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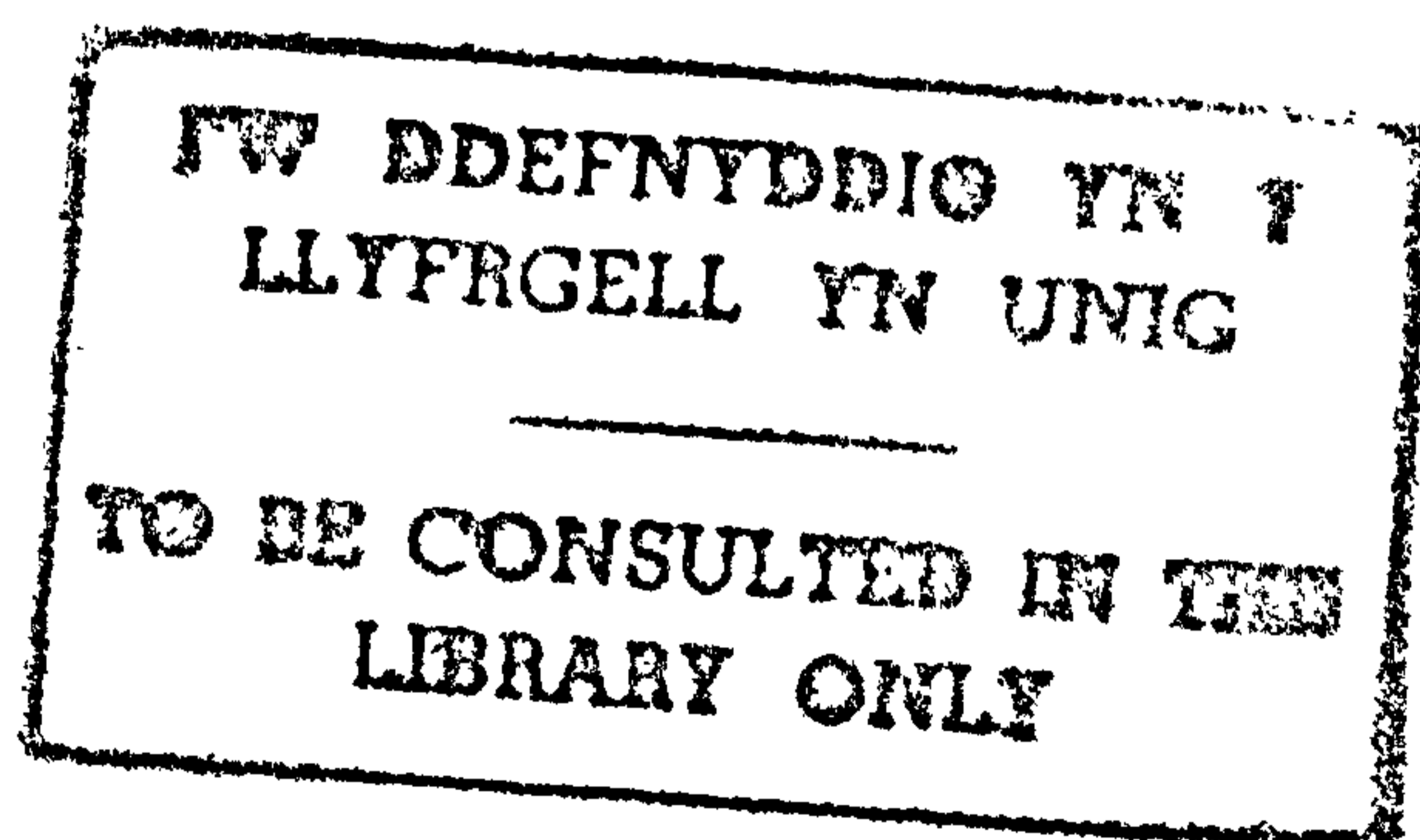
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# **COGNITIVE PROCESSING IN CONVICTED SEXUAL OFFENDERS AND NON-OFFENDER CONTROLS.**

**Thesis submitted in partial fulfilment of the requirements for the  
degree of Doctorate in Clinical Psychology (D.Clin.Psy).**

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# Cognitive Processing in Convicted Sexual Offenders and Non-Offender Controls

## Summary

Current cognitive-behavioural sexual offender treatment programmes request that offenders recall detailed information regarding cognitions, emotions and behaviour in relation to their offending as a means of addressing issues such as claiming responsibility for the offence, social skills training and relapse prevention. However, it was hypothesised that should this offender group demonstrate overgeneralised autobiographical memory recall the efficacy of these fundamental treatment components would be restricted. Therefore, convicted male sexual offenders against children were recruited in order to investigate autobiographical memory recall, and its association with attributional style and social problem-solving.

Twelve offender participants completed the Autobiographical Memory Test (AMT; Williams & Broadbent, 1986), Internal, Personal, and Situational Attributions Questionnaire (IPSAQ; Kinderman & Bentall, 1996a) and the Social Problem-Solving Inventory – Revised (SPSI-R; D’Zurilla, Nezu & Maydeu-Olivares, 1997).

Demographic data were collected using a general information questionnaire devised by the researcher and the Beck Depression Inventory (BDI; Beck, Rush, Shaw & Emery, 1979) and the Symptom Checklist – 90 – R (SCL-90-R; Derogatis, 1994) were implemented in order to screen for depression and general psychopathology. Twelve male non-offender control participants were also recruited who matched the offender participants on age and level of intellectual ability based on the Raven’s Standard Progressive Matrices (SPM; Raven, 1976).

The results indicated that the offender group recalled significantly more overgeneral event memories than the control sample, and that this difference prevailed when depressed mood was controlled for. The offender group was also found to endorse



negative problem orientation (NPO) and avoidance style (AS) problem-solving strategies significantly more than the control group, and scored significantly poorer on overall social problem-solving (SPS) ability on the SPSI-R. However, when depressed mood was controlled for only a non-significant trend remained suggesting that the offender group implemented avoidance strategies more than the controls. Although, no significant group differences were found for attributional style, the data did highlight greater external attribution for positive than negative events suggestive of a self-blaming cognitive bias in the offender group, which is not consistent with the sexual offence literature.

It is postulated that overgeneralised autobiographical memory recall in the offender group is associated with the use of a cognitive style implemented during development in order to defend against negative affect as a result of deviant sexual interests and in some instances a history of childhood sexual abuse (CSA). It is also proposed that a tendency towards avoidance is associated with and exacerbates overgeneral memory recall.

## Introduction

This study is an investigation into aspects of cognitive processing displayed by individuals convicted of sexual offences against children. In particular, it will explore the relationship between autobiographical memory recall, attributional style and social problem-solving ability, and consider the implications of the results on the design and efficacy of the sexual offender treatment programmes that are currently available.

In order to understand the basis of this study, it is firstly necessary to consider current approaches to the treatment of sexual offenders and the social climate in which they have come about.

## Sexual Offender Treatment Programmes

### *The Scale of the Problem*

Between 1979 and 1990 the number of incarcerated sexual offenders<sup>1</sup> rose from 1,500 to 3,166 (Fordham, 1993). Convicted sexual offenders now make up approximately 5% of the total prison population (Cordess & Cox, 1996). From the perspective of offences against children specifically, the NSPCC reported that an 800% growth in the number of alleged cases of childhood sexual abuse (CSA), appearing on the "at risk" register, occurred between 1983 to 1987 (Fordham, 1993).

These figures and the growing awareness that the majority of sexual offenders will return to the community having served only short periods of imprisonment (for example as little as six months) (Bingham, Turner & Piotrowski, 1995) and that incarceration alone does not prevent recidivism (Schlank & Shaw, 1996) has functioned as a catalyst for the development of strategies that will ultimately reduce the rates of sexual re-offending following conviction. Furthermore, the introduction of the Criminal Justice

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<sup>1</sup> Unless otherwise stated the term 'sexual offender' refers to a broad group of individuals who have been convicted of one or more of the following :- heterosexual and homosexual rape or sexual assault against adult victims, familial and non-familial sexual offences against child victims, exhibitionism, voyeurism and any other acts which would be encompassed by the term 'paraphilia' (see Appendix I for DSM-IV criteria) (American Psychiatric Association, 1994)

Act 1991 resulted in a greater number of sexual offenders receiving sentences which include conditions of treatment.

### ***Treatment Programme Structure***

Although sexual offender treatment programmes are now widely implemented by the Probation Service this is a relatively recent phenomenon, particularly those which are community based (Barker & Beech, 1993). Furthermore, considerable variability has been observed with regard to treatment selection criteria, intensity and duration of the treatment sessions, and programme content. However, despite this level of heterogeneity, the majority of programmes have developed along similar philosophical and theoretical lines and programmes based upon a cognitive-behavioural approach are now the most popular, both within the U.K. and Internationally.

Current cognitive-behavioural sexual offender treatment programmes have several specific aims: - to encourage the offender to take responsibility for their offences and to reduce denial; to modify deviant sexual interests whilst developing more appropriate social and sexual behaviours; to modify cognitive distortions and dysfunctional attitudes; enhance victim empathy and promote relapse prevention (Cordess & Cox, 1996; Barker, 1993). When addressing these issues the offenders are requested to recall detailed information regarding cognitions, emotions and behaviour relating to their offending. The format of these programmes is largely group work, with additional individual sessions reinforcing the work carried out within the groups. It has been proposed that the group processes enable the offender to be challenged by his peers, which leads to more effective modification of cognitions and behaviours (Erooga, Clark & Bentley, 1990).

### ***Programme Efficacy***

Despite broad claims that treatment programmes can reduce recidivism by more than 50% (Schwartz, 1992; Marshall & Pithers, 1994), little empirical evidence is available to fully support this. Many outcome studies, few of which have been conducted within the U.K. (Beckett, Beech, Fisher & Fordham, 1994), are considered to be methodologically flawed as treatment efficacy is largely based on reported rates of

recidivism and dependent upon re-offences coming to the notice of the authorities. Further pitfalls in research design have included inadequate definitions of recidivism, the absence of adequate control groups, insufficient periods of follow-up and significant delays between programme completion and the offenders' return to the community. Also, the majority of treatment programmes have been implemented with mixed groups, for instance rapists, sexual offenders against children and exhibitionists all receiving the same treatment package.

Marshall and Barbaree (1988) conducted a long-term evaluation of an outpatient programme for heterosexual and homosexual non-familial offenders against children and recorded significantly lower rates of re-offending for the treated group when compared with matched, untreated sexual offender controls. These results were replicated for familial child sexual offenders and exhibitionists (Marshall, Jones, Ward, Johnston & Barbaree, 1991; Pithers & Cumming, 1989).

In 1990 Marshall and Barbaree reported that, as far as they could ascertain based upon re-conviction and reincarceration figures, various untreated sexual offence sub-groups had different rates of recidivism. For example, familial sexual offenders against children re-offended at a rate of between 4% and 10%, whereas the rates for non-familial sexual offenders against children and rapists were higher at between 13% and 40% and between 7% and 35%, respectively.

In response Marques, Day, Nelson & West (1993) compared the efficacy of a cognitive-behavioural programme with rapists and sexual offenders against children. The offenders were allocated to treatment or non-treatment groups, with non-volunteer offenders matched with volunteers. The results indicated that a treatment effect existed for rapists, but not for offenders against children. In addition, Marques and colleagues (1993) proposed that although limited significant differences in the number of re-offences committed by the treated and untreated offenders were evident at long-term follow-up, the treated offenders appeared to remain offence free for a longer post-treatment period than the matched, untreated offenders.

Therefore, the figures reported by Marshall and Barbaree (1990) assisted in raising the awareness of researchers and clinicians to the suggestion that treatment programmes

should be tailored to the specific needs of the different offence sub-groups. Andrews, Zinger, Hogue, Banta, Gendreau and Cullen (1990) conducted a meta-analysis of 45 treatment outcome studies which gave support to this suggestion. This analysis proposed that three factors consistently predicted treatment success – 1) the provision of treatment to the more serious sexual offenders; 2) programmes which attempt to meet the ‘criminogenic needs’ of the offenders; and 3) programmes where the approach and manner are compatible with the needs and abilities of the particular offenders. Yet, only minimal research has thus far attempted to identify the particular characteristics of each offence sub-group.

## **Theoretical Background to the Study**

The general theoretical backgrounds to certain universal psychological concepts will now be discussed, followed by consideration of the importance of these concepts with regard to sexual offending behaviour. Lastly, the influence of overgeneralised autobiographical memory recall on the efficacy of certain treatment programme components will be examined.

### **Attribution Theory**

In an attempt to gain control over events that occur in our environments, humans have a 'built-in desire to explain their world' (Brewin, 1988). Because this explanation relies upon an individual's interpretation of complex events, errors can occur. This is particularly evident in the formation of causal attributions, that is the identification of factors that we perceive to be responsible for a given situation or outcome.

In *The Psychology of Interpersonal Relations*, Heider (1958) proposed that the causes of events can be considered either internal or external in nature. Internal causes are associated with those factors that we perceive to reside within ourselves, for example one's own communication skills. Whereas, external causes are associated with those

factors that we perceive to reside within the people around us or are related to environmental conditions. Subsequently, Weiner (1986) proposed that the perceived causes of an event could be considered on three dimensions - internality, stability and globality. It was also proposed that the way in which causal factors of events are interpreted along these dimensions would then influence our interpretations and expectations of future events. When considering performance on an examination, if success is attributed to factors interpreted as internal, global and stable (for example, intellectual ability), then expectations of future success will be greater than if success is attributed to external, specific and unstable factors (for example, a generous examiner or easy paper) (Brewin, 1988).

Such attributions can have powerful effects on cognitions, emotions and behaviours. Brewin described Anderson, Horowitz and French's (1983) example of how a shy or lonely person who attributes failure in interpersonal relationships to internal, stable and global factors, such as deficits in social skills, is more likely to experience poor self-esteem and expectations of low self-efficacy. It is proposed that such a person will also have a greater tendency to avoid future social situations than someone who attributes failure to unstable, internal or circumstantial factors. This will result in greater social anxiety in the future and, in turn, will reinforce the individual's poor self-esteem and expectations of low self-efficacy. Therefore, it can be concluded that the expectations we hold regarding future event outcomes are influenced by causal attributions made in the past.

Much research has been carried out on the attributional style of various populations and significant differences have been consistently found when comparing clinical and non-clinical samples (Brewin, 1988). A study by Alloy and Abramson (1979) examined the causal attributions of depressed and non-depressed participants playing two forms of manipulated computer game. The computer games were fixed at either a 'win' condition or a 'lose' condition. It was found that the non-depressed subjects displayed a 'self-serving bias' in their causal attributions, in that they claimed little control in the negative 'lose' condition, but substantial control in the positive 'win' condition. In comparison, the depressed participants were 'sadder but wiser' in their attributions, claiming little control in either condition.

Using the Attributional Style Questionnaire (ASQ) (Peterson, Semmel, von Bayer, Abramson, Metalsky & Seligman, 1982) Kaney and Bentall (1989) compared the attributional styles of depressed and delusional individuals. The ratings for both groups indicated excessively global and stable attributions for negative events. However, whereas the depressed participants' attributions were excessively internal for negative events and excessively external for positive events, the delusional participants' attributions were overly external for negative and overly internal for positive events. The delusional sample's attributions were an exaggeration of the self-serving bias seen in the non-depressed subjects in Alloy and Abramson's (1979) study (Bentall, Kinderman & Kaney, 1994). However, a study conducted by Lyon, Kaney and Bentall (1994), using a non-obvious measure of attributional style, indicated that in reality delusional individuals attributed negative events to internal factors more often than positive events. This study's results gave support to the suggestion that cognitive biases are defensive mechanisms protecting against low self-esteem (Bentall, Kinderman & Kaney, 1994).

Higgins (1987) proposed a framework which sought to highlight the importance of the discrepancies between individuals' varying self perceptions in relation to attributional style. He hypothesised that discrepancies can exist between perceptions of actual-self and ideal-self or between actual-self and a perception of how the self ought to be (ought-self). Discrepancies may also exist between perceptions of actual-self from one's own viewpoint and actual-self as one believes others perceive one.

Strauman and Higgins (1987) used this format to examine self-concept in samples of clinically depressed and anxious students. It was found that the depressed students displayed actual-self ideal-self discrepancies, whereas the anxious students displayed actual-self ought-self discrepancies. In contrast, it has been hypothesised that delusions, particularly those of a persecutory nature, occur in an attempt to limit the extent to which actual-ideal self disparity is accessible to consciousness by focusing upon the discrepancy between favourable self-perceptions and the negative perceptions that others apparently hold of oneself. This is consistent with research findings indicating that delusional patients display less self rejection, report higher levels of satisfaction with the self and greater self-esteem than depressed patients (Bentall, Kinderman & Kaney, 1994).

