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**A CLINICAL FOLLOW-UP OF DELINQUENT MALES: IGNORED  
VULNERABILITIES, UNMET NEEDS, AND THE PERPETUATION OF  
VIOLENCE**

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# ABSTRACT

This paper describes the adult adaptation of a group of formerly incarcerated male delinquents. Based on clinical interviews conducted approximately a decade after release from juvenile corrections, it describes subjects' educational, occupational, interpersonal, and therapeutic experiences. It explores the interaction of neuropsychiatric vulnerabilities, abuse, early violence and post-juvenile incarceration placement in relation to outcome.

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**Introduction**

In a previous paper we reported the results of a 7 year follow-up study of the criminal outcome of a sample of seriously delinquent formerly incarcerated adolescent boys (Lewis, et al., 1989). That study, based on State and Federal criminal records, revealed that a constellation of increasingly serious neuropsychiatric symptomatology identified in adolescence, coupled with an upbringing in a violent, abusive household was associated with the development of violent adult criminality. Since then, we have been able to locate and interview the majority of our subjects. The purpose of this paper is twofold: first, to describe what we learned from these follow-up interviews; second, to explore the possible influences on outcome of dispositions and experiences subsequent to juvenile incarceration. Were there any particular kinds of placements, educational opportunities, job training programs, work experiences, family supports, or therapeutic interventions associated with positive outcomes? What sorts of interpersonal relationships had been established? Were there any dispositions especially inimical to the development of nonviolent social adaptation? To what extent did the interaction of these variables relate to adult social adaptation?

## The Literature

Follow-up studies of seriously delinquent and aggressive juveniles suggest that those who repeatedly come in conflict with the law are likely to continue their antisocial behaviors in adulthood. In a 5 year follow-up of 1000 delinquents, the Gluecks (1934) reported that 71% went on to commit offenses as adults. More recently, Henn and colleagues (1980) found that 69% of the 51 aggressive delinquents they studied had been rearrested within 10 years; of those rearrested, 37% committed violent crimes. In a 2 year follow-up of 411 school children, Knight and West (1975) found that 58% of their most delinquent subjects were reconvicted in early adulthood. In a longer term follow-up of these same subjects, Farrington and colleagues (1988a) reported that by age 32 most of the highly recidivistic juveniles had become chronic adult offenders. In his follow-up of 2 birth cohorts, Wolfgang (1972; 1983) found that the greater the number of early violent offenses, the greater the likelihood of ongoing violence, especially for black males.

A few studies have focused on other aspects of the adult social adaptation of delinquents, such as education, work, and interpersonal relationships. The Gluecks (1950), in their study of 500 incarcerated male juveniles and 500 nondelinquents, reported that delinquents failed to complete high school, were often unemployed, and had marital

relationships that tended to end in divorce and isolation from offspring.

A 24 year clinical follow-up of the 411 school children previously cited (Farrington, et al., 1988b) showed that the delinquent subjects were significantly more likely than their law abiding peers to become "social failures" by the time they entered their early thirties. Delinquent subjects tended to move from place to place, to be unemployed for long periods of time, to be separated or divorced, and to have problems with alcohol abuse.

Outcome studies of aggressive and antisocial clinic populations have revealed similar pictures of dysfunctional adult social adaptation (Faretra, 1981; Nylander, 1979; Robins, 1966).

While these outcome studies describe what appears to be the natural course of serious delinquency, they do not attempt to explore the possible effects of particular interventions and dispositions subsequent to juvenile incarceration that may influence adult adaptation. Nor do they consider the relationship of early biopsychosocial vulnerabilities to outcome. What distinguishes our follow-up study from most others is that the delinquents in it received comprehensive neuropsychiatric, psychoeducational, and family assessments while incarcerated as juveniles. In many cases, multiple neuropsychiatric vulnerabilities and evidence of serious family dysfunction were revealed (Lewis, et al., 1979). While incarcerated in the juvenile

correctional institution, individualized educational and medical interventions were instituted whenever possible which improved the behavioral and academic functioning of our subjects. Yet, in spite of these improvements, as evidenced in their adult F.B.I. and State Police records, all but 6 boys were rearrested in adulthood. Moreover, their records revealed that 69 (73%) of them had committed violent crimes by the time of follow-up (Lewis, et al., 1989).

