ESSAYS IN CRIMINAL AND FORENSIC PSYCHOLOGY NO.2

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1. THE DIAGNOSIS OF PAEDOPHILIA, AND RECIDIVISM

1.1. DIAGNOSTIC CATEGORY OF PAEDOPHILIA

In the USA, 12% of men and 17% of women reported retrospectively being sexually abused by an older person when children (Laumann et al 1994). US data has established the following patterns (Sedlak and Broadhurst 1996):

- Girls abused much more often than boys.
- Children from low-income families most often.
- Offenders are likely to be those in caretaking roles.
- The abuser is usually male.

"Paedophilia" is a commonly used term in society, but, technically, it is a category of mental disorder in the "Diagnostic and Statistical Manual of Mental Disorders" (DSM) used in diagnosis [1] [2]. Generally the term paedophilia (from the Greek, "child over") refers to "a sexual interest in children". But sexual interest includes sexual arousal, sexual fantasies, viewing pornography, and sexual activity, and is "notoriously difficult to measure accurately" (O'Donohue et al 2000).

Different professional use different terms for individuals involved in sexual contact or activity with children [3]. One term being "child molester", which refers to "completed acts of abuse". This is not the same as paedophilia because it ignores covert states (eg: urges). Furthermore, "Some individuals who sexually abuse children may not have a sexual interest in children (eg: the person can be severely intoxicated, demented, or trying to psychopathically injure the child), and some

[1] DSM IV (APA 1994) includes paedophilia under the general category of paraphilia, which also includes exhibitionism, sexual sadism, voyeurism, and transvestite fetishism.
[2] While ephebophilia (or hebophilia) is the "inordinately high" sexual attraction to post-pubescent adolescents (Fagan et al 2002).
[3] "Terms such as 'child sexual abuse', 'incest', 'child molestation', and 'paederasty' are not equivalent to paedophilia. Terms that denote sex with minors are criminal actions; paedophilia is the sexual attraction to children and is a psychiatric disorder" (Fagan et al 2002 p2459).

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individuals with a sexual interest in children may not actually abuse a child, simply because they have never acted on these interests or urges" (O'Donohue et al 2000 p96).

For a diagnostic category to be effective it must prove to be reliable and valid. Validity means that the category measures what it claims to measure. In other words, the symptoms involved in the diagnostic category are evidence of an underlying condition. Reliability refers to the consistency of the diagnostic category over time and between different users (table 1.1) [4].

TYPE OF RELIABILITY	DESCRIPTION
Inter-rater (or inter-diagnostician)	Two independent clinicians arrive at the same diagnosis
Test-retest (temporal consistency)	An individual who does not change receives the same diagnosis at two points in time
Split-half (internal consistency)	An individual who shows certain symptoms within a diagnostic category should also show the other symptoms in that category

Table 1.1 - Types of reliability.

Levenson (2004) assessed inter-rater reliability by presenting the same case studies of individuals referred for sexually violent predator behaviour to different clinicians. From Florida, USA 295 cases were evaluated by 25 professionals (psychologists and psychiatrists) between 1 July 2000 and 30 June 2001. All cases were interviewed in prison by the evaluators, and coded as yes/no for a number of DSM categories including paedophilia, sexual sadism, exhibitionism, and paraphilia not otherwise specified (NOS), and anti-social personality disorder.

Good reliability will show itself as agreement in the category of diagnosis (ie: correlations towards 1.0). Levenson found the following inter-rater reliability for categories in DSM-IV (APA 1994): paedophilia (0.65), sexual sadism (0.30), exhibitionism (0.47), and paraphilia NOS (0.36). The upshot of the level of reliability is that the same individual will be diagnosed with different mental disorders based on the same symptoms by different clinicians.

[4] Meyer (2002) reported the reliability of all DSM categories studied as 0.64.

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1.2. DIAGNOSTIC PROBLEMS

Clinicians making a diagnosis of paedophilia face two main problems, which are common to diagnosis of any mental disorder [5] [6].

1. The wording of the diagnostic category.

DSM-IV (APA 1994) used the following criteria for diagnosing paedophilia:

A. Over a period of at least six months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviours involving sexual activity with a pre-pubescent child or children (generally age 13 or younger).

B. The fantasies, sexual urges, or behaviours cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The person is at least sixteen years old and at least five years older than the child or children in criterion A (APA 1994 quoted in O'Donohue et al 2000 p96) [7].

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[5] The diagnosis of paedophilia (mental disorder) is separate to the category of child sexual offender (legal category). Both categories are not entirely interchangeable. For example, a child sex offender may not be a paedophile because their sexual preference is for adults.

[6] DSM-IV (APA 1994) defined a mental disorder generally as: "A clinically significant behavioural or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (eg: a painful symptom) or disability (ie: impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. Whatever its original cause, it must currently be considered a manifestation of a behavioural, psychological or biological dysfunction in the individual. Neither deviant behaviour (eg: political, religious, or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual as described above" (quoted in O'Donohue et al 2000 p97).

If the proper function of sexual desire and behaviour is procreation, to take an evolutionary perspective, then sexual interest in children is a disability or dysfunction (Wakefield 1992).

[7] DSM-III (APA 1980) used these criteria:
A. The act or fantasy of engaging in sexual activity with pre-pubertal children in a repeatedly preferred or exclusive method of achieving sexual excitement.
B. If the individual is an adult, the pre-pubertal children are at least ten years younger than the individual. If the individual is a late adolescent, no precise age difference is required, and clinical judgment must take into account the age difference as well as the sexual maturity of the child (quoted in Moulden et al 2009 p701).

DSM-III-R (APA 1987) changed to:
A. Over a period of at least six months, recurrent intense sexual urges and sexually arousing fantasies involving sexual activity with a pre-pubescent child or children (generally age 13 or younger).
B. The person has acted on these urges, or is markedly distressed by them.
C. The person is at least sixteen years old and at least five years older than the child or children in A (APA 1987 quoted in Moulden et al 2009 p701)

The words "recurrent" and "intense" are problematic, for example (Moulden et al 2009). "Recurrent certainly means more than once, but how much more? No minimal specification is identified to assist the clinician in determining how many times something has to recur in what time frame for something to be recurrent. This imprecision can result in both false positive and false negative diagnoses because of the level of inference required" (O'Donohue et al 2000 p99). In fact, Marshall (1997) found no evidence of recurrent urges or fantasies in a majority of child sexual offenders studied. "Similarly, what does intense mean? What level of intensity is required to meet diagnostic criteria? In fact, even a more fundamental question can be asked: On what dimension is intensity measured and by what specific means? What is an intense fantasy – is it more vivid, more arousing, or more real? If one has recurrent fantasies, urges, or behaviours but these are not intense, is the person not a paedophile?" (O'Donohue et al 2000 p100).