White (1991) proposed additions to attribution theory that further enhanced its sophistication. He suggested that within the internality dimension of attribution there exist three, as opposed to two, discrete loci – the internal locus (causal attribution of events to factors residing within oneself), the external-personal locus (causal attribution of events to other people and their actions) and the external-situational locus (attribution of events to environmental circumstances or chance). Subsequently, Kinderman and Bentall (1996) indicated that the division of the external attributional locus into personal and situational loci has implications for our understanding of self-concept in a variety of clinical and non-clinical samples.

It has been reported that individuals who tend to make internal attributions for negative events display greater discrepancies between self-representations and self-ideals. In contrast, those who make external attributions, either personal or situational, display reduced discrepancies (Kinderman and Bentall, 1996). With regard to the two external attributional loci, those individuals who make external-personal attributions for negative events tend to believe that others hold unfavourable views of them. Conversely, those who make largely external-situational attributions maintain that others hold positive views of them (Kinderman and Bentall, 1996). Therefore, the former group minimises the disparity between actual-ideal self by emphasising the discrepancy between self-perceptions and others' negative perceptions of oneself, thereby maintaining self-esteem. This supports the existence of a self-serving bias in non-mentally ill individuals and, to a greater extent, in those who experience paranoid delusions, as a means of maintaining self-esteem.

The Internal, Personal and Situational Attributions Questionnaire (IPSAQ; Bentall & Kinderman, 1996a), used in the present study, has implemented this three-dimensional model of attributions.

### ***Attributional Style in Sexual Offenders - Denial and Minimisation***

It is widely reported that denial and minimisation are common in sexual offenders (Marshall, 1994). Studies examining recidivism rates have indicated that those individuals who are in complete denial with regard to their offence are more likely to re-offend than those who admit responsibility. Therefore, enabling sexual offenders to



claim responsibility for their offences is one of the principal goals of treatment programmes.

Barbaree (1991) conducted one of the few studies which has specifically examined the occurrence of denial and minimisation in sexual offenders. He reported that 66% of the incarcerated sexual offenders against children studied denied their offences and a further 33% minimised their responsibility. Similarly, 54% of rapists interviewed denied and 42% minimised their offences.

Based on this investigation, Barbaree (1991) proposed that sexual offenders display three types of denial: - a) denial of the offence taking place; b) admission that sexual relations existed with the victim but denial that it was an offence, for example claiming that the victim gave consent; and c) admission that physical contact took place but denial that the contact was sexual. Barbaree also reported that sexual offenders often minimise their offence, for example by reporting a reduced number of offences than occurred in reality, in order to reduce perceived culpability.

A study by Kennedy and Grubin (1992), in which 102 incarcerated sexual offenders were interviewed, concluded that four groups of offender exist based on their 'pattern of denial'. The groups are: - 1) rationalisers - offenders who admit to the offence but deny that it caused harm; 2) externalisers - offenders who attribute responsibility for the offence to external factors or other individuals, including the victim; 3) internalisers - these offenders attribute the offence to a 'temporary aberration of behaviour or mental state which was out of keeping with their normal character'; and 4) 'absolute denial' offenders.

Gudjonsson and Petursson (1991) reported that although sexual offenders are more likely to express remorse and guilt for their offence than offenders against property, they also have a greater tendency to attribute the cause of offences to mental or external factors. These studies did not indicate whether external attributions were associated with a specific subtype of offence, that is if rapists were considered to be equally as likely to make external attributions as non-familial and familial sexual offenders against children.

A recent report (known as the STEP report), commissioned by the Home Office, (Beckett, Beech, Fisher and Fordham, 1994) evaluated seven community-based treatment programmes for sexual offenders in the U.K. Based on pre-treatment completion of the Adult Nowicki-Strickland Internal-External Locus of Control Scale (Nowicki & Duke, 1974) 44% of the mixed sexual offenders, across all programmes, were classified as external with regard to locus of control and only 28% of the offenders assessed believed that events were contingent upon their own behaviour. These findings are important with regard to treatment as it has been hypothesised that sexual offenders who report external attributions for negative events (for example, their offences) will be less likely to acknowledge their need to change, be poorly motivated in treatment and, ultimately, display only limited improvement (Beckett et al, 1994).

The STEP report (Beckett et al, 1994) also showed that locus of control is correlated with cognitive distortions, for example that child victims were responsible for initiating sexual contact or that they had given consent to it. That is, the greater the perceived external control the more distorted were the offenders' cognitions as measured by the Multiphasic Sex Inventory (MSI; Nichols & Molinder, 1984) and the Children and Sex: Cognitions Scale (Beckett, unpublished). This supported earlier findings by Gudjonsson (1990). However, it is often difficult to extricate attributional style from distorted cognitions, for example an offender may report that a child victim willingly sat on his knee which then led to the offending behaviour. This may be interpreted as an external attribution where blame for engendering the offence is placed upon the child. Alternatively, it may indicate that the offender holds distorted cognitions regarding a child's understanding of sexual behaviour. Both of these interpretations may, of course, be correct.

It has been proposed that external attributions for offences occur due to fear of punishment (Jackson & Thomas-Peter, 1994; Gocke, 1991). However, it has also been postulated that a self-serving bias where negative events (i.e. sexual offences) are attributed to external factors and positive events to internal factors may function as a psychological coping mechanism to protect against negative affect and loss of self-esteem, as seen in delusional individuals (Bentall, Kinderman & Kaney, 1994).

Graham (1993) argues that external attributions of blame in sexual offenders are more than mere denial or minimisation, but an almost 'delusional belief' in an external force.

### ***Addressing Denial & Minimisation in Treatment***

Although, reducing denial and minimisation alone will not reduce the likelihood of recidivism (Beckett et al, 1994), the task of addressing and overcoming these factors within cognitive-behavioural programmes remains a priority if the offenders are to fully engage in therapy. Salter (1988) claimed that components which aim to 'identify and confront cognitive distortions, rationalisations and excuses for offending' are fundamental components of sexual offender treatment programmes and that until these tasks can be successfully carried out then it is almost impossible to assume that recidivism rates can be lowered.

Prior to taking responsibility for their offences and developing skills to prevent future re-offending, the sexual offender needs to acquire an understanding of the offence and their role within it. This is undertaken within treatment programmes by encouraging the offender to recall the offence in detail, including his own cognitions, emotions and behaviours; through the identification of precipitating factors and environmental conditions; and the interpretation of the victim's behaviour and what the offence meant to them (Marshall, 1994). These tasks are useful in eliciting information regarding the offender's belief system and distorted cognitions concerning his own offending. The group work structure also enables the individual's account of the offence to be challenged by the group facilitator and other offenders.

This procedure was undertaken and evaluated by Marshall (1994) with a mixed group of incarcerated rapists (n = 15) and familial and non-familial sexual offenders against children (n = 66). Pre- and post-treatment levels of minimisation were measured by the therapist using a 6-point rating scale (0 = no minimisation at all, 5 = extensive minimisation) and denial was rated as absent or present. Pre-treatment measures indicated that 31% of the offenders against children denied and 32% minimised their offences, leaving 37% who admitted responsibility. After approximately 70 hours of treatment while incarcerated, only 2% continued to deny their offences and 11% minimised them. However, the efficacy of this component within a community-based treatment programme remains equivocal.

The STEP report (Beckett et al, 1994) demonstrated that in approximately 60 hours or less, the cognitive-behavioural programmes they studied made a considerable impact on offender denial and minimisation, as measured by the Sex Offence Attitudes Questionnaire (Proctor, 1994). Improvements were also reported for justification of the offence and evidence of distorted cognitions as measured by the MSI's Justifications Scale, Sexual Deviance Admittance Scale and Lie Scale and Cognitive Distortions and Immaturity Scale (Nichols & Molinder, 1984), and the Children and Sex: Cognitive Distortions Scale (Beckett, unpublished). However, greatest success was obtained with offenders of low or moderate levels of pre-treatment denial and no significant improvements were made on denial of the future risk of offending (Relapse Prevention Questionnaire; Beckett, unpublished).

The STEP report (Beckett et al, 1994) featured one long-term residential programme which treated sexual offenders considered to be highly deviant and at high risk of re-offending. This programme, which lasted approximately 460 hours, achieved improvements in 60% of offenders in areas such as reducing justifications, improving victim empathy and reducing distorted cognitions. However, minimal changes in denial and in shifting offenders away from an external locus of control were achieved.

## **Social Problem-Solving**

### ***Successful Social Problem-Solving***

Social problem-solving refers to the cognitive-affective-behavioural process by which an individual is able to determine which, of a range of responses, will be most effective in a particular real-life situation (D'Zurilla, 1990). This is especially relevant in situations perceived as important and/or stressful, and where the most appropriate response is not always apparent.

Social problem-solving theory proposes three concepts which aid our understanding of the problem-solving process – *problem*, *solution* and *solution implementation*. A *problem* is defined as a situation in which an adaptive response is required yet where no solutions are obvious or available. A *solution* is an adaptive response that is the result

of the problem-solving process. And finally, *solution implementation* is the process by which a solution is executed. This theory emphasises the distinction between the more cognitive skill of problem-solving and the largely behavioural solution. Possession of adequate cognitive problem-solving skills does not guarantee that solutions will be carried out successfully, therefore, although these components of social problem-solving are interrelated they must also be considered as independent (D'Zurilla, 1990; D'Zurilla & Goldfried, 1971).

Social problem-solving theory also identifies four specific goal directed tasks necessary for successful problem-solving: - 1) problem definition and formulation; 2) generation of a range of alternative solutions; 3) decision making with regard to the choice of the solution to implement; and 4) solution implementation and verification (D'Zurilla, 1990). This framework implies that inappropriate responses to problems can be due to inadequacies at any one or a number of the steps within the process, for example deficits in problem definition, a biased interpretation/misattribution of the situation, poor generation of possible responses prior to an action decision being taken, and/or incorrect choice of the solution (Fondacaro & Heller, 1990).

In concordance with the theory of problem-solving already discussed, D'Zurilla and Nezu (1990) developed the Social Problem Solving Inventory (SPSI) followed by the revised version of this test (SPSI-R: D'Zurilla, Nezu & Maydeu-Olivares, 1997; Maydeu-Olivares & D'Zurilla, 1996). The Social Problem-Solving Inventory - Revised is based on the assumption that problem-solving in real-life situations relies upon two processes i) problem orientation and ii) problem-solving proper. Problem orientation involves the implementation of a series of relatively stable cognitive-emotional schemas which represent how an individual usually interprets and responds to problems in their life, for example "I believe that I can find solutions to most problems in my life" or "trying to solve problems makes me depressed". Problem-solving proper involves the execution of problem-solving skills and strategies in order to find the appropriate solution to the particular problem, for example attempting to think of as many alternative solutions as possible.

Positive problem orientation (PPO) is believed to be associated with optimism and positive affectivity, whereas negative problem orientation (NPO) is associated with

pessimism and negative affectivity (Chang & D'Zurilla, 1996). When PPO schemas predominate, more successful outcomes are expected. However, when negative schemas prevail, problems are interpreted as threatening and individuals become disheartened and frustrated more easily at their own problem-solving ability leading to inconsistent and ineffective performance. Adoption of adaptive and maladaptive methods of problem-solving will also influence social problem-solving efficacy. For example, using a systematic approach to choosing a solution is associated with more effective problem-solving than the avoidance of challenging situations. It may be hypothesised that a predominance of NPO schemas will result in the implementation of less adaptive problem-solving strategies.

### ***Social Skills and Social Problem-Solving in Sexual Offenders***

Social skills training, of which problem-solving is a component, has become another core feature of cognitive-behavioural treatment programmes for sexual offenders. However, its inclusion is based on the assumption, rather than empirical evidence, that the development of inappropriate sexual relationships and the high rates of recidivism in sexual offenders are associated with deficits in social skills and anxiety in situations requiring personal interactions (Fisher & Howells, 1993; Hopkins, 1993; Hudson, Marshall, Johnston, Ward & Jones, 1995).

Recent sexual offender literature has proposed that successful personal interactions rely upon the completion of three fundamental steps - 1) the interpretation or decoding of situational information, 2) the generation of a number of possible responses and the decision regarding which one to choose and, 3) the enactment of the chosen response (McFall, 1982; 1990). This framework acknowledges that social interaction involves cognitive and performance skills, and that these skills must be implemented both independently and in combination, if successful interaction is to occur (McFall, 1982; Argyle & Kendon, 1967). It would appear that McFall's theory is congruous with that of D'Zurilla et al (D'Zurilla, 1990; D'Zurilla & Goldfried, 1971) which relates more specifically to problem-solving.

### ***Social Skills Deficits in Sexual Offenders***

Howells (1986) stated that like the 'medical model' of deviant behaviour, social skills training assumes the existence of greater deficits within the criminal individual as compared with the general population and that in order to reduce the likelihood of future offending behaviours these deficits must be treated. Inclusion of social skills training in sexual offender treatment programmes is also largely based on the premise that social skills deficits and sexual offending are causally related (Howells, 1986) and that the adaptation of social skills relies upon the identification of such deficits prior to treatment. Yet, as mentioned previously, little unequivocal evidence has been found to support the inclusion of social skills training in the treatment of sexual offenders.

The lack of clarity regarding the deficits displayed by this offender group may be exacerbated by the fact that many studies have focused on mixed groups of sexual offenders. In addition, studies have investigated broad aspects of social functioning and the behavioural, cognitive and affective consequences of poor social skills, for example low self-esteem and anxiety (Fisher & Howells, 1993). A recent review by Fisher and Howells (1993) confirmed that sexual offenders against children often demonstrate a range of social skills deficits which include social anxiety, lack of assertiveness, avoidance of social situations, and difficulties in developing appropriate adult relationships. Fewer studies have considered social cognition in relation to social functioning, for example more specific problem-solving skills.

Studies of decoding skills have indicated that rapists are deficient in the interpretation of social cues (Lipton, McDonel & McFall, 1987). Yet, it would appear that cognitive distortions and attributional style are associated with decoding and decision deficits in sexual offenders. For example, the belief that children who ask questions about sexual issues are initiating a sexual relationship will influence the offender's decision regarding how to deal with that situation. Fisher and Howells cited the findings of Barbaree, Marshall & Connor (1988) who reported that offenders against children were able to appropriately decode situational information and generate a range of possible solutions to a problem. However, they consistently chose an unsuitable solution and failed to evaluate the negative consequences of enacting it.

### ***Social Skills Training***

Marshall and Barbaree (1989) suggested that sexual offender treatment programmes should aim to improve social problem-solving in addition to general social functioning, for example reducing social anxiety, improving self-confidence in interpersonal relations, increasing assertiveness and encouraging social expression. However, few studies have specifically evaluated the efficacy of problem-solving training within sexual offender treatment programmes from the perspective of both cognitive and performance skills.

A study by Valliant and Antonowicz (1992) evaluated the efficacy of cognitive-behavioural treatment, including problem-solving and social skills training, with individuals convicted of rape, familial and non-familial offences against children. A group of convicted non-sexual assault offenders were recruited as a control group. Participants received five weekly sessions examining the relationship between aggression and sexuality. Two of the sessions used social skills training to explore sexuality and anger in relationships, focusing on situation interpretation and problem-solving.

The outcome measures of state and trait anxiety, self-esteem and hostility revealed only minimal improvements. Individuals who had offended against children scored non-significantly higher on the self-esteem measure and a general reduction in anxiety levels was recorded following treatment. It was suggested that these improvements would facilitate further cognitive adaptations. Although, Valliant and Antonowicz arrived at the contentious conclusion that sexual offenders are a homogeneous group, they did suggest that future studies should implement measures of cognitive processing style and attitudes, in order to gain greater understanding of the association between cognitive distortions, causal attributions and problem-solving.

Therefore, the evidence to support the inclusion of social skills training and social problem-solving in sexual offender treatment groups is far from conclusive. Most recent research is optimistic (Marshall, Ward, Jones, Johnston & Barbaree, 1991) that social skills components of treatment programmes can contribute to a reduction in recidivism rates in certain offender subtypes if cognitive-behavioural programmes are



designed to meet the specific needs of the offender. However, it would appear that the cognitive and behavioural deficits should firstly be identified through the systematic appraisal of competencies that such individuals display, when compared with non-offender community controls (Howells, 1986). In addition, the literature suggests that this should be conducted in conjunction with consideration for the roles of cognitive biases and causal attributions in sexual offending, in order to address these issues together, rather than in isolation (Howells, 1986). This study aims to examine more closely the cognitive components of problem-solving when comparing sexual offenders against children with non-offender controls.

## **Autobiographical Memory**

In the recent past, much research has been conducted on our ability to recall specific autobiographical memories. This study aims to examine autobiographical memory in sexual offenders against children and its association with causal attributions and interpersonal problem-solving.

