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YOUTH CRIME AND JUSTICE: KEY MESSAGES FROM THE EDINBURGH STUDY OF YOUTH TRANSITIONS AND CRIME

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Abstract

Based on findings from the Edinburgh Study of Youth Transitions and Crime, this paper challenges the evidence-base which policy-makers have drawn on to justify the evolving models of youth justice across the UK (both in Scotland and England/Wales). It argues that to deliver justice, systems require to address four key facts about youth crime: serious offending is linked to a broad range of vulnerabilities and social adversity; early identification of at-risk children is not an exact science and runs the risk of labelling and stigmatising; pathways out of offending are facilitated or impeded by critical moments in the early teenage years, in particular school exclusion; and diversionary strategies facilitate the desistance process. The paper concludes that the Scottish system should be better placed than most other western systems to deliver justice for children (due to its founding commitment to decriminalisation and destigmatisation). However, as currently implemented, it appears to be failing many young people.

Introduction

The brief given to the contributors to this special edition was to explore key messages from research for youth justice policy and practice. Our article showcases findings from the Edinburgh Study of Youth Transitions and Crime (the Edinburgh Study), a longitudinal programme of research on pathways into and out of offending for a cohort of around 4,300 young people. Drawing on data from over ten years of fieldwork, we highlight four key ‘facts’ about youth crime which any system of youth justice ‘ought to fit’¹:

- (i) persistent serious offending is associated with victimisation and social adversity;
- (ii) early identification of at-risk children is not a water-tight process and may be iatrogenic;
- (iii) critical moments in the early teenage years are key to pathways out of offending; and
- (iv) diversionary strategies facilitate the desistance process.

On the basis of these facts we argue that the key challenge facing policymakers and practitioners is to develop a youth justice policy which is holistic in orientation (with interventions being proportionate to need) but which also maximises diversion from criminal justice. We conclude by suggesting that, in theory, the Scottish system of juvenile justice may be better placed to deliver this agenda than many of its western counterparts, including the system south of the border in England/Wales. In practice, however, justice for children and young people cannot be delivered without overhaul of entrenched working cultures and without greater resistance on the part of

¹ Here we are adapting Braithwaite’s famous phrase regarding ‘facts about crime’ which any criminological theory ‘ought to fit’ (Braithwaite 1989).

practitioners to the vagaries of political pressure. In short: revolution is needed from below.

The article begins with an overview of the policy and research context. This is followed by a description of the Edinburgh Study and our analytical strategy. Key findings are then set out as they relate to each of the above 'facts'. In the final section we discuss the policy implications of the findings in respect of variant models of youth justice.

The policy and research context

Although there have been (and continue to be) major structural and cultural differences between the juvenile justice systems in Scotland, England and Wales (Goldson and Muncie 2006, McAra 2006), a core point of commonality over the last decade lies in the nature of the research evidence-base which policy-makers have drawn on to shape and justify a range of age-graded interventions. As we aim to demonstrate, this particular commonality has served to water down the original Kilbrandon philosophy which framed juvenile justice in Scotland for over 30 years and grafted onto the system a competing set of logics derived from an evidence-base that is neither as settled, nor politically neutral, as policy-makers might wish or claim.

A short history of Scottish juvenile justice

The Kilbrandon philosophy was named after the chair of the committee set up in the 1960s to review the extant juvenile justice system. The recommendations of the committee formed the basis of the Social Work (Scotland) Act 1968 which, in turn, set in train the children's hearing system.

According to Kilbrandon, the problems of children who were involved in offending or who were in need of care and protection stemmed from the same source, namely failures in the normal upbringing process and/or broader social malaise (Kilbrandon 1964). The philosophy advocated early and *minimal* intervention based on a social educational model of care, involving generic social work. The aim was that intervention should as destigmatising as possible, a central principle being to avoid the criminalisation of children, and all decisions should be based on the best interests of the child. Kilbrandon's vision was one of active communities involved in the process of youth justice through the lay panel and common ownership of the problems posed by troubled children. Indeed the model of justice which Kilbrandon had in mind was one in which the child was situated at the heart of a family and the family, itself, situated at the heart of a supportive community (McAra 2009).

This model of juvenile justice survived relatively intact for around 25 years after implementation (in 1971), setting Scotland apart from many of its western counterparts, not the least the English/Welsh system, which lost faith in the rehabilitative ideal and drifted towards more punitive and/or more actuarial responses to youth crime (Goldson and Muncie 2006, McAra 2006). In the period since then, however, core elements of the Kilbrandon philosophy have been abandoned and a more complex and conflicted set of logics grafted onto the system. Juvenile justice has been restyled by policy-makers as *youth justice* and issues relating to youth crime have become increasingly politicised. While the roots of these changes can be found

pre-devolution², the pace of change gained momentum in the post-devolutionary era as Ministers in the Labour/Liberal Democratic Scottish Government gradually embraced the new labour crime agenda. Indeed it is somewhat ironic that the full-flowering of devolution (which might have been thought to nurture all things Scottish), led to a degree of policy convergence with the system south of the border in England and Wales (McAra 2006, 2008).

(i) Early convergent trends

Trends showing a distinct convergence between the Scottish system and that of England/Wales included increased levels of managerialism. In Scotland, for example, national standards for youth justice were published for the first time in 2002, setting out key performance targets with the aim of enhancing service quality and ensuring greater transparency in terms of practice and procedure. New forms of vertical and horizontal accountability also began to permeate each system – premised on multi-agency working and the development of cross institutional cultures. This was manifested in Scotland by the creation of multi-agency youth justice teams with responsibility for strategic planning and expanding the range of services for young offenders in their specific area. Public protection, risk management and effective evidence-based practice also began to frame youth justice interventions both north and south of the border, exemplified within Scotland by the *Action Plan to Reduce Crime* (2002).

In addition, there was a gradual elision between the social exclusion, crime prevention and youth justice policy frameworks (with both jurisdictions directing youth justice resource to a range of programmes aimed at promoting safer more empowered communities; confronting the causes of crime as linked to unemployment and social isolation; and enabling young people to fulfil their potential through the promotion of educational cultural and sporting facilities). Rights talk also permeated each system, a process given particular momentum by the incorporation of the ECHR into domestic law. Both systems embraced restorative justice as part of the perceived solution for youth crime– (as exemplified by the mushrooming of victim offender mediation schemes, conferencing and police restorative cautioning initiatives), with victims increasingly being viewed as a discrete community, separate from, and more morally deserving than, offenders.

Other similarities were the focus on reducing persistent offending and tackling anti-social behaviour, with political debate increasingly being conducted using the lexicon of punitiveness. Both jurisdictions legislated to enable the use of civil orders to tackle low level crime and disorder (anti-social behaviour and parenting orders). A youth court model was also piloted in Scotland for 16 – 17 year old persistent offenders (and some 15 year olds who formerly would have been dealt with in the Sheriff Court).

These convergent themes, arguably, led to a degree of tension within Scottish youth justice policy – in particular a tension between its inclusionary and exclusionary imperatives. Indeed the system was gradually moving toward a model of youth justice in which the child was replaced by ‘an offender’, who along with his/her

² The Scotland Act 1998 enabled the reinstatement (after nearly 300 years) of the Scottish Parliament (elections to which were held in 1999).

parents were seen in opposition to an 'innocent victim' nested within a suffering community.

(ii) A third phase?

While the post-devolutionary era was initially characterised by the gradual demise of Kilbrandon's holistic approach to troubled children, there is some evidence that Scotland may be entering a further phase of youth justice. This phase has been ushered in by the minority Scottish National Party (SNP) Government (elected in 2007) and reflects the renewed emphasis in England and Wales on prevention and early intervention predicated on a risk-factor paradigm. Rather than diminishing any tensions inherent within the youth justice policy frame, we would suggest that this shift in emphasis may serve to recast such tensions in a slightly different mould.