DSM-IV added the term "behaviours" to fantasies and urges. So fantasies and urges which are underlying motivations are conflated with overt behaviours. A paedophile may show all these aspects, but the aspects may also be separate and unconnected (O'Donohue et al 2000). Figure 1.1 gives an example of how the aspects may interact.

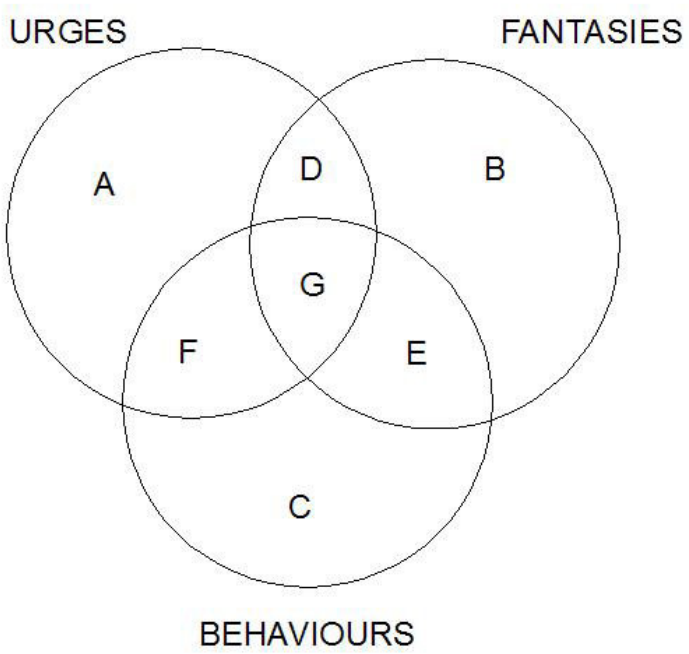
O'Donohue et al (2000) saw the time period of six months as arbitrary: "What is significant about this time period? If the person is assessed 5 months after the fantasies, urges or behaviours began, is the person not considered a paedophile?" (p101).

2. The honesty of the respondent.

The respondent may directly lie about their behaviour when questioned or lack insight about it. For example, the individual may not be "markedly distressed" by their sexual urges for children:

> ..why does a person need to be distressed by the fact that he or she is attracted to children in order for the diagnosis of paedophilia to be made? By the mere fact that an attraction exists, the diagnosis of paedophilia is warranted. For example, if a person admits to being sexually attracted to children and has in fact touched children in a sexual way, do we then need him or her to say that this is distressing? If this does not distress the person, why should this

imply that it is not a disorder?
(O'Donohue et al 2000 p102)



A - sexual urges towards children which remain hidden (eg: working with children to be around them without any inappropriate behaviour).
B - Sexual fantasies about children which remain hidden.
C - Sexual behaviour with a child without sexual interest (eg: while intoxicated).
D - Sexual urges and fantasies which remain hidden.
E - Sexual fantasies acted upon with behaviour.
F - Sexual urges acted upon with behaviour.
G - Sexual urges, fantasies and behaviours with children.

Figure 1.1 - Interactions of three aspects of DSM-IV criteria of paedophilia.

There are adults who want to decriminalise sexual behaviour between adults and children because they believe it is educational and enjoyable for the child (eg: North American Man-Boy Love Association; NAMBLA; Levenson 2004). Such individuals are not distressed by their sexual interest in children.

However, DSM-IV-TR (APA 2000) stated that "because of the egosyntonic nature of paedophilia.. experiencing distress about having fantasies, urges, or behaviours is not necessary for diagnosis paedophilia" (APA 2000 p571 quoted in Moulden et al 2009 p681).

With such difficulties in diagnosis, more "objective" measures have been sort. These include physiological measures of behaviour which do not depend upon the judgment of the clinician or the honesty of the respondent. In the case of sexual behaviour, phallometric

testing is used. This technique measures sexual arousal via penile response to certain stimuli. It is believed that individuals cannot hide this type of sexual arousal, though some have argued that penile response can be suppressed (eg: Marshall and Fernandez 2000).

Phallometry or penile plethysmography (PPG) involves two methods:

a) Volume PPG (Freund 1963) - This measures penile volume increase indirectly by measuring changes in air pressure in a small cylinder and latex cuff around the penile body. Blood flowing into the penis alters the air pressure (Kuban et al 1999).

b) Circumference phallometry - This measures changes in the penis girth by a strain gauge (eg: Bancroft et al 1966).

Kuban et al (1999) compared the two methods with forty-two heterosexual male students in Canada. Seven categories of slides were presented along with audio narration of sexual involvement with individuals in the slides for a period of one minute each. The seven categories were nude adults - male and female (approximately 20-25 years old), young teenagers - male and female (approximately twelve years old), children - male and female (approximately six to ten years old), and "neutral" landscapes.

Penile change was measured as the largest deviation, in millimetres (circumference method) or millilitres (volume method), from trial onset level (baseline established while engaged in neutral conversation). For each category of slides, an average score for each method was calculated (ie: fourteen scores per participant). Table 1.2 gives exact details of the two methods.

The two methods of PPG correlated highly for the different categories of stimuli (Pearson mean correlation $r = 0.87$). However, volume PPG was more accurate for individuals with low levels of response (ie: less than 10% of full erection).

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Penile circumference was measured using a mercury-in-rubber (MIR) strain gauge connected to a Behavioral Technology Inc. (BTI) SIB 60 UL Gauge Interface for signal conditioning and interfacing and a BTI Isolated Analog Output Amplifier for isolation to meet safety requirements. The isolated output was connected to a Newport Type 215 Digital Panel Voltmeter (0.01-V resolution) and to a differential input of a 12-bit A/D converter (Data Translation Inc. DT 2811-PGH, 8 input board) housed in an IBM-compatible PC. Mercury gauges were purchased from D. M. Davis in sizes ranging from 75 to 90 mm of circumference. Penile volume measurement apparatus consisted of the Freund-type glass cylinder and inflatable latex cuff.. secured to the subject by an athletic supporter cup with a 6-cm hole cut in its centre lowered to the base of the cylinder and held in place with Velcro straps attached to the subject's reclining chair. Flexible rubber tubing connected a narrowed 3-mm opening at the distal end of the cylinder to a Rosemount (Model 831A) pressure transducer (range, 1.0 to + 1.0 psi). Voltage output was recorded on a second channel of the same A/D sampling board as the circumferential device. In-house custom-written software sampled the data at four samples per second throughout the duration of each test trial and stored the data on the PC hard drive for later scoring and analysis (Kuban et al 1999 p349).

Table 1.2 - Details of equipment used by Kuban et al (1999).