### ***Autobiographical Memory and Depression***

Research has shown that depressed mood affects and is affected by the type of events one recalls. Negative affect can promote the recall of more unpleasant events, possibly because these events become easier to recall or because the retrieval of alternative, more pleasant events, is impeded (Williams, 1996).

Early investigation into this area by Williams and Broadbent (1986) involved a comparison between a group of overdose patients who continued to be depressed, a matched group of hospital patients and a matched group of control participants. The three groups were asked to recall specific event memories in response to a set of emotionally valent and neutral cue words. During testing, each participant was allowed one minute to retrieve a memory, after which prompting was given. The latent time period between administration of the cue words and the participants' responses were recorded.

Williams and Broadbent's (1986) results supported earlier findings that emotionally disturbed individuals display a 'mood-congruent memory bias' where they experience difficulties recalling positive memories. However, the results also suggested that these participants had a tendency to retrieve more general memories in response to positive cues than negative ones.

As much of this early work was conducted on overdose patients, it was necessary to rule out this event as a critical factor affecting memory processing. Williams and Scott (1988) conducted a study involving twenty in-patients with a diagnosis of primary major depression and compared their performance on the Autobiographical Memory Test (AMT) (Williams & Broadbent, 1986), with that of twenty control participants, matched for age, education and performance on the Baddeley's Semantic Processing Speed Test. They found that the depressed individuals recalled specific events approximately 40% of the time, whereas the controls were specific 70% of the time. This study and the work conducted subsequently by other teams (Puffet, Jenin-Marchot, Timsit-Berthier & Timsit, 1991; Kuyken & Brewin, 1995), has indicated that overgeneral memory recall, particularly in response to positive cues, is a feature of individuals diagnosed with a major depression as well as suicide patients. However, no overgenerality has been identified in anxious patients (Williams, 1996).

From this point, it became necessary to discover whether overgeneralised memory recall was state dependent, disappearing as depression lifts. Williams and Dritschel (1988) examined responses to the AMT of sixteen patients who had taken an overdose between three and fourteen months previously. The responses of these patients were compared with those of a group who were currently a suicide risk and a control group. The extent to which the ex-patients recalled specific memories (54%) was not significantly different from that of the current patients (46%), yet the responses of both groups were significantly less specific than the control group (71%). These results led Williams and Dritschel to propose that overgenerality of memory recall could be a style of cognitive processing, which would render such individuals more vulnerable to depressive episodes.

A more longitudinal study (Brittlebank, Scott, Williams & Ferrier, 1993) added weight to the proposal made by Williams and Dritschel. Brittlebank and colleagues tested

depressed patients on admission to hospital, and at three months and seven months later. Over this period, no significant reduction in overgenerality in response to emotional cue words was evident. Although a slight reduction in overgenerality to neutral words did occur as the depression lifted, the autobiographical memory recall of patients, even in remission, remained less specific than non-patient and hospital patient control groups.

### ***Autobiographical Memory and Problem-Solving***

Evans, Williams, O'Loughlin and Howells (1992) examined the association between memory and performance on a test of interpersonal problem-solving: the Means-End Problem Solving test (MEPS; Platt & Spivack, 1975).

Although generic scripts are useful in enabling individuals to react in a consistent manner to specific environmental conditions, for example the generic script for catching a bus, more complex or novel situations require active problem-solving, such as knowing how to respond when a fellow traveller initiates a conversation on the bus (Williams, 1996). As discussed earlier, successful problem solving involves the completion of several steps: - recognising that a problem exists and defining it; generating alternative solutions; evaluating the possible outcomes of enacting these solutions; implementing the most favourable solution; evaluating the actual outcome and reformulating if necessary. Evans and her colleagues predicted that overgeneral autobiographical memory would impair the ability to problem solve, as both the definition of a problem, the generation of a range of alternative solutions and the evaluation of possible outcomes is reliant upon access to detailed autobiographical memories of past experiences (Williams, 1996).

To test this, Evans and colleagues administered the MEPS and the cue word AMT to twelve recent overdose patients and twelve matched patients admitted to hospital for surgery. The solutions generated by the participants in response to the MEPS were rated for how effective they might be in solving a given problem. This task had previously been found to elicit differentiation between the problem-solving of depressed groups and other clinical groups (Marx, Williams & Claridge, 1992). The results showed that a significant correlation existed between the potential efficacy of the solutions and the specificity of the autobiographical memories retrieved.

Therefore, overgeneral memory may hamper the problem-solving attempts of depressed individuals rendering them more vulnerable to relapse in the future.

From a treatment perspective, the provision of problem-solving training alone is insufficient as this will not influence the processes of information encoding, storage and retrieval (Evans et al, 1992). It is important to develop techniques which encourage and enable individuals to be more specific when discussing events and planning for future situations. The use of diary keeping in cognitive-behaviour therapy encourages more specific encoding of current events and may consequently alleviate the problem of hopelessness in the future.

### ***Developmental Basis of Memory***

Research has shown that young children display difficulty recalling specific event information (Morton, 1990), as they rely upon a summary style of memory retrieval which occurs naturally during cognitive development. Nelson and Gruendel (1981) noted that children of three years of age gave good responses to generic questions, but responded with little detail when asked specific questions. These findings led to the proposal that, unless they are given sufficient specific cueing young children do not remember distinct episodes, instead they form General Event Representations (GER's) (Williams, 1996).

Williams (1996) cites Nelson (1991) who hypothesised that new memories are retained in a temporary store (episodic memory store) which functions as a “holding operation”. Event representations will then be lost if similar events are not repeated within a certain period, of about two weeks. If repetition occurs, the original event becomes recognised as the first in a series and a new generic script is then set up. As information regarding events is shared with adults, it is stored for longer periods as an autobiographical memory system develops. Therefore, it would appear that encoding information as GER's is a natural occurrence during development, and is the preferred system for storage and retrieval of memories until the development of a specific autobiographical memory.

Very recent research (Henderson, 1996; Kuyken & Brewin, 1995) has supported earlier suggestions that individuals who experience traumatic events during childhood, such as CSA, may continue to use GER's as a means of controlling negative affect (Williams, 1996). Henderson found that her sample of non-clinical adult females with a history of CSA responded significantly less specifically on the AMT when compared with a sample of non-clinical adult females without a history of CSA. She proposed that a non-specific style of memory processing is maintained in CSA survivors, and that this style is adopted during childhood as a coping mechanism, but that it becomes maladaptive when retained into adulthood. Kuyken and Brewin's study (1995) of clinically depressed CSA survivors found similar results, however, it was unclear whether this was the result of the CSA or depression.

### ***Autobiographical Memory and Sexual Offender Treatment Programmes***

As already discussed, the present way in which denial and minimisation, and therefore causal attributions and cognitive distortions, are addressed within sexual offender treatment programmes is by recalling the specific offence and details relating to the environment, affective reactions, precipitating factors and thoughts regarding the victim. Similarly, in teaching skills to improve interpersonal problem-solving, it is assumed that sexual offenders will be adept at identifying and interpreting situations and in generating potential solutions, which are largely based on their recall of past experiences. However, if recall of specific autobiographical information is impaired, possibly due to the cognitive style adopted in order to minimise negative affect, the success of these techniques will be impeded. No research to date has examined autobiographical memory recall in sexual offenders.

## **Research Aims**

The present study aims to investigate autobiographical memory recall in individuals convicted of sexual offences against children, and its relationship with attributional style and problem-solving ability, in comparison with a matched non-offender control group.

## **Method**

### ***Design***

The study involved a group comparison research design, comparing data from a sample of convicted male sexual offenders against children (victims under 16 years of age) with that obtained from a matched non-offender control group.

Males, aged between 18 and 65 years, who had i) been convicted of committing sexual offences against children (under 16 years of age) or had ii) pleaded guilty to committing sexual offences against children and were awaiting trial, were recruited to form the research group. Although much of the published research in this area uses the term 'paedophile' to describe these offenders, this DSM-IV clinical diagnostic category (American Psychiatric Association, 1994) requires that the sexual behaviours involve pre-pubescent children (aged 13 years or under) (See Appendix II). Therefore, as not all individuals fulfil these diagnostic criteria the term 'sexual offenders against children' was utilised to describe the research group.

Here, 'sexual offences against children' included heterosexual, homosexual, familial and non-familial offences and involved acts such as voyeurism, exhibitionism, genital touching or fondling, fellatio, cunnilingus, vaginal and/or anal penetration. Only male participants were recruited due to the disproportionately high number of male sexual offenders (approximately 2000) as compared with females (approximately 12), entering the prison system each year (Thornton and Hogue, 1993).

### ***Ethical Approval***

The offender participants were recruited through the North Wales Probation Service and the North Wales Forensic Psychiatric Service. Prior to recruitment, ethical approval for the study was gained from the School of Psychology within the University of Wales, Bangor, and from the North Wales Health Authority Research Ethics Committees representing the West, Wrexham and Clwyd North areas (see Appendix III for letters of confirmation). Although the Probation Service does not have a formal research ethics committee, Senior Management granted approval for the service's co-operation with the study (see Appendix IV).

### ***Recruitment Process***

With regard to the Probation Service clients, all locality Probation Officers who were involved with individuals who had offended against children at the time of the study were identified and invited to become involved with the research. Co-operating Probation Officers were requested to approach their clients, supply each with a bilingual standard information sheet (See Appendix V) and discuss their willingness to take part in the study. All clients were given a minimum of one week in which to consider participation. Once the client had informed the Probation Officer of their agreement to participate, arrangements for assessment by the researcher were made via the Probation Officer.

At the time of the study, all participants were residing within the community, either in a bail hostel or their own home. All were legally obliged to remain involved with the Probation Service due to their conditions of license or were awaiting referral to the Probation Service.

In the case of recruitment through the Forensic Psychiatric Service, the Forensic Consultant Psychiatrist agreed that any individuals whose sexual offending against children had led to their referral to the service, during the period of the study, would be sent the standard information sheet and offered the opportunity to participate.

When individuals were approached, it was emphasised that participation was entirely voluntary and their decision would in no way influence their position with regard to the legal system or their future treatment from the Probation or Forensic Psychiatric Services.

### ***Interview Location***

Interview and assessment sessions with the offender participants were conducted within North Wales Probation Service or North Wales Health Authority premises (for example psychiatric outpatient departments and Probation Service bail hostels). Participants' expenses were reimbursed when it was necessary for them to travel to attend assessment sessions.

### ***Control Participants***

For each of the offender participants a non-offender control participant, matched for age (plus or minus 1 year) and general intellectual ability, was recruited. General intellectual ability was based upon the grade obtained on the Raven's Standard Progressive Matrices (SPM) (Raven, 1976). Although every effort was made to obtain control participants of the same Raven's SPM grade of intellectual ability, it was necessary to accept those in the grade immediately above or below that obtained by the offender participant.

The control participants were recruited via the School of Psychology Community Research Participant Panel at the University of Wales, Bangor. Age matched individuals were identified from the volunteer pool. Once the volunteer participants had agreed to take part in the study, arrangements for assessment were made through the Participant Panel Co-ordinator. Each volunteer participant was screened for compatibility of intellectual ability level, as described above, and those who were assessed as matching the research participants were assessed on the further research measures. All control participant assessments were conducted on the campus of the University of Wales, Bangor. All control participants received a payment for their involvement, as per the guidelines proposed by the Community Research Participant Panel.

### ***Assessment Interview***

All participants were required to attend a single assessment interview, which lasted approximately 3 hours for the complete assessment. Each participant completed a bilingual consent form prior (see Appendix VI) to completing the following questionnaires and measures: -

- a) **Standard Progressive Matrices (SPM; Raven, 1976)** - This measure of cognitive ability was chosen as it is a non-verbal test and performance is not influenced by the respondents' literacy skills. The SPM also has a non-threatening format and is simple to administer. Although the test itself has not



been modified in recent years, standardisation studies have taken place and the latest scoring manual was used (Raven, Court & Raven, 1996).

The Raven's SPM provides five grades of intellectual ability, from grade I - "intellectually superior" through to grade V - "intellectually impaired".

Research into the SPM has reported good levels of reliability both in terms of internal consistency and test-retest reliability. The 1979 British standardisations yielded correlations ranging between .97 and .99 for item difficulties for eight socio-economic groups. Similar correlations, from .98 to 1.00, have been obtained between item difficulties established separately and based on the standardisation data from many countries, indicating that the SPM reliably measures the same aspects of intellectual ability, cross-culturally, regardless of the variability in group mean scores.

The following tests were administered to all the offender group participants and to those participants from the community panel who went on (by virtue of an adequate level of compatibility) to form the control group (See Appendix VII and VIII for copies of the measures used).

- b) **General Information Questionnaire** - This bilingual semi-structured interview tool was devised by the researcher in order to obtain demographic information (age, marital status, physical health problems and alcohol and illegal drug use). The offender participant questionnaire comprised additional questions regarding their offence, the sentence they received following conviction and any treatment that they had received. A section was also included requesting information concerning the offender respondent's own experiences of sexual contact during childhood. Although a formal debriefing session was not offered, all participants were offered the opportunity to discuss any issues or concerns that had arisen as a result of completing the questionnaire. At this point information would have been given regarding the services available locally which would be able to provide additional help and support.

- c) **Beck Depression Inventory (BDI; Beck, Rush, Shaw & Emery , 1979)** - a 21-item measure of depressed mood. This measure was administered in order to screen for depression and is scored in the direction of increasing levels of depressed mood. By employing a meta-analysis of data from nine clinical and fifteen non-clinical samples, Beck, Steer & Garbin (1988) reported reliability estimates of .86 and .81, respectively, indicating high internal consistency in both psychiatric and non-psychiatric populations.
- d) **Social Problem-Solving Inventory - Revised (SPSI-R; D'Zurilla, Nezu & Maydeu-Olivares, 1997)** - a 52-item self-report measure based upon a five-dimensional model of social problem-solving. Each of the SPSI-R items represents either one of the two adaptive problem-solving dimensions (positive problem orientation and rational problem solving) or one of the three maladaptive dimensions (negative problem orientation, impulsivity/carelessness style and avoidance style).

For each item, the respondent is required to indicate how well it describes their own problem solving style on a Likert-type scale of 0 (not at all true of me) to 4 (extremely true of me). Each dimension is scored in the direction of increasing use of the strategies contained within it; that is a score of 20 on the avoidance style dimension indicates greater implementation of avoidance strategies than a score of 5. Dimension total scores are obtained, which are then entered into an equation in order to calculate an overall social problem solving (SPS) score. The three maladaptive problem-solving dimensions are reverse-scored by subtracting the actual scale scores from the highest possible score. Higher SPS scores indicate "more constructive, effective, or facilitative problem solving" (D'Zurilla, Nezu & Maydeu-Olivares, 1997).

Although this test has yet to be standardised, mean and standard deviation scores for a variety of normal samples from the United States are available for comparison (see Appendix IX). Research has also indicated that adequate to high levels of internal consistency (.69 to .95) and test-retest reliability (.68 to .91) have been obtained for the dimension scales in four different samples

(D'Zurilla, Nezu & Maydeu-Olivares, 1997). D'Zurilla et al (1997) also reported high reliability estimates for the total SPS score.

- e) **Internal, Personal and Situational Attributions Questionnaire (IPSAQ; Bentall & Kinderman, 1996a)** - a 32-item measure to assess the respondents' internal and external attributions, with regard to 16 positive and 16 negative hypothetical events. An additional feature of this measure is the further division of external attributions into an external-personal locus, where the cause of events is attributed to identifiable others, and an external-situational locus, where the cause of events is attributed to circumstances or chance.

Scoring involves summing the number of internal, external-personal and external-situational causal attributions for both positive and negative events. Two bias scores can then be calculated from the six sub-scale scores.

Externalising bias (EB) is derived from the subtraction of internal attributions for negative events from the number of internal attributions for positive events. A positive EB score suggests that the respondent is less likely to blame themselves for negative events than for positive events, that is they have a strong self-serving bias. The personalising bias score (PB) is obtained by dividing the number of personal attributions for negative events by the total number of external-personal and external-situational attributions for negative events. PB scores of more than 0.5 indicate a tendency to attribute negative events to external-personal rather than external-situational loci (Kinderman & Bentall, 1996).

Acceptable levels of internal consistency, ranging from .61 to .76 for the six sub-scales, and .72 and .76 for EB and PB scores respectively, have been obtained on a non-clinical sample of students (Kinderman & Bentall, 1996). Means and standard deviations of scores for a range of clinical and non-clinical samples are available for comparison (see Appendix X).

- f) **Self-report version of the Autobiographical Memory Test (AMT; Williams & Broadbent, 1986)** - this test requires the participant to retrieve specific event

memories in response to 18 cue words. The cue words fall into three categories (6 positive, 6 negative and 6 neutral) and are presented in a sequential manner.