Tensions in the policy frame are best exemplified by the document *Preventing Offending by Young People: A Framework for Action* (2008). This document is underpinned by an uneasy mixture of welfarist, actuarialist and retributive impulses. Thus on the one hand, the document commits to universal, holistic services aimed at promoting child well being and explicitly situating the youth crime agenda within the framework of education and health (part of the SNP administration's aim to construct a joined up approach to governance). At the same time however the document highlights the need to develop targeted programmes and services for at risk children and their families, favouring early but intensive intervention for the most risky of these (in contrast to the minimalist approach advocated by Kilbrandon). A core assumption of the policy is that such children and families are readily identifiable, and that risk assessment is a generally water-tight and benign process. Finally, the document also contains shades of a just deserts/retributive perspective, particularly with its emphasis on the notion of responsabilisation – that children and families must take responsibility for their behaviour and indeed responsibility for change (such that universal services should be focused on building individual capacity to secure particular outcomes and to address the barriers which individuals face), with interventions requiring to be at the same time proportionate, timely and fair.

Taken together, recent changes would indicate that Scotland is in the throes of developing a model of youth justice in which the 'offender' and the 'failing parents' of the Labour/Liberal Democratic years, have been replaced with an 'at-risk child' and an 'at-risk family', a model which accepts that there is a major overlap between the offender and victim populations. Each of these groups are interlinked but not yet nested within the community. Part of the policy is about building community capacity to provide a supportive environment for children and families (community treated here as both an effect and mode of governance, see Clarke 2002) and community membership for children and families is heavily conditional upon making *responsible* choices.

Contested contours of the youth justice evidence-base

Arguably two key bodies of research have been invoked by policy-makers to support the evolving policy framework of youth justice described above: (i) the 'what works' agenda which has its roots in Canadian research (for example Gendreau and Ross 1980, 1987) and (ii) research on risk and protective factors derived from a range of longitudinal studies, including the Cambridge Study (Farrington and West 1990, 1993). Importantly, both bodies of work have been accepted somewhat uncritically

within government circles, despite the fact that within academic circles their conceptual and methodological underpinnings have been the subject of some debate.

(i) 'What works'

What works research is based on meta-analytic review and claims that programmes can be effective in reducing offending if they follow a number of core principles, namely: intensity of intervention should be calibrated to level of risk posed and address specific criminogenic rather than generic welfare needs; programmes should be located in the community, multi-modal in orientation, teach practical skills and be focused on cognitive behavioural methods; and there must be a high level of programme integrity (well-resourced interventions, with appropriately trained and highly motivated staff, with scope for monitoring and evaluation of process and outcome) (McGuire 1995).

The embracing of the what works agenda has done most to uncouple the victim-offender nexus within Scottish juvenile justice and to diminish the credibility of welfare orientated case-work in favour of fast-track, specialist offender-focused services (particularly in the post 2002 era, see McAra 2008). Moreover, what works principles have led to a reconfiguration of extant policy networks³, leading to enhanced ministerial command and control over juvenile justice (via the national standards, and the national performance framework, see Scottish Executive 2002, Scottish Government 2008) (McAra 2008). They also contributed to the construction of ambitious (indeed unachieved) targets for youth justice programmes and a major focus on measuring the impact of individual programmes, rather than system contact more generally, on the offender (McAra 2006, McAra and McVie 2007a).

While what works research has exercised an ineluctable hold on policy-makers, in recent years it has been increasingly open to challenge from within the academic community, particularly in respect of the methodology of meta-analytic review itself. Meta-analysis involves the re-analysis of data from a range of individual studies on offender treatment programmes, to record changes from pre-test to post-test expressed as standard deviation units. Commentators have argued that some of the most influential meta-analytic reviews have drawn on poor quality research, have neglected to consider the issue of publication bias in their selection of studies for review (a bias which favours studies showing large effect sizes); and is over-reliant on reconviction data and police reports as outcome measures, both of which are generally held to be rather crude measures of offending (Gaes 1998, Smith 2005). Moreover such reviews fail to take account of the potential selection effects caused by the working cultures of key agencies operating at different stages in the youth justice process and the broader impact of systemic contact pre and post intervention on individual offenders (see McAra and McVie 2007a).

³ Pre-devolutionary policy networks comprised representatives from local authority social work departments, key policy makers within Scottish Government and representatives from the children's hearing system. These networks had a central role to play in the development and implementation of policy. post devolution the grip of such networks on the strategic direction of policy has been loosened as a range of new players (including local communities, victim support groups and a range of other voluntary sector agencies) and new funding streams have come into play (McAra 2009).

(ii) The risk-factor paradigm

Research underpinning the risk-factor paradigm has provided strong support for the current policy focus on early intervention. This paradigm asserts that services and support focused on those identified as at risk (in terms of early onset of conduct disorders, those subject to harsh and erratic parenting, etc.) will have longer term payoffs in respect of later reductions in offending and other forms of anti-social behaviour. Again the messages from the risk-factor paradigm have generally been accepted uncritically by policy-makers. However, within the research community a range of commentators have challenged some of the claims of early intervention research. A key point of controversy is whether it is ever possible to predict with certainty which young children will turn out to be serious offenders in the teenage and adult years, with some of the most robust studies suggesting that there is likely to be a high false-positive rate (see White et al. 1990). Moreover a range of recent studies have focused on the longer term, damaging impact which system contact has on young people, with interventions being experienced as punitive and stigmatising and serving in the long term to amplify rather than diminish offending (Huizinga 2003, Tracy and Kempf Leonard 1996; McAra and McVie 2007a).

To conclude this review of the policy and research context, Scottish policymakers have drawn selectively on the research evidence-base without (openly) acknowledging that their chosen paradigms are highly contested. The importation of these paradigms has had far reaching consequences in respect of institutional and cultural modalities within Scottish juvenile justice: leading to a reconfiguration of power between key elites and a recasting of system ethos into a somewhat conflicted and contradictory set of rationales. We use the remainder of this paper to show how our research both contributes to the controversy surrounding the evidence-base of contemporary policy and challenges the direction which policy has taken in the post-devolutionary era.

The Edinburgh Study of Youth Transitions and Crime

The Edinburgh Study is a longitudinal programme of research on pathways into and out of offending for a single cohort of around 4,300 young people who started secondary school in the City of Edinburgh in 1998⁴. Core aims of the Study are: (i) to explore from the early teenage years onwards the factors leading to criminal offending and desistance from it; and to show how distinctive these processes are in the case of serious, frequent, and persistent offenders; and (ii) to examine the impact of interactions with formal agencies of control, such as the police, social work, the Scottish children's hearing system and the courts, on subsequent behaviour. Children from all school sectors were included (mainstream, special and independent) and response rates have been consistently high (see McAra and McVie 2007b, p5).

⁴ The Edinburgh Study has been funded by grants from the Economic and Social Research Council (R000237157; R000239150), the Scottish Government and the Nuffield Foundation.

Data sources

Information has been collected from multiple sources about all members of the cohort including: self-completion questionnaires (6 annual sweeps from age 12 to 17)⁵; school, police, social work, and children hearings records (the latter two from birth up to age 18); and conviction data from Scottish criminal records (up to age 22). At each sweep the period covered is the previous 12 months (except the first year in which the reference period was ‘ever’), so that the study provides a continuous account of events in the lives of the cohort, and not just an account of selected time segments. Key themes included in the self-report questionnaire were: offending and victimisation; health risk behaviours including drug and alcohol misuse, early sexualised behaviour, and self-harm; family structure and relationships; school experience; peer relationships; leisure activities; neighbourhood dynamics; contacts with the police and juvenile justice agencies; and a number of personality variables (for example self-esteem and impulsivity).

Form of analysis

The ‘facts’ about youth crime which we present below are based on descriptive statistics and multivariate analysis (using binary logistic regression modelling) (in particular facts 1 and 2); trajectory modelling (in respect of criminal justice pathways) (fact 3); and a quasi-experimental design based on propensity score-matching (fact 4). Details about the variables used in the analysis are included at annex 1.