What went wrong? What happened to these adolescents after discharge that failed to sustain the apparent progress made during juvenile incarceration? The purpose of the follow-up interview was to try to identify some of the circumstances and experiences subsequent to discharge from the correctional school that may have contributed to the nature of outcome.

#### METHOD

##### Subjects:

Subjects were 97 adolescent boys who were incarcerated in the only correctional school in Connecticut during an 18 month period in the late 1970's; 37% were white, 41% black, 21% Hispanic, and 1% Other. The sample consisted of 79 more violent subjects (those with histories of assaultive behavior) and 18 less violent subjects, based on reliable ratings of degrees of aggression made at the time of juvenile incarceration (Lewis, et al., 1979). At the time



of the original study, subjects ranged in age from 12.4 to 17.4 years (mean 15 years 3 months; median 15 years 3 months). The majority were from classes IV and V according to the Hollingshead and Redlich criteria (Hollingshead and Redlich, 1958).

### **Original Clinical Data**

The psychiatric, neurological, and psychoeducational evaluations conducted during the original study have been described (Lewis, et al., 1979). To summarize briefly, through the use of a semi-structured clinical interview designed especially to tap the biopsychosocial vulnerabilities of delinquent children and adolescents, data were gathered from subjects on topics which included medical history, history of neuropsychiatric symptomatology (e.g., lapses, impaired memory for acts, metamorphopsias), psychiatric symptomatology (e.g. hallucinations, delusions) qualities of mood and temper, family psychiatric history, and history of physical abuse and family violence. Neurological examinations and psychological and educational testing were also performed. Criteria used for establishing psychiatric, neurological, and cognitive impairment, and a history of abuse have been described (Lewis, et al., 1979; Lewis, et al., 1989).

For purposes of the follow-up study, 3 general categories of intrinsic vulnerabilities were identified (Lewis, et al., 1989): 1) episodic psychotic symptoms, 2)

neurological/limbic dysfunction, and 3) cognitive impairment, creating a continuous variable reflective of severity of neuropsychiatric impairment (minimum value=0, maximum value=3).

Criteria for establishing a measure of early violence have also been described (Lewis, et al., 1979). Ratings were on a scale from 1 (least violent) to 4 (most violent) and were based on subjects' early behaviors and offenses.

#### **F.B.I., Police, and Other Institutional Records**

With proper assurances of confidentiality, follow-up data were obtained from the correctional school, the F.B.I., the Connecticut State Police, the Connecticut Department of Corrections, the major state psychiatric hospitals, and from death, birth, and marriage certificates.

#### **Follow-up Clinical Interview**

In addition to reviewing records, extensive efforts were made to contact all subjects and conduct personal interviews. It took over 4 years and, on average, 11 attempts per subject, to locate and interview subjects and/or close friends or relatives. Thus the entire follow-up period spanned 12 years. The average period of time between discharge from juvenile corrections and follow-up interview was 9 years.

The follow-up interview focused on experiences subsequent to discharge from juvenile corrections including

education, job training, employment, interpersonal relationships and medical and psychiatric treatment. In addition, questions regarding histories of childhood physical and sexual abuse were asked. Because the sources of data and the attitudes, openness, and awareness of facts varied depending on the informant (and, we believe, on the interpersonal skills of the interviewer), the completeness of follow-up data on each subject also varied. Therefore, sample size for certain variables was not always the same. Of note, follow-up interviewers were unaware of subjects' delinquent or adult crimes or adolescent neuropsychiatric status.

#### FINDINGS

Adult criminal records were obtained on all of the original 97 subjects. Clinical interview follow-up data were obtained on 74 (76%); 67 were interviewed personally, and close relatives (i.e. mothers or grandmothers) of 7 others were interviewed. The average age of subjects at the time of the follow-up interview was 24.2 years (median= 24.4 years). Of the 23 who did not participate in the follow-up interview, 5 personally refused, 2 parents refused to reveal their sons' whereabouts, 10 subjects could not be found, and 6 subjects had died. Because 2 of the 6 deceased subjects died shortly after discharge from juvenile corrections, they were dropped from all phases of the follow-up, reducing the

total follow-up sample to 95 subjects, and the nonparticipants to 21.

