Predictors of Disciplinary Problems within a Juvenile Correctional Facility

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This study examines predictors of disciplinary problems for female inmates at a juvenile correctional facility. The study was an archival analysis of the records of inmates who were housed in an all-girls maximum security juvenile correctional facility and released during the months between June and December of 2010. Records from 112 girls ranging from the age of twelve to nineteen were used. Disciplinary outcomes such as judicial conduct reports and segregation were examined. Some of the predictors analyzed included frequency of exposure to treatment programs within the facility, history of drug use, medications and psychological diagnoses, and family configuration. Three significant predictors of disciplinary problems include age, number of medications, and disturbances of conduct (e.g., conduct disorder, oppositional defiant disorder, etc.), with an adjusted $R^2$ of .315.
Predictors of Disciplinary Problems within a Juvenile Correctional Facility

In Indiana alone, there were 2,651 incarcerated juveniles from January 1, 2009 to June 30, 2011 (Data Collection Subcommittee, Indiana Department of Corrections, 2011). In a report filed by the Indiana Department of Corrections (IDOC or DOC), reasons for the juvenile females’ arrests were typically theft, battery, and resisting law enforcement, among other things (Schelle, 2011). The incarcerated juveniles generally stay between four and six months in this particular facility. As an intern at a juvenile correctional facility, I was able to see many different aspects of the program. I interned for about three months, in which time I shadowed the mental health team. I was able to observe the different processes required of the mental health team, as well as participate in some of these experiences. I was able to note the differences between the mental health team and the DOC team. This is of importance because the two programs are separate and hold different information. I was inspired by my internship to examine different variables within the correctional facility that would possibly influence the outcomes of these individuals within the facility.

The experiences of the incarcerated juveniles have during their stay in the facility vary widely. Some adjust quickly to their new environment and avoid disciplinary sanctions and have the tendency to get through the program quickly. Others get into trouble and receive conduct reports and segregation, or solitary confinement, which can increase the amount of time they spend within the facility. Ironically, this increase in their stay can actually lead to more recidivism, in which the juvenile returns to the facility due to continued illegal behavior (Mulvey, 2011). Mulvey (2011) identified that individuals with lower levels of offending increased their offending with longer stays.
The goal of this study was to identify predictors of disciplinary problems within the facility. These predictors can be on the institutional level (e.g., treatment programs) or on the individual level of the inmate (e.g., mental health diagnoses). By identifying institutional predictors, the Department of Corrections (DOC) could see which programs are beneficial and which are not. Individual differences play a role as well. By identifying inmate predictors, such as mental health diagnosis and family information, the DOC could identify risk factors and create new programs or modify existing programs that would be more effective for the at-risk populations. As the research outlined below indicates, both institutional and individual-difference factors are related to inmate disciplinary outcomes.

Before reviewing previous research on the effects of various programs in the correctional setting, it is worth considering the philosophy behind them, particularly restorative justice. The goal in restorative justice is to rehabilitate the offender, by targeting the root causes of the behavior in order to reduce re-offending. A central goal of restorative justice is to improve the offenders’ understanding of the impact of their own behavior, which then allows for offenders to take responsibility for their own actions (Dhami, Mantle, & Fox, 2009).

Two factors that are likely to contribute to an inmate’s outcomes are their mental health problems (an inmate variable) and any treatment for those problems (an institutional variable). According to Trupin et al. (2002), female offenders are more likely to have a mental disorder than males. 61% of incarcerated juveniles, both male and female, were diagnosed with a mental health disorder in Laforte’s study in 2010. Neither one of these study’s results are that surprising within today’s society; girls in corrections were found to be 1.8 to 2.4 more times as likely than boys to have clinical elevations on all applicable MAYSI-2 scales with the exception of substance use scale (Vincent, Grisson, Terry, and Banks, 2008). The MAYSI-2 measures the
amount of mental health needs based off the self-report of the individual. Although both studies measured the rate of mental health disorders among juvenile inmates, neither examined the relation between those disorders and other inmate outcomes, such as disciplinary problems.

