

Editor:

Underlying recent decisions of the Oregon courts<sup>1</sup> is the assumption that antisocial personality disorder (APD) is simply an additional, or independent, disorder among some persons with schizophrenia. This assumption is not consistent with scientific knowledge, nor is the notion that forensic evaluators could determine the proportion of causality of an illegal act that is due to schizophrenia or APD. Both schizophrenia and APD involve atypical neural development that begins in early life. By toddlerhood, children who will subsequently develop schizophrenia exhibit motor and cognitive problems, and those who will develop APD exhibit conduct problems, often aggressive behavior, diagnosed as conduct disorder (CD). These problems continue to increase in number and severity as the child ages.<sup>2,3</sup> Thus, both disorders develop in concert, perhaps each promoting the other, possibly because of common genetic variants, common environmental factors (such as maltreatment), or both.<sup>4</sup> If confirmed, this hypothesis would indicate that APD is not a comorbid disorder among people with schizophrenia, but rather that it characterizes a specific and distinct subtype of schizophrenia.

If APD is an additional, or independent, disorder among people with schizophrenia, then the prevalence of APD among people with schizophrenia would be similar to that in the general population. But, the prevalence of APD among people with schizophrenia is at least four times higher than in the general population.<sup>2</sup> Consistent with this finding are observations showing that among adolescents engaged in antisocial or criminal behavior, the proportion who subsequently develop schizophrenia is between five and 10 times higher than in the general population.<sup>3</sup>

Most research on persons with schizophrenia with childhood CD and APD in adulthood has been conducted on males. Among offenders with schizophrenia, this sub-group has the highest risk of criminal justice involvement. The number of violent and non-violent crimes and frequency of assaultive behavior up to age 38 are positively, and linearly, related to the number of CD symptoms present before age 15, after taking account of substance misuse.<sup>2,3</sup> Second-generation antipsychotic medication (not including clozapine) has been shown to reduce aggressive behavior

and violent crime among people with schizophrenia, except among those who presented childhood conduct problems.<sup>4</sup> Men with schizophrenia and a history of childhood CD show greater reductions in both positive psychotic symptoms and aggressive behavior when treated with clozapine compared with other antipsychotic medications. This effect was not observed among men with schizophrenia without childhood CD.<sup>5</sup> These findings suggest that the subgroup of males with schizophrenia and CD/APD may present distinct neurobiological abnormalities relative to other men with schizophrenia. While there are few studies, the extant evidence shows that abnormalities of both brain structure and functioning among men with schizophrenia and CD/APD are similar to those of men with schizophrenia and no CD/APD and additionally to those of men with CD/APD and no schizophrenia.<sup>3</sup>

Among people with schizophrenia, those with CD/APD constitute a distinct subgroup. They present the greatest treatment needs, requiring a specific antipsychotic medication and interventions targeting antisocial and aggressive behavior and high rates of treatment noncompliance, especially with interventions aimed at reducing antisocial or aggressive behavior.<sup>6</sup>

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Disclosures of financial or other potential conflicts of interest: None.

DOI:10.29158/JAAPL.240004-24

**Key words:** schizophrenia; antisocial personality disorder; etiological hypothesis