There were no significant differences in terms of degrees of early violence or numbers of vulnerabilities between those interviewed and nonparticipants. Nor were there any significant racial or ethnic differences. Nonparticipants were somewhat more likely to have been placed in psychiatric hospitals (12.5% vs. 5%) and special schools (25% vs. 10%) following discharge from corrections, but these differences did not reach conventional levels of significance. However, in spite of their other similarities to the rest of the sample, the 21 nonparticipants averaged significantly fewer adult violent offenses (1.7 vs. 4.0;  $t=2.48$ ,  $p=.015$ ). Within this group of nonparticipants, those 5 who were located but refused to be interviewed had, as a group, the fewest adult aggressive offenses (i.e. 0.4). It was the investigators' clinical impression that they seemed to want nothing to do with a project that reminded them of their delinquent pasts. Among the remaining 16, who as a group averaged 2.1 aggressive offenses, 4 had died, several had left the state, and at least one had left the country. There was a possibility, therefore, that circumstances may have curtailed the recording of some of their criminal careers. On the other hand, as stated, a somewhat higher percentage of nonparticipants received therapeutic dispositions, which may have contributed to their better outcomes. Whatever the explanation, in light

of the better outcomes of nonparticipants, the findings presented below may be skewed to some extent toward reflecting experiences of the more antisocial subjects.

### Education

Educational information on 71 subjects was obtained. Only 7 (10%) actually were graduated from high school, although an additional 22 (31%) eventually received high school equivalency certificates, most while in prison for adult crimes. On average, subjects dropped out of school some time during the 9th grade. Only 3 subjects ever obtained any college education; one completed 1 year of college, and 2 others completed 2 years of college.

Was educational attainment related to outcome? We found a significant negative correlation between level of education and numbers of adult offenses ( $r=-0.35$ ;  $p=.004$ ). Thus, those who committed the greatest numbers of offenses completed the fewest grades. Although level of education was also negatively associated with numbers of adult violent crimes, this correlation did not reach conventional levels of significance ( $r=-.18$ ,  $p=.15$ ).

### Work History

We were able to obtain job histories on 70 of the subjects. Only 21 (30%) had received any formal job training at all after release from juvenile corrections. The most common types of training were in mechanics,

masonry, welding, and toolmaking; but training was brief, incomplete, and was put to use in only 7 (10%) cases. Only 1 subject made this training into a career. He became an electrician and, at the time of follow-up, was trying to become licensed. The majority of subjects worked sporadically at unskilled jobs such as washing dishes and sweeping floors. Ten (14%) other subjects made careers of robbery and drug dealing. The duration of subjects' longest job was, on average, only 1 to 2 years. Whereas job training was unrelated to criminal outcome, the duration of jobs was negatively correlated with numbers of adult violent crimes ( $r=-0.44$ ;  $p=.0005$ ). That is, the shorter the average length of employment, the longer the violent criminal record. This finding reflects, at least in part, the fact that lengthy incarceration frequently cut short the duration of jobs for violent recidivistic offenders.

#### Relationships and Offspring

Of the 74 subjects for whom adequate data regarding relationships could be gathered, at the time of follow-up only 8 (11%) were married; 4 others (5%) had been married but were divorced. The rest were single. Six (8%) had never been involved in any serious relationship with a woman (i.e. a relationship of over 6 months duration). The duration of relationships varied from a few months to 13 years. The average length of a subject's longest relationship was just over 3 years. There was a significant

negative correlation between reported length of longest relationship and numbers of violent crimes ( $r=-0.27$ ;  $p=.03$ ). In several cases, the longest relationships were initiated and sustained during incarceration, when subjects did not have to live with their partners on a day to day basis.

Only 63 of the subjects were willing to discuss the quality of their relationships with women. Thirty-one (49%) of them admitted that their relationships were sometimes violent. We discovered that this percentage was an underestimate of interpersonal violence, since 8 subjects, who we knew had criminal records of sexual assault, denied ever having been violent toward a woman. It should be recalled that follow-up interviewers were unaware of subjects' offenses and therefore they were unable to question the veracity of subjects' reported behaviors toward women based on knowledge of these criminal records.

