Article 14: Human Development and Juvenile Incarceration

The relationship between **human development** and **juvenile incarceration** is a cycle of negative outcomes. Deficiencies in human development—particularly in the **cognitive** (Lansing et al., 2013; Orendain et al., 2022), **psychosocial** (Dmitrieva et al., 2012; Thomas et al., 2025), and **physical** domains (Barnert et al., 2018; Tolliver et al., 2022)—are often deemed a significant cause for juvenile delinquency and conflicts with the law. In turn, incarceration can hinder healthy development in these areas, exacerbating formative challenges and increasing the likelihood of future criminal behavior.

Juvenile Incarceration and Cognitive Development

Juvenile incarceration has a profoundly negative relationship with cognitive development, both by failing to address pre-existing cognitive deficits and by actively hindering further cognitive maturation. The stress and lack of stimulation in detention facilities worsened cognitive functioning during the critical adolescent period, contributing to higher rates of recidivism (Lansing et al., 2013; Orendain et al., 2022).

Following that lead, a study examined the cognitive abilities of 1,829 youths aged 10–18 who were newly detained at the Cook County Juvenile Temporary Detention Center in Illinois between 1995 and 1998, using data from the Northwestern Juvenile Project. Researchers collected data through structured assessments and interviews at intake, employing standardized tests of vocabulary, reading, math, and general intelligence, while ensuring demographic representation across sex, race/ethnicity, age, and legal status. Findings revealed that detainees had significant deficits in nearly all cognitive and academic domains, with many scoring below average in intellectual functioning, receptive vocabulary, reading, and math; males performed worse than females, and African American and Hispanic youth generally had lower scores compared to non-Hispanic white peers. The researchers concluded that these widespread deficits hinder detainees' ability to benefit from standard educational or rehabilitative programming and emphasized the need for tailored interventions, along with stronger collaboration between correctional, health, legal, and educational systems to provide appropriate assessment, remediation, and support (Lansing et al., 2013).

Another study assessed how confinement in the juvenile justice system (JJS) can worsen the preexisting adversity and neurodevelopmental burden among youth, particularly given that many already have a history of early life adversity. The authors drew on existing research and data about youth arrests, socio-demographic disparities, and documented conditions within juvenile facilities, including exposure to threat and abuse, separation from family and social supports, restricted educational and exploratory opportunities, and environments often lacking enrichment. Their findings suggest that confinement doesn't just fail to offset these adversities but in many ways adds to them—by imposing stress, isolation, reduced learning opportunities, and traumatic experiences during a sensitive developmental window. The researchers conclude that the juvenile confinement system's conditions are likely to harm neurodevelopment and that policy and practice should shift towards minimizing confinement, strengthening developmental supports, and adopting alternatives grounded in adolescent developmental science, as well as coordinating advocacy among health, behavioral, and legal systems (Orendain et al., 2022).

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Juvenile Incarceration and Psychosocial Development

Juvenile incarceration has both a negative and cyclical relationship with psychosocial development. Research has shown that incarcerated youth enter the system with pre-existing psychosocial challenges, and the experience of confinement actively worsens these issues, disrupting key developmental milestones and increasing the likelihood of future criminal behavior (Dmitrieva et al., 2012; Thomas et al., 2025).

On that note, a study investigated how incarceration affected psychosocial maturity development in adolescent males using a longitudinal sample of 1,171 juvenile males followed over seven years in the United States. The researchers compared youths confined in secure juvenile facilities (more punitive/incarcerative) versus residential treatment facilities (more rehabilitative) and also looked at moderating factors like age at incarceration, perceived facility safety, and facility quality. Data was collected through repeated assessments over time, measuring dimensions of psychosocial maturity such as temperance, perspective, and responsibility. They found that recent incarceration in a secure setting was tied to short-term declines in temperance and responsibility, but that incarceration in residential treatment, especially over longer spans, also negatively affected psychosocial maturity. Age mattered: older adolescents showed more negative effects from secure confinement but also reaped more short-term benefit from time in residential treatment; perceived lack of safety in the facility also worsened outcomes. The researchers concluded that facility type, duration, age, and perceptions of safety all shape how incarceration influences adolescent development, and they advocated for more rehabilitative rather than punitive models, as well as attention to the developmental science when designing juvenile justice policy (Dmitrieva et al., 2012).

Another study followed the same 1,829 juveniles who were newly detained in Cook County (Illinois) from 1995 to1998, as part of the Northwestern Juvenile Project, and assessed how different levels (“doses”) of incarceration predict adult psychiatric and psychosocial outcomes roughly 16 years later (median age ~32). Incarceration “dose” was operationalized by type of facility (juvenile-only, adult jail but not prison, and prison) plus total number of days incarcerated. Outcomes included a range of measures: positive mental health, absence of problematic substance use, educational attainment, gainful employment or activity, living independently, healthy interpersonal functioning, parenting responsibility, and desistance from criminal behavior. The researchers found that those who had been imprisoned (versus just in juvenile or adult jail settings) achieved fewer of these positive psychosocial outcomes when compared with those who were just in juvenile or adult jail settings. More days incarcerated was also linked to poorer outcomes for both males and females, though effects varied by facility type. The authors concluded that higher levels of incarceration are often associated with worse long-term psychosocial and psychiatric functioning, and the effect disproportionately burdens Black and Hispanic men. Hence, they advocate for early interventions and for justice and mental health systems to coordinate to improve reintegration and reduce long-term harm (Thomas et al., 2025).

Juvenile Incarceration and Physical Development

Juvenile incarceration is associated with negative physical health outcomes that begin before confinement and can persist long after release. The carceral environment can worsen pre-existing health conditions and introduce new risks, hindering healthy physical development (Barnert et al., 2018; Tolliver et al., 2022).

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For instance, a study examined how being incarcerated as a child affects health in adulthood. The researchers analyzed data from 14,689 adult participants in the National Longitudinal Study of Adolescent to Adult Health (Add Health), comparing three groups: those first incarcerated between ages 7 and 13 (child incarceration), those first incarcerated at age 14 or older, and those never incarcerated. Data were collected across multiple waves, including self-reports of general physical health, functional limitations (such as difficulty climbing stairs), depression, and suicidal thoughts. The results showed that adults who had been first incarcerated as children were more likely to report poor general health, greater functional limitations, higher rates of depression, and more frequent suicidal thoughts than those first incarcerated at older ages or never incarcerated. The authors concluded that incarceration in childhood is associated with lasting negative effects on both physical and mental health, emphasizing the need for policies and programs that protect vulnerable youth in the justice system and support their long-term well-being (Barnert et al., 2018).

Another study examined the long-term physical and mental health outcomes of youth arrests in the United States, also utilizing data from the National Longitudinal Study of Adolescent to Adult Health (Add Health). The researchers analyzed health status and sociodemographic characteristics from adolescence (Wave I, ages 12–21) and adulthood (Wave V, ages 32–42) for individuals first arrested at ages younger than 14, 14–17, and 18–24, compared to those never arrested. Health measures included self-reported general health, mobility/functional limitations, depressive symptoms, suicidal thoughts, and clinical biomarkers such as hypertension and diabetes. The study found that 28.5% of the sample had experienced arrest before age 25. Individuals first arrested as children (under age 14) were disproportionately Black and had worse health outcomes in adulthood, including poorer self-reported health, higher rates of functional limitations, more depressive symptoms, and greater mortality. The researchers concluded that early arrest is associated with adverse health outcomes across the life course and that reducing youth arrests, particularly among Black youth, may promote health equity (Tolliver et al., 2022).

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