Fact 1: Persistent serious offending is associated with victimisation and social adversity

Study findings are strongly supportive of the original Kilbrandon model of juvenile justice and in particular the links made between needs and deeds. As evidence for this we present analysis from the Edinburgh Study cohort exploring the relationship between involvement in violent offending⁶ at age 15 and a range of vulnerabilities, including self-harm. At age 15, 23% of respondents reported involvement in one or more episodes of violence, with boys (33%) being more likely to do so than girls (12%). Importantly, those involved in violent offending were the most vulnerable and victimised young people in the cohort.

Violent offenders were compared with other cohort members across a range of aspects of vulnerability (see Annex I)⁷. Briefly, this analysis found that violent offenders were significantly more likely than non-violent youths to be: victims of crime and adult harassment; engaged in self-harming and para-suicidal behaviour; exhibiting a

⁵ A range of strategies were employed to enhance response rates. Children who had difficulty with reading or writing were given appropriate levels of help with the questionnaire or interviewed. Children not present at school after several visits were interviewed elsewhere (usually in their own homes). Missing data were dealt with using a mixture of imputation and weighting. Further information on the overall Study can be found in Smith and McVie 2003 and on data handling in McVie et al. 2010 in press.

⁶ Our measure of violence includes three items: robbery, carrying a weapon and involvement in six or more incidents of assault. From earlier analysis it is clear that the spectrum of assault is wide, ranging from petty sibling interactions and very minor playground infractions to more serious beatings. At age 15, detailed information about the context of assaultive behaviour was not collected. For the purposes of this paper, we have therefore used a threshold of 6 assaults as a way of trying to indicate some level of seriousness.

⁷ For reasons of space, this analysis is not reported fully here; however, details can be obtained directly from the authors on request.

range of problematic health risk behaviours including drug use, regular alcohol consumption, disordered patterns of eating, symptoms of depression and early experience of sexual intercourse; having more problematic family backgrounds; and, *for girls* in particular, coming from a socially deprived background.

In order to identify which aspects of young people's behaviour and lifestyles were most significant in terms of helping to explain their involvement in violence at age 15, binary logistic regression models were run separately for boys and girls. These models simultaneously accounted for a wide range of possible explanatory factors, including the aspects of vulnerability mentioned above, and a range of factors from other domains which were found in earlier analysis to significantly differentiate between violent and non-violent youths. This includes: early history of violence and victimisation (by age 12); weakened bonds (in particular poor parental monitoring and weak attachment to school); leisure activities (hanging around); involvement in bullying; and personality measures (specifically impulsivity and risk-taking); and friends involvement in offending (see Smith and McAra 2004).

Table 1 presents the 'odd ratios' for each of the factors and covariates that proved to be significant in the final regression models for boys and girls. The odds ratio is a value that measures the strength of effect of each independent variable on the dependent variable. Two covariates (family crises and early history of victimisation) were found to have a significant interaction in the model for boys which meant it was not possible to interpret one independently of the other.

Table 1: Predicting involvement in violence at age 15 for boys and girls

Domain	Variables included in the final model	Girls (violent offenders=216, others=1700)		Boys (violent offenders=638, others=1303)	
		Odds ratio	P value	Odds ratio	P value
Deprivation	Parents in manual work or unemployed	1.5	.016	-	-
Family context	Poor parental monitoring	-	-	1.3	.000
	Family crises in previous year	1.2	.006	-	-
School context	Poor attachment to school	-	-	1.1	.038
	Truant more than 5 times	1.7	.009	-	-
	Bullying others	1.7	.000	1.4	.000
Substance misuse and health-risk	Weekly alcohol use	1.8	.002	1.7	.000
	Used Drugs	2.1	.000	1.6	.000
	Under-age sexual intercourse	1.5	.019	-	-
	Self-harm	1.9	.000	1.8	.000
Leisure and peers	Hang out in public most evenings	-	-	1.5	.002
	Peers are involved in offending	-	-	5.0	.000
Personality	Impulsivity	-	-	1.2	.049
	Risk taking	1.4	.003	1.2	.039
Victimisation and vulnerability	Crime victimisation age 15	1.9	.000	1.7	.000
	Adult harassment age 15	-	-	1.3	.000
	Interaction: family crises and crime victimisation by age 12 ^a	-	-	1.1	0.26
State dependence	Involvement in violence by age 12	-	-	1.7	.000

Notes: Those greater than the 0.05 cut-off criteria for inclusion in the models are marked -. Odds ratios and confidence intervals are rounded to one decimal point. Significance of each variable improving the model fit measured using -2 log likelihood.

^a Family crises and crime victimisation by age 12 were entered into the regression model simultaneously to test the interaction effect. As can be seen, the final model also included both variables as main effects.

One of the most striking findings from table 1 is that a range of vulnerabilities are strongly predictive of involvement in violence at age 15 for both sexes, even when controlling for early involvement in violence (by age 12) and family, school, leisure and peer related factors. Amongst both boys and girls, violent behaviour at age 15 was significantly predicted by being a victim of crime at age 15, engaging in self harming behaviour and risk-taking, even when controlling for a range of other potential explanatory factors. In addition, violent behaviour was strongly associated with other forms of problematic behaviour amongst boys and girls, including bullying others, frequent truancy from school and substance misuse (both drug and alcohol use).

There were, however, some important differences between girls and boys in the regression models. Girls' involvement in violence at age 15 was significantly explained by other aspects of vulnerability and adversity that were not shared with the boys. For example, girls who reported engaging in early sexual intercourse were 1.5 times more likely to be violent at age 15 than those who did not engage in sexual behaviour. Family turbulence was another key predictor for girls, with those experiencing many family crises in the previous year being significantly more likely to be involved in violence at age 15 than girls with no such history. Furthermore,

deprivation at the familial level as measured by caregivers in manual work or unemployed was a significant predictor of violence amongst girls at age 15.

For boys, on the other hand, violence was linked to variables relating to other aspects of risk. This includes the risk of state dependency, since boys who reported involvement in violence by age 12 were almost twice as likely to be involved in violence at age 15 than those with no such history. The boys' model also includes risk in terms of increased motivation and opportunity to offend. For example, being highly impulsive, having offending peers, hanging out regularly in public places and being poorly monitored by their parents all emerged as significant factors in explaining boys involvement in violence at age 15. Nevertheless, violence amongst boys was also strongly related to wider elements of vulnerability. Boys who had been harassed by adults were more likely to be violent than those who were not harassed; while there was also a complex interaction between early experience of crime victimisation (by age 12) and later experience of family crises amongst boys. This interaction suggests that violence at age 15 is predicted by elements of sustained adversity over time.

The Edinburgh Study findings also suggest that the links between violence and vulnerability run in both directions. By way of demonstrating this, two further binary logistic regression models were specified. This time the dependent variable was self-harm and the models included violence at age 12 and at age 15 as independent explanatory variables along with a range of other factors which earlier analysis had shown to be predictive of self harm (McAra and McVie forthcoming). Again, there were some shared features between the models for girls and boys; and yet other aspects that marked them as different.

Table 2: Predicting involvement in self-harm at age 15 for boys and girls

Domain	Variables included in the final model	Girls (self-harmers=489, others=1401)		Boys (self-harmers=343, others=1582)	
		Odds ratio	P value	Odds ratio	P value
School context	Poor attachment to school	1.3	.000	1.2	.002
	Bullying others	1.2	.013	-	-
	Being bullied	1.3	.000	1.3	.000
	School exclusion	-	-	1.5	.032
Substance misuse and health-risk	Used Drugs	1.5	.003	1.6	.001
	Under-age sexual intercourse	1.4	.018	-	-
	Depression	1.7	.000	1.3	.001
	Disordered eating	1.4	.000	1.6	.000
Leisure and peers	Peers are involved in offending	1.6	.024	-	-
Personality	Risk taking	-	-	1.3	.000
Victimisation and vulnerability	Adult harassment age 15			1.2	.010
Involvement in violence	Involvement in violence by age 12	1.5	.012	1.6	.001
	Involvement in violence by age 15	1.9	.000	2.1	.000

Notes: Those greater than the 0.05 cut-off criteria for inclusion in the models are marked -. Odds ratios and confidence intervals are rounded to one decimal point. Significance of each variable improving the model fit measured using -2 log likelihood.