Baker (1996) made a number of criticisms of PPG and its use:

- How the physiological change is interpreted depends on the baseline level.
- "How changes in penile circumference relate not only to the physiological mechanisms that control erections but also to psychological, cognitive and emotional systems is still very much unclear" (p10).
- "If our fundamental interest is in, for example, cognitive activity that accompanies sexual stimuli, the measurement of penile circumference will by the nature of its remoteness have error" (Geer and Head 1990 p617 quoted in Baker 1996).
- PPG has been used in the UK with non-sexual offenders in prison who were placed on Sexual Offenders Treatment Programmes based on the results. Baker noted this example with concern particularly as PPG can produce false positives (ie: innocent but test found guilty).

1.3. RECIDIVISM

Part of the process of diagnosis is the consequent prediction of the future behaviour of the individual. In

the case of sexual offending, this refers to recidivism after release from custody. The rate of recidivism depends upon the population studied and the time period of follow-up (table 1.3) (appendix 1A).

VICTIMS	RECIDIVISM RATE (%)	STUDY
Extra-familial	14 (5 years later)	Bartosh et al (2003)
Acquaintances Biological children Stepchildren	16.2) 4.8) (15 years) 5.1)	Greenberg et al (1999)
Extra-familial	15.1 (12 years)	Firestone et al (2000)

Table 1.3 - Examples of studies showing rates of sexual recidivism among child sexual offenders [8].

In terms of long term studies, Soothill and Gibbens (1978) found a rate of 23% of general sex offenders for sexual or violent recidivism over twenty-five years. Ackerley et al (1998) calculated a rate of 33% over twenty years among 3800 serious sex offenders in England and Wales

Meta-analysis (appendix 1B) of studies has found that, for general sexual offending, deviant sexual preference, anti-social tendencies and lifestyle instability/criminality (eg: history of rule violation, substance abuse) are the key predictors of recidivism (Hanson and Bussière 1998) [9]. The relationship between any single risk factor and recidivism is small (Hanson and Morton-Bourgon 2009) [10].

Assessment of risk of recidivism is done in certain

[8] Extra-familial refers to victims not related to the perpetrator biologically or by law (stepchildren). Intra-familial covers those victims. Reconviction rates are higher for extra-familial than intra-familial offenders as a general rule (Soothill et al 2005).

[9] In a review of studies totalling 33 001 sexual offenders the following factors were positively associated with recidivism - forensic factors (eg: past criminal history), psychosocial adjustment/clinical factors (eg: psychopathy, unemployment), sexual interests (eg: victim type), developmental factors (eg: victim of sexual abuse), and behaviour in treatment (eg: deterioration) (Craig et al 2004).

[10] A number of risk factors for paedophilia have been identified including (Fagan et al 2002):

- Own experience as victim of child sexual abuse.
- Attachment problems/dysfunctional family relationships.
- Increased adrenaline/noradrenaline, and reduced cortisol .
- Increased luteinising hormone.
- Substance abuse.
- Personality disorders.

Many of these risk factors are found separately in different samples rather than individuals having all of them together. Risk factors can be viewed as precipitating and/or maintaining the behaviour (Fagan et al 2002).

ways:

- Unstructured professional judgment - Based on individual case analysis or case conference and professionals' experience.

- Structured professional judgment - Use of psychometric tools but not linked to actuarial measure; eg: Sexual Violence Risk - 20 (SVR-20) (Boer et al 1997). This has twenty features of the offender and their criminal history. There is no procedure for converting ratings on each item into an overall evaluation of risk.

- Empirical actuarial measures - A total score is calculated from the psychometric measure based on a number variables and this total score is linked to a risk probability; eg: Static-99 (Hanson and Thornton 2000). This assesses the risk with adult sexual offenders using ten items, like number of prior offences. The total score is compared to recidivism probability derived from over 1000 offenders.

- Clinically adjusted actuarial measures - The combination of actuarial measure score with professional judgment.

Hanson and Morton-Bourgon (2009) produced a meta-analysis of the methods of assessing the recidivism risk of sexual offenders generally with 118 studies up to June 2008 (a total of 45 398 sexual offenders). The mean follow-up time for recidivism was seventy months (range 6 - 276 months). Outcome criteria were coded for sexual recidivism, sexual or violent recidivism (including robbery, assault, murder), and any recidivism (all criminal offences excluding technical violations like breach of curfew on probation).

The effect size (d) was calculated to show the average difference between recidivists and non-recidivists.

Overall, the rate of sexual recidivism was 11.5% (based on 100 studies), sexual or violent recidivism 19.5% (50 studies), and any recidivism 33.2% (65 studies).

In terms of the method of risk assessment, empirical actuarial measures, particularly designed for the correct purpose, were most accurate for all types of recidivism (d = 0.67 - 0.97) and unstructured professional judgment the least accurate (d = 0.11 - 0.42) (table 1.4).

ABILITY TO PREDICT SEXUAL RECIDIVISM	ABILITY TO PREDICT VIOLENT RECIDIVISM	ABILITY TO PREDICT ANY RECIDIVISM
1. Empirical actuarial measures designed for sexual recidivism.	1. Empirical actuarial measures designed for general recidivism.	1. Empirical actuarial measures designed for general recidivism.
2. Empirical actuarial measures designed for general recidivism.	2. Empirical actuarial measures designed for violent recidivism.	2. Empirical actuarial measures designed for violent recidivism.
3. Structured professional judgment.	3. Empirical actuarial measures designed for sexual recidivism.	3. Empirical actuarial measures designed for sexual recidivism.
4. Unstructured professional judgment.	4. Structured professional judgment.	4. Structured professional judgment.
5. Empirical actuarial measures designed for violent recidivism.	5. Unstructured professional judgment.	5. Unstructured professional judgment.

Table 1.4 - Ranking of predictive ability of methods of assessing risk.

What about the relationship between diagnosis of paedophilia and recidivism?

Moulden et al (2009) compared four methods of diagnosing paedophilia with recidivism among 206 adult male extra-familial child sexual offenders in Canada [11]. Individuals with offences against adults or family members were excluded.

The four methods of diagnosis were:

i) Use of DSM-III and DSM-III-R criteria - 85 men were diagnosed with paedophilia with this method compared to 79 diagnosed as non-paedophilia.

ii) Phallometric assessment - Changes in penile circumference in response to audio stimuli [12] in the form of vignettes about sexual activity between two people varying in age, sex, and consent/coercion/violence involved (table 1.5). The Paedophile Index (PI) was calculated based on response to child compared to adult involved in vignettes. A score of greater than one was used to distinguish deviant sexual arousal (110 men), and

[11] Diagnosis took place between 1982 and 1992, and not all men diagnosed with more than one method. This accounts for the difference in numbers for the four methods.

[12] Some offenders may be aroused by certain deviant stimuli while others not as well as audio stimuli being different to visual stimuli. So this method is not foolproof.

less than one for non-deviant arousal (45 men).