Of the 70 male subjects for whom data could be obtained regarding offspring, 35 (50%) reported having fathered at least 1 child by the time of follow-up. Fewer than half of these subjects had ever lived with their offspring and, at follow-up, only 5 were living with their partners and children. In 3 cases, the father and mother were married; in 2 cases the parents were living in a common-law arrangement. Of note, the youngest subject in the study reported having already fathered 5 children by 4 different women, despite having spent, in total, less than a year at

liberty since discharge from juvenile corrections. The truthfulness of this claim, however, could not be verified.

To our surprise, only 1 of the males interviewed admitted ever having hit his child; only 3 admitted abusive behavior by partners toward offspring. This minimal reporting of corporal punishment is well below the percentage of parents in the general population who spank their children. According to Zigler and Hall (1989), 93% of all parents report physically disciplining their children.

#### **The Relationship of Psychobiological and Experiential Variables to Adult Social Adaptation**

Although education, employment and stable love relationships were associated with nonviolent adult social adaptation, this relationship does not necessarily mean that education, employment, and stable relationships played a causal role. The question arises to what extent neuropsychiatric intactness contributed to subjects' abilities to complete their educations, hold jobs and sustain relationships.

When we examined the relationship between level of intrinsic impairment and education, job duration, and duration of relationships we found the following: 1) level of education was negatively associated with level of neuropsychiatric impairment ( $r = -.28$ ,  $p = .02$ ). Subjects with the greatest number of vulnerabilities were least likely to finish school; 2) job duration was negatively correlated with level of neuropsychiatric impairment ( $r = -.53$ ,  $p = .0001$ ).



In other words, the more impaired the subject, the less likely he was to hold a job for an appreciable length of time; and 3) there was also a negative correlation between severity of neuropsychiatric impairment and length of longest relationship, although this correlation did not reach conventional levels of significance ( $r=-.187$ ,  $p=.14$ ). Thus, numbers of neuropsychiatric vulnerabilities were related to every aspect of adaptation, including education, work, interpersonal relationships and finally, social conformity and adherence to the law. Therefore, many of those life experiences that have hitherto been considered conducive to good outcome (Downes, 1966; Robin, 1966; West and Farrington, 1977; Batchman et al., 1978), in our study proved to be associated with and probably reflections of degrees of neuropsychiatric intactness.

#### Dispositions Following Juvenile Incarceration

Data gathered from records and interviews provided information regarding the initial dispositions after discharge from juvenile corrections of 94 of the 95 follow-up subjects, facilitating an examination of the relationship between the nature of dispositions and adult criminality. Dispositions were as follows: 37 subjects (39%) were returned home to parents or relatives; 19 subjects (20%) were placed in nonspecialized group homes; 16 subjects (17%) were sent out of state to a disciplinary residential setting. (Its disciplinary practices had at one time caused other states to remove their children from the institution

and had even resulted in temporary closure of the institution). Eleven subjects (12%) were placed in special therapeutic schools for emotionally or educationally handicapped children; 6 subjects (6%) were transferred directly to psychiatric hospitals; 5 subjects (5%) were transferred directly to adult correctional facilities. One subject ran away from the correctional school and never received placement.

The average length of the initial placement was 19 months. On average, between discharge from juvenile corrections and follow-up, subjects experienced 3 different placements and 3 incarcerations.

#### **Relationship of Psychobiological Vulnerabilities and Early Violence to Disposition**

The relationships of numbers of vulnerabilities, abusive families, and early violence to placement are presented in Table 1. It was impossible to determine from the records the rationale behind particular placements. However, as can be seen in Table 1, subjects sent to psychiatric hospitals and special schools were among those with the fewest vulnerabilities; those given less therapeutic dispositions (i.e. adult corrections and the disciplinary residential setting) were among the most impaired and most violent. Whether or not the more promising, less impaired and violent children were deliberately afforded the advantages of therapeutic settings

could not be determined. Of note, 78% of those sent back home returned to violent abusive households.

