



## Psychiatry & Behavioral Sciences Section – 2006

### 14 Intellectual Quotient (IQ) in Teenagers Evaluated at the Bellevue Forensic Psychiatry Clinic After Committing a Violent Crime

Manuel Lopez-Leon, MD\*, Kirby Forensic Psychiatry Center, 600 East 125th Street, Wards Island, New York, NY 10035; and Richard Rosner, MD, Bellevue Forensic Psychiatry Clinic, 100 Center Street, Suite 500, New York, NY 10013

After attending this presentation, attendees will understand the importance of considering intellectual functioning assessment as part of the general evaluation of violence and impulsivity in adolescents.

This presentation will impact the forensic community and/or humanity by demonstrating the association between intellectual deficits and violent behaviors in adolescents that perpetrate violent crimes.

**Hypothesis:** There is a difference among defendants aged 14-17 years of age who were referred to the Bellevue Forensic Psychiatry Clinic after committing violent crimes and those among the same age group in the general population of the United States, as defined by the norms of the psychometric testing WISC-IV.

**Aim:** Evaluate a possible association between violent criminal behaviors in adolescents and their cognitive functioning.

**Summary:** This study will examine 28 charts of adolescent defendants who perpetrated violent crimes. The presentation will evaluate five sets of scores obtained through the WISC-IV administered to 28 adolescents referred to the Bellevue Forensic Psychiatric Clinic after committing violent crimes. The WISC-IV is a psychometric instrument designed to evaluate the intellectual functioning of adolescents and children and has been standardized to the general population of adolescents and children in the United States.

**Importance of the Study:** Deficient intellectual functioning may play a major role in teenagers who perpetrate violent crimes. This study will analyze the data provided by psychometric testing (WISC-IV) done in adolescents who committed violent crimes. Low WISC-IV scores may be associated with violent criminal offenses by adolescents. The WISC-IV may be a useful instrument to detect adolescents at risk of committing violent crimes. This information will assist the judiciary mental health services and correctional institutions in the processing and management of this population.

**Methods:** The method used for this study is a retrospective chart review of 28 defendants between the ages of 14 and 17 who were referred from the New York County Supreme Court to the Bellevue Forensic Psychiatry Clinic and who had psychometric testing done (WISC-IV) as part of their forensic evaluation. Once the data is obtained, it will be analyzed by using a Chi Square test with the help of the computer program SPSS. The data obtained will be compared with the WISC-IV norms for that population.

There will be no contact with the subject individuals for the purposes of this study. Information will be collected from court reports and the notes used to create the reports. The study investigator will record information into a de-identified data set. There is no risk of harm or discomfort to the individuals whose charts will be assessed. All original identifying documents will be maintained in a secure locked cabinet in the Bellevue Forensic Psychiatry Clinic, a locked office suite within a State Courthouse protected by armed court officers so that at least 4 different keys would be needed to access the material.

**Results:** The study sample consisted of 28 teenager defendants who were evaluated at the court clinic and who completed a WISC-IV assessment. The average age of the sample was 14.90 years. Out of the 28 subjects, 18 were African Americans, 9 Hispanics and 1 Caucasian. 27 of them were males, and only 1 female. The mean for the Full Scale IQ was 82.7143, which is more than one standard deviation less than the average IQ for their age groups in the United States. The averages for Processing Speed Index (PSI), Working Memory Index (WMI), P average was 78.46; Perceptual Reasoning Index (PRI), and Verbal Comprehension Index (VCI) were 78.46, 90.89, 87.17, and 86.71 respectively. A Pearson Correlation analysis demonstrated a significant difference between the IQ scores of the defendants studied and the general population at the 0.01 level.

**Conclusion:** There is a statistically significant difference between the IQ scores obtained in the population being studied when compared to those of the general population. There may be an association between intellectual deficits and violent behaviors. Intellectual functioning tests should be routinely administered when assessing violent adolescents. This information is extremely relevant in assisting the judiciary mental health services and correctional institutions in the processing and management of this population. Prospective studies are needed to establish a causal association between violence, impulsive behaviors and intellectual deficits.

#### Intellectual Deficits, Adolescents, Violence