Although the interview version of this test has been widely used (Williams, 1996.) with a variety of populations, few studies have implemented the self-report version. Therefore, in order to assess the power of this version and to ensure that the words themselves are not the potent factor influencing specificity of recall, two sets of words were used in this study. Set A comprised the words happy, relieved, proud, eager, glorious and sunny as positive cues; guilty, hopeless, failure, grave, ugly and worse as negative cues; and grass, gigantic, absence, wildlife, bread and search as the neutral cues. Set B comprised devoted, hopeful, amazed, pleased, calm and bright as positive cues; grief, rejected, helpless, blame, awful and mistake as negative cues; and pottery, ladder, occasion, moderate, nursery and shallow as neutral cue words. Sets A and B were administered alternately to the participants within each study group. Statistical analyses were carried out on the responses made to each set in order to ensure that no significant differences were recorded (see Results section).

The participants' responses were coded as either specific or non-specific (general responses and omissions), and received a score of 1 and 0 for these responses, respectively. A specific event is defined as one with a duration of one day or less, for example in response to the cue word gigantic a specific event memory might be "seeing the North West Territories of Canada from the air for the first time". In contrast, an example of a non-specific response to this word might be "the rides that I go on each year at Blackpool".

Henderson (1996) administered the self-report AMT to a sample of female undergraduate students (n=79) and obtained an inter-rater reliability of 0.93 on 10% of the total responses. This was similar to that obtained by Williams and Dritschel (1988) who implemented the interview version of the AMT.

- g) **Symptom Checklist - 90 - Revised (SCL-90-R)** (Derogatis, 1994) - a 90-item screening measure of general psychopathology which includes nine symptom dimensions - somatization, obsessive-compulsive, interpersonal sensitivity,

depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. Each of the 90 items represents one of the nine symptom dimensions. The respondent is required to indicate the level of distress that they have experienced due to these symptoms, on a Likert-type scale ranging from 0 (not at all) to 4 (extremely). Raw scores for the nine symptom dimensions are obtained by summing the item responses for each dimension. The raw scores are then used to calculate the Global Severity Index (GSI), Positive Symptom Total (PST) and the Positive Symptom Distress Index (PSDI) scores.

Adequate levels of internal consistency, ranging from .77 to .90, and test-retest reliability coefficients of between .68 and .90 have been reported for the SCL-90-R (Derogatis, Rickels & Rock, 1976; Horowitz, Rosenberg, Baer, Ureno & Villasenor, 1988). In assessing the concurrent validity of the SCL-90-R, a comparison of the depression dimension scores with those of the BDI resulted in a correlation of .80. Means and standard deviations of scores for a variety of normative samples are available for comparison (see Appendix XII).

## Hypotheses

The following hypotheses will be investigated:

- 1 It is hypothesised that the offender group will be more overgeneral in their autobiographical memory recall than the non-offender control group, as measured by the AMT (Williams & Broadbent, 1986).
- 2 It is hypothesised that the offender group will display significantly greater externalising bias (EB) and personalising bias (PB) scores, when compared with the control group (IPSAQ; Bentall & Kinderman, 1996a).
- 3 It is hypothesised that the offender group will endorse the negative problem orientation (NPO), impulsive/carelessness style (ICS) and avoidance style (AS) problem-solving dimensions of the SPSI-R significantly more than the control group. In addition, it is hypothesised that they will obtain significantly lower

scores on the positive problem orientation (PPO) and rational problem solving (RPS) dimensions and overall social problem-solving (SPS) than the control group (D'Zurilla, Nezu & Maydeu-Olivares, 1997).

- 4 It is hypothesised that overgeneralised memory recall will correlate with a greater tendency to adopt an externalising bias.
- 5 It is hypothesised that overgeneralised memory recall will correlate with greater endorsement of the three maladaptive problem-solving strategy dimensions (NPO, ICS & AS).
- 6 It is hypothesised that externalising bias will be associated with greater endorsement of the three maladaptive problem-solving dimensions (NPO, ICS & AS).

## Results

### Study Groups

Of the 40 male sexual offender clients approached by Probation Officers or professionals working within the Forensic Service, 32.5% (n=13) agreed to participate in the study. However, one participant was later excluded from the study due to his difficulties in completing the Raven's SPM and limited ability to comprehend much of the language used in the tests. Therefore, the study is concerned with twelve participants, known as the offender group, and the corresponding non-offender control participants matched for gender, age and intellectual ability level (Raven's SPM grade).

Data analysis was performed using SPSS for Windows.

### a) *Demographic Data for the Offender and Non-Offender Control Groups*

#### Age

The mean age of the offenders recruited to the study was 50.1 years (S.D. 14.58), with a range of 20 to 65 years. Of the sample, 41.67% (n=5) were aged 60 years or above.

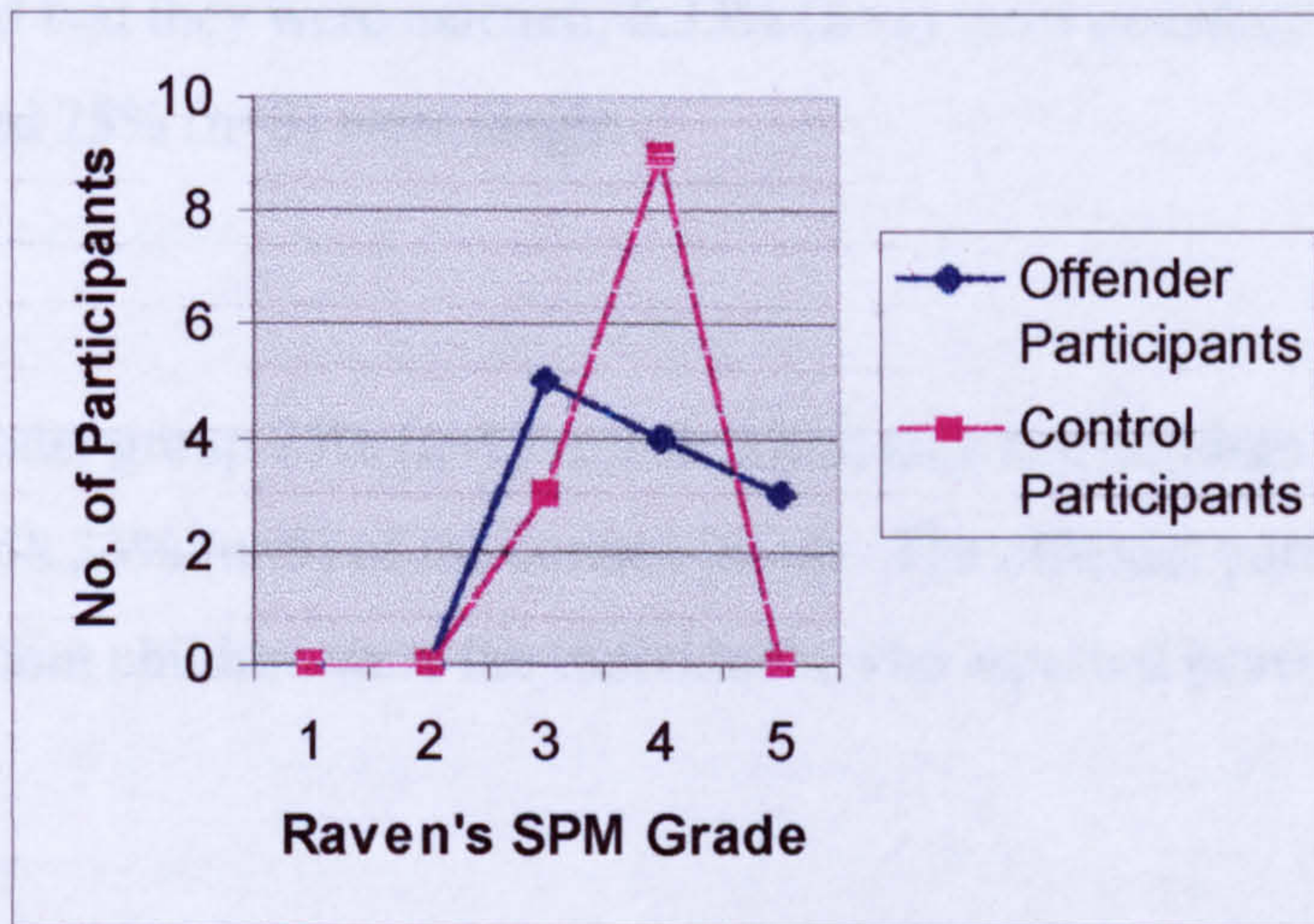
The mean age of the control group was slightly lower at 49.9 years (S.D. 15.16) with a range of 19 to 66 years.

#### Intellectual Ability

The Raven's SPM provides five grades of intellectual ability, from grade I - "intellectually superior" through to grade V - "intellectually impaired". Due to difficulties in obtaining control participants who were a perfect match on both age and Raven's SPM grade, it was necessary in some cases to accept controls whose performance placed them within the grade immediately above or below that obtained by the offender participant. Figure 1 below indicates the distribution of the offender and control participants across the five Raven's grades.

Figure 1

The Distribution of the Offender and Control Group Participants across the Five Raven's SPM Grades

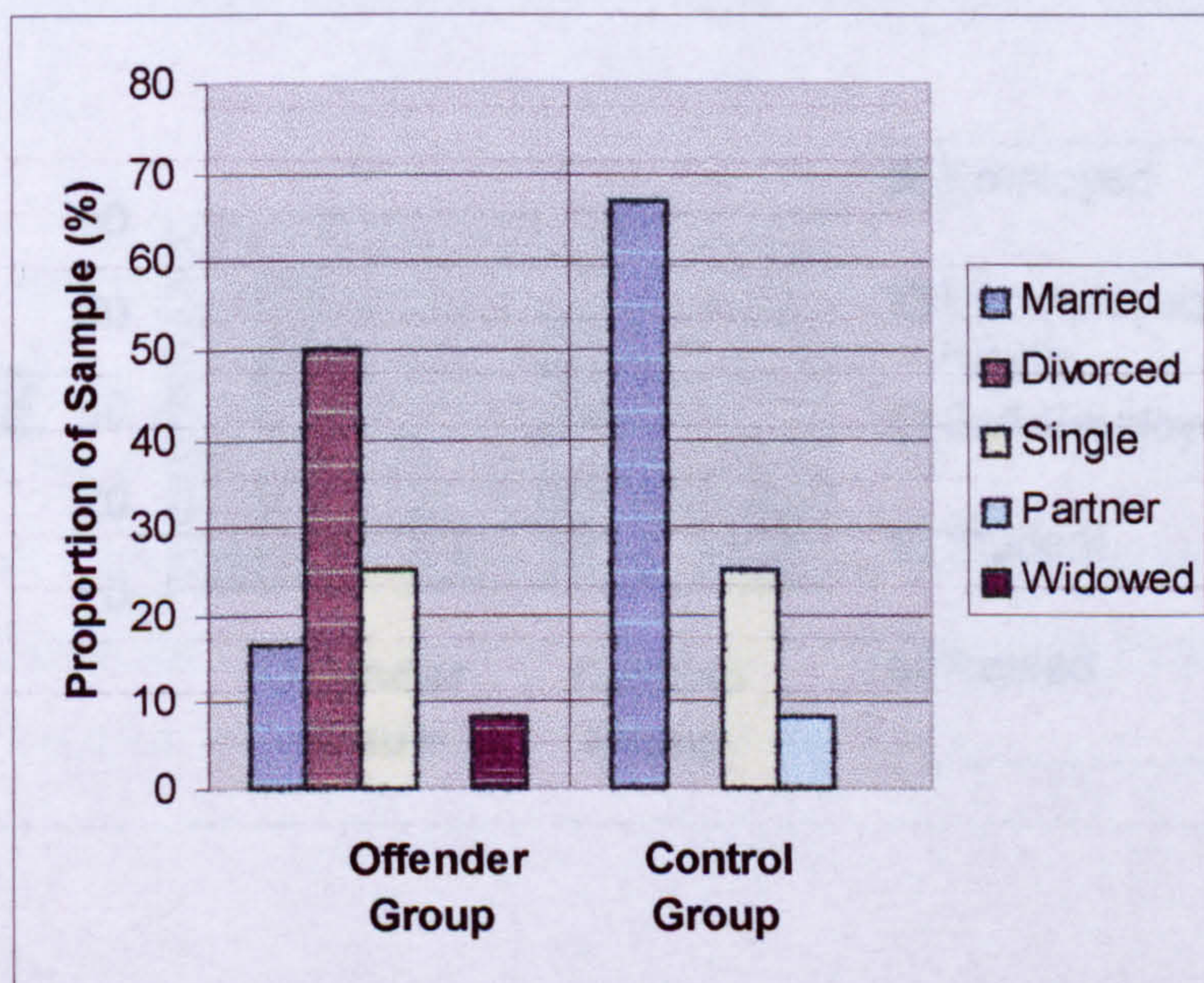


Although previous research has indicated that sexual offenders do not differ significantly from the general population on intellectual ability, in this study the offender participants fell within the grades III to V (Fisher, 1994). This may be the result of selection effects, which are examined further in the Discussion section.

### Marital Status

Figure 2

The Marital Status of the Offender and Control Groups





As can be seen in Figure 2, 16.67% (n=2) of the offender sample indicated that they were married at the time of assessment, 50% (n=6) were divorced, 25% (n=3) were single and 8.33% (n=1) had been widowed. In contrast, 66.67% (n=8) of the control sample indicated that they were married, 8.33% (n=1) were co-habiting with a partner as if married, and 25% (n=3) were single.

### Children

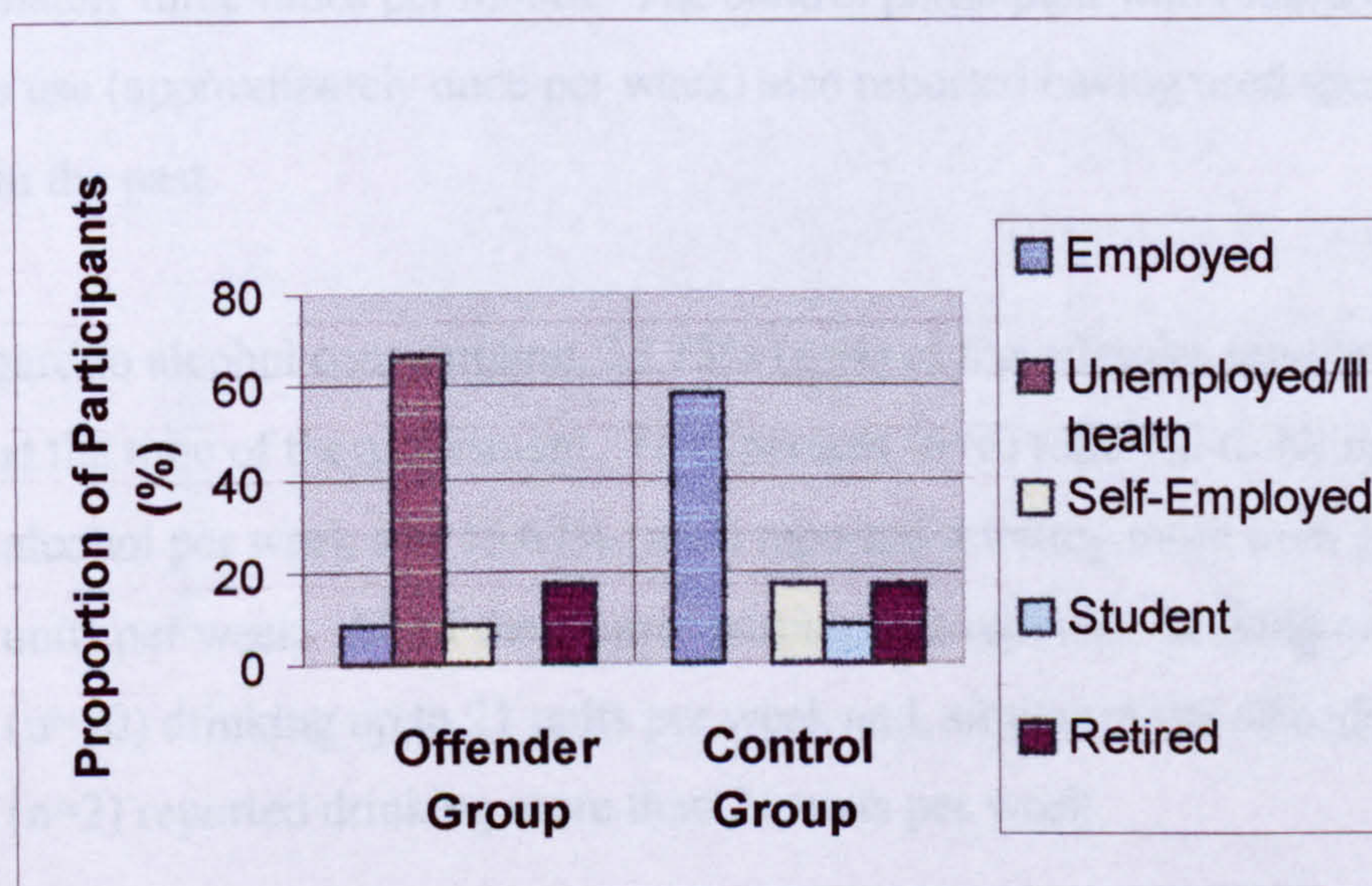
Within the offender group 75% (n=9) reported that they had children of their own, as compared with 58.33% (n=5) of the control group. The offender participants who made up the 25% without children were the individuals who reported never having been married.

