Zeroing in on violent recidivism among released prisoners

Substantial heterogeneity exists among the criminal-offender population,[1–3] and with 30 million individuals released from prisons worldwide each year, the identification of those who are most likely to perpetrate future violence is essential. Fazel and colleagues' study[4] in *The Lancet Psychiatry* is an important advance for enabling such identifications. Using a total cohort of 47 326 prisoners released in Sweden between 2001 and 2009, they showed that 8883 (24%) of the ex-prisoners committed a new violent offence after their release from confinement during the mean follow-up of 3·2 years (SD 2·6), and that the estimated probabilities of violent reoffending at 1, 2, and 5 years after release were 11%, 18%, and 31%, respectively. More than 70% of the violent offences were assaults or robberies, 2% were sexual offences, and 1% were homicides. The investigators created a scale including the following risk factors to predict general reoffending and violent reoffending: male sex, younger age, non-immigrant status, shorter length of incarceration, most recent offence being violent, previous violent crime, never married, less education, being unemployed before prison, low income, living in an area of high neighbourhood deprivation, alcohol use disorder, drug use disorder, any mental disorder, and any severe mental disorder. Their model evinced good overall discrimination and calibration in both derivation and external validation samples. In terms of its sensitivity and specificity, their scale was as good or better than the nine most commonly used actuarial instruments for violence risk: for risk of violent reoffending at 1 year, sensitivity was 76% (95% CI 73–79) and specificity was 61% (60–62). At 2 years, sensitivity was 67% (95% CI 64–69) and specificity was 70% (69–72). The investigators further provide a web calculator version of the model (OxRec) that is free to use to facilitate risk assessment generally.

Fazel and colleagues' study is an impressive piece of research and, perhaps more importantly, one that has obvious real-world application. Foremost, it provides a framework to assess prisoners who have mental health conditions that could be used to connect them with the appropriate psychiatric, substance use or abuse treatment, and social service agencies in the community.

The findings from their study also show the challenges of predicting violence among the most severe offenders—limitations that are acknowledged by the investigators. Low positive predictive values are a problem with predicting any rare outcome. This is seen in any medical screening test where the prevalence of the disease is low, and the same applies in forensic psychiatry. For example, just 1% of the released cohort included homicide offenders, and 2% sexual offenders, therefore any methods that attempt to predict such rare outcomes before the event will be limited. In terms of further research into predicting the most severe outcomes, a clue can be derived from Fazel and colleagues' model. Two of the important items from their scale were that the most recent offence was violent, and previous violent crime. An adaptation of this scale could include the factor that the most recent offence was related to homicide (eg, murder or attempted murder), sex (eg, rape, sexual abuse, or child molestation), or both (eg, sexual homicide). Previous arrests for these types of offences could also be scored to create an enriched scale that could be used to predict homicide and sexual offences. In view of the striking costs associated with serious violence,[5–7] the identification of ways to predict such crimes is essential.

Finally, the results from Fazel and colleagues' study[4] show that even with total population data, findings for the most violent offenders—those for whom severe violence, psychopathy, and sexual crimes figure prominently—are scarce.[8–10] I urge criminal justice practitioners and criminologists to carefully read this Article, capitalise on opportunities to apply the study methods to their own data, and tweak them to reach the most challenging offenders.
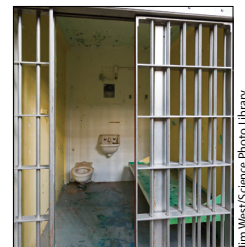

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I declare no competing interests.

For the **OxRec web calculator** see http://oxrisk.com/oxrec

1   Moffitt TE. Adolescence-limited and life-course-persistent antisocial behavior: a developmental taxonomy. *Psych Review* 1993; **100:** 674–701.
2   Vaughn MG, DeLisi M, Gunter T, Fu Q, Beaver KM, Perron BE, Howard MO. The severe 5%: a latent class analysis of the externalizing behavior spectrum in the United States. *J Crim Just* 2011; **39:** 75–80.
3   Vaughn MG, Salas-Wright CP, DeLisi M, Maynard BR. Violence and externalizing behavior among youth in the United States: is there a severe 5%? *Youth Viol Juv Just* 2014; **12:** 3–21.
4   Fazel S, Chang Z, Fanshaw T, et al. Prediction of violent reoffending on release from prison: derivation and external validation of a scalable tool. *Lancet Psychiatry* 2016; published April 13. http://dx.doi.org/10.1016/S2215-0366(16)00103-6.
5   DeLisi M. Rape, murder! It's just a shot away. *J Crim Just* 2015; **43:** 152–53.

