Hope for a Less Dangerous World: Twenty-First Century Solutions to Predicting and Preventing Abuse and Violence: A Cost Effective Empirical Approach from Infancy to Adulthood

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A century ago Lombroso (1912) described the shape of criminal’s heads [1]. Goddard (1914) showed the inheritance of crime among the Kallikak family [2]. In 100 years considerable advances were made since the “first” juvenile court in Cook County, Chicago, Illinois (1899) and the first “probation-parole decision making test” to objectively decide who to release to the community to avoid the “return to court” 30%. Returning offenders cost the government the most, to detect, apprehend, convict, and re-imprison [3].

Among the advances are 2 methods to identify abusive and violent, a predictive regression equation, or actuarial statistical tests. The first method uses regression equation for information like demographics, life history, academic records and standardized tests to develop static, unchanging descriptors as predictors. This approach was outlined in Zagar, Kovach, Ferrari, Grove, Busch, Hughes, and Zagar [4,5] in the development of an algorithm replicated 4 times over 2 decades with Area Under the Curve ($AUC$) = .91-.99 for 1,127 youths and 1,595 adults.

The second is a statistical approach to screen proactively, in a cost efficient manner, only the most at-risk by using evidenced based, sensitive and specific assessment. The individual is compared against a standardization or norm sample that included abusive, violent, and nonviolent individuals. This method was described by Zagar, et al. [6-8]. It’s been used with 184,483 male and female, adult and teen prisoners on 3 continents, 5 countries and 15 states over 8 decades; 60 years ago Meehl [9] showed that clinical judgment was inferior to actuarial statistical tests. In 126 of 131 studies Grove and Meehl [10] and Grove, Zald, Lebow, Snitz, and Nelson [11] documented this superiority to predicting abuse and violence.

There are 12,000 homicides and 17,000 suicides annually in the U.S. and double that in the E.U. where the population is twice the size of the U.S. It is statistically more dangerous in some U.S. cities than the Afghanistan battlefields, since more have died from homicide in the U.S. than on the battlefield since the Revolutionary War of 1776. Currently, 4M prisoners, parolees and probationers cost the U.S. over $30B yearly.

So, what are some other solutions to these costly challenges to society? One is application of cost-beneficial and cost-effective interventions to divert youth from crime. The other is moving at least half of our prisoners, the nonviolent adult and youth offenders to electronic surveillance and out of prison. Lipsey, 1999; 2009; Lipsey, Howell, Kelly, Chapman, and Carver, 2010 [12-14], showed that restitution (17%), anger management (25%), mentoring (25%) and jobs (37%) divert youth from crime. Greenwood, Model, Rydell, and Chiesa [15] demonstrated that nurse home visits, 3 strikes law, delinquent supervision, parent training and graduation rewards are cost effective. The Washington State Policy Institute (2006) outlined the return on investment of prevention (2.64 to 20.57), juvenile offender (1.66 to 25.03) and adult offender programs (1.10 to 98.09).

So, does this work in the real world? In Chicago from 2009 to 2012, 4,850 at-risk in 38 high schools identified with a regression equation were given a mentor, anger management and a job lowering homicides 32%, shootings 46% and assaults 77% saving 104 lives and $492M. That’s a return on investment of 6.42. In 2013 when 20,000 at-risk were given after-school and summer job, the murder rate fell by 78, saving $405M.

So 2 Chicago mayors, Daley and Emanuel, and 2 U.S. Presidents, Clinton and Obama, attest to the fact that targeting...
at-risk with empirical evidenced-based on interventions diverts them from abuse and violence saving lives and costs. So does the U.S House of Representatives Judiciary Subcommittee on Crime Terrorism and Homeland Security before which I testified on 24 July 2012. One can see this in studying the homicide curve in the U.S. over the century. The only 2 times murder rates went down was during economic “boom” years of high employment after World War II and during the President Clinton “dot.com” era.

Cook County saved $480M in 18 months placing nonviolent adult and juvenile offenders in electronic surveillance. There were significant savings of $2,500 for electronic surveillance per prisoner per year vs. $18,500 for adult jail per prisoner per year vs. $225,000 for juvenile prison per prisoner per year. In addition to this monetary saving are the quality of life issues that may positively affect treatment and diversion.

There is now hope for policy decision makers to use actuarial data, either with a regression equation or statistical test, and divert at-risk with empirical evidenced-based interventions from a career of delinquency and crime thereby lowering abuse and violence in the community, saving lives, reducing crime rates, and the costs of building more prisons and paying for more criminal court expenses.

REFERENCES