• Child initiates • Child mutual • Non-physical coercion of child • Physical coercion of child • Violent sex with child • Non-sexual assault of child • Consenting sex with female adult • Sex with female chid relative (incest)

Table 1.5 - Variations in consent, coercion and violence used in vignettes.

iii) Combined both methods above - 59 men classed as paedophile and 43 as not by this method.

iii) Screening Scale for Paedophilic Interests (Seto and Lalumière 2001) - This measures paedophilia based on four offence variables. Each item was coded as absent or present: (i) any male child victims; (ii) more than one child victim; (iii) any pre-pubescent victim (a child under the age of 12); and (iv) any extra-familial victims (a child who was not the offender's son or daughter, stepson or stepdaughter, or a member of his extended family up to and including first cousins). A score of three or four was taken as the individual being a paedophile. Fifty percent of men (103) were diagnosed as paedophile and fifty percent as not.

Recidivism was measured as "any charge or conviction for a sexual offence after the index offence" over twenty years.

Overall, 22.8% (47 of 206) were sexually recidivist with an average time of 10.56 years since first offence. Individuals diagnosed with paedophilia had significantly shorter recidivism times. Overall, recidivism for violence (including sexual) was 33.9% and 45.6% for any criminal offence. However, there was no difference between individuals diagnosed as paedophile or not in terms of recidivism.

In terms of the methods of diagnosing paedophilia, only the phallometric assessment was significantly related to sexual recidivism.

1.4. APPENDIX - SOOTHILL ET AL (2005)

Soothill et al (2005) investigated recidivism with those strongly suspected by the police (but not convicted) of child sexual offences as well as convicted

offenders. They used a dataset of all detected sexual offences against children (5-12 years old inclusive) in Lancashire, England between 1st January 1987 and 31st December 1989 [13]. This produced 344 offenders (suspected and convicted).

Only enough information was available to follow-up 320 of them (and the 312 males in particular) using the Home Office's Offenders Index (OI) (which was examined up to September 2003). The individuals were divided into three groups:

1. Those convicted of child sexual offences in Lancashire in 1987-9.
2. Those not convicted of child sexual offences in Lancashire in 1987-9, but with criminal history.
3. Those convicted of child sexual offences in Lancashire in 1987-9, and with no criminal history.

Group 1 above (convicted child sexual offenders) and groups 2 and 3 (suspected child sexual offenders) showed a difference in the former being older. Over 57% of convicted offenders were 31 years and older compared to the overall figure of 52%, and only 23% were twenty years old or younger compared to the overall figure of 36%. The average age for group 1 was 35.6 years and thirty years for the suspected offenders.

Soothill et al (2005) faced a number of problems in finding information about the offenders and their recidivism including:

- The OI is based on name and date of birth. The latter was not known for 24 individuals.
- Individuals may have given false information in the original dataset, like date of birth.
- Inconsistencies in information (eg: age) for offenders detected for more than one offence.
- Individuals may have changed their names since the original dataset.
- Individuals may have continued offending but were not convicted. The OI only records court decisions since 1963.
- Offences may have taken place outside England and Wales (eg: Scotland), which is the area covered by the OI.

[13] Known as "Kirby series" after PhD work of Stuart Kirby (1993). See Canter et al (1998).

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- Changes in legal terms and categories of offences over time.

In terms of recidivism among convicted child sexual offenders, 20% had "subsequent sex convictions" and 13% "subsequent sex convictions against a person under sixteen". From the suspected offenders, the figures were 9.5% and 4% respectively.

The offenders were analysed using the risk assessment tool - STATIC-99. This consists of ten measures:

- Number of prior sex offences (charges/convictions).
- Number of prior sentencing dates.
- Any convictions for non-contact sex offences.
- Any non-sexual violence convictions at baseline sentencing date.
- Any conviction for non-sexual violence prior to baseline sentencing date.
- Any unrelated victim.
- Any stranger victim.
- Any male victim.
- Age at time of risk assessment (under 25).
- Single (defined as never lived with a lover for two years) (quoted in Soothill et al 2005 p233).

The level of risk was categorised as low (score of 0-1), low-medium (2-3), medium-high (4-5), and high (6+).

Fourteen convicted offenders were rated as high risk, and ten (71%) of those re-offended with any sex offence and 6 (43%) with a child sexual offence compared to 10% and 10% respectively for low risk convicted offenders. STATIC-99 also predicted high risk re-offenders from the suspected offenders groups.

1.5. APPENDIX 1B - META-ANALYSIS

Meta-analysis is a statistical technique(s) that takes different studies of the same phenomena and produces an overall standardised score from them. Cohen (1988) called this "d" or the effect size, which shows the degree of difference between group means.

Field (2003) highlighted some key problems with meta-analysis:

- The "file-drawer" problem (Rosenthal 1979) - This the tendency to publish significant results rather than non-significant findings (which are left in the file-drawer). So just using published studies could over-

estimate effect sizes.

- Errors - Meta-analysis is dependent upon the accuracy of measurement of the original studies. Some meta-analyses distinguish between "well-conducted" and "badly-conducted" studies using quality of study criteria.

- The theoretical assumptions (and statistics used) that underlie meta-analysis. There are a number of different models. Applying the wrong model can inflate the mean effect size (Field 2003).

- Dealing with studies showing very different results. Where there is great variety in findings, an overall effect size may be of limited use compared to explaining the factors involved in the different findings in different studies.

"As with all statistical procedures, the results are only as good as the data available and the person performing the test" (Field 2003 p645).

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2. SEXUAL FANTASY AND SEXUAL OFFENDING

2.1. THE RELATIONSHIP BETWEEN FANTASY AND OFFENDING

It is generally felt that (deviant) sexual fantasy is behind sexual offending. This is the view that "there is a process in which rather obsessive fantasies begin to escalate in frequency and intensity, which drives the offender to violent, often sexual, criminal episodes which may satiate, temporarily, the fantasy. Repetition of such cycles of intensification leads to serial offending of increasing ferocity" (Howitt 2004 pp182-183). Offender profiling by the FBI in the USA established the importance of violent fantasies as young as seven or eight years old which become enacted in adulthood by serial killers (Wilson and Seaman 1992).

Howitt (2004) offered a note of caution about generalising from extreme offender groups to offenders generally, and to the non-offending general population. In fact, sexual fantasy among non-offenders is viewed quite differently. It is seen as a different domain of experience, as separate from and co-existing with reality, and as a "relatively benign safety valve" (figure 2.1).

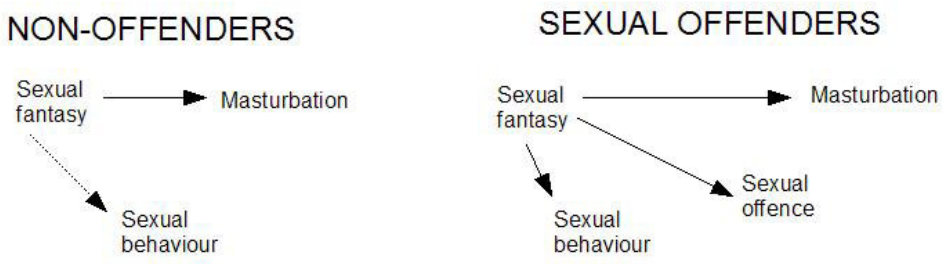

Figure 2.1 - Traditional views of sexual fantasy and behaviour/offending.