As shown in table 2, those who were involved in violence at age 15 were around twice as likely as non-violent boys and girls to be involved in self-harming at age 15. However, even when taking account of their current violence, involvement in violence three years earlier still emerged as a significant factor in predicting later involvement in self-harm. This was true even when controlling for a range of other aspects of vulnerability such as drug use, depression, a pattern of disordered eating and being a victim of bullying. In both models poor attachment to school was also linked to self-harm. For girls, two other important predictors emerged as explanatory factors for self-harm: these were experience of underage sexual intercourse and having peers who were involved in offending. By contrast, for boys experience of adult harassment and a tendency to engage in risky activities were found to be significantly associated with self-harm when other variables were held constant. A further difference in the models for girls and boys was that being a bully was a significant predictor of self-harm amongst girls; whereas school exclusion was a significant predictor in boys.

Taken together these findings provide support for the Kilbrandon ethos, showing strong and consistent links between deeds and needs and the ways in which violence itself can be seen as ‘symptomatic’ of a broad spectrum of vulnerability amongst both boys and girls. Of key importance is that the many of the adversities faced by violent offenders are not always structural (given the limited role played by our measures of social deprivation in the final models) but more often stem from close interactions in respect of peers, family and other adults in the young person’s milieu and the mechanisms which they use to cope with the negative consequences of such interactions (such as self-harming behaviours). Our findings therefore favour a holistic approach to children in conflict with the law: an approach which has been gradually watered down within Scottish policy on youth justice post-devolution.

Fact 2 : Early identification of at-risk children is not a water-tight process and may be iatrogenic

As noted above, a key component of contemporary youth justice policy in Scotland as much as in England and Wales, is early targeted intervention on at risk children and their families. Our research suggests however that there could be major problems for agencies in identifying from an early age those specific individuals who will turn out to be chronic serious offenders in the teenage years. Furthermore there is a danger that early targeting of children and families may serve to label and stigmatise these individuals and thereby create a self-fulfilling prophecy. As evidence for this we present analysis exploring the institutional histories of the young people within the cohort involved in serious and persistent offending (according to their self-reports) and the subsequent offending histories of the young people in the cohort who were identified at an early age as being ‘at-risk’.

Table 3 differentiates between three groups of young people in the cohort: those who reported involvement in violence at age 17; those who were persistently involved in serious offending at age 17 (11 or more serious offences in the past year⁸); and those who had a conviction in the adult criminal justice system by age 17.

⁸ Our measure of serious offending is based on 7 items: fire-raising; robbery; weapon carrying; 6 or more incidents of assault; housebreaking or attempted housebreaking; breaking into a car to try and steal something out of it; riding in a stolen motor vehicle.

Table 3: Institutional history of offenders

Age when first known to social work or children's hearing system	Persistent serious offender at age 17 n=520 (%)	Violent offender at age 17 n=352 (%)	Court conviction by age 17 n=173 (%)
0-5	5	4	11
6-10	8	5	15
11-15	19	15	37
Unknown	68	76	37

As indicated in table 3, only 32% of the cohort who self-reported as persistent serious offenders at age 17 were ever known to the social work department or the children's hearing system. Even fewer (24%) violent offenders at age 17 were known to either agency. Furthermore, of those who *were* known to the agencies, very few had been identified by the age of 5. It was far more common for young people to come to the attention of an agency for the first time between the ages of 11 and 15.

One interpretation might be that the offending histories of these individual are so problematic precisely because they had not been identified at an early stage and made subject to supervision. However, our findings suggest that such an interpretation would be premature. As shown in the final column of table 3, those individuals with criminal convictions in the adult system by age 17 generally had a long history of agency contact, with only 37% of this group escaping the gaze of both social work and the children's hearing system. Moreover, when looking at the outcomes for those who were referred at an early age as being at risk, the outcomes are generally poor.

As indicated in table 4, 105 young people were identified by either social work or the children's hearing system as having behavioural problems by age 5. Rather than early system contact nipping such problems in the bud, just under two fifths of these youngsters still had ongoing contact with the hearings system at age 13 (in terms of referrals to the Reporter) and 45% of them were referred again at age 15. Roughly the same proportion (46%) ended up with a criminal conviction in the adult system by age 22. Importantly, a quarter of these youngsters were persistent serious offenders at age 13, rising to a third at age 15 before dropping again to a quarter at age 17.

Table 4: Outcomes for early identified 'problem' children

		Behavioural problems reported in CHS/SW files by age 5 n=105 (%)
Institutional pathways	Referral to Reporter at age 13	37
	Referral to Reporter at age 15	45
	Conviction by age 22	46
Offending pathways	Persistent serious offender at age 13	25
	Persistent serious offender at age 15	32
	Persistent serious offender at age 17	23

Taken together these findings highlight the difficulties faced by agencies in the early identification of at-risk children. Of the serious and persistent offenders in the Edinburgh Study cohort who were known to agencies, most were first identified in the early teenage years. Importantly, early contact seems to have done little to stem the

involvement of these youngsters in offending. Indeed we would suggest that the findings are the first pointer to a labelling process which underpins agency decision-making, namely that those who are sucked into the juvenile justice system from an early age are not always the most serious and prolific offenders and, once in the system, this can result in repeated and amplified contact (a point to which we return in more detail later in the article).

Fact 3: Critical moments in the early teenage years are key to pathways out of offending

Rather than directing the gaze of criminal justice at the early preschool years, Edinburgh Study findings strongly suggest that policymakers should focus more firmly on critical moments in the early to mid teenage years. As further evidence for this we first present the results of analysis using trajectory modelling to examine criminal justice pathways, followed by analysis exploring the key turning points which lead to a desisting or rising pattern of convictions over the teenage years.

Criminal justice pathways

Using data from the Scottish Criminal Records Office, semi-parametric group-based modelling was used to identify individual trajectories of conviction amongst the Edinburgh Study cohort. This technique assigns individuals into one of several groups based on a maximum likelihood algorithm which calculates their probabilities of group membership (Nagin 2005). Trajectory modelling identified four groups which are shown graphically in Figure 1. These groups consisted of a large group with no convictions (n=3285); two early onset groups whose first conviction occurred at around age 9/10 – one of which was a ‘chronic group’ (n=34) as their probability of conviction rose steeply in the early to mid teenage years before declining in their early twenties; the other early onset group was a ‘desister group’ (n=24) whose probability of conviction declined from around age 15 to 16 and stopped completely by about age 20; and, finally, a ‘later onset decliners’ (n=512) who were first convicted at around age 15-16, rising to a peak at age 20 and then declining thereafter.