**Institutional Predictors**

**Treatment for mental disorders.** Given that mental health issues are so prevalent within the facility, treatment for these disorders are likely to influence outcomes. Treatment includes several therapeutic approaches as well as the use of psychotropic medications, which are discussed in a later section. The therapies commonly found in correctional facilities include Cognitive Behavioral Therapy (CBT), Dialectical Behavioral Therapy (DBT), and Motivational Interviewing (MI). CBT is the most commonly used therapeutic technique within correctional facilities. This technique tries to change the cognitions of the client in a way that allows for his or her behavior to change in a positive manner. The goal of CBT is to increase some interpretations (“I am a good person”) and to decrease others (“Everyone hates me”). Shelton et al. (2009) found that CBT reduced behavior problems among aggressive and impulsive inmates within 16 weeks and also found that it reduced recidivism. Another study by Mitchell et al. (2011) found that adolescent offenders enrolled in CBT showed a decrease in the number of psychosocial needs, identified by Maslow’s, which includes the need for self-actualization, belonging, and safety among other needs.

Underneath the cognitive behavioral techniques falls Dialectical Behavior Therapy. DBT includes skills training, problem solving, and validation for the juvenile. Validation allows the inmate to feel that the facilitator or therapist is interested in him or her. Trupin and his colleagues (2002) found reduced rates of para-suicidal behavior among juvenile female offenders and a reduction of impulsive behavior in a DBT group compared to the non-DBT group.
Another treatment type is Motivational Interviewing, which is often used with substance abuse and stems from CBT as well. In Motivational Interviewing (MI), the therapist must express empathy by accepting the individual for who they are and encouraging change (Miller & Rollnick, 2002). Another goal of the MI therapist is to develop self-discrepancy, in which inconsistencies between beliefs and behaviors are brought to the attention of the client in order to facilitate change. Miller and Rollnick (2002) emphasize the role of responsibility in motivational interviewing. MI encourages the client to take full responsibility in creating a solution to his or her problem. An important factor is that the therapist supports self-efficacy, which allows the client to see that they can make a difference in their own lives and that they are the most important influence in this change. This also allows for the client to maintain responsibility and gain a sense of pride in the positive decisions that he or she made. Jensen and colleagues (2011) found that motivational interviewing was effective in treating substance abuse and even maintains effectiveness over six months.

Another treatment factor influencing outcomes is the prescription of psychotropic medications. Although a given medication can be prescribed for more than one purpose, they can be broadly classified into anti-psychotics, mood stabilizers, and antidepressants. In the current study, I am examining whether certain categories of medication, such as antidepressants and antipsychotics, and mood stabilizers are associated with disciplinary outcomes more than others. If one is associated with more problems, then the use of that medication may need to be reduced in order to see better results within the facility. However, it is important to note that an association between medication and disciplinary problems would not distinguish between an inmate who is medicated because of disciplinary problems and an inmate whose disciplinary problems are caused by the medication.
Visitation. Visitation occurs when family members are allowed to visit the inmate at the correctional facility. There are approximately fifteen hours per week that are available for family visitation (IDOC website, 2011). Family members must be approved through the correctional facility in order to visit. As an intern, I noticed that some of the inmates would become quite emotionally triggered or activated, after their family left or came into the visitation room. They would act out more by doing things such as shouting, or even becoming aggressive. However, Monahan et al. (2011) found that the more visits an offender had, the fewer depressive symptoms they demonstrated. They also theorized that social and familial support may play a role in minimizing stressors.