PLACE TABLE 1 ABOUT HERE

Subjects sent directly to psychiatric hospitals were treated, on average, for 15 months (range 2.5-36 months; median 6 months). Two of these boys were also rehospitalized subsequent to their initial hospitalization and discharge. Between discharge from juvenile corrections and follow-up, an additional 17 subjects, boys who had initially received other dispositions, experienced brief psychiatric hospitalizations, usually in the context of an arrest, ostensibly for purposes of evaluation (mean length of stay 2-3 months; median 1-2 months). Ironically, these subjects, unlike those sent directly to hospitals, were among the most impaired (average number of vulnerabilities=2.2). Of note, these 17 subjects committed almost twice as many adult offenses as those subjects who were sent directly from juvenile corrections to a hospital, although differences did not reach conventional levels of significance. Moreover, they also committed twice as many violent crimes.

Six subjects, who had been treated with antiepileptic medication for seizure disorders that were diagnosed while incarcerated as juveniles, reported that the medication was discontinued immediately upon discharge from the correctional school. Two of these subjects, when contacted

for follow-up, requested that the investigators provide their current prison physicians with their previous medical records so that medication could be reinstituted. In subsequent conversations with them, both reported improved functioning (e.g. less frequent aggressive outbursts in jail) after the medication was restarted.

Twenty-four subjects reported having received brief treatment for substance abuse at programs such as Alcoholics Anonymous or in counseling sessions held in prison. That was the extent of outpatient treatment for the entire group.

Such, in essence, was the totality of psychotherapeutic interventions afforded this sample of neuropsychiatrically impaired adolescents after discharge from the juvenile correctional institution.

#### **Abusive Violent Families and Disposition**

As can be seen in Table 1, high proportions of abused youngsters went to each type of setting.

#### **Adolescent Violence and Disposition**

As illustrated in Table 1, the most violent subjects (i.e. those with violence ratings of 3 and 4) tended to be placed in the disciplinary residential setting and in adult corrections; the least violent subjects tended to be placed in special schools.

### Race/Ethnicity and Disposition

Was there a relationship between race, ethnicity, and the nature of placement upon discharge from juvenile corrections? The sample consisted, with one exception, a Native American\*, of Black, White, and Hispanic subjects. For purposes of this study, the Native American subject was included with the Hispanic subsample. Because Black and Hispanic subjects had similar numbers of vulnerabilities and similar numbers of adult offenses, they were grouped together as "minority subjects".

Similar proportions of minority and white subjects were returned home to parents (32% vs. 34%). Similar proportions of minority subjects and white subjects were discharged to the disciplinary residential setting (19% vs. 14%); and similar proportions of minorities and whites were sent directly to psychiatric hospitals (9% vs. 5%). However, significantly more minority than white subjects were sent to group homes (29% vs. 6%; Fishers exact =.007), and significantly more white subjects were placed in special therapeutic schools (26% vs. 3%; Fisher's Exact =.002). All 5 subjects transferred directly to adult correctional facilities were minority. Total numbers of offenses committed by minority subjects and white subjects were similar (12.3 vs. 10.6). Minority subjects committed significantly more violent crimes (4.5 vs. 1.9;  $t=-3.4$ ,  $p=.001$ ); however minority subjects also had significantly

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\*This subject was erroneously categorized as Asian in a previous study (Lewis et al., 1979).

greater numbers of vulnerabilities than white subjects (2.0 vs. 1.5;  $t=-2.14$ ,  $p=.035$ ).

#### **The Relationship of Disposition to Adult Criminal Outcome**

When we considered the relationship between first placement after juvenile corrections and adult criminal outcome, we found important differences in numbers of offenses committed by subjects placed in different settings. As can be seen in Table 2, those subjects sent to adult prisons, group homes, and to the disciplinary setting did especially poorly, whereas those who went to special schools, psychiatric hospitals, or to families tended to commit fewer aggressive offenses as adults.

PLACE TABLE 2 ABOUT HERE

#### **Numbers of Offenses Per Year at Liberty**

Numbers of offenses did not reflect the fact that many subjects were institutionalized or incarcerated for lengthy periods of time. A more accurate measure of criminal activity was the number of offenses committed per year at liberty. For subjects who were at liberty for an extremely short time and who had committed several offenses, the calculation of an annual rate would have resulted in unrealistically high numbers of offenses per year. Therefore, to control for this skewness, we used the logarithmic transformation of annual rates of offenses to demonstrate adult criminality relative to time out on the street. This transformation continued to support the

finding that subjects who were sent to psychiatric hospitals, special schools, and families tended to commit fewer aggressive offenses per year than those sent to the disciplinary setting, to group homes, and to adult prisons.