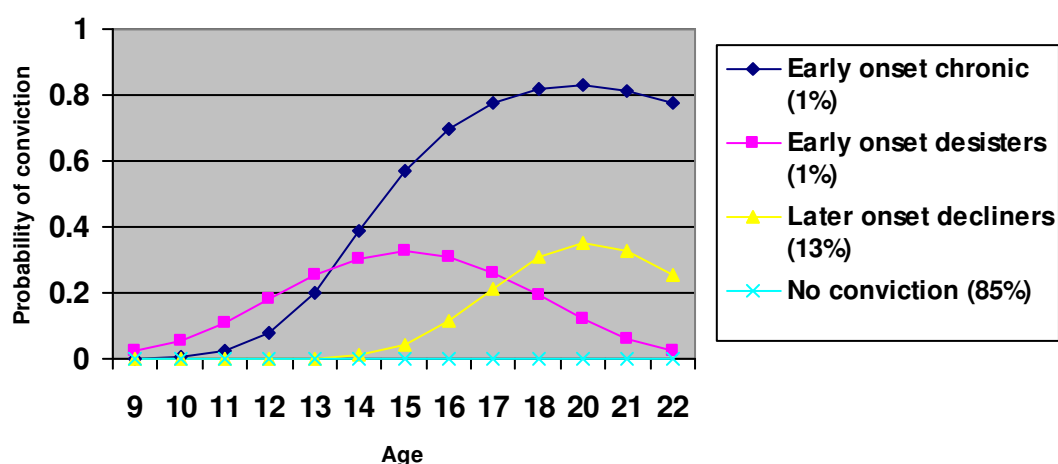


Figure 1: Semi-parametric group-based trajectories of criminal conviction

Comparing the early onset trajectory groups

At age 12, the two early onset groups were very similar in respect of a broad range of study measures (Table 5).⁹ Both early onset chronics and desisters had a similar history of agency contact. Around a fifth of each group had been identified by agencies (social work and/or the children's hearing system) as having behavioural problems by age 5. Around one in three of each group had at least one offence referral to the Reporter by age 12 and around a fifth in each group at least one period of social work supervision (as would be expected given their probability of conviction). They also reported similar levels of adversarial police contact.

Table 5: Characteristics of early onset groups

	Characteristics around age 12	Early Onset Chronic (n=34)	Sig.	Early Onset Desisters (n=24)
Differences	Male %	91	.000	71
	Live in top 25% deprived areas in Edinburgh%	43	.037	74
	Family socio-economic status (manual labour/unemployed) %	82	NS	75
Similarities	Free school meal entitlement %	56	NS	63
	Known by chs/sw for behavioural problems age 5	18	NS	17
	Offence referral to reporter by age 12	32	NS	29
	Statutory supervision by age 12 %	21	NS	17
	Variety adversarial police contact at 12 (mean)	3.4	NS	3.7
	Volume self-reported truancy (primary school) (mean)	1.7	NS	3.2
	Excluded from school at age 12 %	30	NS	52
	Bad behaviour at school (mean)	5.2	NS	6.0
	Broken family by 12 %	50	NS	50
	Parental monitoring (mean)	5.0	NS	4.7
	Conflict with parents (mean)	5.5	NS	7.1
	Hang out most evenings %	79	NS	77
	Drugs taken %	18	NS	29
	Weekly alcohol use %	4	NS	10
	Friends involvement in offending (mean)	5.2	NS	7.8
	Impulsivity	16.8	NS	14.9
	Alienation	7.8	NS	8.6
	Volume serious offending by age 12 (mean)	7.2	NS	8.1

The two early onset groups also had a similar experience of school (as evidenced by their self-reports and school records). The desister group had slightly elevated rates of truancy and school exclusion in comparison with the chronic group, although the differences were not statistically significant. Moreover both groups reported similar levels of involvement in bad behaviour at school. The chronic and desister groups

⁹ As the numbers in each group are small, care needs to be taken in interpreting the results. However, significance testing was undertaken using techniques appropriate to small numbers (Pearson's chi-square for the categorical variables and Mann-Whitney for the continuous variables).

also mirrored each other in terms of family context. Half of each group came from a broken family and both reported poorer parental monitoring and more conflict with care-givers than other cohort members.

Around four fifths of each group hung around the streets on a daily basis, and had friends who were involved in a wide variety of offending. Both groups also reported similar levels of substance misuse, both drugs and alcohol. In terms of personality measures, there were no differences between the groups in terms of their likelihood to be impulsive or feelings of alienation, although both were high in comparison with other cohort members. These findings highlight the difficulties with which agencies are presented in terms of early identification of *specific* youngsters who will end up with a chronic record of convictions in the mid to late teenage years. Importantly the groups are *not at all* distinguishable in terms of their involvement in persistent serious offending.

In fact, the only differences between the groups at this age were the greater number of boys in the chronic group (91% as contrasted with 71% of the desisters) and the greater likelihood of the *desister* group to be living in the top 25% most deprived neighbourhoods in Edinburgh. Importantly, both groups were equally likely to have free school meal entitlement (one of our proxy indicators of family poverty) and a high proportion of each group was living in a household where the main caregivers were either in manual employment or unemployed.

Age 13 to 15 emerges from the analysis as a significant turning point in terms of explaining the divergence between the two early onset groups. Table 6 highlights the variables included in table 5 which showed significant *within group* change (for either the chronics or the desisters). Aside from being under some form of statutory supervision (which shows a significant increase in both groups), the chronic group shows a significant deterioration in key aspects of their school and agency experience over this time frame, which is not mirrored in the desister group.

Table 6: Within group change amongst early onset chronic and desister groups

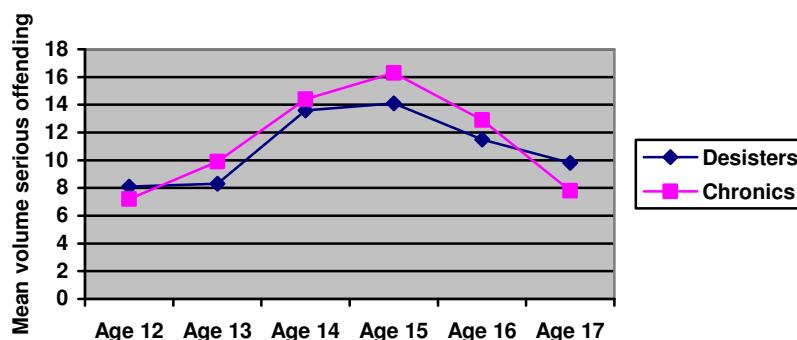
		Within group change p value	
	Truancy age 12 (mean)		Truancy age 13 (mean)
Chronics	2.4	.013	6.8
Desisters	5.1	NS	7.2
	Exclusion age 12 (%)		Exclusion age 13(%)
Chronics	30	.008	60
Desisters	52	NS	40
	Statutory supervision age13 (%)		Statutory supervision age 15 (%)
Chronics	18	.000	53
Desisters	25	.012	63
	Adversarial police contact age 13 (mean)		Adversarial police contact age 15 (%)
Chronics	4.3	.030	6.0
Desisters	4.0	NS	4.1
	Police warning or charge age 12 (%)		Police warning or charge age 15 (%)

Chronics	48	.012	96
Desisters	59	NS	53
	Referred on offence grounds age 13 (%)		Referred on offence grounds age 15 (%)
Chronics	44	.001	85
Desisters	42	NS	63

In terms of school experience, truancy rates increase in both groups during the early years of secondary education; however, this is statistically significant only amongst the chronic group. Importantly, the chronics experienced a major increase in prevalence of school exclusion over the same time frame (rising from 30% in first year of secondary education to 60% during second year) By contrast the desister group experienced a small, but non-significant, decline in school exclusion.

In respect of agency contact, the chronic group reported significantly increased rates of adversarial police contact over this time frame, especially rates of police warning and charges (which rose from just under half of the chronic group at age 12 to 96% by age 15, in contrast to the desister group which experienced a small, but non-significant decline in warnings and charges). This increased police contact is also reflected in the significant rise in offence referrals to the Reporter amongst the chronic group.

Taken together these findings suggest that a chronic conviction trajectory may be aggravated by increased exclusion from school and increased police adversarial contact. Importantly the latter is not accounted for by differential involvement in serious offending as both chronics and desisters are indistinguishable in respect of their self-reported offending over the period from age 12 to age 17, as shown in Figure 2.



(Notes: no significant differences *between* the groups at any age; both groups experienced a *significant rise* in offending between age 13 to 14, chronics $p < .030$; desisters $p < .018$; between group significance testing undertaken using Mann-Whitney; within group significance testing undertaken using Wilcoxon)

Figure 2: Serious offending amongst the early onset conviction groups

Comparing the later onset with the early onset groups

Turning to the later onset conviction group, table 7 shows key similarities and differences between the later and the early onset groups (both desisters and chronics) at age 12. One important similarity between those with later and early onset

convictions was the preponderance of males in each group. The later onset group also mirrored the early onset groups in respect of family life, including family breakdown¹⁰; low levels of parental monitoring and high levels of conflict with caregivers in both groups. Finally, early and later onset groups reported similar levels of alcohol consumption and had similar scores in respect of impulsivity (high) and alienation (high).

