Bureau of Investigation, Criminal Justice Information Services Division.

- Van de Rakt, M., Murray, J. M., & Nieuwbeerta, P. (2012). The long-term effects of paternal imprisonment on criminal trajectories of children. *Journal of Research in Crime & Delinquency*, 49(1), 81-108.
- Van de Rakt, M., Nieuwbeerta, P., & Apel, R. (2009). Association of criminal convictions between family members: Effects of siblings, fathers and mothers. *Criminal Behaviour and Mental Health*, 19(2), 94-108.
- Van Ryzin, M., & Levem L. (2012). Affiliation with delinquent peers as a mediator of the effects of multidimensional treatment foster care for delinquent girls. *Journal of Consulting and Clinical Psychology*, 80(4), 588-596.