The question is, then, what is behind the difference in sexual fantasy between offenders and non-offenders. One possibility is that the nature of sexual fantasy varies - ie: offenders have deviant sexual fantasies (eg: rape/forced intercourse). Based on self reports of fantasies, depending how much they can be trusted, over one-third of non-offending males and a quarter of non-offending females reported fantasies about being forced,

and a quarter of such men as doing the forcing, for example (Kirkendall and McBride 1990).

Daleidan et al (1998) felt that sexual offenders were different because of the lack of non-deviant fantasies rather than the amount of deviant ones (appendix 2A). Non-deviant fantasies involve a romantic aspect (ie: beyond the physical act), and even a moral context (eg: guilt about the content) (Howitt 2004).

Howitt (2004) suggested an alternative relationship between sexual fantasies and offending among sexual offenders: experience produces the fantasy. Adolescent deviant sexual fantasies which precede adult offending may come from experiencing childhood sexual abuse. Offending, thus, becomes "the source of fantasy and not the reverse" (p187) (figure 2.2).

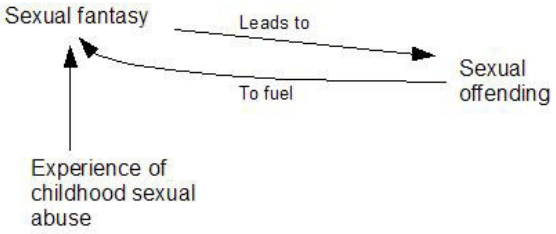

Figure 2.2 - Experience causing sexual fantasy among sexual offenders.

2.2. APPENDIX 2A - STUDYING SEXUAL FANTASIES

Four comparison groups of males were recruited by Daleiden et al (1998):

1. 104 10-15 year-old sexual offenders.
2. 198 16-20 year-old sexual offenders.
3. 124 16-20 year-old non-sexual offenders.
4. 135 17-20 year-old psychology students at Ohio State University.

The participants in the first three groups were incarcerated in juvenile correctional facilities in Ohio, Oregon and Texas.

The inclusion of four groups allowed a number of different comparisons:

- Group 1 vs 2 - difference between sexual offenders based on age.
- Groups 1 and 2 vs 3 - difference between sexual

offenders and non-sexual offenders.
- Groups 1 and 2 vs 4 - difference between sexual offenders and non-offenders.
- Group 3 vs 4 - difference between non-sexual offenders and non-offenders.
- Groups 1, 2 and 3 vs 4 - difference between offenders and non-offenders.
- Group 2 vs 3 - difference between sexual offenders and non-sexual offenders of same age.

Self-reported details of sexual history were recorded [14] as well as the completion of the Sexual Fantasy Questionnaire (SFQ). The SFQ has 127 items which are scored on a seven-point scale (0 = "never in my life" to 6 = "two or more times per day")(table 2.1). Two general scores are calculated from the answers for deviant fantasies (Global Deviance Score) (eg: fantasies about whipping, beating or torturing others; fantasies linked to paraphilias like cross-dressing or arousal by fire-setting), and non-deviant fantasies (Global Non-deviance Score) (eg: hugging, kissing, undressing).

The SFQ also produces six sub-scales in relation to the nature of the fantasies:

- Traditional/romantic - eg: holding hands;
- Variety of partners - eg: sexual activity with a famous person;
- Variety of settings - eg: sexual activity in exotic places;
- Non-traditional - eg: exposing sexual parts;
- Mild coercion - eg: bribing an individual to have sex;
- Aggressive - eg: raping.

The data of the four groups and the eight scores of the SFQ were analysed with a statistical test called MANCOVA (multivariate analysis of covariance).

There were significant differences between the groups on all eight scores. The college students had the highest mean Global Non-deviance Score, not surprisingly, but also the highest Global Deviance Score (figure 2.3). They were also highest on five of the six sub-scales with the Aggressive sub-scale mean highest for sexual offenders. So, incarcerated individuals, particularly sexual offenders, are reporting less fantasies with non-deviant content. "Thus, contrary to clinical lore, criminal activity may be associated with suppressed levels of non-deviant fantasy rather than elevated levels of deviant fantasy" (Daleiden et al 1998).

[14] The 53-item self-reported Sexual History Form, which measures lifetime frequency of different behaviours, was used.

How often do you fantasize about each of the following:

(Traditional/romantic sub-scale)

1. Hugging someone
14. Getting married
18. Being rescued from danger

(Non-traditional)

2l. Dressing in costumes during sexual activity
33. Looking at dirty/porno pictures or films
82. Sex with a dead person

(Mild coercion)

50. Spanking someone
57. Pinching during sexual activity

(Aggressive)

59. Using weapons during sexual activity
72. Sexually degrading a partner (calling names, laughing at, etc)

(Variety of partners)

105. Sex with a stranger
116. Fantasizing that you are of the opposite sex

(Variety of settings)

123. Having sex where there is danger of being caught
126. Sex in unusual locations (eg: rooftop, library)

(Source: http://commons.pacificu.edu/cgi/viewcontent.cgi?article=1166&context=spp)

Table 2.1 - Examples of items from SFQ.

But these findings may be due to "inaccurate self disclosure or lack of insight" by the offenders. The first of these is deliberately lying or withholding information, and the latter is due to a lack of awareness of own motives and behaviour. As a generalisation, offenders are not likely to do well on either of them. Put simply, can self-reports from offenders be trusted?

Table 2.2 lists the key limitations of the study including in relation to generalising the findings.

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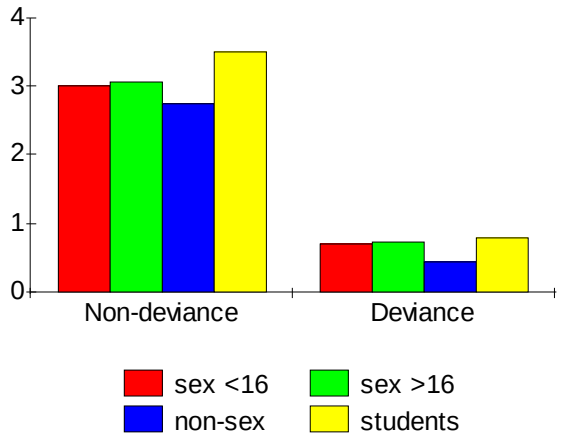

(sex<16 = sexual offenders 10-15 years old; sex >16 = sexual offenders 16-20 years old; non-sex = non-sexual offenders)

Figure 2.3 - Mean scores for Global Deviance and Global Non-deviance for four groups of individuals.