Table 7: Comparing the early onset (combined) and later onset conviction groups

	Characteristics around age 12	Early Onset (n=58)	P value.	Late Onset (n=512)
Differences	Live in top 25% deprived areas in Edinburgh (%)	55	.003	34
	Parents with low socio-economic status (manual labour/unemployed) (%)	79	.018	64
	Free school meal entitlement (%)	59	.000	33
	Volume serious offending by age 12 (mean)	7.5	.001	4.0
	Known to agencies for behavioural problems age 5 (%)	17	.000	5
	Offence referral to Reporter by 12 (%)	31	.000	7
	Statutory supervision by age 12 (%)	19	.000	3
	Variety adversarial police contact at 12 (mean)	3.6	.000	1.7
	Warned or charged at age 12 (%)	53	.000	22
	Volume self-reported truancy at age 12 (mean)	2.3	.003	0.9
	Excluded from school at age 12 (%)	39	.000	10
	Bad behaviour at school (mean)	5.5	.000	3.6
	Hang out most evenings (%)	78	.001	55
	Drugs taken (%)	23	.003	8
	Friends involvement in offending (mean)	6.9	.002	5.0
	Moral reasoning (mean score)	7.4	.004	9.3
Similarities	Male (%)	83	NS	79
	Broken family by 12 (%)	50	NS	38
	Parental monitoring (mean)	5.7	NS	6.2
	Conflict with parents (mean)	6.2	NS	5.9
	Weekly alcohol use (%)	6	NS	4
	Impulsivity (mean)	16.0	NS	15.2
	Alienation (mean)	8.2	NS	9.4

P values relate to the comparison between adjacent columns

These similarities aside, the later onset group differed in a number of important ways from its early onset counterparts. The later onset group was significantly less likely to come from a deprived background as measured by neighbourhood deprivation, family socio-economic status and free school meal entitlement. Similarly the youngsters in the later onset group reported significantly lower levels of serious offending and drug use at age 12. Their friends were less likely to be offenders and the later onset group were less likely to hang around the streets on a daily basis. In terms of agency contact, the later onset group (as might be expected) had only limited involvement with the police, social work and/or the children's hearing system. For example, only 22% of the later onset group had been warned or charged by the police at age 12 as contrasted with 53% of the early onset groups and only 3% of the late onset group had been made subject to a period of supervision by age 12 as compared with 19% of the early onset groups. Finally, the late onset group were significantly less likely to truant

¹⁰ It should be noted that family breakdown was more common amongst the early onset groups, but the differences between the groups only reached the 10% level of confidence

from school, to have experienced a period of exclusion from school and to self report bad behaviour at school.

As with the chronic conviction group, the later onset group experienced significant deterioration in key aspects of their lives in the years between ages 13 and 15. Table 13 has been divided into three sections: the top part highlights variables for which there were no significant differences between the later and early onset groups at age 12; the middle part highlights variables on which the groups differed at age 12; and the final part shows variables which the later and early onset chronic group have in common in respect of change. Importantly the wide range of factors in the table suggests that the years immediately preceding the onset of convictions were particularly turbulent ones for this group.

As shown in table 7, the later onset group experienced an increase in prevalence of family break-up between age 12 and 13, with just under two-thirds of this group living in a broken family by age 13. This increase was followed by a reduction in parental monitoring between age 13 and 15, coupled with a three-fold rise in alcohol use.

The later onset group differed from the early onset groups in that a relatively high proportion of them had moved to areas of increased deprivation by age 15 (which may be one consequence of family breakdown, although further analysis would be needed to confirm this). Over the same time frame, involvement in serious offending, drug use and peer group offending all increased significantly amongst the later onset group. Finally, it is clear that formal agency contact may have played some part in the increased prevalence of conviction amongst the later onset group, as an increase in volume of truancy, greater likelihood of school exclusion and increase in adversarial police contact (including warnings and charges) were all precursors of later onset convictions.

To conclude this section, there were important changes in the lives of cohort members who experienced criminal convictions in their teenage years; and these changes occurred primarily between the age of 13 and 15. Early onset convictions occurred against a backdrop of social deprivation, broken and turbulent family relationships, an early history of agency contact, and high levels of self-reported serious offending and substance misuse. Deterioration in these factors in the early to mid teenage years is also a precursor to a later onset of conviction.

Importantly however, these factors cannot be used to predict with certainty which specific individuals are at risk of a later chronic conviction trajectory: as the early onset desister group could not be distinguished from the chronic group at age 12. Rather, the critical moments for youngsters in terms of conviction trajectory appear to be linked to truancy and school exclusion in the early years following the transition from primary to secondary school: factors which also deteriorate prior to first conviction in the later onset group.

Fact 4: diversionary strategies facilitate the desistence process

Turning to our final 'fact', Edinburgh Study findings suggest that the Kilbrandon objectives of minimal intervention and avoidance of stigmatisation and criminalisation have been systematically undermined by the working cultures of both

the police and the reporter to the children's hearing system. This has resulted in a group of youngsters, who might readily be called the usual suspects, who become sucked into a repeat cycle of contact with the system and for whom such contact has damaging consequences in terms of inhibiting desistance from offending and in terms of youth to adult criminal justice transitions (findings first reported in McAra and McVie 2005, 2007a, 2007b).

In previous analysis (McAra and McVie 2005, 2007a) we looked at three crucial decision-making stages of the youth justice process: the decision of police officers to 'charge' a youth with committing a crime; the decision of police officers to refer a youth to the reporter on offending grounds; and the decision of the reporter to bring a youth to a formal hearing. We found that selection effects were operating at each of these three stages in a way that ensured certain categories of young people – 'the usual suspects' – were propelled into a repeat cycle of referral into the children's hearing system, whereas other equally serious offenders escaped the attention of formal agencies altogether. As shown in table 9, youngsters with previous form (namely charged by the police in previous years) were 7 times more likely to be charged by the police at age 15 even when controlling for volume of police contact in the current year and involvement in serious offending. In a similar vein, youngsters who were known to the police juvenile liaison officer¹¹ in previous years were just over 4 times as likely to be referred to the reporter than equally serious and persistent offenders who had no such history. Finally, youngsters who had a history of early referral to a hearing were almost three times as likely to be brought to a hearing at age 15 than those referred to the reporter with no such history, even when controlling for volume of needs and volume of charges as recorded in reporter files.

Table 9: The impact of previous form on criminal justice decision-making

	Police decision to charge n=3325 charged=315 not charged=3010		JLO refers to Reporter n=462 referred=263 not referred=199		Reporter refers to hearing N=253 no hearing=178 hearing=75	
	Odds ratio	Sig.	Odds ratio	Sig.	Odds ratio	Sig.
Male	1.5	.013	-	-	-	-
Neighbourhood deprivation (mean)	1.3	.001	-	-	-	-
Free school meal entitlement	1.5	.034	-	-	-	-
Broken family	-	-	1.9	.002	4.4	.008
Taken illegal drugs in past year	1.6	.005	-	-	-	-
Serious offenders	1.9	.000	-	-	-	-
High volume truant	1.8	.002	-	-	-	-
Hangout most evenings	1.7	.005	-	-	-	-
Charged by police in previous years	7.4	.000	-	-	-	-
Volume of police contact in current year	1.9	.000	-	-	-	-
Referred by JLO to Reporter in previous years	N/A	N/A	4.2	.000	-	-
Hearings record by age 12	N/A	N/A	N/A	N/A	2.9	.012
High volume of needs in Reporter files	N/A	N/A	N/A	N/A	4.8	.000
High volume charges in Reporter files	N/A	N/A	N/A	N/A	2.9	.003

¹¹ The police juvenile liaison officer receives all paperwork relating to charges made by beat officers. S/he decides whether children who come to the attention of the police are referred to the reporter.

