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Gang Membership
and Knife Carrying:
Findings from
The Edinburgh Study of Youth
Transitions and Crime

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Gang Membership and Knife Carrying: Findings from the Edinburgh Study of Youth Transitions and Crime

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EXECUTIVE SUMMARY

Background and aims

1. This report presents key findings on gang membership and knife carrying amongst a cohort of young people based on data collected by the Edinburgh Study of Youth Transitions and Crime (ESYTC). The analysis was commissioned in light of a lack of quantitative data measuring the extent of gang membership and knife crime in Scotland.
2. The ESYTC is a longitudinal study of pathways into and out of offending for a cohort of around 4,300 young people which started in 1998. The findings presented in this report are based on self-report data collected from this cohort of individuals over a six year period, from the age of 12 to 17.
3. The aims of this report are to provide an account of the knife carrying behaviour and reported gang membership amongst young people using the ESYTC data; to explore the background characteristics or profiles of young people who have carried knives or been involved in a gang; and to identify the main risk factors associated with knife carrying and gang membership. The report also aims to highlight the key similarities and differences between these two groups.

Knife carrying amongst the ESYTC cohort

4. Overall, 30% of young people had carried a knife and a further 10% had carried some other kind of weapon at some point between the age of 12 and 17. The peak age for carrying a weapon was 14, at which point a quarter of young people reported doing this in the last year.
5. Most young people who carried knives did so very infrequently and it was not a persistent pattern of behaviour. The number of people carrying knives between age 14 and 17 declined dramatically; however, the frequency of knife carrying amongst those who were still doing so increased over the same period.
6. More than 10,200 incidents of weapon carrying were carried out by members of the ESYTC over the time of this study; however, 6% of weapon carriers were responsible for 25% of all incidents which shows that a 'hard core' of young people were engaged in persistent weapon use.
7. Knife carriers were less likely to use a weapon against someone and, when they did, were less likely to inflict injuries on the victim compared to those who carried some other kind of weapon. This suggests that knives may often be carried as a means of self-defence rather with any intention of using them against someone.

Gang membership amongst the ESYTC cohort

8. Around one in five young people said they were part of a group of friends they would describe as a 'gang' at age 13, but this declined to 12% at age 16 and 5% at age 17. The percentage of young people who said they were a member of a gang with a strong identity (e.g. a recognisable street name and signs or symbols) stayed constant at around 5%.
9. Membership of gangs was very fluid and changeable over time, with very few young people remaining at the core, and most drifting in and out. Only a quarter of those in a gang at age 13 were still in a gang at age 16.

Profile of knife carriers and gang members

10. Looking at the background characteristics and behaviours of these young people revealed there were many similarities between gang members and knife carriers, but also important differences which suggest that the reasons underlying these forms of behaviour are not the same.
11. Those who carried knives or got involved in a gang had more difficult and problematic backgrounds than other young people. For example, compared to other people the same age, they were more likely to have experienced parental separation and poor parental supervision, to hang about the streets, to have been involved in a range of offending and anti-social behaviours, to have more problematic personality traits and to have been in trouble with the police. However, they were also more likely to have experienced crime victimisation and to engage in self-harming.

Risk factors for knife carrying and gang membership

12. For some young people, particularly males, knife carrying is an integral part of a risky lifestyle that involves engaging in violent and non-violent offending, associating with delinquent peers and dabbling in the murky world of drugs, all of which are likely to be responsible for increasing their risk of criminal victimisation. The results also highlight the underlying vulnerability of knife carriers which includes lack of parental guidance, feelings of social isolation, poor self-esteem and a tendency to inflict deliberate injuries on themselves (potentially with the very knives they carry). In addition, early engagement in knife carrying exacerbates the risk of becoming a persistent offender.
13. Similarly, the likelihood of being a gang member was increased amongst those who lived risky lifestyles, such as engaging in violent and non-violent offending, hanging around the streets regularly, associating with other offenders and drinking alcohol frequently. Gang membership at age 13 also predicted being in a gang at age 16. Unlike knife carriers, however, gang members were more likely to

come from more deprived family backgrounds and live in high crime neighbourhoods, and to be well known to the police and the youth justice system.

Conclusions and policy implications

14. Interventions aimed at reducing gang membership might best be concentrated within specific geographic localities and more socially disadvantaged demographic groups. Strategies involving socio-economic improvement and increased opportunities for groups of young people might be particularly beneficial. However, such an approach may not have such a high impact on knife carrying which appears to be more evenly distributed across the population.
15. Knife carriers appear to be a highly vulnerable and at risk group, for whom carrying a knife is a rational choice based on the fear of experiencing violent victimisation. Educational strategies that demonstrate the dangers and risks of carrying weapons, but also of make available resources and services aimed at helping and supporting very vulnerable young people who live in regular fear of persecution, might be beneficial in tackling this form of behaviour.
16. The police, schools and the children's hearing system all have a significant role to play in reducing gang membership, and perhaps also knife carrying. Engaging seriously with these issues amongst those young people who come in contact with formal agencies of social control is important. However, only a fraction of gang members end up being subject to compulsory measures of care and very few incidents of knife carrying are brought to the attention of the police, so this is not the only solution.
17. Universal service provision that targets areas of general risk would be more likely to be effective in tackling the general problem of gang membership, and local police forces would be ideally placed to identify where these services could best be targeted. It would also be important to factor schools into any preventative strategy, since over half of all gang members dropped out of school by the earliest possible leaving age. Efforts to reduce knife crime could be built into such an overarching strategy as a reduction in gang activity may reduce fear of attack amongst those who carry weapons for protection.
18. Policy interventions and preventative strategies should be targeted at the small group of people who are the most persistent and problematic offenders, although it is essential that any response to gang members and knife carriers is carefully considered, taking into account both their problematic behaviour and their underlying vulnerabilities, and involves the minimum level of intervention necessary.
19. Early intervention with gang members and knife carriers may be likely to reduce the risk of such behaviours becoming more persistent and engrained amongst some offenders. However, this should focus on

both elements of young people's needs (in terms of adversity and vulnerability) as well as their deeds (including both violent and non-violent forms of offending). Retaining 16 and 17 year olds within the 'youth' justice system would provide a supportive and welfare-based framework within which to conduct such work that would be unlikely to be provided via the adult criminal justice system.

1 INTRODUCTION

Background to the research

- 1.1 This report presents key findings on gang membership and knife carrying amongst a cohort of young people based on survey data collected by the Edinburgh Study of Youth Transitions and Crime (ESYTC). The ESYTC is a prospective longitudinal study of pathways into and out of offending which started in 1998 with a cohort of around 4,300 young people in Scotland's capital city (see Smith and McVie 2003). The main aims of the study were: to investigate the factors leading to involvement in offending and desistance from it; to examine the striking contrast between males and females in offending behaviour; to explore the impact on offending of individual development, formal agency interaction and neighbourhood characteristics; and to contribute to practical policies aimed at helping young people to avoid or diminish their offending behaviour. The findings presented in this report are based on self-report data collected over a six year period, from 1998 to 2003, during which the same group of people were surveyed between the ages of 12 and 17.
- 1.2 The analysis contained in this report was commissioned by the Scottish Government in light of a chronic lack of quantitative data measuring the extent of gang membership and knife crime. Official statistics for recorded crime in Scotland indicate a relatively stable or decreasing trend in most categories of violence over the last thirty years or so; however, the police have no requirement to record group-based offending activity and, therefore, it is impossible to tell how much violence is group or gang related. In any case, the reporting of violent crimes – particularly low level violence amongst young people – is low, so such cases would be unlikely to be reflected in official statistics (Fraser et al 2010). There has never been a national survey of young people in Scotland, whereas there have been numerous such surveys carried out in England and Wales (e.g. the Offending, Crime and Justice Survey and the Youth Lifestyles survey) and Ireland (e.g. the Northern Ireland Crime and Justice Survey and the Irish components of the second International Self-Report Delinquency Study). There is, therefore, no definitive source of information on the extent or nature of youth gangs or knife carrying across the whole of Scotland, or how the characteristics of those who engage in these behaviours varies by geographical location.
- 1.3 This data deficiency is highlighted in a qualitative study of troublesome youth groups, gangs and knife carrying in Scotland carried out by members of the Scottish Centre for Crime and Justice Research based at the Universities of Glasgow and Edinburgh during 2009 (see Bannister et al 2010). The research by Bannister and colleagues provides a useful source of reference for this report as it contains a qualitative exploration of the nature of youth gangs and knife carrying in 5 case study locations: Aberdeen, Dundee, Edinburgh, Glasgow and

West Dunbartonshire. This qualitative study involved interviewing a wide range of practitioners engaged in delivering services aimed at managing, challenging and reducing these behaviours, as well as conducting interviews with a large sample of young people engaged in youth gangs and knife carrying behaviour.

- 1.4 The ESYTC is the largest and most comprehensive study of youth offending ever undertaken in Scotland and, due to the careful design of the study, it provides an ideal opportunity to explore issues of gang membership and knife crime. However, it is important to note that its findings do not provide a national estimate of prevalence or frequency of offending. The ESYTC provides valuable longitudinal data about the change in individual young people's affiliation with youth gangs and their involvement in knife carrying over time for one specific cohort; however, there is no available trend data indicating how these problems have changed over time.
- 1.5 Reference is made to Bannister et al's findings in the concluding chapter of this report; however, comparisons between the two research studies are subject to some limitations. First, the aims and methodologies employed by the ESYTC are very different from the aims and methods adopted by Bannister et al, and the working definitions of youth 'gangs' are not directly comparable. Second, the fieldwork for the research studies was not contemporaneous and so there may have been some changes in the youth offending landscape over this time. Finally, the ESYTC research was carried out in only one Scottish city, whereas Bannister et al found some considerable differences in the nature and behaviour of gangs in different geographical locations. Nevertheless, the aims of the two reports, in terms of understanding behaviour and identifying potential points of intervention for knife carriers and gang members, are broadly analogous.

Structure and contents of the report

- 1.6 The main aim of this report is to provide an account of the knife carrying behaviour and reported gang membership amongst young people between the ages of 13 and 17 using the ESYTC data. Chapter two provides a description of the design and methods of the ESYTC and presents some of the main findings already published from this study relating to gang membership and knife carrying. Chapters three and four present the detailed findings on knife carrying and gang membership, respectively. Each chapter has the same general structure, which starts with a description of the extent and nature of knife carrying and gang membership amongst the ESYTC cohort. Next, each chapter provides a profile of the young people who were engaged in these two forms of behaviour and compares them to other young people who were not. This profile includes an examination of the following background characteristics:

- demographic information (sex and socio-economic status)
- behaviour problems (including involvement in forms of violent and non-violent offending behaviour, drug use and alcohol consumption)
- problems at school (truancy and exclusion)
- problematic peers (peer offending and extent of 'peer influence')
- formal agency contact (including police warnings and charges and offending referrals to the children's hearing system)
- risky leisure activities (such as hanging about in public places and frequenting pubs or clubs)
- and aspects of their own vulnerability (such as being a victim of crime, self-harming, eating disorders, depression and low self-esteem).