1. The four groups differed on demographic characteristics like ethnicity and sexual orientation.

2. It is not reported but it can be assumed that intelligence/education level varied between the students and offenders.

3. The use of retrospective self-reported measures without any independent way of confirming the accuracy of information.

4. Only volunteers used in the study.

5. Anonymity and confidentiality were emphasised. This can encourage honest replies, but also exaggerations (under or over-reporting) (table 2.3).

6. The sexual offenders groups included only those caught and convicted.

Table 2.2 - Key limitations of Daleiden et al (1998).

There are also problems involved in studying sexual fantasies in terms of what they are.

i) How sexual fantasies are operationalised in research. This is the definition used by researchers that can be measured, and it can vary between studies.

ii) Are sexual fantasies entirely internally generated or are they triggered by an external stimulus? Some researchers see the latter as an urge ("externally provoked sexual thought"). Jones and Barlow (1990) investigated whether there was a difference.

Offender surveys are used as an alternative to official crime statistics. For example, Groth et al (1982) using a sample of 137 male sexual offenders asked them about the number of sexual offences committed. Their confidentiality was assured. The researchers found many undetected offences - an average of five for each offender. This suggests that sexual offences could be severely under-recorded by the police.

An alternative method is to ask individuals without criminal records if they have committed undetected offences. Furnham and Thompson (1991) found that 88% of undergraduates asked had drunk alcohol under the age of 16, and 74% had viewed an "18" certificate film under age. Most of the offences were trivial, with only 1% admitting to theft.

Table 2.3 - Use of offender surveys which assure confidentiality.

Jones and Barlow (1990) used forty-nine male and forty-seven female undergraduates on an introductory psychology course in New York. The students were trained to record details of their sexual thoughts for seven days under the headings - sexual fantasy (internally generated sexual thought), sexual urge (sexual thought prompted by external stimulus), and masturbatory fantasy. All students were self reported as heterosexual.

Comparison of the male and female records showed that men reported significantly more sexual urges (eg: saw something that caused them to think about sex), and masturbatory fantasies, but there was no difference in frequency of sexual fantasies. This study showed that sexual urges and sexual fantasies are separate phenomena.

This type of study raises ethical issues for the participants which Jones and Barlow addressed in the main.

- Confidentiality - All information identifying the individuals was destroyed. All completed records kept in confidential envelopes.

- Privacy - The participants were trained on an individual basis by a researcher of the same sex in a private office in the psychology department.

- Informed consent was obtained before the study began, and written debriefing given afterwards.

- Participants were told of their right to withdraw at any time without penalty. However, the students "volunteered" for the study as part of the course requirements.

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3. FEMALE SERIAL KILLERS

3.1. TYPES OF SERIAL KILLER

Men are much more likely to be killers (particularly of strangers) than women, and many of the female killings are in a domestic situation. Consequently, attempts to classify serial killing (eg: three acts of killing in at least thirty days; Holmes and Holmes 1998) are based upon male perpetrators. What about the rare cases of female serial killers?

For example, Hickey (1997) reported sixty-two cases of US female serial killers between 1825 and 1995. The main motive seemed to be material gain, using poisoning, and victims known to the perpetrator (eg: Belle Gunness killed up to forty men with strychnine in the USA in the early twentieth century for money; "Deadly Women: Female Profit Killers"; 2004; History Channel). Only a quarter of the 62 cases were stranger only victims compared to half involving family members.

Of the five types of female serial killer produced by Holmes and Holmes (1998), the most common were the "comfort killer" (or "black widow") who killed for material gain. The "power seeker" type (or "angel of death") described women who work in the caring professions and kill strangers under their care. The other three types are quite rare - "visionary" (killing in response to hallucinatory voices), "disciple" (under the influence of a charismatic individual), and "hedonistic" (for sexual gratification or sadism) (Frei et al 2006).

Female perpetrators are more likely to have accomplices (usually male) than male killers. Kelleher and Kelleher (1998) found that the "team killer" was most common among eighty-six US cases, followed by "black widow" in their nine categories of female serial killer (table 3.1).

"One thing that female serial killers have in common with their male counterparts is that no one thing can explain the phenomenon" (Frei et al 2006 p169).

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HOLMES AND HOLMES (1998)	KELLEHER AND KELLEHER (1998)
Comfort	Black widow Revenge Profit or crime
Power seeker	Angel of death
Visionary	Question of sanity
Disciple	Team killer
Hedonistic	Sexual predator
	Unexplained Unsolved

Table 3.1 - Overlap between two categories of female serial killer.

3.2. CASE OF PK

However helpful the categories of behaviour, there are cases that are not typical. Frei et al (2006) reported the case study of "PK" (a woman in a "Middle European" country) who did not fit the typical female serial killer (table 3.2). She stabbed her first female victim to death at eighteen years old. Six years later another killing as well as other cases of attempted murder and violence during the period (usually against women). She also had a history of fire-setting.

PK was 25 years old when remanded in custody and given a psychiatric assessment. Frei et al could not find any history of abuse by her family, but she did experience bullying at school. She had no history of alcohol or drug misuse, though both her parents abused tranquillisers.

She was assessed as having no "classically psychotic features", but reported a strong hatred for people, especially women. There was no evidence of physiological problems (eg: minor brain damage). The forensic psychiatrists who assessed her gave a diagnosis of mixed personality disorder.

Frei et al felt that she could be included in the categories of "hedonistic" or "power seeker" of Holmes and Holmes (1998), which is similar to Aileen Wuornos (who killed seven men in the USA in 1989-90) [15]. PK is not similar to Wuornos in terms of their characteristics and behaviour (table 3.3).

[15] Details of crimes at, for example, http://www.trutv.com/library/crime/notorious_murders/women/wuornos/2.html.

	TYPICAL FEMALE SERIAL KILLER	PK
Victims	Known	Strangers in street
Method of killing	Covert	Brutal stabbing in public
Motive	Material gain	“she said she saw women as easy victims, and felt ‘excited’, ‘like a savage in face of his hunting prey’ when she saw them” (p173)
Accomplice	Often with male	Alone
Location of murders	Nearby (eg: own home)	Geographically distant from home

Table 3.2 - PK compared to typical female serial killer.

AILEEN WUORNOS	PK
Shot seven men in “self defence” while working as prostitute	Stabbed two women
Abandoned by parents Never knew father	Raised by both parents
Incest with brother at 10 years old	Only child
Sex for money from eleven years old	Disgust for sexual behaviour
Had child which taken away	Affair with male patient in psychiatric hospital and afterwards requested pregnancy test
Suicide attempts	Suicide ideation, “but said she was too cowardly to do it”
Lesbian interest in late 20s	No evidence, but “tried to hide femininity” and “boyish”
Possibly borderline personality disorder	Evidence of personality disorders

Table 3.3 - Comparison of Aileen Wuornos and PK [16].