### Employment Status

Figure 3 indicates that 66.67% (n=8) of the offender sample were either unemployed or unable to obtain work due to ill health at the time of assessment. However, no control participants fell into this category. Although it may initially be assumed that unemployment occurred due to conviction, this was true for only 50% (n=4) of the offender participants within the unemployed or unable to work due to ill health category.

Figure 3

*Employment Status of the Offender and Control Groups*



Seventy-five percent (n=9) of the control sample were employed or self-employed, whereas, less than a quarter of the offender participants, 16.67% (n=2), held this employment status. Similar proportions of each sample had retired (n=2) and 8.33% (n=1) of the control participants were in full-time education at the time of assessment.

### **Educational Attainment**

The distribution of participants across the four levels of educational attainment was similar for the two groups. Fifty percent (n=6) of the control sample and 58.33% (n=7) of the offender sample had not continued in education beyond the minimum school leaving age appropriate for their educational era. The remainder had proceeded on to further education, higher education or their professional equivalents, for example Royal Naval training or chartered status would be considered professional equivalents for further and higher education, respectively. Of the offender participants, 41.67% (n=5) had completed further education compared with 33.33% (n=4) of the control participants. Only two participants within the control sample had proceeded to higher education.

### **Drugs and Alcohol**

Figures 4 and 5 describe the use of illegal substances and the estimated weekly alcohol intake of the offender and control participants.

Only 8.33% (n=1) of the offender sample reported using cannabis, at a rate of approximately three times per month. The control participant who reported regular cannabis use (approximately once per week) also reported having used speed, acid and ecstasy in the past.

With regard to alcohol consumption, 33.33% (n=4) of the offender sample did not drink alcohol at the time of the assessment. Fifty percent (n=6) reported drinking up to 21 units of alcohol per week and 16.67% (n=2) reported drinking more than 21 but less than 42 units per week. All of the control participants reported drinking alcohol, with 83.33% (n=10) drinking up to 21 units per week and, similar to the offender sample, 16.67% (n=2) reported drinking more than 21 units per week.

Figure 4

The Use of Illegal Substances Reported by the Offender and Control Groups

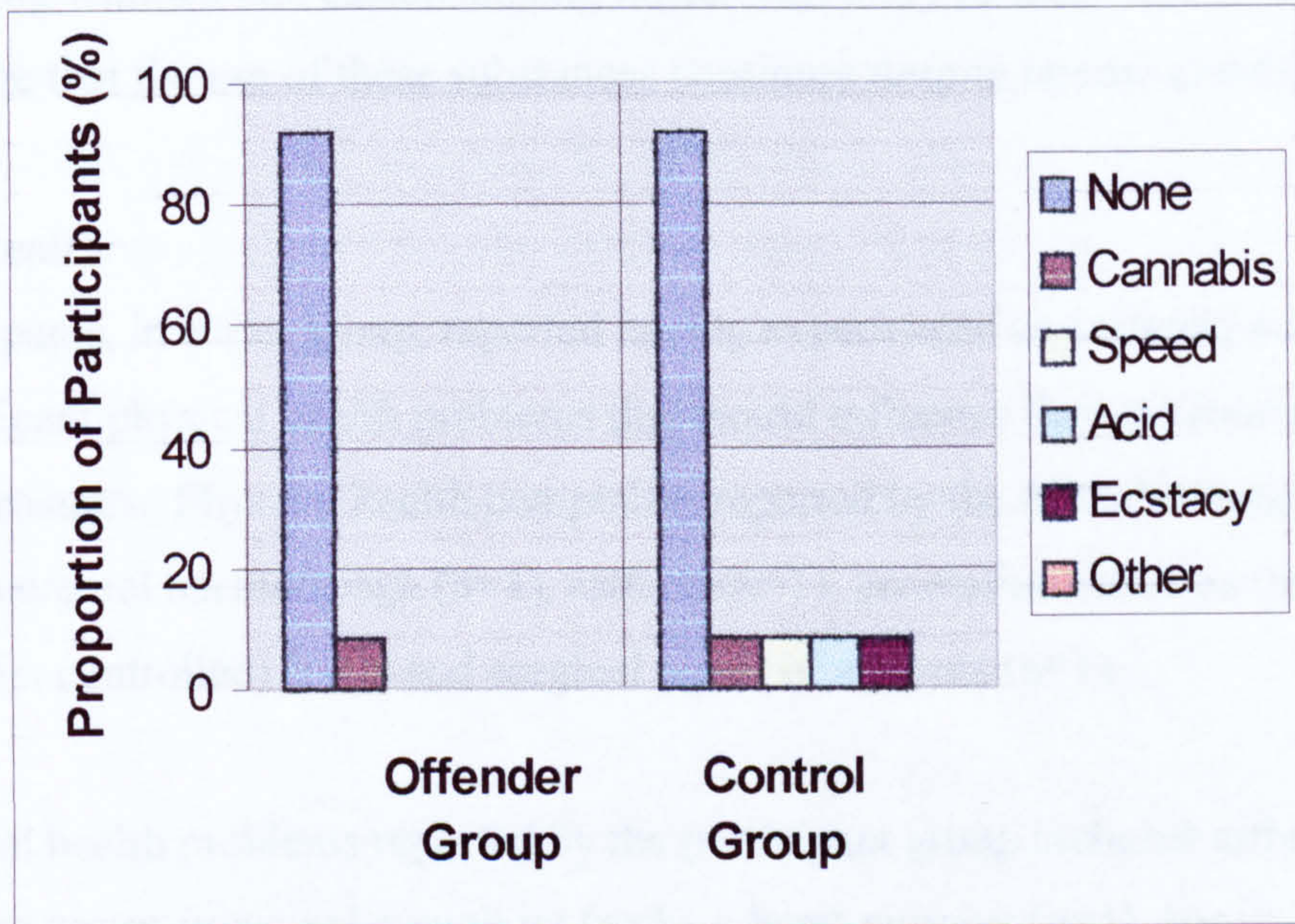
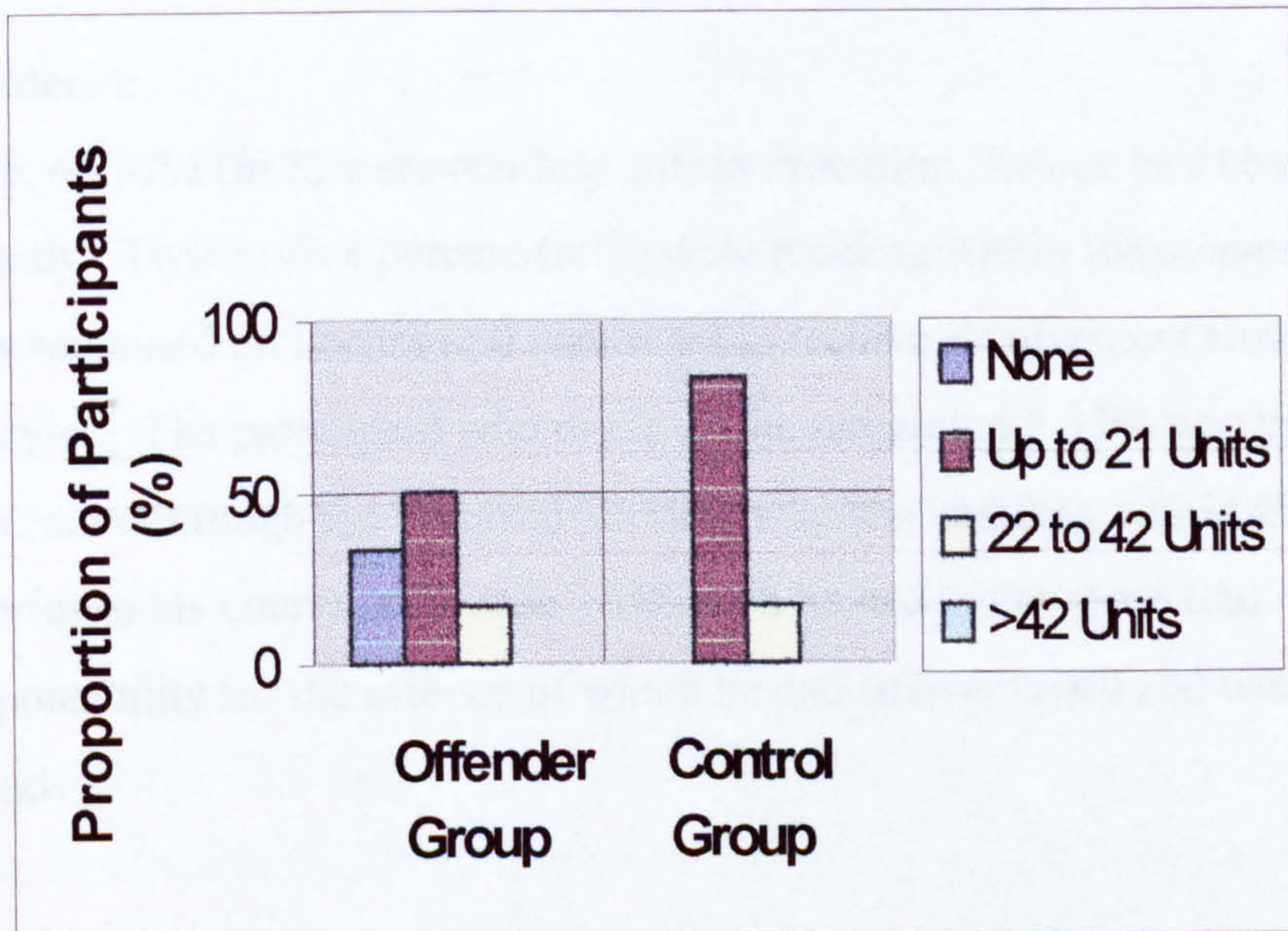


Figure 5

Reported Weekly Alcohol Intake of the Offender and Control Groups



The low incidence of alcohol and illegal substance usage in the offender sample may be related to their place of residence and the conditions of license imposed upon them at the time of the assessment. Although consumption of these substances is prohibited when residing within a bail establishment, hostel staff and Probation Officers acknowledge that the use of these substances continues despite license conditions.

### **Physical Health**

Few participants, in either group, reported having experienced or currently suffering from significant physical health problems that would influence their performance on the research measures. Physical health complaints reported by the offender sample included a cerebral haemorrhage (n=1), asthma (n=1), generalised arthritis (n=2), diabetes (diet controlled) (n=1) and surgical repair of a hernia (n=1).

The physical health problems reported by the participant group included arthritis (n=2), a non-severe gastro-intestinal complaint (n=1), a heart murmur (n=1), hernia (n=1) and the loss of patella in RTA (n=1).

## ***b) Details relating to the Sexual Offender Group Only***

### **Place of Residence**

Of the sample, 66.67% (n=8) were residing within Probation Service bail hostels at the time of the study. Twenty-five percent (n=3) were residing within the community, although they remained on license and continued to receive involvement from the Probation Service. The participant who made up the remaining 8.33% was the individual recruited through the Forensic Service, who was residing within the community prior to his court appearance. Although he had yet to stand trial, he admitted responsibility for the offence of which he had been accused and wished to take part in the study.

### **Offence Details**

Offence information was restricted to the offence of which the participant had been convicted in the case of first offenders, or the offence of which they had most recently

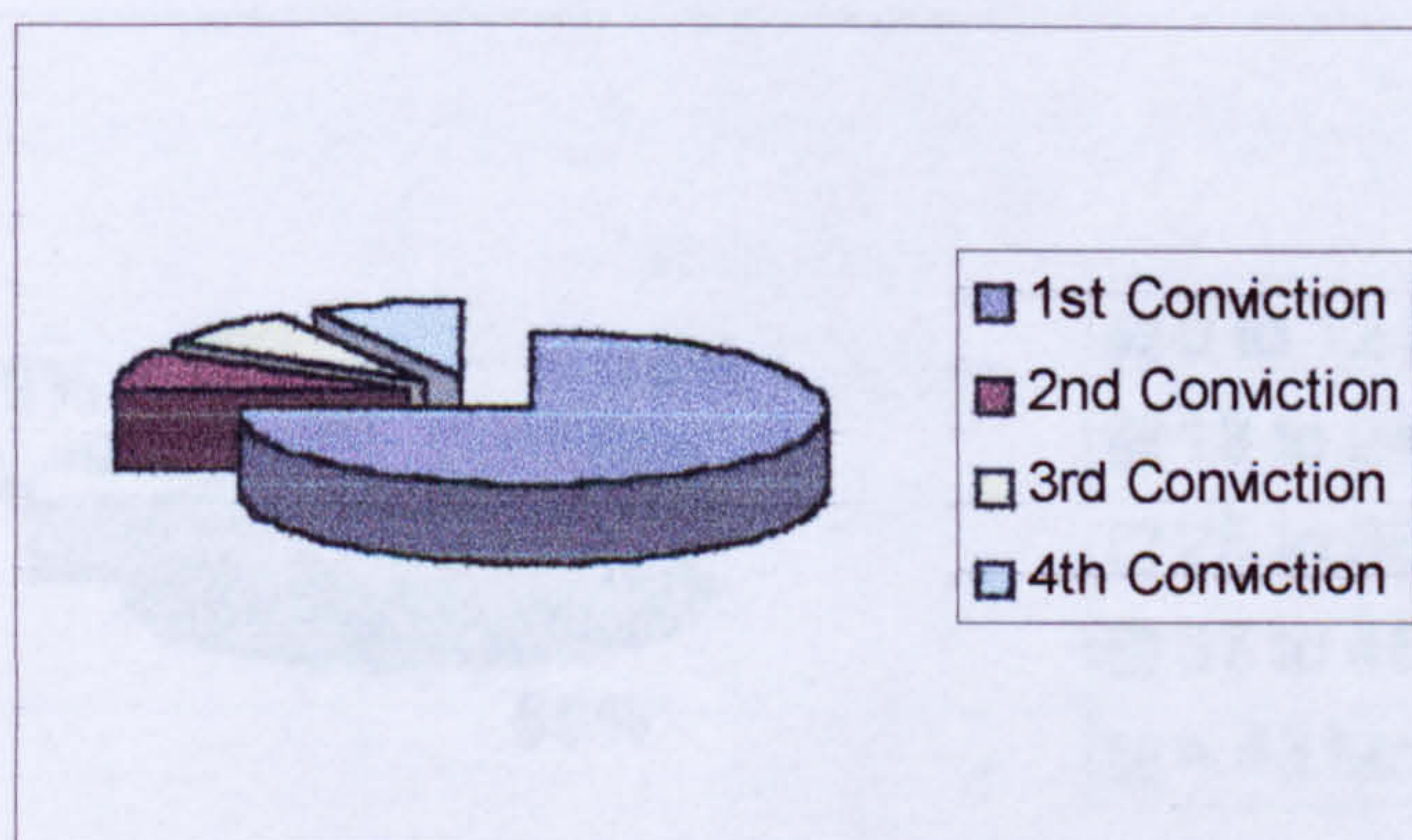
been convicted. With respect to the non-convicted participant, information was obtained regarding the offence for which he was awaiting a court appearance.

### Previous Convictions

Figure 6 indicates the prevalence of previous convictions in the offender sample. For 75% (n=9) of the sample, this was their first conviction. The individual who had three previous convictions had most recently been convicted in 1987.

*Figure 6*

*The Prevalence of Previous Convictions for Sexual Offences against Children*



### The Offence of Which They Were Convicted

Of the offender sample 75% (n=9) been convicted of indecent assault offences, with 16.67% (n=2) receiving gross indecency convictions. The remaining individual (8.33%) was awaiting his court appearance on the charge of indecent assault.