1.7 Chapters three and four conclude with a more sophisticated analysis of the main risk factors that emerge in terms of explaining knife carrying and gang membership. The final chapter of the report contains some concluding remarks, highlights the main similarities and differences between these findings and those of the qualitative study conducted by Bannister et al (2010) and identifies some policy implications.

2 THE EDINBURGH STUDY OF YOUTH TRANSITIONS AND CRIME (ESYTC)

Aims of the study

2.1 The Edinburgh Study of Youth Transitions and Crime is one of the largest prospective longitudinal studies of youth offending ever carried out in the UK. Established in 1998, it began with a cohort of around 4,300 children aged 12, on average, who were all in their first year of secondary education in the city of Edinburgh. The main aim of the study was to further our understanding of criminal behaviour amongst young people by studying them over a key period of development, from early adolescence through to adulthood. The study had four key objectives:

- To investigate and identify the factors which impact on young people's offending behaviour and the processes which are involved.
- To examine these factors and processes within 3 main contexts
 - individual development through the life course;
 - the impact of interactions with formal agencies of social control and law enforcement;
 - the effect of the physical and social structure of the individual's neighbourhood.
- Within each of the above three contexts, to examine the striking differences between the extent and patterns of criminal offending between males and females.
- To contribute towards the development of theories which explain and policies aimed at reducing and preventing people's involvement in criminal offending behaviour, particularly for those who go on to become serious and persistent offenders.

Research design and method

2.2 A census design was used for sampling in which the target population was all those children who were eligible to attend secondary schools in the city of Edinburgh in the autumn of 1998. There was a high degree of participation from the schools in the city, with all of the mainstream secondary schools and most of the independent sector and special educational schools agreeing to take part. There was also a very high degree of individual participation, with only 3% of parents opting their children out of the study from within the participating schools. A total of 4,300 young people took part in the first sweep of the study, representing a response rate of 96% amongst all those who were eligible within the participating schools. For a full description of the study design and methodology refer to Smith et al (2001) and Smith and McVie (2003).

2.3 The ESYTC used a complex, mixed methods design incorporating a range of data collection techniques. However, the main method of data collection involved the use of self-completion questionnaires which were administered to the same cohort of young people over six annual sweeps between 1998/99 and 2003/04. The questionnaires were administered by trained researchers, usually within school classrooms (although alternative arrangements were made for those who were not attending school). The questionnaires were completed in exam style conditions and the young people involved in the survey were given assurances of complete confidentiality.

Questionnaire design

2.4 The design of the questionnaires was intended to capture a wide range of information about the young people in the study. This included information on their self-reported offending behaviour, but also on their family structure and care experience, parental and sibling relationships, leisure activities (both conventional and unconventional), personality characteristics, problematic health behaviours, friends' characteristics and delinquency, moral judgements and values, commitment to and experience of school, experience of victimisation and bullying, and contact with the police and other agencies of formal social control. The nature of the questionnaire changed somewhat over time, although a core set of questions on offending was included at every sweep.

2.5 Included in this core set of questions was one which asked whether they had ever (at age 12) or in the last year (at subsequent years) "carried a knife or other weapon for protection or in case it was needed in a fight". Where they indicated that they had done this, they were asked how many times they had done this and some supplementary questions. Amongst the supplementary questions was one which asked what kind of weapon they had carried, including knives. These are the questions that are used to determine knife carrying in this report.

2.6 Questions on gang membership were included in the ESTYC questionnaires at sweeps 2, 5 and 6, when respondents were aged approximately 13, 16 and 17. The questions on gang membership used at age 13 were designed around the time of the development of the Eurogang Network, a major collaborative endeavour to explore gang behaviour across many European countries.¹ However, at that time the Network had not finalised its standardised research instrument to measure and define gang behaviour (an instrument that is now commonly used in gang research). Therefore, the data here are not comparable to other Eurogang research. Nevertheless, the Edinburgh Study findings have produced results that are similar to studies in other European countries and the United States (see Decker and Weerman 2005; Bradshaw 2005).

¹ See see: <http://www.umsl.edu/~ccj/eurogang/euroganghome.htm> for details of the Eurogang Network.

2.7 In the ESYTC questionnaires, gang membership was defined by self-nomination (no definition was imposed on cohort members) and the nature of the questions asked did vary at different time points: at age 13 and 16, they were asked whether they would call the group of friends they 'went about' or 'hung about' with in the last year a 'gang'; whereas, at age 17 they were asked if they had been a member of a gang or 'young team' ever (and, if so, whether in the last year). At all three years, however, they were consistently asked whether their 'gang' had a name and any special sayings or signs. These are the questions that are used to determine gang membership in this report.

Previous findings from the ESYTC

2.8 Analysis of the data on gang membership was published in two separate articles in 2005. In a book chapter entitled *Terrors and Young Teams: Youth Gangs and Delinquency in Edinburgh*, Paul Bradshaw highlighted the fact that young people at age 13 who identified themselves as being members of gangs were more heavily involved in delinquency than non-gang youths. Bradshaw also found that the nature of the names and territories described by members of the Edinburgh Study were not dissimilar to those of the Glasgow gangs described many years previously by Patrick (1973) and McCallum (1994). Gang members were predominantly male, from lower social class backgrounds and often subject to more turbulent family circumstances than non-gang members. He also found they were more impulsive and risk prone, had much stronger attitudes in favour of offending, were less committed to school and socialised with peers who had much greater involvement in offending.

2.9 Bradshaw's findings were supplemented by a research digest report prepared for the Scottish Government, entitled *Gang Membership and Teenage Offending*, in which David Smith and Paul Bradshaw explored the influence of gang membership on teenage offending and substance use. They found that the proportion of young people who reported being a member of a gang fell markedly from around 17% at age 13 to around 5% at age 17. However, the percentage of young people who reported being part of a gang that had a recognisable territorial gang name and a unique sign or symbol associated with it remained remarkably stable over time. Rates of delinquency and substance use were significantly higher amongst those who associated with a gang than those who did not, and were highest amongst those who were part of a gang with a recognisable name and sign. However, gang membership was found to have a strong statistical effect on delinquency even when a range of other potential explanatory factors were taken into account. In other words, the mere fact of being in a gang increased the frequency of many young people's offending behaviour.

2.10 Data on weapon carrying have not previously been published separately from other forms of violent offending; however, an overview report for the Economic and Social Research Council published in 2001 by David

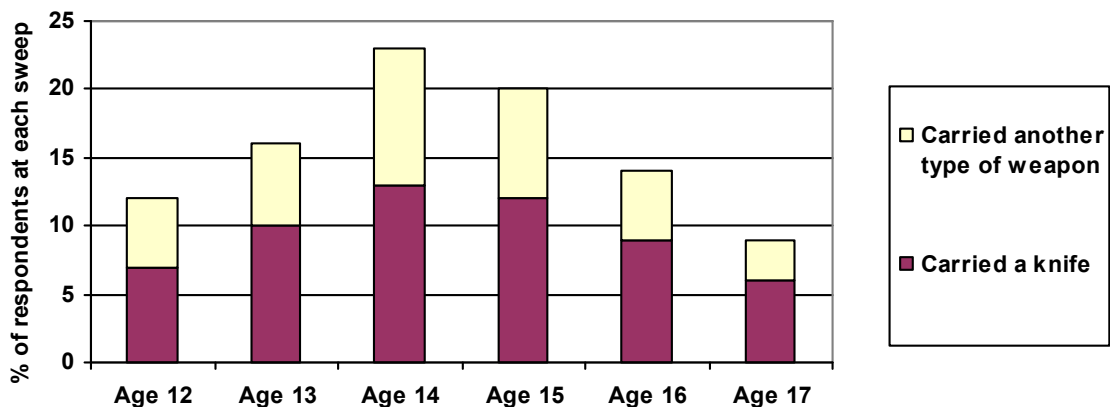
Smith, Susan McVie and other members of the study team provided some details. At sweep two of the study, when cohort members were aged 13, it was noted that around 60% of those who reported carrying a weapon in the previous year stated that this involved a small knife or penknife (49%) or a large knife or flick knife (10%). Comparing these figures to age 12, it appeared that there was a slight increase in the use of small knives and a decline in the use of large knives between these two age points. It was noted that a slight change in the design of the question may have accounted for this, however.

3 KNIFE CARRYING AMONGST THE ESYTC COHORT

Extent and nature of knife carrying

3.1 Respondents to the ESYTC were asked at each of the six annual sweeps of the study, from age 12 through to 17, if they had carried a knife or other weapon for protection or in case it was needed in a fight.² Figure 1 shows the overall percentage of young people who reported doing so at each age, and distinguishes the proportion of weapon carriers who reported that they had carried a knife as opposed to some other kind of weapon. By the age of 12, 12% of young people said they had ‘ever’ carried some kind of weapon for protection or in case it was needed in a fight. The peak age at which weapon carrying was reported amongst the cohort members was age 14, at which point 23% of young people said they had done this in the last year. By age 15, prevalence of carrying a weapon had declined to 20% and by age 17 only 9% of the ESYTC cohort reported carrying a weapon in the last year. Amongst those who said they had carried a weapon at each age point, between a half and two thirds of them reported that they had carried a knife. Respondents mainly reported that they had carried small knives or penknives, although some had also carried larger blades, flick knives and Stanley knives.

Figure 1: Percentage of ESYTC respondents who said they had carried a knife or other type of weapon at each sweep of the survey



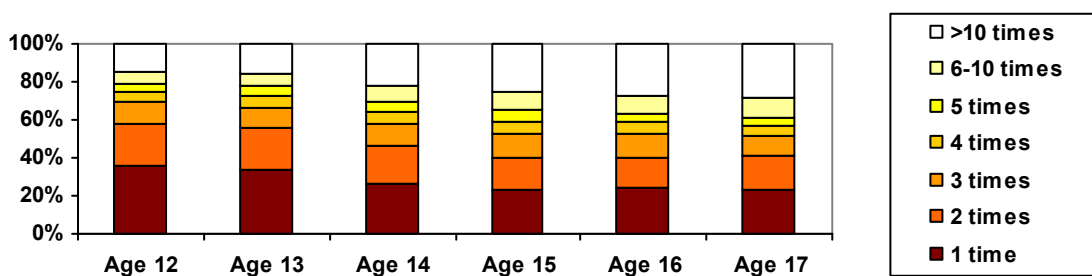
3.2 Overall, four out of ten (38%) of the Edinburgh Study cohort reported that they had ‘ever’ carried a weapon at any sweep of the study, i.e. between the age of 12 and 17. Of these weapon carriers, 76% had carried a knife at some point (representing 29% of the whole cohort). This indicates that knives and bladed objects are the most common type of weapon carried by young people. Other types of weapon that were

² The reference period for self-reported behaviour at age 12 was ‘ever’, whereas at subsequent ages it was ‘in the last year’.

reportedly carried, although less commonly, included sticks and poles, baseball bats, hammers and other metal objects, bricks, stones, aerosols, knuckledusters and a range of household objects.