Individual-level Factors

Age. Fagan et al. (2011) reported more delinquency or illegal activity and drug use among older adolescents, suggesting that there may be a larger amount of older girls (16-18) in the facility than younger girls (14-16). An unequal age distribution within the facility could lead facility administrators to direct their programming towards the dominant age group. Younger girls might have more insecurities than an older girl due to the fact that they are at a different developmental stage. Tuvblad et al. (2011) found that at ages 13 and 14, peers were one of the main influences for antisocial behavior. This suggests that being placed within a correctional facility at the early teenage years could increase negative behavior because of the environment that they are in, mainly because they see older teenagers who act out. This might also suggest pluralistic ignorance, in which the norm is perceived other than it is. This seems possible due to the fact that the girls are separated in the units, or living quarters, by age. They are also separated in school as well based on their abilities. The information that they often receive about the older
girls in the facility is the negative news that trickles down through the units. This can lead them to believe in an unrealistic norm.

**Family.** Family plays a pivotal role within the life of adolescents. Price and Kunz (2003) identified several factors that might be related to delinquency, such as levels of pre-divorce hostility, parental relationship with the child, family stability, parental ability to monitor the child, and finally parental discipline. Price and Kunz (2003) found that there is a connection between divorce and a higher rate of delinquency compared to married parents. Based on this information, I believe that there will be more disciplinary problems within the facility if parents of the inmates are divorced.

**Reasons for Being Incarcerated.** There are several reasons why an individual might be incarcerated within the juvenile correctional facility. Schelle (2011) noted that some common reasons for being arrested included theft, battery, and resisting law enforcement. There were approximately twenty different reasons for being incarcerated within my sample. It could be that individuals who commit a crime, such as battery, have more disciplinary problems than those who commit a status offense. This will need to be examined by looking through the criminal history kept by DOC.

**Mental health diagnoses.** Mental health diagnoses are very common, affecting 40 to 70 percent of females within the juvenile correctional facility (Welch-Brewer et al., 2011). Welch-Brewer et al. (2011) found a strong relation between mental health and delinquency among juvenile female offenders. This was measured by the number of court offenses, probation length, days in detention, and probation services. Anxiety and mood disorders were the most common mental health problems among females in their sample. Mental health diagnoses, in fact, were
one of the strongest predictors for female delinquency in comparison with other predictors, such as race and substance use.

**Posttraumatic Stress Disorder.** The essential characteristics of PTSD are symptoms such as irritability or outbursts, avoidance strategies, and recurrent, intrusive recollections resulting from a previous trauma (DSM, 1996). A trauma is considered an extreme traumatic stressor in which the individual perceives themselves as being in danger. In a study by Abram et al. (2004), 92% of the incarcerated youth experienced at least one trauma, while 84% experienced more than one trauma. Kerig et al. (2009) speculated that the anger and irritability symptoms of PTSD could lead to girls acting out, which could then lead to negative outcomes, such as detention. Another potentially problematic feature of PTSD for incarcerated juveniles is a heightened state of anxiety called hyper-vigilance, which can lead to more overt physical behaviors which, in turn, can lead to aggression (Ogden, Minton, & Pain, 2006).

**Disorders of Conduct.** Disorders of conduct is a category created by the researcher that included the diagnoses of conduct disorder, oppositional defiant disorder, as well as other disorders or disturbances of conduct not otherwise specified. These individuals are diagnosed as such due to their antisocial behavior and inability to behave in an appropriate manner. Inmates diagnosed with a disorder of conduct are more likely to get into disciplinary trouble because they are less cooperative and more prone to conflict. However, there is also the possibility for a self-fulfilling prophecy. That is, the staff may unintentionally be more standoffish with a girl who has been diagnosed with a conduct disorder because they may expect her to misbehave.

Mental health diagnoses play a pivotal role within the facility. This is especially true of the symptoms that each inmate experiences. Some mental health diagnoses are markers for behaviors that are likely to lead the inmate into trouble. These diagnoses could lead to an
increase in disciplinary problems within the facility due to labeling, in which the delinquent is placed into a stereotype that subsequently affects how they are treated. If a staff member holds an expectation that a girl is going to be problematic, a self-fulfilling prophecy may occur, in which inmates respond by living down to the staff’s expectations. There is also the possibility that expectations reflect reality; that is, kids with a history of behavior problems really are more likely to misbehave than kids who don’t have this history.