### How Did They Plead?

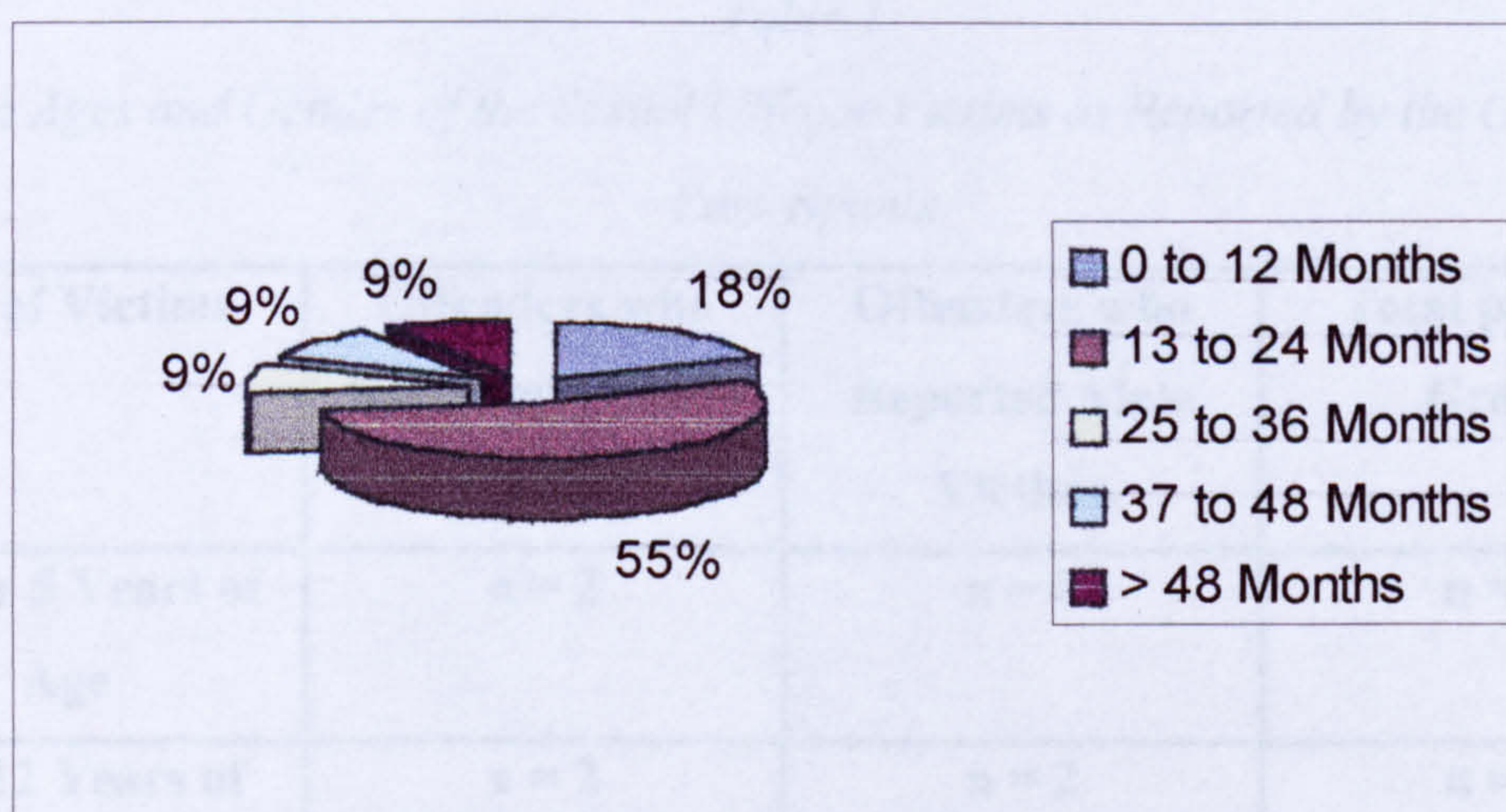
Of the individuals who had received convictions for their most recent offences, 90.9% (n=10) of the sample had pleaded guilty to the sexual offence of which they were charged. A further 9.1% (n=1) had pleaded guilty to the lesser charge of indecent assault, but not guilty to the charge of attempted buggery. However, it was unclear whether these figures reflected the offenders' own beliefs regarding their offences or were based on their solicitors' advice. The participant who was awaiting trial reported that he intended to plead guilty to the charge of indecent assault.

### What Sentence Did They Receive?

Figure 7 indicates the length of sentences that the convicted offender participants (n=11) had received. The sentences ranged from 8 months to 6 years and varied with respect to the proportion of the sentence that was served in prison and that which was served in the community under the conditions of their probation license. All participants in this study had resided within conventional prison rather than special hospitals for offenders who had been identified as experiencing mental illness.

*Figure 7*

*The Length of Sentence (in months) Received by the Offender Sample*



### Familial versus Non-Familial Sexual Offences

Of the total number of offences, 66.67% (n=8) were non-familial and 33.33% (n=4) were familial sexual offences against children.

Where familial sexual offences had been committed, the participants reported that their victims had all been female - stepdaughters, granddaughters and nieces. However, as the study focuses upon the offenders' most recent convictions it was not possible to ascertain whether the non-familial offenders had ever committed familial offences or vice versa. Similarly, no information was collected regarding other sexual or non-sexual crimes that they had committed.

### Victim Ages and Gender

Details regarding the distribution of victim gender and age are displayed in Table 1. All the victims aged 5 years or under ( $n=2$ ) were female. For the 33.33% ( $n=4$ ) of victims aged between 6 and 12 years the gender ratio was 1:1. Fifty percent of the total victims were more than 12 years of age and the gender ratio in this age group was 1:2 for males and females, respectively. Therefore, a total of 33.33% ( $n=4$ ) of the offender sample had offended against male children, all of which were non-familial offences. However, 50% ( $n=4$ ) of the female victims were subjected to familial offences.

*Table 1*

*The Ages and Gender of the Sexual Offence Victims as Reported by the Offender Participants*

<b>Age of Victims</b>	<b>Offenders who Reported Female Victims</b>	<b>Offenders who Reported Male Victims</b>	<b>Total per Age Group</b>
<b>Under 5 Years of Age</b>	<b><math>n = 2</math></b>	<b><math>n = 0</math></b>	<b><math>n = 2</math></b>
<b>6 to 12 Years of Age</b>	<b><math>n = 2</math></b>	<b><math>n = 2</math></b>	<b><math>n = 4</math></b>
<b>More than 12 Years of Age</b>	<b><math>n = 4</math></b>	<b><math>n = 2</math></b>	<b><math>n = 6</math></b>
<b>Total Victims</b>	<b><math>n = 8</math></b>	<b><math>n = 4</math></b>	<b><math>n = 12</math></b>

### Offender History of Childhood Sexual Abuse

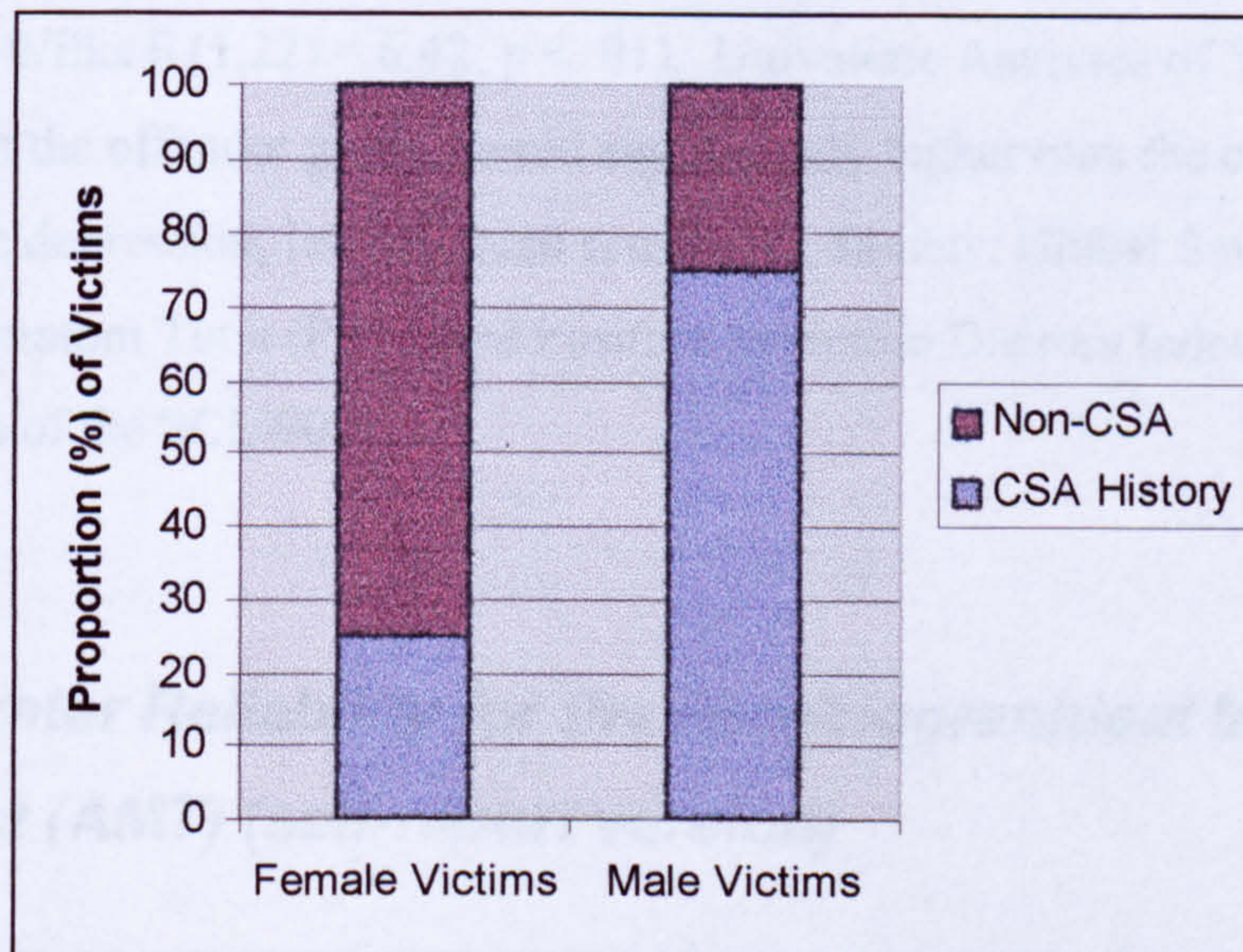
*As a child (under 16 years of age), did you ever have any sexual contact with someone much older than yourself?*

Figure 8 illustrates the proportion of the offender sample that reported sexual abuse during their own childhood (CSA). The chart also examines the relationship between victim gender and history of CSA.

Of the total offender sample, 41.67% (n=5) reported that they had experienced sexual contact with an adult during childhood (under the age of 16 years). Upon comparing those individuals who had offended against male children with those who had offended against females, a discrepancy became apparent. Seventy-five percent (n=3) of those who had offended against males reported sexual contact during their own childhood, as compared with only 25% (n=2) of those who had offended against females.

*Figure 8*

*The Relationship between Offender History of CSA and Victim Gender*



### **Treatment**

A third of the offender sample (n=4) reported that they had not received any form of treatment intervention at the time of assessment, yet two of these individuals had previous convictions for sexual offences against children.

Of the sample, 25% (n=3) had completed the two week intensive sexual offender treatment programme conducted by the Probation Service. A further 33.33% (n=4) had received some form of treatment during their time in prison, in addition to the intensive Probation Service programme. The remaining 8.33% (n=1) had completed the intensive programme and had then progressed to a more long-term relapse prevention programme which is also conducted by the Probation Service.



**c) Screening Measures – Beck Depression Inventory (BDI) and Symptom Checklist-90-R (SCL-90-R)**

As described previously in the methodology, the present study included two measures in order to screen for significant psychopathology - the BDI and the SCL-90-R. The means and standard deviations of the scores obtained by the offender group and the control group can be found in Table 2.

A Multivariate Analysis of Variance was conducted in order to examine the data for overall group differences on the BDI and SCL-90-R, and a significant main group effect was found (Wilks  $F(1,22) = 6.42; p < .01$ ). Univariate Analyses of Variance (Table 2) indicate that the offender group scored significantly higher than the control group on the BDI and the depression, interpersonal sensitivity, anxiety, Global Severity Index (GSI), Positive Symptom Total (PST), and Positive Symptom Distress Index (PSDI) components of the SCL-90-R.

**d) Inter-rater Reliability for the Autobiographical Memory Test (AMT) (self-report version)**

Scoring of the AMT was checked for reliability. A sample of participant responses, totaling 126 responses in all (79 specific, 40 general and 7 omissions) and which represented 29.17% of the total, was scored separately by the researcher and a fellow researcher who was also familiar with this version of the AMT. Although the sample was chosen at random it adequately represented both of the study groups and sets A and B of the test. One hundred percent inter-rater agreement was obtained. Reliability was calculated by dividing the number of inter-rater agreements by the number of agreements plus disagreements. This level of reliability was slightly greater than the 93% obtained by Henderson (1996) for the self-report version of this test.

Table 2

*Means, Standard Deviations (S.D.) and Univariate Analyses of Variance Comparing the Offender and Control Groups on BDI and SCL-90-R.*

	<b>Offender Group</b>	<b>Control Group</b>			
<b>Test</b>	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>	<b>F</b>	<b>df</b>	<b>Significance</b>
<b>BDI</b>	<b>17.16 (5.82)</b>	<b>4.08 (2.87)</b>	<b>48.63</b>	<b>1,22</b>	<b>.001</b>
<b><u>SCL-90-R</u></b>					
<b>Somatization</b>	<b>.62 (.62)</b>	<b>.49 (.61)</b>	<b>.26</b>	<b>1,22</b>	<b>NS</b>
<b>Obsessive-Compulsive</b>	<b>1.09 (.51)</b>	<b>.60 (.69)</b>	<b>3.85</b>	<b>1,22</b>	<b>NS</b>
<b>Interpersonal Sensitivity</b>	<b>1.17 (.85)</b>	<b>.58 (.50)</b>	<b>4.30</b>	<b>1,22</b>	<b>.05</b>
<b>Depression</b>	<b>1.39 (.79)</b>	<b>.57 (.58)</b>	<b>8.37</b>	<b>1,22</b>	<b>.01</b>
<b>Anxiety</b>	<b>.80 (.73)</b>	<b>.25 (.33)</b>	<b>5.45</b>	<b>1,22</b>	<b>.05</b>
<b>Hostility</b>	<b>.31 (.37)</b>	<b>.64 (.80)</b>	<b>1.56</b>	<b>1,22</b>	<b>NS</b>
<b>Phobic Anxiety</b>	<b>.47 (.86)</b>	<b>.14 (.35)</b>	<b>1.54</b>	<b>1,22</b>	<b>NS</b>
<b>Paranoid Ideation</b>	<b>.86 (.52)</b>	<b>.66 (.54)</b>	<b>.78</b>	<b>1,22</b>	<b>NS</b>
<b>Psychoticism</b>	<b>.70 (.47)</b>	<b>.29 (.64)</b>	<b>3.20</b>	<b>1,22</b>	<b>NS</b>
<b>Global Severity Index</b>	<b>.89 (.48)</b>	<b>.41 (.46)</b>	<b>6.14</b>	<b>1,22</b>	<b>.05</b>
<b>Positive Symptom Total</b>	<b>39.16 (16.09)</b>	<b>24.25 (18.68)</b>	<b>4.39</b>	<b>1,22</b>	<b>.05</b>
<b>Positive Symptom Distress Index</b>	<b>1.94 (.47)</b>	<b>1.24 (.62)</b>	<b>9.53</b>	<b>1,22</b>	<b>.01</b>

### **AMT validity**

As the AMT is relatively new and to ensure that participant performance was not influenced by the particular cue words used in the test, but occurred as a result of memory recall, two AMT word lists (A & B) were used. Each list was administered alternately as participants were recruited. Of the 24 participants, 13 responded to list A (7 offenders & 6 controls) and the remaining 11 responded to list B (5 offenders & 6 controls). A t-test performed on the total number of specific responses to versions A and B confirmed that no significant difference existed between the two sets of responses ( $t(22) = .538$ ;  $p$  NS). Further t-tests on the number of specific responses to each cue word category were also not significant; that is positive ( $t(22) = .56$ ;  $p$  NS), negative ( $t(22) = .7$ ;  $p$  NS) and neutral cue words ( $t(14.99) = .67$ ;  $p$  NS). It was, therefore, concluded that the responses occurred as a result of memory recall and were not influenced by the particular cue words used.

### **e) *Tests of the Research Hypotheses***

**Multivariate Analysis of Variance for the Scores Obtained by the Offender and Control Groups on the Autobiographical Memory Test (AMT), Internal, Personal & Situational Attributions Questionnaire (IPSAQ) and Social Problem-Solving Inventory – Revised (SPSI-R).**

A Multivariate Analysis of Variance was computed for responses to the three AMT cue categories, the externalising and personalising bias scores of the IPSAQ and the six components of the SPSI-R. The results of this analysis indicated that a significant main group effect existed (Wilks'  $F(1,22) = 2.88$ ;  $p < .05$ ), that is the overall offender group scores were significantly different from those obtained by the control group.