3.3 Young people who reported that they had carried a weapon were asked how many times this had occurred within the last year (or ever at age 12). Figure 2 shows the percentage of weapon carriers who said they had done this once, twice, and so on up to a maximum of ‘more than 10 times’. What is clear from the chart is that there is a distinct increase in frequency of this type of behaviour over time. For example, at ages 12 and 13 just over half of all weapon carriers said they had done this only once or twice; however by ages 16 and 17 this had declined to around 40%. Meanwhile the proportion of knife carriers who said they had done this more than ten times doubled from 15% at age 12 to 29% at age 17. It is not possible to replicate Figure 2 for knife carrying specifically (due to the way in which the question was asked); however, the same general trend was reflected amongst the knife carriers. Amongst those who had carried a knife at some point, the average number of times they reported carrying any weapon increased from 3.1 at age 12 to 4.2 at age 17.

Figure 2: Number of times weapon carriers said they done this in the last year (ever at age 12)



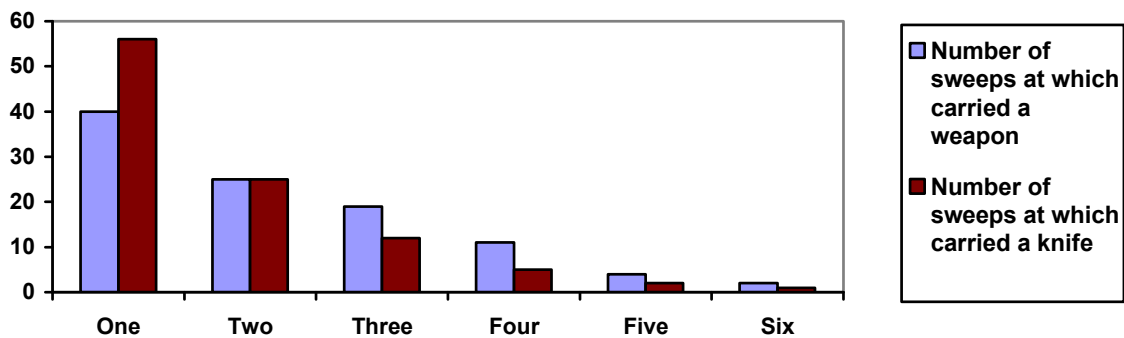
3.4 It is important to bear in mind that this increase in frequency of weapon carrying amongst offenders occurred despite the fact that prevalence of weapon carrying (i.e. the percentage of young people who reported doing this) was declining between age 14 and 17. It is not possible to tell from this analysis whether this increase in frequency of offending was due to weapon carriers getting gradually worse (i.e. increased frequency at the individual level) or because those who stopped carrying weapons were those who were less frequent offenders (i.e. a change in the make-up of the knife carrying population), or indeed both.

3.5 Looking at number of times Edinburgh Study members said they had carried weapons over the six years as a whole, we can estimate a minimum total of approximately 10,200 offences that were carried out in the city of Edinburgh over this time by the individuals in this study. However, these offences were disproportionately spread across the cohort. Around half of all those who carried a weapon did so between one and five times over the six years, and were responsible for only 12%

of the total number of offences. Whereas, 6% of the cohort had carried weapons in excess of 30 times each and were responsible for 25% of all weapon carrying offences. It is not possible to compare these statistics with police recorded crime data for a number of reasons; however, it seems likely that very few of these 10,200 incidents of weapon carrying ended up in the official statistics since only 6% of weapon carriers (and 5% of knife carriers) said that the police had come to know about any of the occasions on which they had carried a weapon.

3.6 Using the longitudinal nature of these data, it is possible to look in more detail at the persistent nature of young people’s behaviour in terms of carrying weapons and, particularly, knives. Figure 3 shows the number of sweeps at which weapon carriers reported carrying a weapon, and the number of sweeps at which knife carriers reported carrying a knife. As can be seen, two thirds of weapon carriers (65%) reported engaging in this type of behaviour at only one or two sweeps of the study. However, this was even more extreme amongst the knife carriers, with 81% of them reporting carrying a knife at only one (56%) or two (25%) sweeps. Only 6% of weapon carriers, and 3% of knife carriers, had done so at five or six sweeps of the study. In other words, it was rare for individuals to be persistent offenders between ages 12 and 17.

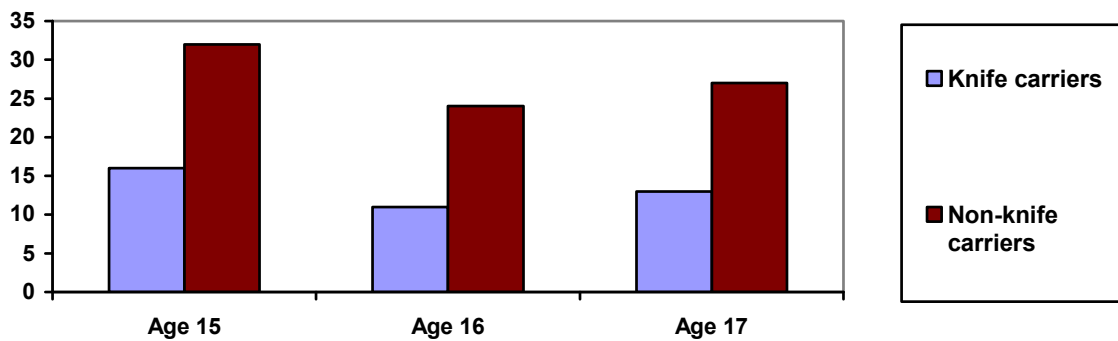
Figure 3: Number of sweeps at which offences were reported amongst weapon carriers and knife carriers



3.7 From sweep four onwards, the Edinburgh Study questionnaire asked whether those young people who had carried a weapon had actually used it against someone else. Figure 4 shows the proportion of weapon carriers who said that they had used a weapon against someone else in the last year, differentiating between the knife carriers and the non-knife carriers. This chart shows that knife carriers were significantly less likely to use a weapon against someone than those who carried something other than a knife. This might indicate that knives were more likely to be carried for protection rather than with an explicit intention to use them. Amongst those who said they had used a weapon, around 80% of non-knife carriers said that they had caused the other person any injury; however, this fell to around 40% for the knife carriers. Where injuries were caused, the non-knife carriers were more likely than the knife carriers to have caused bruises and black eyes, head or facial injuries and, in very rare cases, broken bones. Whereas the knife carriers,

unsurprisingly, were more likely than the non-knife carriers to say they had caused minor scratches or cuts and, less commonly, serious or deep cuts. Nevertheless, stab wounds were reported in only a handful of cases.

Figure 4: Percentage of weapon carriers (knife and non-knife) who said they had used a weapon against someone in the last year



3.8 In summary, prevalence of weapon carrying peaked at almost a quarter of young people when they were aged 14, then declined dramatically by age 17. Between a third and a half of weapon carriers at each sweep of the study said they had carried a knife. However, this underestimates the overall prevalence of weapon carriers. Between the age of 12 and 17, four out of ten young people carried a weapon at some time, of whom three quarters had carried a knife. Although prevalence of weapon carrying diminished after age 14, the frequency with which offenders carried weapons continued to increase.

3.9 It was estimated that the Edinburgh Study cohort committed a minimum of over 10,000 offences over the six years of study; however, a small proportion of weapon carriers (6%) was responsible for a disproportionately high percentage of offences (25%). It was rare for weapon carriers to be caught by the police, however. Most knife carriers were not persistent offenders over a long time period; although, a few (8%) reported carrying weapons over four or more years. Nevertheless, knife carriers were less likely than those who carried other weapons to report actually using a weapon against someone else and, in cases where a weapon was used, knife carriers were less likely to cause an injury. The nature of injuries caused by knife carriers was qualitatively different to those caused by non-knife carriers, however.

Profile of knife carriers

3.10 This section of the report explores the characteristics of young people who were involved in carrying weapons at two particular age points: age 13 and age 16. These age points have been selected for two reasons: first, these ages can provide direct comparison with data collected on gang membership; and second, these are the age points at which

prevalence of weapon carrying was starting to escalate and to decline and, therefore, it is interesting to compare groups at these two points. At age 13, there were 415 young people who reported carrying a weapon, while at age 16 there were 353. Interestingly, there was a relatively small overlap between these two groups, with only 28% of knife carriers at age 13 reporting that they were also knife carriers at age 16.

3.11 Knife carriers were predominantly male at both age 13 (74%) and age 16 (70%) compared to non-knife carriers (48% and 49%, respectively). In terms of their family characteristics, Table 1 shows that knife carriers were slightly less likely to be living with both of their birth parents at age 13, and this gap increased by age 16. Those who had carried a knife also had significantly lower scores on a scale of parental supervision measures (which included items such as knowing who they were with and where they were going when they went out, and when they would return home) than non-knife carriers. Nevertheless, there was no evidence that knife carriers were more likely than non-knife carriers to be from deprived family backgrounds. For example, Table 1 shows that knife carriers were no more likely to be living in families where the head of household was in manual employment or unemployed compared to non-knife carriers. Furthermore, knife carriers were no more likely to be entitled to free school meals on the basis of low family income.

Table 1: Knife carriers and non-knife carriers compared at age 13 and 16 on family and neighbourhood characteristics

	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Family characteristics				
Living with both birth parents (%)	70	65*	63	55*
Parental supervision scale (mean)	6.9	5.6*	6.3	5.2*
Parents in manual employment or unemployed (%)	44	47	43	48
Entitled to free school meals (%)	20	23	20	21
Neighbourhood characteristics				
Neighbourhood deprivation score (mean)	3.37	3.61	3.40	3.55
Neighbourhood crime rate per 1,000 people	104	108	101	110
Neighbourhood violence rate per 1,000 people	14	14	13	14

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level.

3.12 Using postcode data to examine the characteristics of the respondents' local neighbourhood, it was evident that the knife carriers were not more likely to be living in a neighbourhood that was characterised by high social deprivation as measured by a range of census measures (including high unemployment and overcrowding) compared to non-knife carriers. Perhaps surprisingly, there was no evidence that knife carriers were living in higher crime areas, since both groups had similar rates of crime, including rates of violence, in their local neighbourhood. Interestingly, there was also very little difference in any of these

measures between the knife carriers at age 13 and age 16, despite the fact that there was a low level of overlap between them. In other words, it seems unlikely that carrying a knife is influenced by living in poverty or from living in an area characterised by high social deprivation or crime.

3.13 Knife carriers could be distinguished from non-knife carriers on a range of other characteristics, however. In particular, they were very much more likely to be involved in a range of problematic leisure activities, as shown in Table 2. Those who carried a knife were more likely than non-knife carriers to drink alcohol at least once a week and to have taken drugs in the last year. They were also more likely to hang out in public places with friends most days and to report that they were a member of a territorial gang. These differences were significant at both age 13 and age 16, although likelihood of alcohol and drug use increased markedly between these ages for both the knife carriers and the non-knife carriers. Prevalence of hanging out declined for both groups, while gang membership stayed around the same level.

Table 2: Knife carriers and non-knife carriers compared at age 13 and 16 on a range of problematic leisure activities

Problematic leisure activity	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Drink alcohol at least weekly (%)	6	18*	42	66*
Taken drugs in last year (%)	6	26*	30	66*
Hang out most days (%)	54	69*	35	47*
Member of a 'gang' (%)	6	20*	7	21*

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level.