**Disciplinary Problems**

There are various outcomes that can occur within the facility. However, I wanted to focus on disciplinary problems, which include Judicial Conduct Reports (JCR’s) and segregation. JCR’s are given to the inmates when they have participated in inappropriate behavior. These can often lead to segregation, which is disciplinary action where the offender is placed in an individual cell with lost privileges, otherwise known as solitary confinement. Disciplinary problems are likely to increase the amount of time that is spent at the correctional facility because decisions concerning release are based in part on disciplinary reports.

**Hypotheses**

With my main outcome being disciplinary problems, such as JCR’s and segregation, I have made several hypotheses. I expect that any interventions involving motivational interviewing, or individual therapy, will reduce the amount of disciplinary problems. I anticipate that the more visitations that an inmate receives, the more the inmate’s overall behavior will improve, which will result in less disciplinary action. I also expect that individuals with broken families will have more negative outcomes within the facility than those with happily married families. I hypothesize that those who have experienced trauma will have a higher frequency of
disciplinary problems as well. There are other variables that are being explored as well, such as age and ethnicity, for which I do not have a specific hypothesis on.

**Method**

**Participants**

Archival data was collected from an all-girls juvenile correctional facility in the Midwest. There were 111 female participants ranging from twelve to nineteen years old. The mean age was 15.96 years old. 60.4% were Caucasian, while 26.1% were African-American, 12.6% were Hispanics and .9% was of mixed ethnicity. Individuals in this sample were released from the facility between the dates of June 1, 2010 to December 31, 2010.

**Facility**

The facility in which data was collected is an all-girls juvenile correctional facility that was considered maximum security. The facility usually has fifty to seventy girls ranging from age twelve to nineteen. The average length of stay is four to six months with a median of 152 days.

**Procedure**

Prior to data collection, the project was approved by the Indiana Department of Corrections. Due to the fact that there were two archival systems that were being used to obtain information (one for medical records and the other for disciplinary records); the numbers assigned to the inmate by the Department of Corrections were used to match inmates across databases. In order to guarantee confidentiality, the numbers assigned to the inmates by the Department of Corrections were removed before the data left the facility.
Table 1

*Predictors Investigated*

<table>
<thead>
<tr>
<th>Predictors</th>
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<tbody>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Diagnosis (e.g., Depression, Conduct Disorders, PTSD, etc.)</td>
</tr>
<tr>
<td>GED</td>
</tr>
<tr>
<td>Number of Medications</td>
</tr>
<tr>
<td>Number of Individual Therapy Sessions per Month</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>History of Assault</td>
</tr>
<tr>
<td>Reasons for Incarceration (e.g., theft, alcohol, etc.)</td>
</tr>
<tr>
<td>Gender of Siblings</td>
</tr>
<tr>
<td>Parents’ Marital Status</td>
</tr>
<tr>
<td>Visitation per Month</td>
</tr>
</tbody>
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**Results and Discussion**

My main focus was identifying predictors of disciplinary problems, which includes the combination of JCR’s and segregation. Because the raw frequencies of each of those would be confounded with length of stay in the facility, I divided each inmate’s total number of JCRs or times in segregation by the number of days they were in the facility, then multiplied that number by 30 to obtain a measure of the number of JCRs or times in segregation per month. In addition to the idea that disciplinary problems are related to length of stay, high levels of disciplinary problems likely represent a troubled stay for the inmate and more complications for staff. Two outliers were identified in the distributions of JCR’s and segregations per month. Each had a level of disciplinary problems that was more than double that of the second-highest inmate and would have had an undue influence on any statistical tests. These two individuals were removed prior to conducting any analyses. After running a correlation between JCR’s and segregation ($r=.77$), I decided to combine these two variables together into a new variable, disciplinary
problems, by standardizing each variable and then computing their mean. There was a
correlation of .32 between disciplinary problems and the length of stay ($r (111) = .32 \ p < .001$).