#### **The Interaction of Biopsychosocial Factors, Placement and Outcome**

Because youths sent to adult corrections and to the disciplinary setting were more severely neuropsychiatrically impaired and had been more violent as adolescents than youths sent to psychiatric hospitals and special schools, placement after juvenile corrections did not necessarily account for adult outcome. After all, our previous outcome study (Lewis, et al., 1989) clearly showed the important relationship of early vulnerabilities and an upbringing in an abusive violent home to criminal outcome. A better question was to what extent placement mitigated or aggravated these early biopsychosocial factors in terms of outcome.

To explore this issue, we conducted a multiple regression analysis, attempting to predict the logged number of adult aggressive offenses per year at liberty, taking into account early vulnerabilities, abuse and/or family violence, and a subject's degree of early violence, as well as the subject's first placement after juvenile corrections. We included the variable early violence because of the commonly held assumption that early violence is the best indicator of later violence. Thus, the variables in the

regression were: Numbers of Vulnerabilities; Violent/Abusive Family; Early Violence Rating; and placement to Families, Special Schools, Psychiatric Hospitals, Group Homes, the Disciplinary Residential Setting, or to Adult Prisons. Effects-coding (Cohen and Cohen, 1975) was used on the placement variables which allowed for comparisons of one placement against all others.

As can be seen in Table 3, the multiple regression analysis revealed that this combination of variables accounted for 28% of the variance of the logged number of aggressive offenses per year at liberty ( $p=.0001$ ). This regression model revealed the following:

- 1) Vulnerabilities continued to contribute significantly to outcome, even while controlling for placement.
- 2) Placement in families, rather than in group homes or institutions, was significantly associated with lower rates of aggressive offenses per year at liberty, even while controlling for early juvenile characteristics (i.e. vulnerabilities, abusive households, and early violent behaviors).
- 3) Placement in adult prisons was significantly associated with higher rates of aggressive offenses per year at liberty, even while controlling for early juvenile characteristics.



- 4) Placements in psychiatric hospitals and special schools were associated with better outcome but did not reach conventional levels of significance.
- 5) Placement in group homes was associated with poor outcome but did not reach conventional levels of significance.
- 6) Early violence was not associated with adult criminal outcome.

Of note, the coefficient for the variable, Abusive/Violent Families, suggests a continuing association between having been raised in a violent household and higher numbers of adult aggressive offenses per year at liberty; however, this variable failed to reach conventional levels of significance. Its failure to reach significance may be explained by the fact that the overwhelming majority of subjects came from violent abusive households which resulted in insufficient variability in this variable.

PLACE TABLE 3 ABOUT HERE

#### DISCUSSION

If our findings regarding outcome are representative of incarcerated juvenile delinquents in the United States, and there is reason to believe that they are (Wolfgang, 1972; Wolfgang, et al., 1983), then we must conclude that the outcome is grim. Having served their sentences as juveniles, the majority leave juvenile corrections unchanged or, possibly, even more violent. Most of our subjects were sent home, or to nontherapeutic ordinary group homes, or to

a disciplinary residential institution. The most vulnerable and violent went directly to prison. Only a privileged few, the least violent and impaired, were placed in therapeutic schools or hospitals. They also tended to be white.

For the majority of delinquents, any gains that they made while in juvenile corrections were quickly lost, as even our most carefully tailored treatment regimens, based on documented neuropsychiatric vulnerabilities, were abandoned. Witness the failure even of the subjects with epilepsy to continue to receive anticonvulsant medication upon discharge.

After leaving the juvenile correctional institution, most of our subjects dropped out of high school, got little if any job training, and went on to commit numerous crimes, many of them violent. Those with the greatest number of vulnerabilities tended to commit the greatest number of violent crimes, especially if they had been abused (Lewis et al., 1989). When not incarcerated in adult prisons for these offenses, they drifted aimlessly from one low paying, unskilled job to the next. During the intervals between arrests they tended to become involved in brief, often violent, heterosexual relationships which frequently resulted in the birth of children. Our previous follow-up of female delinquents (Lewis et al., 1991) indicated that the incidental offspring of these kinds of couplings were quickly abandoned to the care of dysfunctional mothers and

were therefore at high risk for future maladaptation. And so the violence continues.