3.14 There was also a significant difference between the groups in terms of their likelihood to be involved in other forms of antisocial behaviour or offending. In the Edinburgh Study, respondents were asked about a range of delinquent behaviours including forms of property damage (vandalism, graffiti and fire-raising), theft (shoplifting, housebreaking and theft from motor vehicles) and violence (assault, theft with force and cruelty to animals). Table 3 shows that knife carriers were significantly more likely to report that they had committed acts of property damage, theft and violence than non-knife carriers. In addition, amongst those who had done these things, the knife carriers were also more likely to have committed a greater number of offences during the previous year than those who had not carried a knife. The percentage of young people involved in these types of delinquency were lower at age 16 than at age 13 for all three categories; however, the difference between the knife carriers and non-knife carriers was greater at age 16, with the knife carriers being more than twice as likely to be involved in offending. Frequency of offending remained relatively stable for property damage and violence, although both knife carriers and non-knife carriers increased their frequency of theft between age 13 and 16.

Table 3: Knife carriers and non-knife carriers compared at age 13 and 16 on their involvement in anti-social and offending behaviours

Offending behaviour	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Property damage (%)	38	74*	23	65*
Theft (%)	24	56*	13	41*
Violence (%)	44	83*	18	58*
Property damage (mean number of times)	5.4	8.4*	5.6	7.9*
Theft (mean number of times)	3.5	4.3*	4.7	6.2*
Violence (mean number of times)	3.4	4.7*	3.3	4.5*

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level.

3.15 There was evidence that knife carriers were more problematic in terms of their school attendance. Those who reported carrying a knife at age 13 were more than twice as likely as non-knife carriers to report truanting from school. Truancy increased dramatically amongst both groups by age 16 and, although the difference between the two groups did narrow, knife carriers continued to be significantly more likely to truant than non-knife carriers. In addition, knife carriers who truanted reported doing so on a greater number of occasions than non-knife carriers who truanted at both ages. This is shown in Table 4, which also indicates that these self-reports were backed up by official school record data. It is interesting to note that self-reported truancy was far more prevalent than officially recorded truancy; however, at age 13, knife carriers were significantly more likely to have been noted in official records as truanting from school. The difference was not significant at age 16, however. Knife carriers were also significantly more likely to have a history of school exclusion than non-knife carriers. There was no difference at all between the groups in terms of school sector at age 13, although those who reported carrying knives at age 16 were slightly more likely than the non-knife carriers to have left school by this age.

Table 4: Knife carriers and non-knife carriers compared at age 13 and 16 on a number of school measures

School measure	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Self-reported truancy (%)	21	47*	46	71*
Self-reported truancy (mean number of times)	3.0	3.7*	5.6	6.8*
School record of truancy (%)	12	18*	9	12
School record of exclusion (%)	5	12*	11	20*
School sector attended (%)				
Mainstream school	84	84	56	54
Independent school	14	14	14	10
Special school	2	2	1	1
School leaver	-	-	29	35*

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level.

3.16 The ESTYC included a number of personality measures in its questionnaires, using modified versions of three instruments: the Rosenberg self-esteem scale, the alienation scale of Tellegen's Multidimensional Personality Questionnaire and the Eysenck impulsivity scale (see Smith et al, 2001: 82). Research evidence suggests that young people who offend are likely to have low self-esteem, are socially alienated or marginalised within society and have a tendency to be highly impulsive. This was borne out by the findings on knife carriers, who displayed lower mean scores for self-esteem, and higher mean scores for both impulsivity and alienation than non-knife carriers, as shown in Table 5. Overall, however, self-esteem increased between age 13 and 16 while levels of both impulsivity and alienation reduced. This may suggest that these personality indicators may be more important determinants of behaviour at younger ages.

Table 5: Knife carriers and non-knife carriers compared at age 13 and 16 on personality measures

Personality measure	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Self-esteem scale (mean)	15.4	14.7*	16.9	16.2*
Impulsivity scale (mean)	9.3	11.3*	7.0	9.0*
Alienation scale (mean)	13.0	15.4*	11.0	13.8*

3.17 Analysis was conducted to determine whether knife carriers were more likely to have troublesome peers. Table 6 indicates that knife carriers were indeed more likely than non-knife carriers to socialise with peers who were involved in offending behaviour; and to socialise with peers who were engaged in a wider variety of offending types. In addition, knife carriers were more likely to say that their friends had been in trouble with the police during the course of the last year. These findings were remarkably similar at age 13 and age 16, which indicates the importance of peers as a potential source of behavioural influence. Indeed, this is supported by the finding that knife carriers were more likely than non-knife carriers to score highly on a measure of 'peer influence'. This measure was created from a series of questions about whether the respondent would continue to hang around with or listen to his/her friends if they were getting the respondent in trouble at home, in the community or with the police. Although peer influence appeared to decline between age 13 and 16, it was consistently higher amongst the knife carriers.

Table 6: Knife carriers and non-knife carriers compared at age 13 and 16 on friendship group characteristics and peer influence

Peer measures	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Peers in trouble with police (%)	34	67*	43	67*
Peers involved in offending in the last year (%)	71	94*	67	94*
Variety of offences committed by peers in last year (mean)	2.9	6.2*	2.6	6.5*
Peer influence scale (mean)	4.8	6.7*	3.8	5.1*

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level

3.18 At age 13, knife carriers were twice as likely as non-knife carriers to have had adversarial contact with the police (i.e. some form of contact where they were in conflict with police officers); and they were around three times as likely to have been warned or charged by the police, as shown in Table 7. The gap between the two groups narrowed a bit at age 16; however, knife carriers were still significantly more likely to be in trouble with the police than non-knife carriers. Nevertheless, very few of these young people were referred to the Children’s Reporter on offence grounds at these two age points; which resonates with the earlier findings that few knife carriers were caught by the police for engaging in this type of behaviour. Even fewer were made subject to a formal supervision order, although knife carriers were slightly more likely to have this happen than non-knife carriers.

Table 7: Knife carriers and non-knife carriers compared at age 13 and 16 on contact with official agencies

Peer measures	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Had adversarial police contact (%)	31	66*	40	72*
Warned or charged by the police (%)	9	23*	17	40*
Referred to Children’s Reporter on offence grounds (%)	2	4*	4	9*
Made subject to a supervision requirement (%)	1	1	2	4*

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level.

3.19 Finally, a range of variables intended to explore the experience of knife carriers as vulnerable or at risk was explored. The findings shown in Table 8 indicate that knife carriers were significantly more likely to be victims of crime, and to experience greater frequency of victimisation, compared to non-knife carriers. In fact, knife carriers were subject to almost twice as many incidents of victimisation as non-knife carriers at both ages 13 and 16. They were also, however, vulnerable in terms of their likelihood to victimise themselves. At age 13, three in ten knife

carriers said they had self-harmed in the last year, rising to four in ten at age 16. This was more than twice as many as the non-knife carriers, although prevalence did also rise amongst this group over time. These findings indicate that, while knife carriers present as an extremely problematic group, they are also highly vulnerable and at risk.

Table 8: Knife carriers and non-knife carriers compared at age 13 and 16 on experience of victimisation

Victimisation measures	Age 13		Age 16	
	Non-knife carrier (n=3864)	Knife carrier (n=415)	Non-knife carrier (n=3503)	Knife carrier (n=353)
Victim of crime in last year (%)	49	77*	36	76*
Number of incidents of victimisation experienced (mean)	3.6	5.7*	3,7	6.0*
Self-harmed in last year (%)	12	29*	18	40*

Note: Differences between knife carriers and non-knife carriers denoted * are statistically significant at the 95% confidence level.

Establishing risk factors for knife carrying

3.20 The previous analysis is helpful in identifying a range of characteristics that knife carriers share and which differentiate them from other young people. However, it is not possible from this simple descriptive analysis to determine the relative strengths of these different variables in identifying the characteristics that might assist in the identification of particular at risk youths. For this reason, multivariate analysis was carried out using binary logistic regression modelling. This type of modelling is appropriate for predicting the probability of being a member of one group compared to another (e.g. knife carrier versus non-knife carrier) using a range of potential ‘explanatory’ variables. The explanatory variables used in this analysis were those that had emerged as significant in differentiating between knife carriers and non-knife carriers in the earlier analysis.

3.21 An iterative process was followed, whereby those variables that did not prove to be significant in explaining knife carrying behaviour when other dimensions of their behaviour, background, personality and experience were controlled for were removed from the model until only those factors that were responsible for explaining a substantial proportion of the knife carrying behaviour remained. The same explanatory variables (measured at different time points) were entered into the initial model for knife carriers at age 13 and 16, with one exception: at age 16, ‘knife carrying at age 13’ was added as an extra explanatory variable in order to determine whether there was some element of ‘state dependence’ in this type of behaviour. The final models are presented in Table 9.

3.22 For interpretation purposes, the ‘odds ratios’ show the strength of the effect of the explanatory variable on knife carrying. These are presented only for those explanatory variables that remained as significant in the

final model. An odds ratio of 1 shows no effect, an odds ratio of between 1.1 and 1.5 shows a weak effect, an odds ratio of 1.6 to 2.0 shows a moderate effect and an odds ratio greater than 2.0 shows a strong effect. The Wald Statistic indicates the relative influence of each explanatory variable, with higher values showing a greater influence on knife carrying behaviour.

3.23 The findings shown in Table 9 indicate that the odds of a male being a knife carrier were more than twice that for a female at both age 13 and 16 – this suggests that there are characteristics associated with being male that are not being measured in this model, so further work needs to be done to explain this strong effect of gender. However, even controlling for gender, involvement in other forms of offending behaviour emerged as a strong predictor of knife carrying. At age 13, the odds of a young person who had been violent in the last year carrying a knife were around twice as high as those who had not; while those who had committed acts of theft had odds of carrying a knife that were around 1.5 times higher than those who had not committed theft. This indicates that knife carrying tends to be part of a wider repertoire of offending that includes violent behaviour, but not exclusively. At age 16, involvement in violence continued to be a strong predictor of knife carrying, although theft was replaced by property damage as an explanatory factor at this age, which indicates that these repertoires of behaviour are subject to change over time. However, the strongest influence on carrying a knife at age 16 was carrying a knife at age 13, which increased a person's odds of carrying a weapon three years later by a factor of almost three. This indicates that early intervention targeted at those who carry weapons could have a significant impact on preventing later behaviour for many offenders.

3.24 Involvement with delinquent peers and being strongly influenced by these peers also had a significant impact on knife carrying at age 13, although this was not so apparent at age 16. Having peers who were involved in offending increased the odds of carrying a knife by around two times at age 13. Even controlling for this, there was an additional effect of variety of peer offending which meant that having peers who were involved in a wider range of offending types increased the risk of carrying a weapon (this would be consistent with their own broad offending pattern). In addition, having peers who were in trouble with the police and being a member of a territorial gang each increased the odds of being a knife carrier at age 13 by around 1.5 times. These findings indicate that there is a cumulative effect on individual behaviour at age 13 as peer delinquency increases in scale and seriousness. It is, therefore, likely that targeting group based behaviours at this age would have a significant impact on knife carrying and, potentially, other associated forms of offending behaviour. Peer influence did not appear to be so strong at age 16; although, having peers who were in trouble with the police increased the odds of being a knife carrier by almost 2.5 times.