My goal was to identify which variables might be predictors of these particular
disciplinary problems. I used a series of $t$-tests using disciplinary problems as the outcome and
each of the following factors as predictors: the different reasons why the inmates were there
(e.g., theft, truancy) and the different diagnoses they were given (e.g., anxiety, adjustment
disorder). These variables were coded into yes and no answers, making them have only two
levels. That process identified only three predictors at $p < .05$: Alcohol (as the reason for being
incarcerated) and two diagnoses: Adjustment Disorder and Disorders of Conduct. I also used a
series of correlations using disciplinary problems as one variable and several numeric variables,
such as age, therapy per month, etc., as the other variable. These correlations identified two
additional predictors: age and number of prescriptions (e.g., antianxiety, antidepressants,
antipsychotics, and mood stabilizers). The number of prescriptions within each of those
categories (e.g., the number of antianxiety prescriptions) was not significantly correlated with
disciplinary problems, but the sum of those four was. These predictors were then entered into a
linear regression model with disciplinary problems as the outcome. When these variables were
entered into a linear model predicting disciplinary problems, alcohol and adjustment disorder
became non-significant, leaving just age and number of prescriptions, as well as disorders of
conduct. These are shown in Table 2. The results below indicate that we can predict over 30% of
the variance in disciplinary problems using a combination of age, number of medications, and
whether the inmate has been diagnosed with a conduct disorder.
Table 2

*Predictors of Disciplinary Problems*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.40</td>
<td>0.001***</td>
</tr>
<tr>
<td>Number of Medications</td>
<td>0.12</td>
<td>0.02 *</td>
</tr>
<tr>
<td>Disorders of Conduct</td>
<td>0.35</td>
<td>0.01 *</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.32</td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>16.95</td>
<td></td>
</tr>
<tr>
<td>$p$-value</td>
<td>$P &lt; .001$***</td>
<td></td>
</tr>
</tbody>
</table>

Note: ***p < .001, **p < .01, *p < .05

Age

The first predictor was the age of the inmate. The sample ranged from age twelve to nineteen. Due to the fact that there was only one nineteen-year-old and only three 12- and 13-year-olds, they were eliminated from the analysis to reduce their undue influence on the regression line. The younger girls had a tendency to get into more trouble than the older girls, as seen in Figure 3.

As the inmates get older, there is a decrease in the amount of disciplinary problems. The younger girls might be misbehaving more or possibly being perceived as misbehaving more. They could also be at a different level of maturity than the older girls, which could lead them to have more problems. It is possible that there could be certain amounts of pluralistic ignorance, in which these girls believe that the norm is to misbehave a lot, when in reality this is not true.
Figure 1. Age is negatively related to frequency of disciplinary problems.

**Number of Medications**

The number of medications had a positive correlation with disciplinary problems. As the number of medications an inmate is taking increase, so does the number of disciplinary problems. This could be because the medications are causing more disciplinary problems because of the symptoms or the possibility of being overmedicated. Another possibility is that the individual is on more medication because they have disciplinary problems. It is important to keep in mind that the number of medications recorded for this variable were not taken simultaneously; they may have been prescribed sequentially. The amount of medications that an individual was prescribed also acts as a predictor of disciplinary problems. The category of medications includes anti-depressants, antipsychotics, mood stabilizers, and anti-anxiety medication. As individuals were prescribed more medication, disciplinary problems increased. This is shown in Figure 2.
Figure 2. The amount of medications acts as a predictor of disciplinary problems. The blue line is the best-fitting regression line, and green points and lines represent the means and 95% confidence intervals within each level of medication.

Disorders of Conduct

In Figure 3, those who were diagnosed with a disorder of conduct, which includes the diagnoses of conduct disorder, oppositional defiant disorder, and other disturbances of conduct, were compared to those who were not diagnosed with a disorder of conduct. Those who were diagnosed with a disorder of conduct experienced more disciplinary problems than those who were not diagnosed with a disorder of conduct. There are at least two reasons why this might happen. First, there is the tendency to expect that those who are diagnosed with disorders of conduct will get into more trouble than those who are not. It could be that staff members have a self-fulfilling prophecy with the girls who are diagnosed with disorders of conduct. Or second, it could be that more disciplinary problems are causing the girls to be diagnosed with the disorders of conduct. This is less likely because most of the inmates are usually diagnosed within the first
week of their arrival, so most of their disciplinary problems would occur after their diagnosis. I will be discussing some recommendations below based on the predictors that I have identified.