Taking advantage of both the longitudinal design of the study and the very large sample size, quasi-experimental analysis was conducted which allowed individuals who experienced these three progressively more intensive forms of intervention to be paired up with a group of similar young people, statistically matched on a range of characteristics (including serious offending), who had not had formal system intervention (as shown in table 10). The results of this analysis showed that the deeper young people who were identified as the usual suspects penetrated the youth justice system, the more likely it was that their pattern of desistance from involvement in serious offending was *inhibited*.

Table 10: The impact of contact on desistance from offending

		Intervention	Sig.	Control
Police charges (charged n=99;controls n=237)	Serious offending (one year later) %	49	NS	50
Referral to reporter (referred n=130; controls n=322)	Serious offending (one year later) %	50	NS	47
Brought to hearing (referred n=130; controls n=322)	Serious offending (one year later) %	72	.037	53
Police charges (charged n=99;controls n=237)	Within group change in volume serious offending	-50		-43
		.000		.001
Referral to reporter (referred n=130; controls n=322)	Within group change in volume serious offending	-39		-42
		.001		.000
Brought to hearing (referred n=130; controls n=322)	Within group change in volume serious offending	-31		-49
		NS		.001

Notes:

Police charges:

Intervention group: charged but no further action and never referred to reporter

Control group had adversarial contact but no charged and never referred to reporter

Referral to reporter:

Intervention group: referred by police to reporter but no further action taken and never attended hearing

Control group: had adversarial police contact including charges but never referred to reporter

Brought to hearing

Intervention group: referred by police to reporter on offence grounds and brought to hearing

Control group: had adversarial police contact including charges but never referred to reporter

As shown in table 10, at the early stages of the juvenile justice process there were no significant differences between the intervention and control groups in terms of their prevalence of serious offending one year later. However those who were brought to a hearing and placed on supervision were significantly more likely to be involved in serious offending one year later than their matched counterparts with no such hearings contact. Importantly all groups showed a decline in *volume* of self-reported offending over the same time frame. However, for all groups *other than those brought to a hearing*, the change was significant. Far from addressing offending, being made subject to compulsory measures of care appears to have hindered the desistance process which is evident in the cohort as a whole from around age 14 onwards (see Smith 2006).

Further evidence relating to the damaging effects of agency contact can be found when exploring juvenile to adult criminal justice transitions. A high proportion (56%) of those who had been referred to the reporter on offence grounds at some point had a conviction in the adult criminal justice system by age 22. Youngsters who made the transition between the hearing system and the adult criminal justice system were generally assessed by agencies as having a high volume of needs (relating to personal, family and school adversities) at the point of transition. Such youngsters were up-tariffed relatively quickly, with disproportionate numbers being placed in custody by their 19th birthdays (19% as contrasted with just 3% of those with convictions who had no hearings history) (McAra and McVie 2007b).

Implications for policy

Taken together, the four key facts about youth crime and justice described in this paper are strongly supportive of the original Kilbrandon ethos. The links found between our measures of vulnerability and serious forms of offending indicate that needs and deeds are closely entwined. This favours a holistic approach to young people in conflict with the law: one which explicitly recognises that the most challenging young people in our society are those who require the most nurturing. In addition our findings are strongly supportive of Kilbrandon's minimal intervention aim. The quasi-experimental analysis has shown that youngsters who are warned or charged but have no further contact with the juvenile justice system have better outcomes than those sucked furthest into the system. Indeed the findings suggest that doing nothing in some cases is better than doing something in terms of effecting reductions in serious offending (McAra and McVie 2007a). The key conundrum for policymakers, therefore, is to develop interventions that are proportionate to need but which also operate on the principle of maximum diversion.

Our findings in this regard challenge the precepts of the evidence-base which has been drawn on to justify reforms made to juvenile justice in Scotland in the post-devolutionary era. Methodologically, they highlight the importance of tracking criminal justice pathways through the system and the cumulative impact of agency intervention over many years (which is deleterious in some cases). Substantively they highlight the importance of case work focused on welfare needs and of educational inclusion rather than more narrowly circumscribed criminogenic need (as per the 'what works' paradigm). They also indicate the uncertainties that abound in assessing which specific individuals are most at-risk of later offending; with most such youngsters first coming to the attention of agencies around the early to mid teenage years. Indeed early identification of at-risk children and families runs the risk of stigmatizing and labelling children and creating a self-fulfilling prophecy (as indicated by the poor outcomes for many of those with early agency contact).

Our findings also highlight the fragility of welfare-based systems themselves. Buffeted by the vagaries of political pressure from above, welfare based systems are not readily adaptable to the performance management lexicon of contemporary governance. Success of welfarist measures can only be assessed over the long term; most such interventions are slow-burn and require the development of services and support (in respect of education, health and economic opportunity) which do not come under the domain of juvenile or adult criminal justice. Moreover welfare-based systems are vulnerable to pressures from below, due to the high level of discretion that is afforded to practitioner groups. Within Scotland the Kilbrandon philosophy has

been undermined by the working cultures of agencies involved in the processing of young offenders. Rather than avoiding criminalisation, the recycling of certain groups of young people into the system again and again has created a permanent suspect population. Such youngsters are powerless to shrug off the master-status applied to them no matter whether their offending has diminished in seriousness or frequency.

Services proportionate to need and offering maximum diversion

To render juvenile justice more akin to the founding principles of the children's hearing system, we would offer the following suggestions from the Edinburgh Study evidence-base.

(i) Early years intervention

Because of the difficulties in identifying which specific individuals will go on to become chronic serious offenders and because of the dangers of labelling and stigmatising families, we would argue for a form of universal targeting, providing support mechanisms for all children and families in areas in which there are concentrations of poverty and factors associated with offending risk.

(ii) Early to mid teenage years

Because such a high proportion of vulnerable serious offenders are unknown to agencies, our findings highlight the continued need for informal, voluntary sector, open door, outreach services for vulnerable youngsters. Such services have an absolutely crucial role to play in supporting some of our most damaged youngsters and in helping to diminish the levels of unreported and unrecorded violence and other forms of serious offending. There is also a need to understand and respond better to critical moments in the early to mid teenage years. Our findings have shown that school exclusion is a key moment impacting adversely on subsequent conviction trajectories. While current Scottish policy does highlight educational inclusion as a key target, there is an urgent need to develop more imaginative ways of retaining challenging children within mainstream educational provision.

Moreover as gatekeepers to the care and justice systems, and as the principal agency which first encounters many problematic children, the police have a key role to play in the delivery of justice for children. In particular there is a need to continue to develop policing strategies that provide a swift, firm but *flexible* response to youth offending and one that offers *meaningful diversion* wherever possible.

For those offenders who do enter the youth justice system we would argue that interventions should be based on what McNeill (2006) has termed a desistance paradigm for offender management. A desistance paradigm aims to help the child construct a non-offender identity, it involves a close one to one relationship with a key worker who acts as an advocate for the child and crucially it involves continuity in who that key worker is. Importantly, for this work to be effective it has to be undertaken within a broader context of educational inclusion and meaningful economic opportunity (McNeill 2006, Maruna 2001).

(iii) Transitions into early adulthood.

In addition to mechanisms thorough which young people gain access to further education, training or employment there is a need to provide targeted and intensive support for those leaving the institutional care system and for vulnerable offenders at

the intersection between the youth and adult system , with the aim of preventing such youngsters effectively serving a life sentence by instalments.

Conclusion

In this paper we have set out four key facts about youth crime and justice which we argue any system should fit. The facts both challenge the extant evidence-base of current policy both in Scotland and in England/Wales and are strongly supportive of a model of juvenile justice based on core Kilbrandon principles. Within Scotland these principles have been watered down over the past decade, as a result of the politicisation of youth crime from above and the working practices of key agencies within juvenile justice from below. We have suggested a set of reforms which would help realign the Scottish system with its founding ethos.