Table 9: Variables that best explained involvement in knife carrying

Explanatory variables included in the final model	Age 13		Age 16	
	Odds Ratio	Wald statistic	Odds Ratio	Wald statistic
Gender (male)	2.40	34.676	2.32	31.227
Carried a knife at age 13	-	-	2.87	43.771
Committed violence in last year	1.89	14.101	2.11	27.602
Committed property damage in last year	-	-	2.12	30.744
Committed theft in last year	1.48	7.889	-	-
Had peers in trouble with police in last year	1.44	6.652	2.39	10.737
Variety of peer offending scale (high)	1.08	10.710	-	-
Had peers involved in offending in last year	2.03	5.035	-	-
Gang member at age 13	1.56	5.681	-	-
Self-harmed in last year	1.89	17.992	2.01	20.487
Parental supervision scale (low)	1.13	13.659	-	-
Victim of crime in last year	1.47	6.219	1.81	14.516
Self esteem scale (low)	1.03	3.871	-	-
Alienation scale (high)	1.02	3.869	1.03	5.313
Used drugs in last year	-	-	1.97	24.123

Note: All variables were significant in the final model at the 95% confidence level. Odds ratios are a standardised measure that indicate the odds of one group being a knife carrier compared to the odds of another. The Wald Statistic gives some indication of which variables had the greatest effect on knife carrying within the context of the model.

3.25 It is clear that risk of knife carrying is explained in large part by individual involvement in wider forms of delinquency and by engagement with delinquent peers. Even controlling for this, however, Table 9 shows that those who carried knives at both ages were a particularly vulnerable and at risk group. At age 13, those who had self harmed (often by cutting) had almost twice the odds of carrying a knife in public as those who had not. In addition, being a victim of crime increased the risk of carrying a weapon by around 1.5 times and risk was also increased amongst those who were poorly supervised by their parents. In addition, two personality measures emerged as significantly predicting knife carrying. Young people who identified themselves as having low self-esteem and those who reported feeling more greatly alienated or socially marginalised within their communities were more likely to be involved in carrying weapons. At age 16, involvement in self-harm, being a victim of crime and feeling socially isolated all continued to predict knife carrying behaviour. Involvement in drug use also emerged as a significant predictor, while poor parental supervision and low self esteem did not at this age.

3.26 In summary, it is clear that those most at risk of carrying knives are males and those who are engaged in a wide range of offending behaviours, both violent and non-violent. However, knife carrying is not merely an extension of the individual's wider repertoire of offending and bad behaviour. Association with delinquent peers has a very significant effect on individual behaviour, especially at age 13. The influence of the peer group lessens somewhat at age 16, although by this age there is a

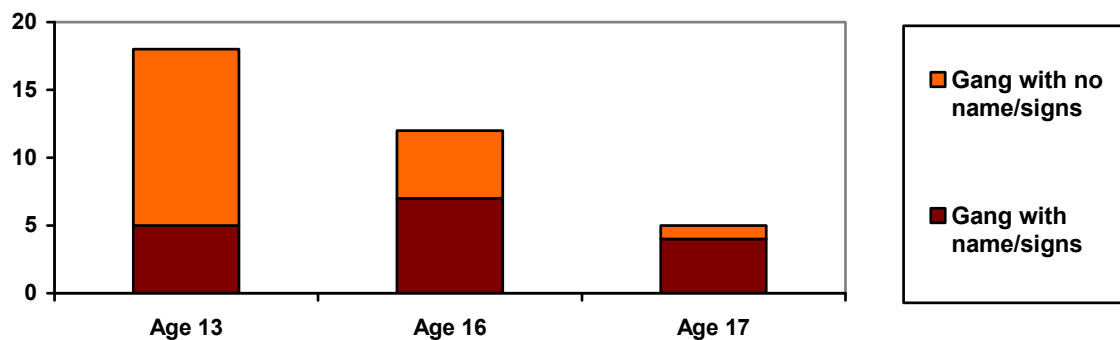
strong element of state dependence whereby carrying a knife may have become a way of life for many young people. These findings would suggest that universal interventions may be more appropriate in the early teenage years, while more targeted individual programmes would yield the greatest impact in the mid teens. Any such interventions would, however, need to address the fact that young people who carry weapons also have deeper seated needs that emanate from their own underlying vulnerability, including low self esteem and feelings of social isolation, which is in part expressed by self-harming. The decision to carry a knife is also likely to be an active choice made in light of their very real perceptions of risk and concern about being victimised by others.

4 GANG MEMBERSHIP AMONGST THE ESYTC COHORT

Extent and nature of gang membership

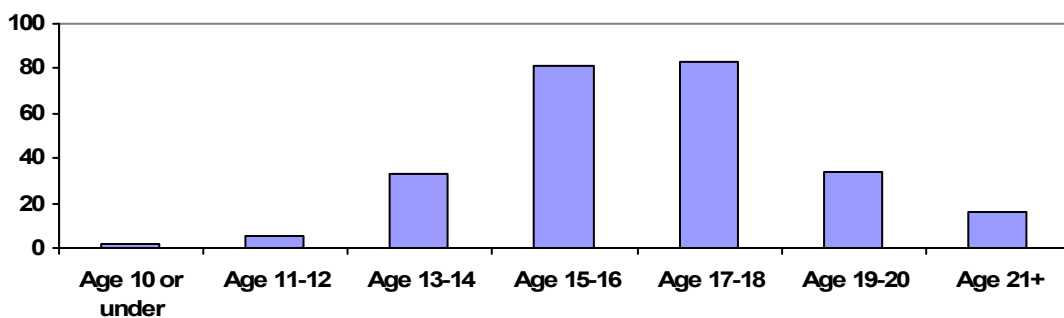
- 4.1 At ages 13 and 16, respondents to the ESYTC were asked whether they would call the group of friends they were hanging about with in the last year a 'gang'; whereas, at age 17 they were asked if they had ever been a member of a gang or 'young team' (and, if so, whether in the last year). No particular definition of a 'gang' was applied, and the analysis contained in this report does not impose any particular qualities on those who stated they belonged to a gang. At all three years, however, they were consistently asked whether their gang had a name and any special sayings or signs. In this section of the report we compare gang members who said that their gang had special sayings or symbols and/or a specific gang name with those who said they were involved in a gang but that this did not have a specific identity. Previous analysis (see Smith and Bradshaw 2005) has suggested that gangs with names and signs are more likely to be involved in serious offending and other problematic behaviour. For the purposes of this report, those who self-defined as a gang member are referred to as 'gang members'; however, this may have meant different things to different people.
- 4.2 Restricting the analysis to those who responded at each of these three sweeps (n=3209; see Smith and Bradshaw 2005 for a discussion of this approach), Figure 5 shows the prevalence of self-reported gang membership at ages 13, 16 and 17 amongst the Edinburgh Study cohort. At age 13, 18% of the cohort stated that they had been in a gang in the last year, although this fell to 12% by age 16 and fell further to 5% by age 17. The proportion of the cohort who stated that they were in a gang with a strong identity, as characterised by having symbols/signs or a gang name stayed fairly constant at around 5% of the cohort. It is evident that the proportion of young people reporting that they were in a gang, who meant only a loose youth group with no actual gang identity, reduced substantially over time.

Figure 5: Prevalence of self-reported gang membership in last year at ages 13, 16 and 17



- 4.3 At all three sweeps, almost all of those who said that their gang had a name specified what it was, although signs were less often specified, possibly because respondents were uncertain how to describe or draw them. In around a fifth of cases, young people gave gang names that were not recognisable as common to the city of Edinburgh; however, the vast majority were identifiable as territorial Edinburgh gangs. The most commonly mentioned were the 'Young Niddrie Terror', the 'Young Leith Team', 'Young Pilton Derry', 'Young Mental Drylaw', 'Casual Crew', 'Young Clerrie Jungle', 'Edinburgh Young Team', Bar-Ox', 'Muirhouse Casual Firm' and the 'Young Broomhouse Team'. Many of these names were recognised because of their historical association with certain parts of the city, and most are still known to be in use today. What is more, amongst those who reported being in a gang at more than one sweep, there was a high degree of consistency over time in the territorial gang names that they mentioned.
- 4.4 At age 17 only, gang members were asked how many people there were in the gang, and what age groups they were. The majority of young people reported that these gangs were very large, with around half (49%) involving 20 or more people and a further 30% consisting of between 11 and 20 people. Not surprisingly, gang members tended to report that most of their fellow gang members were between the ages of 15 and 18, which was within a year or so of their own age, as shown in Figure 6. It was not uncommon to have gang members as young as 13 or up to age 20 reported, however. It is possible that, had this question been asked at earlier sweeps, the age spread would have been lower; however, it is interesting that this profile of gang ages is consistent with contemporary reports given by the police in Edinburgh (see Bannister et al 2010).

Figure 6: Age of gang members according to self-reports at age 17



- 4.5 To summarize this section, the ESTYC asked its cohort members about gang membership at three sweeps of the survey: ages 13, 16 and 17. Prevalence of gang membership reduced over those three sweeps; however, the proportion of the cohort who reported being members of groups with strong gang identities (in terms of identifiable names and signs or symbols) remained constant at around 5%. A wide range of territorial gang names were reported, the majority of which have been in existence for decades and are still being used today. There was a high degree of stability in the names that were given by individuals at different

time points. Gangs tended to be very large and the majority of gang members were said to be between 15 and 18 years of age, although it was not unusual to have younger and older gang members.

Profile of gang members

- 4.6 This section explores the characteristics of young people who reported being part of a 'gang' at the same two age points, age 13 and age 16. This section focuses attention on those individuals who identified themselves with a territorial street gang, which had a recognised name and symbol or sign. At age 13 there were 297 young people who associated themselves with an Edinburgh street gang, while at age 16 there were 303. There was a relatively small overlap between these groups with only 25% of gang members at age 13 saying that they were still in a gang at age 16. This lack of overlap indicates that early identification and intervention with gang members may not necessarily reduce the number of gang members emerging two or three years later by a significant amount.
- 4.7 Gang members were a little more likely to be male (57%) than non-gang members (50%) at age 13, although the difference was not substantial indicating that many females were also reporting involvement in gangs at this age. By age 16, however, the difference between the sexes had increased and gang members were predominantly male (70%) compared to non-gang members (48%). In terms of their family characteristics, Table 10 shows that gang members were significantly less likely to be living with both of their birth parents at age 13, although this gap had narrowed by age 16, suggesting that gang members experienced familial break-down at an earlier age on average. Those who were in a gang also had significantly lower scores on a scale of parental supervision measures (which included items such as knowing who they were with and where they were going when they went out, and when they would return home) than non-gang members. Unlike the knife carriers, there was substantial evidence that gang members were more likely than non-gang members to be from deprived family backgrounds. For example, Table 10 shows that gang members were more likely to be living in families where the head of household was in manual employment or unemployed compared to non-gang members. Furthermore, gang members were more likely to be entitled to free school meals on the basis of low family income, another indicator of social deprivation.
- 4.8 Using postcode data to examine the characteristics of the respondents' local neighbourhood, it was evident that the gang members were more likely to be living in neighbourhoods that were characterised by high crime and social deprivation compared to non-gang members. Deprivation was measured by a range of census measures (including high unemployment and overcrowding), and Table 10 shows that gang members had significantly higher scores on this measure. There was also evidence that gang members were living in areas characterised by higher crime rates in general, and higher rates of violent crime in

particular. There was very little change in any of these measures amongst the gang members at age 13 and age 16, which indicates a certain degree of ‘stability’ in the background circumstances of those involved in gangs, even despite the low level of overlap between them. In other words, gang membership appeared to be heavily influenced by financial disadvantage and living in an area characterised by high social deprivation and crime.