![Figure 3](image.png)

**Figure 3.** The diagnosis of disorder of conduct predicts more disciplinary problems (presented on a standard scale with mean=0 and standard deviation=1). Individual data points are plotted with a random horizontal jitter within each condition to reduce over plotting.

**Limitations**

There were a few limitations that presented themselves throughout the study. Some variables to consider in further research include suicide watch, GED, recidivism, and the time that each girl spent within the facility. Some of these might also act as a predictor as well. This could be something that is looked at in the future.

I also wanted to examine more predictors and outcomes such as recidivism, group therapy, and socioeconomic status. Estimates for recidivism, in which the juvenile returns to the facility, would have been unreliable due to the fact that if they were eighteen or older, they would be sent to an adult facility, rather than a juvenile facility. Therefore, I would not have access to this information. There was inconsistency in record-keeping for group therapy; therefore I decided that it was best if I did not rely on this information for accurate analysis.
Perhaps in the future this can be examined more reliably. Socioeconomic status was not available in the archive. However, I learned that the facility does have information on which inmates are on Medicaid, which could serve as an indicator for low socioeconomic status, similar to what is done in school with free and reduced lunch. It could be that individuals with a lower socioeconomic status do worse within the correctional facility, or maybe even the opposite.

**Future Directions**

There are several future research directions that I can foresee happening. Qualitative research seems to be lacking in the juvenile justice system. It would be a great addition to interview the incarcerated individuals about their experience and what they thought was effective or not. Qualitative research excels at identifying new categories that have been neglected by quantitative studies. Perhaps the inmates would mention something that was not recorded in the archival data, such as their experiences in the on-site school. It would also allow the inmates to feel as if they had a voice. This would be labor intensive, but it could also be very beneficial. I believe that it would be beneficial to explore other facilities as well. This would allow me to see how adult and all-boys correctional facilities differ from the all-female facility in my study. Lafortune (2010) found that female juveniles are much more likely than male juveniles to be diagnosed with a mental health disorder, such as anxiety disorder, drug dependence, depressive disorder, adjustment reaction, personality disorder, drug abuse in a non-dependent person, alcohol dependence syndrome, and psychosis related to drugs. As a result, it may be that mental health disorders play a different role within all-boys correctional facilities than they do in the all-female facility. Finding the differences and changing the programs to accommodate these differences could be useful.
Recommendations

There are also some recommendations that I would like to propose. It would be beneficial to try and figure out the direction of influence. This could be done by examining the effects of time. For example, if we can identify that being placed on a medication causes more disciplinary problems soon after another medication is prescribed, we might infer that the medication is the cause of the disciplinary problems, rather than the disciplinary problems causing the increase in the amount of medication. After the direction of influence is figured out, policy and program recommendations could be made. It might be beneficial to create programs that are directed towards the risk factors that were identified: age, conduct disorders, and number of medications. Since the risk-factors have been identified, staff could pay special attention to see what it is about these predictors that appear to push the girls to more disciplinary problems. So if younger girls are having more problems, staff could see if there is some pluralistic ignorance going on or if there are deficits in the program that are making it a little more difficult for younger girls. Another thing that could be beneficial is training of the staff members to interact with the younger girls differently than the older girls. It was clear that younger girls either misbehave more or are perceived this way. It may be that these girls are not as responsive to the programs because it they are aimed at older girls.

By understanding how the predictors are related to disciplinary problems, facilities may be able to create more positive outcomes for those who are at-risk. I hope that there can be an expansion of this study in order to obtain more information. The more information that is available, the more improvement can be made in the juvenile justice system, which can ultimately improve the amount of crime in today’s society.
References