In contemporary political debate, attention is readily focused on what is perceived as an irreconcilable tension between tackling the broader needs of young offenders and delivering justice for communities and for victims of crime. We would argue (in keeping with Kilbrandon) that these are not alternative strategies: indeed justice for communities and victims cannot be delivered unless the broader needs of young people are addressed. As our findings have shown, youngsters involved in serious offending are amongst the most victimised and vulnerable group of people in our society. The challenge facing policy makers and practitioners is to tackle those needs in ways which are not stigmatising and criminalizing and in ways which maximise diversion wherever possible.

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Annex 1

Variables used in the analysis

DOMAIN	VARIABLE	VARIABLE DESCRIPTION
GENDER	GENDER	Male=1, Female=0.
SOCIAL DEPRIVATION	SOCIO-ECONOMIC STATUS	Head of household socio-economic status ^a Manual/unemployed=1, non-manual=0.
	NEIGHBOURHOOD DEPRIVATION	Neighbourhood deprivation scale based on 6 census-defined indicators of social or economic stress ^a Unstandardised scale 0-13.31.
	FREE SCHOOL MEAL ENTITLEMENT	Whether ever entitled to free school meals at school (from school records) up to sweep 4. Yes=1, No=0.
FAMILY	FAMILY STRUCTURE	Whether lived with two birth parents, or lived with some other family structure: Live in non-two birth parent family=1, 2 birth parents=0.
	PARENTAL /CAREGIVER SUPERVISION	Scale based on 3 indicators of lack of parental supervision (knowing where child is, who with and what time will be home) measured at sweep 4. Unstandardised scale 0-9
	CONFLICT WITH CAREGIVERS /PARENTS	How often do you argue with your parents/child about: how tidy your room is; what you do when you go out; what time you come home; who you hang about with; your clothes and appearance, other things. Unstandardised scale 0-18
	FAMILY CRISES/ SIGNIFICANT EVENTS	Scale based on a close member of my family was seriously ill; a close member of my family died; My parents split up or divorced; my mum stopped living with me; my dad stopped living with me; I went to live with someone else; my family moved house. Unstandardised scale 0-7
OFFENDING BEHAVIOUR	SERIOUS OFFENDING (PREVALENCE)	Involvement in any one of the following 'serious' offences r: theft from a motor vehicle, riding in a stolen motor vehicle, carrying an offensive weapon, housebreaking or attempted housebreaking, fire raising, robbery and involvement in 6 or more incidents of violence. Yes=1, No=0.
	SERIOUS OFFENDING (FREQUENCY)	Total number of serious incidents committed at sweep 4 (assuming a maximum of 11 for each type). Unstandardised scale 0-77.
	VIOLENT OFFENDING	Involvement in any one of the following: carrying an offensive weapon, robbery, involvement in 6 or more incidents of violence Yes=1, No=0.
	BULLYING OTHERS	Number of times in past year you bullied somebody by: hitting, punching, spitting or throwing stones at them; saying nasty things, slagging them or calling them names; threatening to hurt them; ignoring them on purpose or leaving them out of things. Unstandardised scale 0-15
VICTIMISATION	VICTIMISATION (VOLUME)	Number of times in past year someone: threatened to hurt you; actually hurt you by hitting, kicking or punching you; actually hurt you with a weapon; stole something of yours; used threat or force to steal or try to steal something from you. Unstandardised scale 0-35
	ADULT HARRASSMENT (VOLUME)	Number of times in past year an adult stared at you so that you felt uncomfortable or uneasy; followed you on foot; followed you by car; tried to get you to go somewhere with them; indecently exposed themselves to you.

		Unstandardised scale 0-27.5
	BEING BULLIED	<i>Number of times in past year bullied by somebody: hitting, punching, spitting or throwing stones at you; saying nasty things, slagging you or calling you names; threatening to hurt you; ignoring you on purpose or leaving you out of things.</i> Unstandardised scale 0-12
LEISURE	HANGING ABOUT	<i>Frequency of hanging about the streets at sweep 4.</i> Most evenings=1, Less often/not at all=0.
POLICE CONTACT	POLICE CONTACT	<i>Measure of number of times in trouble with the police in last year at sweep 4(>10 times capped at 11)</i> Unstandardised scale 0-11.
	POLICE WARNING OR CHARGES	<i>Whether self-reported being charged by police .</i> Yes=1, No=0.
HEARINGS/SOCIAL WORK CONTACT	GROUND FOR REFERRAL	<i>Whether referred to the Reporter on offence grounds</i> Yes=1, No=0.
	PLACED ON SUPERVISION	<i>Whether made subject to compulsory measures of care</i> Yes=1, No=0.
	EARLY HISTORY OF AGENCY REFERRAL FOR BEHAVIOURAL PROBLEMS	<i>Whether referred to either social work or the children's hearing system by age 5 because of concerns about the child's behaviour</i> Yes=1, No=0.
HEALTH RISK BEHAVIOURS	DRUG USE	<i>Drug use in the last year at sweep 4.</i> Used drugs=1, Did not use drugs=0.
	ALCOHOL USE	<i>Frequency of alcohol use at sweep 4.</i> Drink weekly=1, Drink less often/not at all=0.
	SELF HARM	<i>Whether self reported harming themselves in one of the following ways: cutting or stabbing; burning; bruising or pinching; overdose of tablets; pulled out hair; some other way,</i> Yes=1, No=0
	UNDERAGE SEXUAL INTERCOURSE	<i>Whether self-reported had sexual intercourse by age 14.</i> Yes=1, No=0
	DEPRESSION	<i>Scale based on how often felt like this in the past month: I've felt too tired to do things; I've had trouble going to sleep or staying asleep; I've felt unhappy, sad or depressed; I've felt hopeless about the future; I've felt nervous or tense; I've worried too much about things.</i> Unstandardized scale 0-18
	DISORDERED EATING	<i>Scale based on: do you ever worry that you have lost control over how much you eat; have you recently lost more than a stone in weight over a short period of time; do you think that you are fat even when other people say you are too thin?; would you say that food dominates your life?</i> Unstandardized scale 0-5

SCHOOL	TRUANCY	<i>Frequency of truancy in last year at sweep 4</i> More than 5 times=1, 5 times or less=0.
	EXCLUSION	<i>Whether excluded from school</i> Yes=1, No=0
	ATTACHMENT TO SCHOOL	<i>Scale based on how much agree/disagree with the following school is a waste of time; school teaches me things will help me in later life; working hard at school is important; school will help me get a good job.</i> Unstandardized scale 0-16
	BAD BEHAVIOUR	<i>Derived from how often in the past year did you: arrive late for classes; fight in or outside the class; refuse to do homework or class-work; were cheeky to a teacher; used bad or offensive language; wandered around school during class time; threatened a teacher; hit or kicked a teacher.</i> Unstandardized scale 0-24
PERSONALITY	Impulsivity	<i>Modified version of Eysenck Impulsivity Scale (Eysenck & Eysenck, 1984)^b.</i> Unstandardized scale 0-24
	Alienation	<i>Derived from the Multidimensional Personality Questionnaire subscale that taps negative emotionality as it influences offending^b.</i> Unstandardized scale 0-24
	Risk-taking	<i>Derived from how much agree/disagree with the following: I like to test myself every now and then by doing something a bit risky; sometimes I will take a risk just for the fun of it; I sometimes find it exciting to do things that might get me into trouble; excitement and adventure are more important to me than feeling safe.</i> Unstandardized scale 0-24
PEERS	PEER INVOLVEMENT IN OFFENDING (VARIETY)	<i>During past year did any of your friends do these things: loud, rowdy or rude in public place; housebreaking or attempted housebreaking; breaking into motor vehicle to steal something out of it; rode in stolen motor vehicle; fire raising; vandalism; graffiti; travelled on bus/train without paying; carried a weapon; hit, kicked or punched someone; was involved in robbery; shoplifting.</i> Unstandardized scale 0-12

^a For full description of these variables see McAra and McVie (2005)

^b For full description see Smith and McVie(2003)