Table 10: Gang members and non-gang members compared at age 13 and 16 on family and neighbourhood characteristics

	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Family characteristics				
Living with both birth parents (%)	71	55*	63	55*
Parental supervision scale (mean)	6.8	5.6*	6.2	5.2*
Parents in manual employment or unemployed (%)	42	67*	42	61*
Entitled to free school meals (%)	19	38*	19	30*
Neighbourhood characteristics				
Neighbourhood deprivation score (mean)	3.2	4.5*	3.3	4.2*
Neighbourhood crime rate per 1,000 people	102	120*	103	120*
Neighbourhood violence rate per 1,000 people	13	17*	13	17*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.9 Given the types of neighbourhoods that gang members were likely to be living in, it is perhaps unsurprising that they were more likely than non-gang members to be involved in a range of other problematic activities, as shown in Table 11. Those who were a gang member were almost four times more likely than non-gang members to drink alcohol at least once a week and five times more likely to have taken drugs in the last year at the age of 13. They were also more likely to hang out in public places with friends most days at this age. The gap between the groups narrowed on these three measures by age 16, particularly because alcohol and drug use increased dramatically amongst both gang and non-gang members. However, gang members continued to be far more likely to be involved in these types of risky leisure activities.

Table 11: Gang members and non-gang members compared at age 13 and 16 on a range of problematic leisure activities

Problematic leisure activity	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Drink alcohol at least weekly (%)	6	23*	42	71*
Taken drugs in last year (%)	6	31*	32	51*
Hang out most days (%)	54	84*	33	65*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.10 Linked to their involvement in risky leisure activities, gang members were also significantly more likely than those not affiliated with a gang to engage in almost all forms of offending and antisocial behaviour. Table 12 shows that gang members were more than twice as likely to be involved in property damage and theft as non-gang members, and almost twice as likely to be engaged in physical violence at age 13. Overall, there was a pattern of desistance from these types of offending between age 13 and 16; however, the pattern of desistance was far less marked amongst the gang members, which meant that the gap between the two groups widened. At age 16, gang members were between two and three times more likely to engage in violence, theft and property damage than those who were not in a territorial gang.

4.11 Additionally, amongst those who did participate in offending behaviour, gang members committed a significantly greater number of offences on average compared to non-gang members. This was the case for violence and property damage at both age 13 and age 16, although the difference between gang members and non-gang members for number of thefts was significant only at age 13. It is also important to note that gang members were significantly more likely than non-gang members to say they had carried a knife in the last year at age 13 and 16; however, it is evident from these figures that a great many gang members did not carry knives, which emphasises a distinct difference between these two types of activity.

Table 12: Gang members and non-gang members compared at age 13 and 16 on their involvement in offending behaviours

Offending behaviour	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Property damage (%)	39	82*	23	66*
Theft (%)	25	62*	13	38*
Violence (%)	45	83*	19	58*
Property damage (mean number of times)	5.4	9.5*	5.6	8.0*
Theft (mean number of times)	3.5	4.6*	4.9	5.7
Violence (mean number of times)	3.4	5.5*	3.4	4.1*
Carry a knife (%)	8	28*	8	23*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.12 Gang members were more problematic than non-gang members in terms of their school attendance. Those who reported being part of a recognised street gang at age 13 were more than twice as likely as non-gang members to report truanting from school. Table 13 shows that truancy increased amongst the gang members and the non-gang members between age 13 and 16, although the increase was more dramatic for the non-gang members; however, differences between the groups remained significant. Amongst those who did truant, gang members were also likely to do so more frequently than non-gang

members. School records reinforced this finding, and showed that gang members were more than twice as likely to have been formally recorded as truanting from school than non-gang members at both ages.

4.13 Exclusion from school was also more common amongst gang members as indicated in formal school records, particularly at age 13; although, the difference between the groups was not significant at age 16. Whereas there was little difference between knife carriers and non-knife carriers in terms of school sector, Table 13 shows the story was different for gang members and non-gang members. Those affiliating themselves to a gang were far less likely to attend independent sector schools, which fits broadly with the findings on social deprivation described above. The most interesting finding, however, is that gang members were around twice as likely to have left school by the minimum school leaving age compared to non-gang members, which indicates a lack of commitment to and possible achievement within the education system.

Table 13: Gang members and non-gang members compared at age 13 and 16 on a number of school measures

School measure	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Self-reported truancy (%)	21	57*	46	68*
Self-reported truancy (mean number of times)	2.9	4.3*	5.5	7.1*
School record of truancy (%)	11	24*	14	36*
School record of exclusion (%)	5	18*	11	13
School sector attended (%)				
Mainstream school	84	91	58	41
Independent school	15	5	15	4
Special school	1	4	1	2
School leaver	-	-*	27	53*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.14 Findings on the three personality measures included in the Edinburgh Study were similar to those for knife carriers, discussed above, particularly in terms of self-esteem and alienation. Gang members at age 13 were significantly more likely than non-gang members to report lower levels of self-esteem and greater feelings of alienation or social marginalisation. Table 14 shows that this changed at age 16, however, as gang members actually reported higher self-esteem and no difference in levels of impulsivity compared to non-gang members at this age. The gang members were still more likely to say they felt alienated at age 16, although feelings of alienation had improved overall since age 13.

Table 14: Gang members and non-gang members compared at age 13 and 16 on personality measures

Personality measure	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Self-esteem scale (mean)	15.5	14.8*	16.8	17.4*
Impulsivity scale (mean)	9.4	10.4*	7.2	7.0
Alienation scale (mean)	13.1	15.3*	11.0	14.1*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.15 Gang members were more likely than non-gang members to report having troublesome peers, as shown in Table 15. At age 13, three quarters of gang members said they had friends who had been in trouble with the police in the last year compared with only a third of non-gang members. Furthermore, almost all of the gang members said their friends had been involved in offending in the last year, which was significantly higher than for non-gang members. Amongst those who had offending peers, gang members had friends who had committed a wider variety of types of offences on average compared to non-gang members. Furthermore, gang members were significantly more likely to report being influenced by their friends even though they were getting them into trouble at home, at school or with the police. The results of this analysis were very similar at age 16, although the extent to which gang members reported being influenced by peers had declined somewhat.

Table 15: Gang members and non-gang members compared at age 13 and 16 on friendship group characteristics and peer influence

Peer measures	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Peers in trouble with police (%)	34	74*	43	79*
Peers involved in offending in the last year (%)	72	95*	67	94*
Variety of offences committed by peers in last year (mean)	2.9	7.4*	2.6	6.9*
Peer influence scale (mean)	4.8	7.2*	3.8	4.8*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.16 At age 13, gang members were more than twice as likely as non-gang members to have had adversarial contact with the police and they were more than four times as likely to have been warned or charged by the police, as shown in Table 16. The likelihood of having adversarial police contact, and being warned or charged, increased between age 13 and age 16; however, the gang members continued to be substantially more likely to have experienced this type of formal agency contact compared to non-gang members. Nevertheless, few of the gang members were referred to the children's hearing system on offending grounds: only 7% at age 13 rising to 13% at age 16. And even fewer were made subject

to any form of compulsory supervision order. Even so, the gang members were still significantly more likely to be officially processed by the hearing system than non-gang members.

Table 16: Gang members and non-gang members compared at age 13 and 16 on contact with official agencies

Peer measures	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Had adversarial police contact (%)	31	75*	39	84*
Warned or charged by the police (%)	8	35*	16	57*
Referred to Children's Reporter on offence grounds (%)	2	7*	4	13*
Made subject to a supervision requirement (%)	1	4*	2	5*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

4.17 In order to determine whether gang members were exposed to activities that might indicate some deeper seated vulnerability, their experience of victimisation and self-harm was explored. The figures presented in Table 17 show that gang members were significantly more likely to be victims of crime, and to experience greater frequency of victimisation, compared to non-gang members. Around two thirds of gang members at age 13 and 16 said they had been a victim of at least one crime in the last year, and those who had been victimised had experienced an average of around six crimes during that year. It was significantly more likely for gang members to report self-harming also compared to non-gang members, with around a quarter of gang members reporting this type of behaviour. Like the knife carriers, gang members present both a problematic and a highly vulnerable, at risk group.

Table 17: Gang members and non-gang members compared at age 13 and 16 on experience of victimisation

Victimisation measures	Age 13		Age 16	
	Non-gang member (n=3816)	Gang member (n=297)	Non-gang member (n=3494)	Gang member (n=303)
Victim of crime in last year (%)	51	70*	37	65*
Number of incidents of victimisation experienced (mean)	3.7	6.0*	3.7	6.2*
Self-harmed in last year (%)	13	28*	19	26*

Note: Differences between gang members and non-gang members denoted * are statistically significant at the 95% confidence level.

Establishing risk factors for gang membership

- 4.18 A similar procedure to that described in the previous chapter was carried out in order to identify those characteristics that were most strongly associated with gang membership at ages 13 and 16, thus establishing the most significant risk factors. Again, multivariate analysis was carried out using binary logistic regression modelling to determine which potential explanatory variables were most significant in differentiating the gang members from the non-gang members. The same explanatory variables (measured at ages 13 and 16) were entered into the initial models for gang members, with one exception: at age 16, 'gang membership at age 13' was added as an extra explanatory variable in order to determine whether there was some element of 'state dependence' in this type of behaviour. Only the odds ratios for those variables that remained as significant in explaining gang membership when other dimensions of their behaviour, background, personality and experience had been controlled for are presented in the final model, as shown in Table 18.
- 4.19 Gender was a significant predictor of gang membership at age 16, but not age 13. At age 16, the odds of a male being a gang member were almost twice as high as that for females, which indicates that there is a gender effect that we are not controlling for in this model. However, gender was not a significant risk factor at age 13 which indicates that any gender differences identified in the descriptive analysis, presented earlier, has been controlled out by taking account of a range of other characteristics. In other words, prevention strategies that are universally applied to males and females in the early teens may be effective; however, gender-specific strategies may need to be applied in the mid to late teens.
- 4.20 Involvement in offending behaviour predicted gang membership at both age 13 and 16; however, the nature of the offending that was associated with being in a gang differed at the two age points. At age 13, those who carried a knife had around twice the odds of being a gang member than non-knife carriers, which highlights the close relationship between these two forms of behaviour. In addition, those who committed acts of theft (e.g. theft from shops, cars or buildings) in the last year had odds of being a gang member that were 1.6 times higher than for those who did not. However, there was a slight condition attached to this, in that it was those involved in low levels of theft who were most likely to be gang members. The more frequent their involvement in theft, the less likely they were to be in a gang. This might indicate that frequent theft is committed by those who offend on their own or in loose groups rather than gangs in the early teens.