Frei et al suggested that PK may have shown symptoms of autistic spectrum disorder with a lack of understanding of another person’s feelings and thoughts, difficulties in relationships (described herself as a loner), and impaired communication (avoided eye contact). "We suggest that PK’s psychopathology is best conceptualised in a dimensional way with dissocial, borderline, schizoid and narcissistic personality

[16] Information about Wuornos from documentary, “Aileen Wuornos” (2003) on Biography Channel.

features as well as traits of an autistic spectrum disorder" (p175).

3.3. GENDER DIFFERENCES AND CRIME

Women are less likely to be serial killers, and less likely to commit recorded crimes generally. Why is this? Three types of explanation can be given.

1. The difference is artificial and only refers to recorded and convicted crimes. Women commit as much crime as men, but most goes unnoticed or unpunished.

Pollak (1950) proposed this idea as the "masking thesis", which suggested that women were better at evading detection, or received lenient treatment by the courts [17].

The latter tends not to be the case, and certain groups of women (eg: poor, ethnic minority) are treated harsher (Radford 1996).

2. The difference is real, and the explanation is social. Women are socialised into conforming, socially acceptable behaviour, and staying in the house, whereas men are encouraged to be different, rebellious, and have the opportunities being outside the house.

"A woman who commits a crime is in essence breaking two rules - one the rule of law and the other a rule constructed by society as to how she is expected to behave" (Nadel 1993 p135). Thus female criminals are "doubly deviant".

3. The difference is real because there are biological differences between men and women related to crime; eg: males have more testosterone and its link to aggression.

So, women who commit crimes are biologically different to other women, it is argued (Radford 1996).

Feminist criminologists, like Heidensohn (1985), have argued that the issue is why women tend to conform rather than why males tend to offend.

The reasons for the gender differences in crime depend upon the approach taken, and like the explanations for crime generally, there are many different theories.

[17] Heidensohn (1985) is especially critical of Pollak's ideas.

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4. ANTI-SOCIAL BEHAVIOUR IS BAD FOR YOUR HEALTH

4.1. INTRODUCTION

The Cambridge study in delinquency development (CSDD) is an ongoing longitudinal study of the anti-social and offending behaviour of 411 males [18] first contacted in 1961-2 in the working-class, urban area of Camberwell, south London. All 8-9 year-old boys on the registers of six state primary schools were recruited. Follow-up interviews occurred when the participants were 16, 18, 21, 25, 32, and, most recently, 48 years old (Shepherd et al 2009).

Analysis of the data has produced a number of associations in relation to health as well. The associations were positive at ages 16-18 and 27-32. Criminal convictions before age eighteen correlated with less respiratory and overall illness at 16-18 years old. Current anti-social behaviour was associated with low hospital admission at 27-32 years old. This latter finding may have been because less hospital treatment was sought. After age 32, anti-social behaviours become associated with negative health outcomes (Shepherd et al 2004).

4.2. MIDDLE AGE

Shepherd et al (2009) reported the follow-up of the CSDD with the participants aged forty-eight years old (on average). Of the original sample, 394 were still living and 29 could not be traced or refused to be interviewed. Details of the dead participants were also included.

Information about illness and injury in the previous five years was the focus of the interviews. Illnesses were categorised as psychological/neurological, respiratory tract, cardiovascular, musculoskeletal, skin, allergic, gastrointestinal, or infective. Injuries were recorded as accidental, assault, or road.

Six factors were found to be statistically significantly associated with death, disability, or

[18] 97% of the sample were White.

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chronic illness at age forty-eight. In order of importance, the factors were:

i) Self-reported delinquent behaviour at age thirty-two;

ii) Any anti-social behaviour at ten years old;

iii) Any criminal conviction during lifetime;

iv) Any parental risk factor at age ten (eg: parental neglect, family criminality, poverty);

v) Any criminal conviction aged 10-18 years old;

vi) Impulsive at age eighteen.

The strongest effect was with a combination of three factors: any anti-social behaviour at ten years old and parental risk factor at that age with self-reported delinquency in 30s.

4.3. CUMULATIVE AND MULTIPLE DISADVANTAGE

In the case of health as the individual ages, this can be seen in the context of cumulative advantage/disadvantage (eg: Dannefer 2003). Put simply, factors work together over time to increase advantages of the "haves" and increase the disadvantages of the "have nots". The factors can include money, housing and environment, and education as well as individual behaviours like risk-taking and substance abuse.

The CSDD has shown that individuals involved in crime at a young age had multiple disadvantages. Farrington and West (1990) found that of those convicted of an offence between the age of 10-16, 75% were reconvicted between 17-24, and 50% reconvicted between 25-32. Those who were most serious offenders were deviant in a number of ways. For example, at 18 years old, they drunk and smoked more, and were involved in more fights. The study highlighted the common factors in persistent offending: difficult child at primary school; poorer and larger families; poor housing; and parental neglect. The key indicator was having other criminal members of the family. But low social class, or working mothers, were not found to be factors.

Farrington (1995) after further analysis of the results highlighted six predictors in childhood of adult criminality:

- Anti-social childhood behaviour;

- Hyperactivity as a child;
- Low intelligence;
- Criminal behaviour in the family;
- Family poverty;
- Poor parental child-rearing behaviour.

An alternative way to assess the results is to compare the unconvicted at age 32 with the convicted. The latter were viewed as "social failures"; ie: less home ownership, more conflict with their partners, lower pay, and more drinking and smoking.

But within the whole study, it should be noted that just over 20 boys produced half the recorded convictions. So, in fact, it is a small hard core of problems (Brewer 2000).

Table 4.1 lists the key limitations of the CSDD.

1. Limitations of sample including no women. Only White, British, working-class, inner city males born in the 1950s. This restricts the generalisability of findings.

2. Effect of repeated interviewing of participants over time.

3. Infrequency of interviews (eg: five years) and recall accuracy of information.

4. Trustworthiness of information given in interviews.

5. No information about causes of findings.

Table 4.1 - Key limitations of the CSDD.

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5. CRIME VICTIMISATION AND DEATH BY HOMICIDE: SURVIVAL OF THE CLEVEREST

5.1. CRIME VICTIMISATION

Criminal victimisation is not an evenly distributed experience, there are some individuals who suffer much more than others. Thus we can talk about the prevalence of victimisation (the crime figures based on those who experience crime). While the incidence of crime is the amount of crime divided by the whole population. So the prevalence of victimisation figures show, for example, more burglaries in inner city areas, and young males as the victims of assault in the Britain (Brewer 2000).

The likelihood of experiencing some illnesses and subsequent mortality can vary with certain factors, like social class and income. So is the case with the risk of death from homicide. The rates are lower for higher educated, professional, and higher income groups (Batty et al 2008).