One of the most surprising and important findings of this study was that, when controlling for early violence, vulnerabilities, and abusive upbringing, the only placement significantly associated with good outcome (i.e. few adult aggressive offenses) was placement back home. This finding was especially unanticipated, given the fact that the majority (78%) of the homes to which subjects were returned were violent and dysfunctional. The better outcome of children who were returned to families could not be explained either in terms of neuropsychiatric intactness, or in terms of early nonaggressiveness, since the children sent home were just as vulnerable and just as violent as the rest of the sample.

What might account for the better adaptation of juveniles returned to dysfunctional families? To begin to answer this question we must rely on what we know about the developmental needs of young people. First, in even the worst of homes there is usually at least one family member who cares about the returning youth. A mother, an aunt, an older sibling, the parent of a friend - someone is emotionally invested in him. Thus there is someone in the adolescent's environment whom it is important to please or whose displeasure makes a difference. The feelings of satisfaction engendered by pleasing an important adult

coupled with the discomfort of disappointing that adult form the beginnings of conscience.

Second, children who return home, though exposed to other delinquent and criminal individuals in the community, are also exposed to some law abiding people who provide alternative models of adaptation. They are given the opportunity to see themselves as citizens rather than inmates and to behave accordingly. They are not supervised twenty-four hours a day. If they are to survive "on the outside" it is up to them to organize their days, get to school or to work, obtain adequate sustenance, and behave appropriately enough to live in some sort of harmony with other family members. In short, they must take a modicum of responsibility for their own actions.

On the other hand, what is it about institutionalization, incarceration in particular, that is inimical to adequate social adaptation? The lives of inmates, whatever the institution may be, are organized for them. Because of this ubiquitous external structure, inmates never really have to develop the kinds of internal standards and controls that are necessary to function independently in society. Our clinical observations suggested that many of our incarcerated subjects felt helpless and angry. When we asked them why they thought they had gotten in trouble and what might have helped them, they were nonplussed. They had never even considered these questions before, and their responses to them (e.g. "I don't

know"; "Nothing would have helped") reflected their sense of utter bewilderment and impotence. Several were constantly at odds with their institutional environments, challenging rules and feeling a perpetual need to "beat the system". These subjects were among the most difficult to interview because, while incarcerated, they spent much of their time in seclusion and were rarely permitted contact with individuals from the outside. Incarceration engendered in them a mixture of chronic anger and moral passivity. Faced with rigid institutional rules, subjects abdicated responsibility for their own behaviors. It is no surprise that upon discharge the majority of our subjects were unable to take care of themselves or function adequately in society. Many were more comfortable and secure in prison. When asked what services might be helpful to him, one subject could only muster, "A larger cell".

Our findings indicate that the current practice of incarcerating increasing numbers of delinquents in correctional institutions as though they were adult criminals is at best ineffective, at worst downright destructive. These kinds of institutions replicate just about all of the conditions that are known to breed violence in animals and humans: isolation, discomfort, physical threat, helplessness, lack of appropriate stimulation and exposure to other aggressive individuals. This kind of incarceration is shortsighted and unimaginative. True, we remove antisocial violent juveniles from society for brief

periods of time. However, at the same time we nurture their defiance and place them in proximity to similarly maladapted youths. We fail to provide them with necessary intellectual stimulation, coping skills, job training, medical and psychological services, opportunities for responsibility, and the kinds of emotional supports that they require to function adequately outside of institutions. Worse, instead of providing them with consistent, firm, just and compassionate role models with whom to identify, we entrust their care to minimally trained staff, many of whom come from similarly disadvantaged backgrounds. We then discharge these delinquent juveniles to similarly nontherapeutic, non-nurturing placements. Instead of leaving juvenile corrections with new skills and an increased sense of competence and responsibility, they emerge unprepared to function independently in society.

It goes without saying that society must be protected from extremely dangerous individuals, whatever their ages. Some juveniles will require lengthy placements in secure facilities until they can, literally, take hold of themselves. But such structured placements still have the responsibility of enhancing the children's capacities to function in a free society. Surely, if our institutions currently provide all the ingredients recognized to be conducive to violence, a little imagination and planning should enable us to create programs that promote adequate social adaptation.