Table 18: Variables that best explained gang membership

Explanatory variables included in the final model	Age 13		Age 16	
	Odds Ratio	Wald statistic	Odds Ratio	Wald statistic
Gender (male)	-	-	1.93	16.107
Carried a knife at age 13	1.89	10.976	-	-
Committed theft in last year	1.63	6.295	-	-
Frequent theft in last year	.93	5.929	-	-
Frequent violence in last year	1.09	14.801	-	-
Committed violence in last year	-	-	1.77	10.681
Committed property damage in last year	-	-	1.72	8.717
Variety of peer offending scale (high)	1.2	54.283	1.11	20.373
Heavily influenced by peers	1.05	3.818	-	-
Gang member at age 13	-	-	1.92	8.454
Low socio-economic status	2.22	19.681	1.44	5.272
Entitled to free school meals	1.61	7.227	-	-
Living in high crime rate area	-	-	1.01	7.266
Drink alcohol every week	1.67	5.569	1.51	5.901
Hang about most days	1.65	6.112	1.70	10.857
Been in trouble with police in last year	1.79	8.921	1.77	8.628
Been placed on a supervision order in last year	2.80	4.562	-	-
Been warned or charged by police in last year	-	-	1.50	5.256

Note: All variables were significant in the final model at the 95% confidence level. Odds ratios are a standardised measure that indicate the odds of one group being a knife carrier compared to the odds of another. The Wald Statistic gives some indication of which variables had the greatest effect on knife carrying within the context of the model.

4.21 Frequent violence did, however, predict gang membership; so those who committed higher numbers of acts of violence were more likely to be in a gang at age 13. The picture changed quite dramatically at age 16, where none of these factors emerged as significant in predicting risk of gang membership. Being involved in violence moderately increased a person's risk of being in a gang at age 16; however, involvement in more frequent violence did not exacerbate this risk. Similarly, those who were involved in property damage had a moderately higher risk of being in a gang at age 16; although, again, more frequent involvement in vandalism and other destructive acts did not exacerbate this risk of gang membership. This shift from theft to property damage amongst gang members between age 13 and 16 is similar to the pattern found for knife carrying reported in the previous chapter, which again highlights the fluid nature of change in offending behaviours amongst some young people.

4.22 Given its nature, it is hardly surprising that gang membership was very strongly associated with having delinquent peers. In fact, variety of peer offending was the strongest risk factor to emerge for gang membership at both ages. This indicates that having peers who are engaged in a wide variety of different types of offending behaviours significantly increases the risk of being a member of a gang. In addition, at age 13,

young people who reported that they would be likely to continue to be friends with peers who were getting them in trouble at home, at school and with the police were more likely to be a gang member. This factor disappeared at age 16; however, it was replaced by gang membership at age 13 which doubled the risk of being a gang member three years later. These findings show the importance of targeting intervention strategies at broad groups of young people rather than single individuals, and highlight the potential value of engaging with younger gang members in order to prevent the longer term development of this type of behaviour.

4.23 Various aspects of vulnerability and risk emerged as significant risk factors for knife carriers; however, these did not appear in the models for gang membership which suggests that the aetiology of gang membership is only partly shared with knife carriers. Deprivation at the individual level emerged as significant in predicting gang membership at age 13. Young people whose parents were in low paid manual work or unemployed had more than twice the odds of being in a gang at age 13 than young people from more affluent family backgrounds. This risk factor remained within the model at age 16, although the odds ratio was reduced to around 1.4. In addition, 13 year olds who were entitled to free school meals moderately increased their risk of being in a gang compared to those who did not have such an entitlement. This was not a risk factor at age 16 (possibly because many of these youths had left school); however, living in a neighbourhood characterised by a high crime rate (which is a proxy indicator for deprivation) did emerge as a significant risk factor at age 16. These findings indicate that poverty and deprivation are constant underlying factors that need to be acknowledged and tackled in any intervention strategy designed to reduce the individual risk of becoming a gang member.

4.24 Even controlling for offending behaviour, delinquent peer associations and deprivation, other problematic aspects of young people's lives emerged as significantly predicting involvement in gang membership. Young people who reported drinking alcohol at least once per week had 1.7 times higher odds of being gang members at age 13, and 1.5 times higher odds at age 16, than those who did not drink alcohol so frequently. In addition, the odds of being in a gang amongst those who reported hanging about public places most days with their peers were around 1.7 times higher at both ages than for those who did not hang about regularly. Perhaps as a result of this high degree of public visibility, as well as their acknowledged drinking and offending behaviour, gang members were significantly more likely to have been in trouble with the police during the previous year at ages 13 and 16. Although it was acknowledged in earlier analysis that very few gang members were reported to the children's hearing system on offending grounds; those who were placed on a supervision requirement at age 13 had almost three times greater odds than other youths of being a member of a gang at this age. Supervision was not a significant predictor of gang membership at age 16, which is hardly surprising since

most young people have dropped out of the youth justice system by that age and are diverted into adult criminal justice services instead. However, it is salient that at age 16, being warned or charged by the police increased the odds of being a gang member by 1.5 times.

5 CONCLUSION

- 5.1 This report provides a unique insight into the lives of young people who associate with youth gangs and get involved in carrying knives, based on longitudinal data from the Edinburgh Study of Youth Transitions and Crime. Analysis of self-report data collected at six annual sweeps of fieldwork, tracking a cohort of over 4000 young people from age 12 to 17, reveals that there is a strong overlap between the background characteristics and behaviours of gang members and knife carriers; however, there are also some distinct differences which suggest that these are not simply the same groups of youths and the reasoning underlying these two forms of behaviour diverge to a certain extent. This final chapter of the report aims to tease out these similarities and differences in order to draw some general conclusions from them, and to set out some implications for policy makers to take into account in developing strategies to reduce gang membership and knife carrying in Scotland.
- 5.2 Four out of ten young people had carried a weapon at some point between the ages of 12 and 17, with the peak age for this being around 14 at which point a quarter of young people said they had carried a weapon in the last year. For the majority of young people, these were infrequent acts and did not result in a persistent pattern of behaviour. Not all weapon carrying involved knives – in fact it was clear that young people defined a wide range of different objects as weapons. However, three quarters of weapon carriers stated that they had carried a knife at some point, which represented around three in ten members of the overall cohort. Although there was a dramatic decline in the proportion of young people carrying knives between the age of 14 and 17, the actual frequency of knife carrying amongst those who were engaged in this type of behaviour increased over the same period. This highlights the importance of trying to understand why for some young people carrying a weapon becomes an engrained pattern of behaviour.
- 5.3 More than 10,200 incidents of weapon carrying were carried out by members of the ESYTC over the time of this study; however, these offences were not proportionately distributed across the cohort. Around half of those who carried a weapon were responsible for only 12% of all incidents; whereas, 6% of weapon carriers were responsible for 25% of all incidents. This fits with findings from the study by Bannister et al (2001) which indicated that only a small proportion of young people – a ‘hard core’ – tended to be engaged in persistent weapon use. Given that only around one in twenty weapon carriers said that the police had come to know about any of the occasions on which they had carried a weapon, it seems likely that very few of these 10,200 incidents ended up in the official statistics. This highlights the hidden nature of this problem, and raises questions about the quality of available data on which policy makers must rely. Even if these incidents were formally recorded in official data, however, they would not reflect the fact that for most young people weapon carrying is an experimental and short-lived phase of their

lives. Only a small proportion of young people were really persistent offenders, and this finding is also supported by data from the study by Bannister et al.

- 5.4 Interesting findings emerged about the nature of weapon use which tends to distinguish knife carriers from those who reporting carrying other types of weapon. Analysis revealed that knife carriers were significantly less likely to use their weapon against someone compared to those who carried some other kind of weapon. In addition, where weapons were used, around 40% of knife carriers said they had inflicted an injury on the other person, compared to 80% of those carrying another type of weapon. This seems to indicate that when young people carry knives they are used sparingly and, when used, this may often be with the aim of warning off or threatening others rather than to attack them aggressively. The fact that knives were rarely used suggests that they were more often carried as a precautionary measure, for self-defence, rather than with an explicit intention to use them. This is supported by previous research carried out by Eades et al (2007). These findings have major implications for policy development as they indicate that mandatory sentences for knife carriers are likely to target many young people who have little intention of using them but who may have deep rooted reasons for taking such a risk.
- 5.5 Respondents to the ESYTC were not given any specified definition of a 'gang' and it is not possible to assess whether their self-definitions fitted with the Eurogang Network definition of a durable street group engaged in illegal activity. However, a remarkably consistent proportion of young people reported being part of a group with a recognisable territorial gang name and some identifiable sign or symbol at ages 13, 16 and 17. Many young people at age 13 stated that they would call their group of friends a 'gang', but this was apparently just a short-hand term for a loose group of youths hanging out together. By age 16 and 17, very few young people used the term in this way. Prior analysis of the ESYTC data found that the more concrete the identity of the gang was (in terms of territorial names and signs), the more likely those involved would be engaged in offending and problematic substance use (Smith and Bradshaw 2005). These findings highlight the importance of the gang identity and the fact that some young people attach real significance and meaning to belonging to a recognisable group or gang. While the term 'gang' might be used broadly to refer to many groups of young people, it is important in policy terms to recognise the difference between the large number of young people who may be associated in some way to a troublesome youth group and the very small minority of youths who feel strongly attached to a more problematic gang. This highlights the findings by Bannister et al (2010) that there are definitional problems with the term 'gang' that need to be understood in interpreting data such as these.
- 5.6 Looking longitudinally at the data revealed that only a quarter of those who identified themselves as members of a recognisable gang at age 13

were still in a gang at 16. In other words, membership of gangs appears to be very fluid and changeable over time, with very few young people remaining at the core, and most drifting in and out. This was also supported by the qualitative data which found that group members were often transient and while groups might endure over time, the nature of the population within the group changed dramatically (Bannister et al, 2010). This tendency for young people to change their behaviour over time makes it problematic to develop intervention policies that are targeted at specific individuals as the nature of the target changes rapidly. These findings would suggest that policies need to be more universal and targeted at 'types' of young people, rather than specific individuals, since early identification may not reduce significantly the size of the population involved in gangs.