Higher IQ score also reduces the risk of victimisation by homicide. Batty et al (2008) showed this link through the analysis of Swedish population records.

5.2. BATTY ET AL (2008)

All non-adopted men born between 1952 and 1976 were identified from records (Multi-Generation Register) along with an IQ score ascertained at military service conscription (figure 5.1).

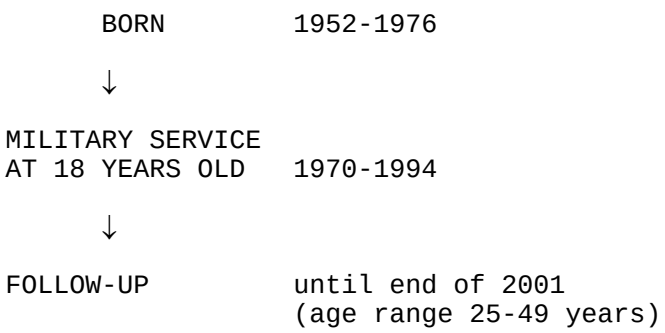

Figure 5.1 - Stages in study.

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The IQ was measured by four standardised tests used by the Swedish military - logic (following written instructions to solve a problem), spatial (matching 2D and 3D objects), vocabulary, and general knowledge.

Complete information was available for 968 846 men who were divided into three groups based on IQ score (lower, middle, higher) [19]. Other information was also available on social class (based on parents' occupation) and education level.

There were 191 homicides in the period up to the end of 2001 among the participants. A clear pattern emerged from the analysis (table 5.1). IQ was found to be negatively correlated to homicide risk - ie: the higher the IQ the lower the risk of death by homicide, and vice versa. The highest IQ-scoring group had an 82% lower rate of homicide death than the lowest IQ-scoring group.

	LOWER IQ	MIDDLE IQ	HIGHER IQ
Number of participants	93 321	247 351	628 264
Number of homicide deaths	59	60	72
Percentage of group	0.063	0.024	0.011
Age-adjusted hazard ratio	1.0	0.38	0.18

(After Batty et al 2008)

Table 5.1 - Summary of results.

In further analysis, Batty et al (2008) found that parental social class was also inversely related to death by homicide.

This study makes use of detailed records kept in Swedish society in order to establish statistical relationships. But what might be the explanation for these findings? Batty et al (2008) suggested the following possibilities:

i) Higher IQ individuals have better verbal skills and can resolve disputes before they become violent.

ii) Higher IQ leading to employment and higher income, usually, allows such individuals to live in safer

[19] IQ scores were standardised into a normal distribution with 9 bands (standard deviations). The "lower" IQ group was 1-2, "middle" 3-4, and "higher the remainder.

environments and to have security/protection measures.

iii) Lower IQ individuals may be more likely to place themselves in situations where homicides occur and/or to take risks related to that (eg: motor vehicle accidents and lower IQ; Smith and Kirkham 1982).

iv) Homicide is linked to alcohol and drug use (eg: 75% of Swedish homicide victims alcohol intoxicated; reported in Batty et al 2008). Higher IQ individuals are less likely to be using such substances (eg: Batty et al 2006). Substance use can also increase risky behaviour.

v) Individuals with lower IQ are more likely to be the perpetrators of homicide, and they mix with "like-IQ" individuals who become their victims. This is particularly so where the victim and perpetrator know each other (Batty et al 2008).

The reasons for the findings may be other explanations, or a combination of the above mentioned factors (figure 5.2).

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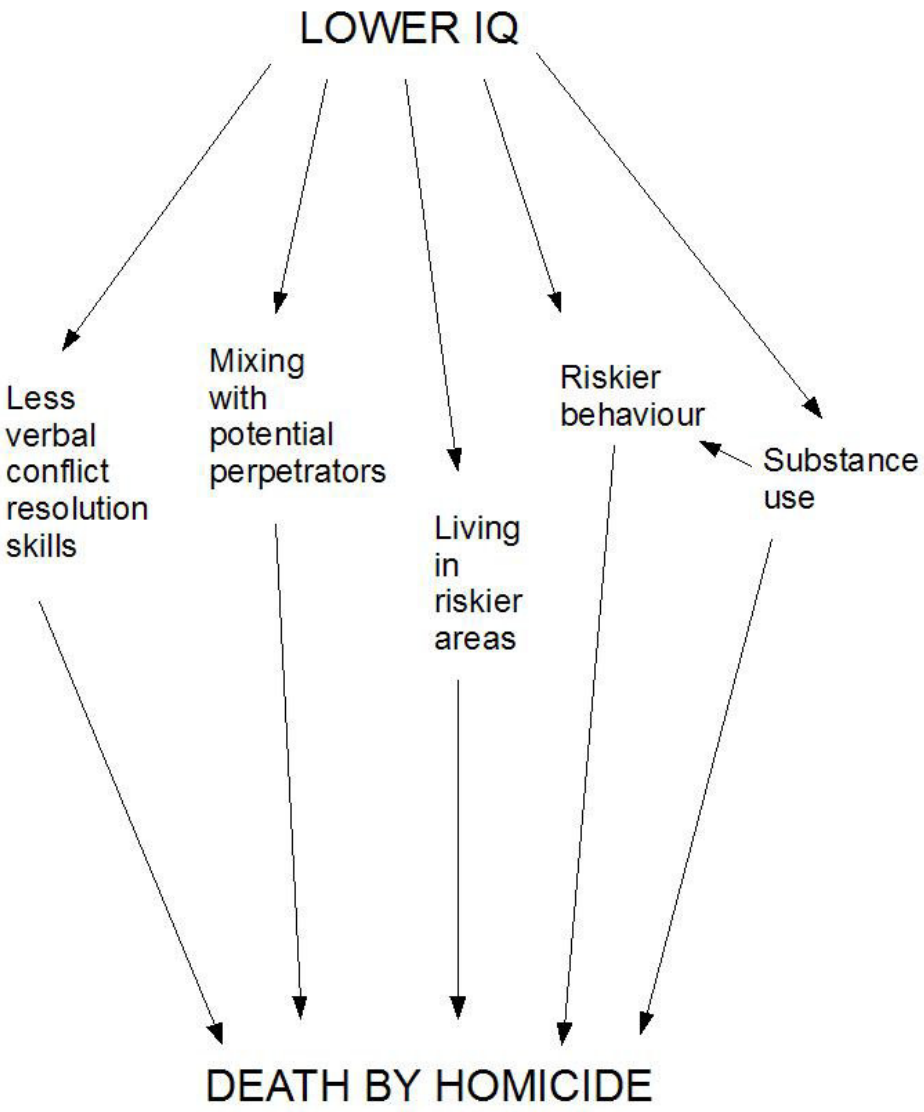

Figure 5.2 - Factors to show how lower IQ individuals could have a greater risk of death by homicide.

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