## HYPOTHESIS 1

It is hypothesised that the offender group will be more overgeneral in their autobiographical memory recall than the non-offender control group, as measured by the AMT (Williams & Broadbent, 1986).

The AMT is scored in the direction of increasing specificity, that is a score of 10 indicates greater specificity of recall than a score of 5. The offender and control group means and standard deviations of scores for responses to the AMT as a whole, and to the positive, negative and neutral cue categories are shown in Table 3.

*Table 3*

*Means, Standard Deviations (S.D) and Univariate Analyses of Variance for the Specific Responses Obtained by the Offender and Control Groups on the AMT*

	<b>Offender Group</b>	<b>Control Group</b>			
	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>	<b>F</b>	<b>df</b>	<b>Significance</b>
<b>Total Cues</b>	<b>9.16 (2.91)</b>	<b>13.5 (2.61)</b>	<b>14.69</b>	<b>1,22</b>	<b>.001</b>
<b>Positive Cues</b>	<b>2.91 (1.44)</b>	<b>4.5 (1.38)</b>	<b>7.53</b>	<b>1,22</b>	<b>.05</b>
<b>Negative Cues</b>	<b>3.25 (1.14)</b>	<b>4.83 (1.27)</b>	<b>10.36</b>	<b>1,22</b>	<b>.01</b>
<b>Neutral Cues</b>	<b>3.00 (1.41)</b>	<b>4.17 (1.34)</b>	<b>4.31</b>	<b>1,22</b>	<b>.05</b>

An Analysis of Variance for total specific AMT responses was computed and indicated that the offender group <sup>was</sup> were significantly less specific in their recall than the control group. A Multivariate Analysis of Variance was implemented in order to investigate the three cue categories of the AMT, and a significant main group effect was found (Wilks'  $F(1,22) = 4.91$ ;  $p < .01$ ). The Univariate Analyses of Variance (Table 3) demonstrate that the control group scored significantly higher on all cue categories,

when compared with the offender group. Therefore, the results supported Hypothesis I, thus allowing the null hypothesis to be rejected.

### **AMT and Depression**

Previous research into autobiographical memory recall has shown that depressed individuals are significantly less able to respond to the AMT cues with specific event memories, than non-depressed controls.

As discussed earlier, the offender group scored significantly higher on the BDI. Therefore, it was necessary to ascertain whether the between group variance on the AMT continued to be evident when depression was controlled for. A Univariate Analysis of Covariance for the total AMT responses, with BDI scores entered as a covariate, indicated that the offender participants were significantly less specific even when depressed mood was controlled for. A Multivariate Analysis Of Covariance for the cue word categories, demonstrated that a significant group effect prevailed when depressed mood was controlled for (Wilks'  $F(1,21) = 3.69; p < .05$ ). The Univariate Analyses of Covariance are displayed in Table 4.

*Table 4*

*Univariate Analyses of Covariance on Total AMT Responses and Responses to the Positive, Negative and Neutral Cue Words when Controlling for BDI Scores*

<b>AMT</b>	<b>F</b>	<b>df</b>	<b>Significance</b>
<b>Total Cues</b>	<b>6.03</b>	<b>1,21</b>	<b>.05</b>
<b>Positive Cues</b>	<b>7.06</b>	<b>1,20</b>	<b>.05</b>
<b>Negative Cues</b>	<b>7.86</b>	<b>1,20</b>	<b>.05</b>
<b>Neutral Cues</b>	<b>.98</b>	<b>1,20</b>	<b>NS</b>

It was also considered important to investigate whether overgeneral memory recall was associated with depressed mood. Across group Pearson's Correlation Coefficients computed for total AMT responses and BDI resulted in a moderate negative across group correlation ( $r = -.48$ ). However, within group correlations indicated a modest positive correlation ( $r = .60$ ) between BDI and positive cues words for the offender group only.

## HYPOTHESIS 2

It is hypothesised that the offender group will display significantly greater externalising bias (EB) and personalising bias (PB) scores, when compared with the control group (IPSAQ; Bentall & Kinderman, 1996a).

The group means and standard deviations for the two bias scores of the IPSAQ are displayed in Table 5. The data can be compared with the results obtained by Kinderman & Bentall (1997) (see Appendix X) and will be considered in the Discussion section to follow.

The core components of the measure are scored in the direction of increasing tendency to attribute the cause of an event to the particular locus, that is internal, external-personal or external-situational. Personalising (PB) and externalising bias (EB) scores were calculated using the component scores (see method for explanation).

Externalising bias relates to an individual's tendency to attribute negative as opposed to positive events to external factors and is scored in the direction of increasing external attributions for negative events. The personalising bias score relates to an individual's tendency to attribute negative events to external-personal as opposed to external-situational factors. The personalising bias is scored in the direction of increasing external-personal attributions for negative events.

*Table 5*

*Means and Standard Deviations (S.D.) of the Scores Obtained by the Offender and Control Groups on the Externalising Bias and Personalising Bias Components of the IPSAQ*

	<b>Offender Group Mean (S.D.)</b>	<b>Control Group Mean (S.D.)</b>
<b>Externalising Bias (EB)</b>	<b>-1.00 (4.43)</b>	<b>2.5 (4.58)</b>
<b>Personalising Bias (PB)</b>	<b>.55 (.30)</b>	<b>.47 (.30)</b>

A Multivariate Analysis of Variance computed for the externalising and personalising bias scores did not find a significant group effect (Wilks'  $F(1,22) = 1.82$ ;  $p$  NS). The Univariate Analyses of Variance showed that a near significant group difference was found for externalising bias only ( $F(1,22) = 3.61$ ;  $p < .07$ ). However, contrary to Hypothesis 2, the results suggested that the offender group showed less of a tendency to make external attributions for negative rather than positive events, when compared with the control group. That is, the control group appeared to demonstrate a stronger self-serving bias for negative events than the offender group. Therefore, as the results indicated that the two groups were not significantly different with regard to externalising bias and personalising bias, Hypothesis 2 was not supported.

### **HYPOTHESIS 3**

It is hypothesised that the offender group will endorse the negative problem orientation (NPO), impulsive/carelessness style (ICS) and avoidance style (AS) problem-solving dimensions of the SPSI-R significantly more than the control group. In addition, it is hypothesised that they will obtain significantly lower scores on the positive problem orientation (PPO) and rational problem solving (RPS) dimensions and overall social problem-solving (SPS) than the control group (D'Zurilla, Nezu & Maydeu-Olivares, 1997).

The six components of the SPSI-R are scored in the direction of increasing tendency to adopt the particular problem-solving strategies, be it a positive or negative strategy. However, when calculating the overall social problem-solving (SPS) score the maladaptive problem-solving dimensions are negatively scored (see Method section for further details). The means and standard deviations of the scores obtained by the offender and control groups on the components of the SPSI-R are illustrated in Table 6.

These data can be compared with those reported by D'Zurilla, Nezu & Maydeu-Olivares (1997) (see Appendix IX) for a range of clinical and non-clinical samples. Such comparisons will be examined further in the Discussion section.

*Table 6*  
*Group Means, Standard Deviations (S.D.) and Univariate Analyses of Variance*  
*Computed for the Scores Obtained on the SPSI-R.*

	<b>Offender Group</b>	<b>Control Group</b>			
<b>SPSI-R</b>	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>	<b>F</b>	<b>df</b>	<b>Significance</b>
<b>Social Problem Solving</b>	<b>11.83 (3.71)</b>	<b>14.87 (2.05)</b>	<b>6.16</b>	<b>1,22</b>	<b>.05</b>
<b>Positive Problem Orientation</b>	<b>10.75 (5.8)</b>	<b>13.00 (3.10)</b>	<b>1.40</b>	<b>1,22</b>	<b>NS</b>
<b>Negative Problem Orientation</b>	<b>15.41 (11.86)</b>	<b>6.16 (3.66)</b>	<b>6.65</b>	<b>1,22</b>	<b>.05</b>
<b>Rational Problem Solving</b>	<b>39.91 (18.54)</b>	<b>42.08 (14.53)</b>	<b>.10</b>	<b>1,22</b>	<b>NS</b>
<b>Impulsive Carelessnes s Style</b>	<b>12.75 (8.96)</b>	<b>7.83 (6.50)</b>	<b>2.36</b>	<b>1,22</b>	<b>NS</b>
<b>Avoidance Style</b>	<b>10.41 (6.81)</b>	<b>3.00 (2.48)</b>	<b>12.54</b>	<b>1,22</b>	<b>.01</b>

A series of Univariate Analyses of Variance were computed for the components of the SPSI-R. The results of these analyses demonstrated that the groups had responded significantly differently on overall social problem-solving (SPS), negative problem orientation (NPO) and avoidance style (AS) components (see Table 6). However, a Multivariate Analysis of Variance for the components of the SPSI-R did not find a significant main group effect for on this measure (Wilks'  $F(1,22) = 2.11$ ;  $p$  NS).



The results show that the offender group obtained higher scores on negative problem orientation (NPO) and avoidance style (AS) components, indicating greater use of these maladaptive problem-solving strategies when compared with the control sample. The offender group was also significantly poorer on overall problem-solving ability, as indicated by the lower mean social problem solving scores (SPS). These results partially supported Hypothesis 3 in that the offender participants endorsed two of the three maladaptive problem-solving dimensions significantly more than did the control participants. Also, although the performance of the offender group was not significantly poorer on the positive problem orientation and rational problem solving dimensions, significantly lower overall social problem-solving scores were obtained for this group.

### **Problem Solving and depression**

Previous investigations have indicated that individuals who are depressed or suicidal perform poorly on tasks that require problem solving (Marx, Williams & Claridge, 1992). Therefore, it was necessary to establish whether the offender group adopted less adaptive problem-solving strategies due to their significantly greater depressed mood, as measured by the BDI.

A Multivariate Analysis of Covariance for the components of the SPSI-R, with BDI scores included as a covariate, did not produce a significant group effect (Wilks'  $F(1,21) = .99$ ;  $p$  NS). Closer examination of the Univariate Analyses of Covariance showed that group differences on the avoidance style variable were approaching significance when depressed mood was controlled for ( $F(1,21) = 3.08$ ;  $p < .094$ ). This result suggested that the offender group may endorse avoidance style problem-solving strategies more than the control group.

### **HYPOTHESIS 4**

It is hypothesised that overgeneralised memory recall will correlate with a greater tendency to adopt an externalising bias (EB) in the offender group only. In addition, specificity of recall will be associated with an externalising bias in the control group.

A within group Pearson's Product Moment Correlation Coefficient (see Appendix XIII) did not find a significant association between total AMT responses and EB scores of the offender sample ( $n = 12$ ). However, a significant moderate negative correlation was found to exist between the specificity of responses to negative cue words and EB scores ( $r = -.57$ ;  $p < .05$ ) in this group. That is overgeneral responses to negative cue words were associated with a greater tendency to attribute negative rather than positive events to external loci. Therefore, the first part of Hypothesis 4 was partially supported.

Within group Correlation Coefficients were calculated for the control sample. A significant positive correlation was found for EB scores and specificity of recall in response to positive cue words only ( $r = .64$ ;  $p < .05$ ). That is a greater tendency to attribute negative rather than positive events to external loci was associated with more specific recall in response to positive cue words. Thus, the second part of Hypothesis 4 was partially supported.

## **HYPOTHESIS 5**

It is hypothesised that overgeneralised memory recall will correlate with greater endorsement of the three maladaptive problem-solving strategy dimensions (NPO, ICS & AS).

Across groups Pearson Correlation Coefficients ( $n = 24$ ) (see Appendix XIII) were computed to examine the association between AMT responses and the use of maladaptive problem-solving strategies. Within group correlations were also computed. The results showed that no significant across group or within group correlations between overgeneral memory and the use of maladaptive problem solving strategies were found, and on this basis Hypothesis 5 cannot be accepted.

## **HYPOTHESIS 6**

It is hypothesised that externalising bias will be associated with greater endorsement of the three maladaptive problem-solving dimensions (NPO, ICS & AS).

In order to investigate whether an association existed between the tendency to make external attributions for negative over positive events (EB) and the endorsement of negative problem orientation (NPO), impulsive/carelessness style (ICS) and avoidance style (AS) dimensions of the SPSI-R, across and within group Pearson Correlation Coefficients (see Appendix XIII) were computed. No significant correlations were found between these variables and, therefore, Hypothesis 6 was not supported.

### **f) *Post-Hoc Analyses***

**Multivariate Analysis of Covariance, Controlling for Depression, on the Scores Obtained by the Offender and Control Groups on the Autobiographical Memory Test (AMT), Internal, Personal & Situational Attributions Questionnaire (IPSAQ) and Social Problem-Solving Inventory – Revised (SPSI-R).**

A Multivariate Analysis of Covariance was computed, where depressed mood was entered as a covariate. However, a significant main group effect was not found (Wilks'  $F(1,21) = 1.04$ ;  $P$  NS). These results, therefore, indicated that the significant overall difference that existed between the offender and control groups when each of these variables was taken into account, was no longer evident when depression was controlled for.

#### **Comparison of Offenders with and without a History of CSA**

As almost half of the offender sample reported that they had a history of CSA ( $n = 5$ ), closer investigation of this offender sub-group was carried out. When comparing the mean and standard deviation scores of the CSA history and no-CSA history subgroups of offenders, certain differences became apparent (Table 7).

Analyses of Variance demonstrated that the sub-group of offenders who reported a history of CSA displayed significantly greater mean BDI and Global Severity Index scores. Although a Multivariate Analysis of Variance on this sub-groups' responses to the AMT cue categories suggested that a main group effect did not exist (Wilks'  $F(1,10) = 2.60$ ;  $p$  NS), further examination of the Univariate Analyses of Variance for

these variables highlighted a significant group difference in response to positive cue words only. However, contrary to the expected direction of this difference, the results suggested that the CSA history offenders were more specific in their autobiographical memory recall, particularly in response to positive cues, than the offenders without a CSA history. These results are shown in Table 7.

*Table 7*

*Mean and Standard Deviation Scores (S.D.) for AMT Cue Categories, BDI and GSI as Obtained by those Offenders with and without a History of CSA*

	<b>CSA Group (n = 5)</b>	<b>No CSA Group (n = 7)</b>			
<b>Test</b>	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>	<b>F</b>	<b>df</b>	<b>Significance</b>
<b>BDI</b>	<b>21.2 (4.6)</b>	<b>14.18 (4.99)</b>	<b>5.95</b>	<b>1,10</b>	<b>.05</b>
<b>Global Severity Index</b>	<b>1.26 (.50)</b>	<b>.63 (.27)</b>	<b>8.04</b>	<b>1,10</b>	<b>.05</b>
<b>AMT – Positive Cues</b>	<b>4 (.71)</b>	<b>2.14 (1.35)</b>	<b>7.82</b>	<b>1,10</b>	<b>.05</b>
<b>AMT – Negative Cues</b>	<b>3.6 (1.14)</b>	<b>3.00 (1.15)</b>	<b>.79</b>	<b>1,10</b>	<b>NS</b>
<b>AMT – Neutral Cues</b>	<b>3.8 (.84)</b>	<b>2.42 (1.51)</b>	<b>3.32</b>	<b>1,10</b>	<b>NS</b>

#### **Externalising Bias Scores of Treated and Non-Treated Offenders**

An independent sample t-test was computed in order to investigate whether the offenders who had received treatment for their offending (n = 8) responded significantly differently on the externalising bias dimension of the IPSAQ, when compared with those who had not (n = 4). No significant group difference was found ( $t(10) = 1.82$ ;  $p$  NS).

## Discussion

### *Autobiographical Memory*

The results of this study supported Hypothesis 1, indicating that sexual offenders against children are significantly less specific in their autobiographical memory recall than the non-offender control participants studied. This significant group difference was evident across the three cue word categories. A calculation was carried out in order to assess the robustness of the significant group effect on the Autobiographical Memory Test (Williams & Broadbent, 1986). This calculation produced an effect size of .95 indicating that there was a 95% chance of detecting a true significant effect at .05 level with these samples.

As already discussed, considerable previous research has demonstrated that individuals who suffer with depression or are suicidal are overgeneral in their autobiographical memory recall. The results obtained here can be compared with those of Williams and Scott (1988) who studied a mixed gender group of participants with a diagnosis of primary major depressive disorder and a mixed gender control group (see Appendix XI). The results are consistent with the literature which proposes that mood congruent biases are evident in depressed individuals (Williams & Scott, 1988; Williams, 1996). However, although the offender participants in this study were found to be significantly more depressed than the controls, the significant group difference in autobiographical memory prevailed in response to positive and negative cue words even when depressed mood was controlled for. Therefore, the results also suggest that the offender participants were more overgeneral in their recall of emotionally valent memories.