5.7 An examination of the background characteristics of those young people who engaged in knife carrying and gang membership revealed that there were many similarities between these groups at age 13 and 16 which differentiated them as being more problematic than other young people. For example, both gang members and knife carriers had higher prevalence of parental separation and reported being less well supervised by their parents than non-gang members and non-knife carriers. Alcohol consumption, drug use and frequency of hanging around the streets were all more prevalent amongst gang members and knife carriers compared to other youths who had not engaged in these behaviours. In addition, gang members and knife carriers were significantly more likely to be involved in other forms of offending, including violence, theft and property damage, compared to other youths, and more likely to have truanted and been excluded from school. These problematic youngsters also differed from others in terms of their personalities, with gang members and knife carriers having lower ratings on a self esteem scale and higher ratings on scales of impulsivity and alienation at age 13. Gang members and knife carriers reported having more friends who were involved in offending and in trouble with police and they reported being more likely to be negatively influenced by their peers compared to non-gang members and non-knife carriers. Bearing all these problems in mind, it is perhaps unsurprising therefore that these two groups had experienced more adversarial contact with the police and were more likely to have been formally warned or charged by the police for committing a crime. Interestingly, however, both gang members and knife carriers were also more likely than other youths to have experienced crime victimisation – more often and more frequently – and to have victimised themselves through self harming behaviour.

5.8 There were also some dimensions of their lives on which gang members and knife carriers differed, however, indicating that there is not complete overlap between these groups. For example, there was a real social class difference between the gang members and the knife carriers. Whereas gang members were significantly more likely to come from families with lower socio-economic status and to live in deprived neighbourhoods with higher rates of crime and violence than non-gang

members, this difference was not apparent between knife carriers and non-knife carriers. The school experience of gang members was also different to that of knife carriers, as gang members were more likely than knife carriers to attend a special educational school and to end up dropping out of school at the earliest opportunity. In addition, gang members were more likely to be referred to the Children's Reporter on offending grounds and to end up on a formal supervision requirement compared to non-gang members, whereas referrals for knife carriers were far lower. Finally, knife carriers had particularly high rates of drug use and self-harm at age 16 and significantly lower rates of self-esteem compared to non-knife carriers, whereas this was not true for gang members. In other words, the background characteristics of gang members tended to display greater social adversity while those of the knife carriers revealed greater personal adversity.

5.9 Analysis which simultaneously controlled for the effects of all these background characteristics and behavioural factors confirmed that the underlying risk factors for gang membership and knife carrying showed some aspects of similarity, but also revealed important differences. These models also revealed that there was some shift in the nature of the risk factors that were significant between ages 13 and 16 for both of these types of behaviour. At both ages, risk of involvement in knife carrying was increased amongst young males, those who were involved in both violent and non-violent forms of offending, youths whose peers were well known to the police for offending and amongst those who were victims of crime, highly alienated and involved in self-harming behaviour. The negative influence of offending peers and involvement in a gang were significant risk factors for knife carrying at age 13, but these diminished at age 16. Increased risk due to poor parenting and low self-esteem was also evident at age 13 but not at age 16. Instead, risk of involvement in knife carrying at age 16 was strongly increased by a previous history of knife carrying at age 13 and by engagement in drug use. These findings indicate that for many young people, particularly young males, carrying a knife is an integral part of a risky lifestyle that involves engaging in violent and non-violent offending, associating with delinquent peers and dabbling in the murky world of drugs, all of which are likely to be responsible for increasing their risk of criminal victimisation. In addition, however, these findings highlight the underlying vulnerability of knife carriers which includes lack of parental guidance, feelings of social isolation, poor self-esteem and a tendency to inflict deliberate injuries on themselves (potentially with the very knives they carry). In addition, early engagement in knife carrying exacerbates the risk of becoming a persistent offender.

5.10 Lifestyle factors were also significant in explaining increased risk of gang membership. Like knife carrying, the probability of being a gang member was enhanced amongst those who reported greater engagement in both violent and non-violent offending and association with delinquent peers at ages 13 and 16. However, the risk of being a gang member was also heightened amongst those young people from

more deprived family backgrounds and, additionally at age 16, those who were living in areas characterised by higher crime rates. Additional aspects of a risky lifestyle, in the form of frequent alcohol consumption and regularly hanging around the streets, also exacerbated the risk of being a gang member at ages 13 and 16. Independent of the risk factors detailed above, formal intervention by the agencies of social control was significant in predicting gang membership. At age 13, young people who had had adversarial contact with the police and those who were placed on supervision by the children's hearing system were at significantly greater risk of being gang members. Additionally, at age 16 frequent police contact and being subject to formal police charges also significantly predicted gang membership. In other words, there was significant potential here for intervention to reduce gang membership at an early stage which was not the case for knife carrying. Importantly, however, as with knife carrying, early association with the gang exacerbated the risk of being a gang member three years later.

- 5.11 There are many significant policy implications arising from these research findings. First and foremost is the importance of deprivation and disadvantage – both at the individual level and the neighbourhood level – which proved to be significant in terms of predicting gang membership, but not knife carrying. Many of the interviews conducted with young people by Bannister and colleagues highlighted the fact that territorial gang names often had longstanding associations with particular, socially deprived neighbourhoods, especially in Glasgow and Edinburgh. This suggests that being part of these gangs is, for many young people, a cultural tradition or right of passage driven by longstanding territorial divides between poor urban areas. What is interesting, however, is that the same associations do not appear to exist for those who are engaged in knife crime, who seem to form a broader demographic group that is not distinguished by poverty or deprivation. In policy terms, these findings suggest that interventions aimed at reducing gang membership might best be concentrated within specific geographic localities and more socially disadvantaged demographic groups. Strategies involving socio-economic improvement and increased opportunities for groups of young people might be particularly beneficial. However, such an approach may not have such a high impact on knife carrying which appears to be more evenly distributed across the population.
- 5.12 Whereas gang membership was strongly linked to social adversity, risk of knife carrying was significantly increased amongst those who had experienced more personal forms of adversity. Bannister et al found that young people described joining a local gang as a means of ensuring personal protection and reducing risk of assault from others, which might explain why those living in more crime ridden areas use the gang at least in part as a defence mechanism. However, for many young people who feel in need of protection but do not have the safety net of the gang, carrying a weapon may be an alternative coping strategy. Risk of knife carrying was significantly enhanced amongst young people

who had experienced criminal victimisation, those who felt socially isolated, those with low self esteem and those who engaged in self-harming behaviour. These characteristics indicate that knife carriers are a highly vulnerable and at risk group, for whom carrying a knife is a rational choice based on the fear of experiencing a personal attack. In policy terms, these findings highlight the importance of educational strategies that demonstrate the dangers and risks of carrying weapons, but also of making available a set of wider resources and services targeted at families and neighbourhoods that can help and support very vulnerable young people who live in regular fear of persecution. Such services need to be widely available, not just in deprived areas, however.

- 5.13 This research indicates that formal agencies and institutions, such as the police, schools and the children's hearing system, have a significant role to play in reducing gang membership, and perhaps also knife carrying. Those young people who were in trouble with the police on a regular basis were at increased risk of being part of a gang. Furthermore, those who were placed on a formal supervision order by the children's hearing system had three times greater odds of being in a gang at age 13. These findings indicate the importance of engaging seriously with these issues amongst those young people who come under the purview of the formal agencies of social control. Nevertheless, it is highly unlikely that targeting specific individuals for intervention through the children's hearing system is likely to reduce the overall prevalence of gang membership significantly, for two reasons. Firstly, only a tiny fraction of gang members end up being subject to compulsory measures of care. And secondly, gang membership is more than just a personal choice, it is influenced significantly by associating with a much wider group of delinquent peers, many of whom will not be known to the youth justice system.
- 5.14 These findings suggest that universal service provision that targets areas of general risk would be more likely to be effective in tackling the general problem of gang membership, and local police forces would be ideally placed to identify where these services could best be targeted. It would also be important to factor schools into any preventative strategy, since over half of all gang members dropped out of school by the earliest possible leaving age. Bannister et al's report also highlighted the importance for young people of improving school and police responses to troublesome youths. Multi-agency partnerships that involved the police, schools, local authorities and community organisations in challenging longstanding cultural divisions and providing positive opportunities and outlets for young people would be one approach to tackling the problems associated with youth gangs. Efforts to reduce knife crime could be built into such an overarching strategy as a reduction in gang activity may reduce fear of attack amongst those who carry weapons for protection.

- 5.15 In planning any such intervention strategy, it is important to retain a sense of perspective on these problems. While knife carrying and gang membership are undoubtedly worrying aspects of youthful behaviour, and do cause considerable problems within some communities of Scotland, the findings from this study indicate that the majority of young people never engage in such activities. And amongst those who do, these behaviours are often minor in nature and short-lived. However, there are a small group of young people who present a more persistent and serious problem, and it is evident from these findings that those at greatest risk of knife carrying and gang membership do engage in a range of risky and delinquent behaviours. It is these individuals that policy interventions and preventative strategies should be targeted at and, yet, it is important to think carefully about how these strategies are applied. Previous published findings from the ESYTC have highlighted the stigmatizing effect of labelling young people (McAra and McVie 2005) and the potentially damaging longer term consequences of subjecting them to repeated recycling by the youth justice agencies (McAra and McVie 2007a, 2007b). Therefore, it is essential that any response to gang members and knife carriers is carefully considered, taking into account both their problematic behaviour and their underlying vulnerabilities, and involves the minimum level of intervention necessary.
- 5.16 The evidence suggests that early intervention with gang members and knife carriers would be likely to reduce the risk of such behaviours becoming more persistent and engrained amongst some offenders. Based on these findings, it might be concluded that early intervention should focus on tackling offending behaviour (both violent and non-violent forms of offending) but also on identifying welfare needs and underlying aspects of adversity and vulnerability (whether at the social or the personal level). Early intervention might best be achieved through working with peer groups, in a universal or group-based approach, given the significance at age 13 of the peer group in increasing risk of both gang membership and knife carrying. Much greater research would need to be conducted to consider *when* such intervention should be imposed for the maximum positive and minimum negative effect, however. In terms of intervention that might be imposed in the mid to late teens, this might also include attempts to tackle offending behaviour and address underlying vulnerability; however, this report indicates that the effect of the peer group is less significant amongst those who still engage in gangs and knife carrying at age 16. Therefore, this may be the point at which to engage seriously in more individually oriented intervention aimed at challenging patterns of engrained behaviour and personal decision making. Retaining 16 and 17 year olds within the 'youth' justice system would provide a supportive and welfare-based framework within which to conduct such work that would be unlikely to be provided via the adult criminal justice system.

5.17 Finally, it would be important to take account of gender differences in planning any intervention approach, as analysis of the ESYTC data identified a distinct gender difference at ages 13 and 16 for gang members. At age 13, males and females were equally at risk of being part of a gang, which indicates that prevention strategies at this age should be universally applied to males and females. However, by age 16 the risk of males being part of a gang was twice that of females, which may be indicative of a maturation effect such as that described in the qualitative findings of Bannister et al. Interviews with current and ex-gang members indicated that the reasons for being involved in a gang varied markedly between males and females, and that females were far more likely to exit the gang at an earlier age than males. For this reason, gender-specific strategies may be more appropriate for those who are still part of gangs in their later teens. Risk of knife carrying was greater amongst males at both age points, however, so gender-specific strategies may need to be considered at an earlier stage to prevent or reduce this type of behaviour.

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