TABLE 1

Relationship of Early Juvenile Characteristics to First  
Placement after Release From Juvenile Corrections  
in a Sample of 94 Males

| First<br>Placement          | Numbers of<br>Neuropsychiatric<br>Vulnerabilities |        | Percent from<br>Violent Abusive<br>Families | Early<br>Violence<br>Rating |        |
|-----------------------------|---------------------------------------------------|--------|---------------------------------------------|-----------------------------|--------|
|                             | Mean                                              | (S.D.) |                                             | Mean                        | (S.D.) |
| Family (n=37)               | 1.9                                               | (0.9)  | 78%                                         | 2.9                         | (0.8)  |
| Group Homes (n=19)          | 1.5                                               | (1.1)  | 89%                                         | 2.8                         | (0.7)  |
| Disciplinary Setting (n=16) | 2.3                                               | (0.6)  | 100%                                        | 3.5                         | (0.5)  |
| Special Schools (n=11)      | 0.9                                               | (0.9)  | 82%                                         | 2.2                         | (0.9)  |
| Psychiatric Hospitals (n=6) | 1.7                                               | (1.0)  | 83%                                         | 2.8                         | (0.7)  |
| Adult Prison (n=5)          | 2.2                                               | (0.8)  | 100%                                        | 3.8                         | (0.4)  |

TABLE 2

Relationship of First Placement After Release from  
Juvenile Corrections to Adult Criminal Outcome  
in a Sample of 94 Males

| Placement             | Number of Aggressive<br>Offenses |        | Total Number<br>of Offenses |        |
|-----------------------|----------------------------------|--------|-----------------------------|--------|
|                       | Mean                             | (S.D.) | Mean                        | (S.D.) |
| Family                | 2.9                              | (3.4)  | 11.0                        | (10.4) |
| Group Homes           | 5.1                              | (5.0)  | 15.0                        | (14.9) |
| Disciplinary Setting  | 3.9                              | (3.4)  | 13.3                        | (11.0) |
| Special Schools       | 2.3                              | (4.0)  | 9.0                         | (9.4)  |
| Psychiatric Hospitals | 2.5                              | (4.3)  | 9.0                         | (9.9)  |
| Adult Prison          | 6.2                              | (1.8)  | 8.6                         | (3.6)  |



TABLE 3

Multiple Regression Analysis of Logged Numbers of Aggressive  
Offenses Per Year at Liberty as a Function of Early Juvenile  
Characteristics and First Placement after Release  
from Juvenile Corrections  
(N = 94)

Dependent Variable: Logged Numbers of Aggressive Offenses Per Year at  
Liberty\*

| Independent Variables           | Regression<br>coefficient | Standard<br>error | p<br>value |
|---------------------------------|---------------------------|-------------------|------------|
| Constant                        | -1.08                     | 0.43              | 0.015      |
| <u>Juvenile characteristics</u> |                           |                   |            |
| Intrinsic vulnerabilities       | 0.41                      | 0.12              | 0.001      |
| Abusive, violent families       | 0.40                      | 0.30              | 0.187      |
| Early violence rating           | -0.10                     | 0.15              | 0.505      |
| <u>Placements:**</u>            |                           |                   |            |
| family                          | -0.44                     | 0.18              | 0.014      |
| adult prison                    | 1.20                      | 0.37              | 0.002      |
| psychiatric hospitals***        | -0.62                     | 0.33              | 0.060      |
| group homes                     | 0.33                      | 0.21              | 0.114      |
| special schools                 | -0.40                     | 0.28              | 0.158      |
| disciplinary setting            | -0.07                     | 0.23              | 0.754      |

Adjusted R-square = .28 (F=5.6 p=.0001)

\* The dependent variable is a weighted annual rate of aggressive offenses calculated from the number of offenses and months at liberty. The log of this number was used to limit the effect of high rates produced by subjects who had a few offenses and were only at liberty a short time.

\*\* Effects-coding (1,0,-1) was used for the placement variables. This allows comparison of the mean of each placement against all other placements while controlling for the effect of juvenile characteristics.

\*\*\* The coefficient for this variable was obtained by running a second regression with the same set of variables as above except with the variable for placement in hospitals included and the variable for special schools held out. Due to effects-coding used for placement variables none of the other coefficients are affected.

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