Risky business? The risk in risk factor research

Risk factor research and interventions are based on poor science and a flawed evidence base, argue Stephen Case and Kevin Haines.

Risk factor research has grown into an international industry that dominates explanatory models of youth offending and ‘evidence based’ policy and practice with young people in the youth justice system. Risk factor research (RFR), it has often been claimed, is able to identify risk ‘factors’, typically measured in childhood and early adolescence, which increase the (statistical) risk or likelihood of offending in later adolescence. Great faith has been placed in claims to ‘offending’; that risk factors determine later offending (Glueck and Glueck, 1930). Data were quantified into ‘factors’ using ratings tables (e.g. family relationships were rated ‘good’, ‘fair’, or ‘poor’) and these factors were statistically linked to official offending (offending onset and recidivism (reoffending)). The main objective was to identify the most promising targets for reformatory intervention during incarceration.

The Gluecks major study, *Unravelling Juvenile Delinquency* (Glueck and Glueck, 1950), extended their research methodology by comparing exposure to risk factors in two groups of 10 to 17 year old males (officially recorded delinquents and non-delinquents). Unlike before, young men who had not been officially recorded as delinquent were included in the sample and exposure to risk was measured prospectively (looking forwards rather than backwards). The Gluecks hoped to identify promising targets for early, pre-emptive intervention, rather than using retrospective research methods to inform crime reduction among existing delinquents.

Across their studies, the Gluecks replicated a limited range of risk factors situated in domains of life that could be categorised as psychological and immediate social (e.g. family, school, neighbourhood, lifestyle, employment). Although they did not use the term ‘risk factors’, the Gluecks did label these factors ‘the early genesis of antisocial careers’ and ‘the factors conditioning crime’. Ultimately, however, the Gluecks concluded that desistance from offending and the reform of offenders was ‘brought about largely by the natural process of maturation’. Nevertheless, this conclusion has been overlooked by subsequent RFR and the work of the Gluecks has paved the way for an international body of research and risk-focused intervention that has been notably developmental and deterministic (childhood and adolescent risk factors determine later offending) and artefactual (reliant on converting risk to a statistical ‘factor’) in nature.

The methodological oversimplification of modern risk factor research

Crude, subjective, and adult-prescribed representations of risk have been employed as ‘a blunt tool to carve out risk factors and ‘at risk’ populations of young people to enter into statistical analyses’ (Case and Haines, 2009). Furthermore, researchers have not even agreed on a precise definition of ‘offending’ and have even disagreed as to whether risk factors should be linked to offending or reoffending. Indeed, offending has often been measured in very general terms, such as lifetime offending (ever offended), active offending (offended recently), and general offending (lifetime or active offending), thereby adding further imprecision to measures which are then shown to have some statistical relationship. It is, therefore, difficult to escape the conclusion that measures of risk factors and of offending bear little relationship to the real world lives of young people and constitute very poor models for...
understanding or explaining youth offending. Indeed, risk factors and offending may both be the product/outcome of some other, as yet unidentified, causal influence(s).

The analytical over-simplification of modern risk factor research
Crude representations of risk have seldom been standardised or comparable, because there is no agreed definition or function of risk factors. Risk factors, it has been variously claimed, are causal of offending, predictive of offending, interactive factors in a collection of risks that influence offending, overlapping factors related with one another and offending, and proxies related only with other risk factors. It is even suggested that risk factors are correlates with offending (rather than having a causal influence) or symptoms of offending—neither of which definition justifies the label of ‘risk factor’ if we understand risk as increasing or determining the likelihood of a later outcome.

The ‘evidence’ of risk factors has been further over-simplified by the types of factor investigated. RFR has been reluctant to broaden its focus beyond the basic psychological and social (‘psychosocial’) factors first identified by the Gluecks and later popularised by the Cambridge Study in Delinquent Development (West and Farrington, 1973). This psychosocial bias has obvious attractions for theorists and policymakers, because it artificially narrows the range of potential influences on offending and targets for intervention, whilst simultaneously individualising risk and the responsibility for offending. This sidesteps more complex, politically-sensitive issues such as historical, cultural, legal, contextual, and localised influences on offending, which have been over-simplified to become factors that simply interact with and exacerbate individualised psychosocial risks.

Typically, the risk factor-offending relationship has been analysed in a reductionist and linear manner. Over-simplified and generalised definitions of risk factors and offending have been fed into statistical tests, producing over-simplified and crude results (often merely aggregated statistical correlations between the two crude measures), which have then been interpreted uncritically as demonstrating the linear and deterministic (e.g. predictive, causal) influence of risk factors on offending.

Further close inspection of the RFR literature highlights additional weaknesses. For example, what has been largely overlooked when concluding that risk factors predict offending is that they are often measured at some point prior to offending rather than simultaneously or relative to offending (i.e. which came first and what is the nature of their relationship?). This measurement of precedence does not provide evidence or explanation of the predictive influence of risk factors over offending, because risk factors were simply measured first. In typical cross-sectional RFR, studies have measured exposure to risk and offending behaviour over a generic period (e.g. the past 12 months) with no sensitivity to the relative temporal order of risk and offending. The superficial acceptance that risk factors lead to offending, derived from imprecise measurement of order, has precluded exploration of the potential processes or pathways by which risk factors may affect one another and may lead to offending—or not!

One step too far? Risk-focused intervention
Risk factor research has underpinned the ‘risk factor prevention paradigm’, which asserts that:

The basic idea of risk-focused prevention is very simple: Identify the key risk factors for offending and implement prevention methods designed to counteract them.

(Farrington 2007)

A major problem with the above assertion is how it positions young people as ‘crash test dummies’ (Case and Haines, 2009), damaged by risk factors and on an inevitable course towards later offending unless intervention can interrupt this process.

This view of young people as passive, helpless victims of the irresistible criminalising influence of risk factors experienced earlier in life not only rests on the erroneous view that young people cannot resist or negotiate risk, but also relies heavily on the methodological-flaws of developmental determinism. Risk-focused intervention is premised on an assumption that exposure to risk factors in childhood (e.g. at age 8-10 years in the Cambridge Study) determines offending in adolescence (e.g. at age 13-14 years in the Cambridge Study), regardless of exposure to additional influences, changes to the relevance and strength of these risk factors or changes (developmental, social, structural) to the young people and their lives in the intervening period. It is clearly a huge leap of faith to assume that risk factors retain a deterministic influence (or even that they exert such an influence, rather than simply function as correlates

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with offending) over such a long and
dynamic developmental period in
young people’s lives and that they
are therefore appropriate targets for
intervention in later years,
particularly in view of the Gluecks’
conclusions regarding the influence
of maturation.

Journey to the evidential myth
Subjecting RFR to detailed critical
scrutiny has uncovered serious
methodological weaknesses and
biases, and an alarming lack of
evidence that early childhood risk
factors actually explain youth
offending or that targeting these risk
factors in later adolescence will have
any positive impact on reducing
either offending or re-offending.

Of course, RFR has been full of
worthy intention: the desire to better
understand youth offending, to
inform policymakers and to direct
more effective practice. However, in
the case of RFR, these good
intentions have been undermined by
methodological weakness so serious
that one must question whether they
form a sensible basis for
understanding, policy and practice.
These weaknesses can be traced
back to the very origins of RFR, in
the work of the Gluecks, and have
been replicated in much consequent
RFR. The consequent evidence base
has been founded on poor science
and exaggeration; more akin to the
emperor’s new clothes than a
methodologically-robust and
reflective body of work.

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