6   Wickramasekera N, Wright J, Elsey H, Murray J, Tubeuf S. Cost of crime: a systematic review. *J Crim Just* 2015; **43:** 218–28.

7   Post LA, Mezey NJ, Maxwell C, Wibert WN. The rape tax: tangible and intangible costs of sexual violence. *J Interpersonal Viol* 2002; **17:** 773–82.

8   Mokros A, Osterheider M, Hucker SJ, Nitschke J. Psychopathy and sexual sadism. *Law Human Beh* 2011; **35:** 188–99.

9   Nitschke J, Blendl V, Ottermann B, Osterheider M, Mokros A. Severe sexual sadism—an underdiagnosed disorder? Evidence from a sample of forensic inpatients. *J Forensic Sci* 2009; **54:** 685–91.

10   DeLisi M. Psychopathy as unified theory of crime. New York: Palgrave Macmillan, 2016.

Psychosocial therapy for people at risk of suicide

As many as 16% of people who self-harm will do so again within the subsequent year.[1] Likewise, mental disorders are associated with high risks of lifetime suicidal behaviour; 4·3% of men and 2·1% of women with previous contact to secondary mental health services were found to later die by suicide.[2] It is thus of great interest to generate evidence on how suicidal behaviour in high risk populations might be prevented. Pharmacological treatment has shown positive results in randomised controlled trials (RCTs),[3] although some studies are criticised for excluding patients at risk of suicide.

Much effort and ingenuity has been put into high-quality studies of psychosocial interventions and some promising findings have been achieved, albeit mainly for select patient populations. The main obstacle is the low base rate of suicide, which ultimately is the clinical outcome of interest in trials. This implies that trials should either have unrealistic large sample sizes or extensive follow-up periods in order to secure sufficient data material.

One option is to resort to observational data, such as Pan and colleagues[4] who found that after self-harm, people in South Korea benefitted from a phone-based national after-care programme in terms of reduced risks of suicide. Similarly, a study by our group found a lower risk of suicide among recipients of psychosocial therapy after self-harm in national Suicide Prevention Clinics.[5] However, none of these studies provide satisfactory evidence in terms of adjusting for confounders that an RCT would facilitate.

Another option is to merge data from existing trials (ie, a meta-analysis). The study by Esther Meerwijk and colleagues[6] published in *The Lancet Psychiatry* is an interesting undertaking in this respect. The objective of the study was to conduct a meta-analysis of RCT-based psychosocial and behavioural interventions aiming at preventing suicidal behaviour, largely defined by having self-harm or suicide as an outcome. Their interest was to determine whether an effect could be found for studies that addressed suicidality directly versus indirectly—ie, only addressing symptoms related to suicide. Authors

of previous studies were contacted to determine whether the applied intervention had addressed suicidality directly or indirectly if it was not apparent from the publication. On the basis of the pooled studies, Meerwijk and colleagues found that interventions addressing suicidality directly were linked to an odds ratio of 0·62 (95% CI 0·45–0·87) on short-term follow-up whereas no significant effect was noted for indirect interventions. Both types of studies showed a significant effect on long-term follow-up.[6]

One of the challenges of a meta-analysis is that studies of potentially dissimilar, heterogeneous patient populations are merged in order to gain statistical power. As acknowledged by the authors,[6] the pooled trials cover a range of patient populations at varying risk of suicidal behaviour. In samples with an increased risk, suicidal behaviour will be a prominent feature for some individuals and for those a direct intervention will be very relevant. However, for individuals with no history of suicidal behaviour and no presence of suicidal thoughts, a direct intervention will be misplaced and awkward. Likely examples of this are the patients with cancer in the study by Sharpe and colleagues[7] and some of the young patients with a first episode psychosis in the OPUS trial.[8]

Another issue is the assessment of a non-reported measure; a sufficiently broad and adaptable definition of direct and indirect intervention had to be applied at the risk of losing specificity of the measure. Clearly it must have been challenging to divide the studies into direct and indirect interventions. At least two of the indirect trials,[9,10] had prevention of repeated suicidal behaviour in people after a presentation of self-harm as one of their main aims.

In view of that direct and indirect interventions were not compared against each other, the main conclusion to draw is that both direct and indirect interventions are seemingly effective. It is interesting and encouraging that there is a large effect size associated with direct interventions; this fact should encourage clinicians to focus directly on suicidal thoughts, impulses, and behaviour. A