Past research has failed to find significant correlations between overgeneral memory recall and depression. This study did find a modest across group correlation between mood and overgeneral memory recall ( $r = -.48$ ) indicating that only 23% of the variance in autobiographical recall can be attributed to depressed mood. However, it is proposed that the across group correlation may be due to the significant differences in group depression scores and although depressed mood appears to be associated with the overgeneral recall displayed by the offender group other compounding factors are in

existence. When depressed mood and overgeneral recall were examined within each group, a significant correlation was found between depressed mood and positive cues in the offender group only suggesting that specificity of recall increases with depressed mood. This correlation may be an artefact.

Individuals experiencing emotional disturbance are believed to have a greater tendency to encode more general elements of situations, in particular negative elements and several studies have linked overgeneral memory recall with traumatic experiences during childhood. Kuyken and Brewin (1995) found that depressed females who reported a history of CSA responded less specifically on the AMT than those without a history of CSA or those with a history of childhood physical abuse. Henderson (1996) reported that her non-clinical sample of females with a history of CSA were less specific in their autobiographical recall than the non-clinical control participants and that this was not state dependent. These studies provided support for Williams' (1996) suggestion that overgeneral recall in adulthood is related to a particular cognitive style implemented as a means of controlling negative affect.

Williams argues that individuals who experienced negative events during childhood continue to use General Event Representations (GER's) which are thought to occur naturally during development prior to formation of the more sophisticated autobiographical memory (Fivush, 1996). The continued use of GER's into adulthood is believed to function as a defence against negative event memories. However, despite providing a short-term method of coping with traumatic events, in the long-term this cognitive style can be maladaptive as it impedes problem-solving and recovery from emotional disorders, such as depression, which is assisted by the recall of detailed information regarding past events.

### ***Overgeneral Memory Recall and Sexual Offenders against Children***

In attempting to understand why the offender participants in this study were more overgeneral in their event recall than the control sample, it is firstly necessary to consider and rule out several factors. It can be seen that a considerable number of the offender participants reported a history of CSA (n = 5). From this it is tempting to assume that overgeneral memory in sexual offenders against children is primarily the

result of negative sexual experiences during childhood, as described above. Yet, as the sample as a whole was more overgeneral than the control participants, it is unlikely that this is the full explanation. If CSA history were the only factor influencing memory recall, greater overgeneralisation would be expected in the CSA history offenders than those without. The opposite trend was in fact found, despite greater depression scores in those offenders with a history of CSA.

Many studies have postulated that sexual offenders grow up in dysfunctional and chaotic family environments characterised by inadequate parenting (Graham, 1993). Wolf's (1988) Cycle of Offending model was based on the assumption that experiences of victimisation (physical, sexual or emotional) or abusive attitudes during childhood function as 'potentiators' to the development of sexually deviant behaviour by dissolving inhibitions which would usually prevent against sexual deviance, for example awareness of social taboos. Yet, although this model provides a useful framework around which to structure treatment, as many individuals who are exposed to abusive attitudes or actual abuse do not go on to sexually offend it is an inadequate explanation of the aetiology of sexual offending behaviour (Fisher, 1994). However, it is interesting to note that Wolf's model bears certain similarities to the literature examining autobiographical memory recall in individuals who have experienced trauma during childhood. Despite empirical evidence to suggest that individuals who have experienced traumatic events during childhood lack specificity in event memory recall, not all go on to develop emotional disorders.

Increasing evidence is now becoming available to support proposals that sexual deviant interests date back to adolescence. Abel, Becker, Mittelman, Cunningham-Rathner, Rouleau & Murphy (1987, cited by Fisher, 1994) reported that more than 50% of the sexual offenders they studied disclosed having at least one deviant sexual interest before the age of 18 years. A recent study conducted in the U.K. by Elliot, Browne and Kilcoyne (1995) found that a third of the 91 sexual offenders against children interviewed reported becoming aware of their sexual interest in children before the age of 16 years and disclosed having committed their first offences prior to reaching adulthood. It is also of note that the number of adolescent sexual offenders is rising (Fisher, 1994).

Based on the results of the present study, it is postulated that overgeneral memory recall in sexual offenders against children may also be associated with a cognitive style developed during adolescence in an attempt to control or avoid deviant sexual interests. It is proposed that this cognitive style is implemented for the same basic reasons that it is adopted in victims of CSA – in order to control negative affect in response to traumatic events during childhood or adolescence and the memory of them. However, in this case the traumatic event is the occurrence of intrusive thoughts and fantasies of a deviant sexual nature. These deviant interests are believed to be reinforced by sexual fantasies, masturbation, low self-esteem and distorted cognitions and sexual offenders against children tell us that their fantasies become stronger and more serious over time (Elliott et al, 1995). Yet, having adopted an overgeneral cognitive style in order to control and avoid these behaviours this also results in greater difficulty recalling information which may prevent the behaviour continuing, for example more adaptive problem-solving strategies, details of previous offending behaviour and the consequences of these offences.

In order to test the validity of this theory it would be necessary to measure the occurrence of intrusive thoughts in adolescent and adult sexual offenders against children with regard to their sexual offending. Kuyken and Brewin (1995) administered the Impact of Events Scale to a sample of abuse survivors in order to measure the level of cognitive intrusions and avoidance of abuse related memories in the week prior to interview. They reported a significant correlation between high levels of avoidance of traumatic memories and overgenerality of recall in response to both positive and negative cue words. Research on posttraumatic stress disorder (PTSD) in war veterans has provided support for the proposal that overgeneral memory recall is associated with the occurrence and subsequent avoidance of negative memories, both during childhood and beyond (McNally, Lasko, Macklin & Pitman, 1995).

Alternatively, it could be argued that more of the offender participants in the present study had experienced CSA but chose not to disclose. Although in this study the proportion of offender participants who disclosed a history of CSA is considerably higher than the figures reported by Baker and Duncan (1987) (8% of males before the age of 16 years), it has been found previously that rates of CSA disclosure are influenced by the relationship between interviewer and offender. Worling (1995)



estimated that the frequency of disclosure of sexual victimisation by adolescent sexual offenders more than doubles at post-treatment interview when compared with pre-treatment figures, as a sense of trust develops between client and therapist during that time.

In addition, the question regarding CSA experiences within the general information questionnaire was worded carefully so as not to cause distress, yet some offenders may not have associated their own abusive experiences with the wording used here resulting in a failure to disclose. Brief descriptions of the acts included under the heading of CSA, as used by Henderson (1996), for example “the abuser made you touch them in a sexual way”, may have helped the participants to answer this question.

### ***Attributional Style***

The results indicated that the offender group did not make significantly more external attributions for negative than positive events on the IPSAQ (Kinderman & Bentall, 1996a). Conversely, a non-significant trend was evident suggesting that the offender group attributed more positive than negative events to external factors. Therefore, rather than revealing a self-serving cognitive bias in this sample, the results implied the existence of a self-blaming cognitive bias for negative events, as displayed by depressed individuals.

The mean and standard deviations for externalising and personalising bias scores can be compared with those obtained by Kinderman & Bentall (1997) for control, depressed and paranoid participant groups (Appendix X). The mean offender externalising bias score was considerably lower than the means for the three groups studied by Kinderman and Bentall suggesting that the offender participants displayed a stronger self-blaming bias than even the depressed participants in the other study.

The mean control externalising bias score in this study falls between the mean scores of Kinderman and Bentall’s paranoid and control participants, which is consistent with the literature showing that non-depressed non-paranoid individuals display a self-serving bias for negative events. The mean personalising bias scores for both the offender and control samples in this study were slightly higher than the means obtained by

Kinderman and Bentall for their control and depressed samples, but lower than the means for the paranoid group. However, caution must be maintained when making comparisons with other studies. For example Kinderman and Bentall's groups were of mixed gender and two of the samples were chosen for their specific clinical diagnoses of depression and paranoia.

A modest negative across group correlation was found to exist between BDI and externalising bias scores ( $r = -.49$ ) in this study. This indicates that as BDI scores increased the tendency towards a self-serving bias for negative events decreased, which is consistent with the findings of Kaney and Bentall (1989). Yet, this association accounts for only 24% of the variance in externalising bias scores.

Further correlations of note were found between externalising bias scores and specificity of autobiographical recall. When total specific responses to the AMT were examined in relation to externalising bias, no significant correlations were found. In contrast, when each cue word category was considered independently a number of associations came to light. A significant across group correlation was found between externalising bias scores and specificity of recall in response to positive cue words. That is, the results suggested a relationship between a strong self-serving bias and more specific recall of positive event memories. This association was also found in the control group when a within group correlation was computed.

However, within group correlation coefficients also revealed a significant negative association between externalising bias scores for the offender group and specificity of recall in response to negative cue words. This suggested that a tendency towards self-blaming cognitive bias in offenders correlates with greater specificity of recall of negative events memories. As discussed in the introduction, the expectations that we hold regarding future events are influenced by causal attributions made in the past. Similar to depressed individuals, the offender participants were more specific in their recall of negative self-referent information. It is, therefore, hypothesised that this negative information forms the basis for the interpretation and attribution of events in the future which is associated with a self-blaming cognitive bias. Yet, the tendency of non-depressed individuals' is to be more specific in their recall of positive self-referent memories upon which interpretations and attributions are made. In turn, this may

further reinforce their self-serving cognitive bias. Perhaps the offender participants are more realistic in their causal attributions and that overgeneral recall of negative event memories serves to protect them to a certain extent against the reality of their situation. Yet, it must be remembered that the results were obtained using small sample sizes and a limited range within each cue word category.

It is interesting to note that although the questions on the IPSAQ related to hypothetical everyday occurrences (for example, a friend gave you a lift home or a friend refused to help you with a job) it was apparent that the majority of the offender sample perceived these events as relating to their offending. This can be demonstrated by examining examples of responses by offender participants compared with those of controls: -

IPSAQ Questions 2.

**A friend talked about you behind your back.**

**What caused your friend to talk about you behind your back?**

Typical offender participant responses included – *“sex offending”, “they were disgusted with me”* and *“he might have been angry about what I did”* (relating to offending behaviour)

Control participant responses included – *“because he makes fun of me behind my back”, “does not want to offend me”* and *“because of my singing”*.

As all participants were informed of the nature of the study prior to agreeing to take part, it is possible that the sexual offenders’ awareness that the study was concerned with their offending behaviour influenced their interpretations of the questions and consequently their responses. It is, therefore, unclear whether the trend towards a self-blaming bias for negative events would have been evident if the context in which they had completed the IPSAQ had not related to their offending.

Furthermore, the offender responses may have also been influenced by the order in which the measures were administered, that is they were requested to respond to the question regarding experiences of sexual abuse during childhood prior to completing the main test booklet.

Although the IPSAQ is a useful measure of attributional style with regard to everyday events, it may be somewhat restrictive in that it requests only one cause for each event and does not obtain information regarding the individuals' perceived control over the causes of the events. Despite the self-blaming trend reflected by the results of the offender sample, no indication is given as to whether the offender participants felt that they could exert control over the factors causing negative events. Consider the typical responses to question 2 of the IPSAQ described above. The participants cite their offending behaviour as a possible cause of others not talking to them. However, if the participants had been questioned further regarding their responses, it may have transpired that they were 'internalisers' as described by Kennedy and Grubin (1992), believing that the abusive environment of their upbringing or a perceived mental illness was the ultimate cause of the offending behaviour and subsequent negative events and that these factors were beyond their control. Therefore, although the offenders may have attributed the cause of the hypothetical negative events to their offending behaviour, it is also possible that they believe uncontrollable factors to be at the root of their behaviour. Such issues have important implications for individuals' motivation or perceived ability to change through treatment.

With regard to sexual offending, attributions must be considered in conjunction with reports of cognitive distortions. Sexual offenders' cognitive distortions may attribute responsibility for the offence to the victim's own behaviour, for example where a child's interest in sexual matters is perceived as a requesting sexual contact or where failure to resist is perceived as consent (Gudjonsson, 1990; Beckett et al, 1994). As discussed earlier, it is often not possible to differentiate between cognitive distortions regarding offending behaviour and attributional style. Therefore, perhaps the way forward in understanding the complexities of attributions, cognitive distortions and perceived ability to change is through the systematic analysis of natural discourse (Nightingale, 1996) in addition to the use of standardised measures.

### ***Social Problem-Solving***

The offender group was found to adopt negative problem orientation (NPO) and avoidance style (AS) problem-solving strategies significantly more than the control group (SPSI-R; D'Zurilla, Nezu & Maydeu-Olivares, 1997; Maydeu-Olivares &

D’Zurilla, 1996). In addition, the results demonstrated that the offender group was significantly poorer on overall social problem-solving (SPS). However, when depression was controlled for only a non-significant trend towards greater use of avoidance style strategies remained.

In contrast to Hypothesis 5 and previous research (Evans et al, 1992), no association was found between the problem solving-dimensions and overgeneralised memory. However, Evans and colleagues implemented the Means-End Problem Solving Procedure (Platt et al, 1975) to assess problem solving ability. A calculation was computed to estimate the robustness of the results of the SPSI-R. This calculation produced an effect size of .66 indicating that there was a 66% chance of finding a true significant effect at .05 level with this study’s participant samples.

Modest across group correlation coefficients suggested associations between depressed mood and SPS, NPO and AS, which is consistent with the literature (D’Zurilla, Nezu, Maydeu-Olivares, 1997). Yet, it would appear that these associations were the result of group differences on this measure as no significant results were found when within group correlations were computed.

Despite limited significant results, it would appear that sexual offenders against children do display deficits in the cognitive components of problem-solving, which may be associated with depression to some extent. Yet, a tendency to adopt avoidance styles of problem-solving is apparent even when depressed mood is controlled for. This finding intimates that offenders against children implement a form of cognitive avoidance which compliments the theories behind overgeneral autobiographical memory recall (Kuyken & Brewin, 1995; McNally, Lasko, Macklin & Pitman, 1995).

The relationship between overgeneralised memory recall and avoidance would seem to be self-perpetuating in that by avoiding problematic situations, either physically or cognitively, little specific information is received regarding how to deal with that particular situation. Future attempts to solve similar problems become more difficult as only generic information is recalled to aid completion of the fundamental steps of problem-solving proposed by McFall (1982; 1990) - situation decoding, and the generation of possible alternative solutions and selection of the most appropriate.

Encountering difficulties with these steps is liable to lead to further avoidance of problematic situations. In addition, as negative problem-orientation schemas are associated with pessimism and negative affectivity it would seem plausible that a predominance of such schemas will result in more selective encoding of negative information regarding situations.

### ***Sexual Offenders against Children as a Clinical Population?***

Contrary to the researcher's expectations a significant group difference was found on both of the psychopathology screening measures – the BDI (Beck et al, 1979) and the SCL-90-R (Derogatis, 1994). These measures demonstrated that the offender participants reported significantly more symptomatology and distress than the controls.

With regard to the BDI, 8 of the 12 offenders scored within the range suggestive of moderate depressed mood (Beck & Steer, 1993). On the SCL-90-R the offenders scored significantly higher than the controls on three of the nine subscales, but recorded noticeably higher scores on all but one of the dimensions – hostility. This apparent lack of hostility in the offender sample is consistent with the literature which suggests that sexual offenders against children are frequently under-assertive and socially anxious individuals (Fisher & Howells, 1993).

The SCL-90-R scores of both groups can be compared with the norms published by Derogatis (1994) which can be found in Appendix XII. In general, the offenders' scores were slightly lower than the norms for male psychiatric inpatients and outpatients, but were markedly greater than the norms for male non-patient controls. The scores of the control sample in this study appeared slightly higher than the published norms for non-patient controls.

Based on these findings, it is proposed that sexual offenders against children should be considered a clinical group – that is individuals who would meet diagnostic criteria for significant psychopathology. Although it may be argued that their symptomatology could have arisen as a result of conviction and imprisonment, rather than being associated with the commission of offending behaviour itself, psychopathology frequently requires intervention. This is in contrast with the beliefs currently held by

some forensic psychiatric services who do not consider sexual offenders to be appropriate recipients of psychiatric or psychological treatment, although assessments for the purpose of legal reports are carried out.

As symptomatology, particularly depression, of the level reported by the offender group is believed to exacerbate cognitive deficits such as concentration, overgeneralised memory, and problem-solving, the efficacy of treatment programmes will be jeopardised from the outset if appropriate consideration is not given to these factors.

### ***Implications for Treatment***

The evidence that sexual offenders against children experience overgeneralised autobiographical memory recall has several implications for treatment. Firstly, although it may function to maintain denial, minimisation and cognitive distortions programme facilitators must be made aware of this difficulty as detailed recall of offence related information is a universal means of addressing these very issues.

Many programmes use Wolf's (1988) Cycle of Offending model in order to explain how sexual assault behaviour arises and as a means of introducing relapse prevention work. This model relies heavily upon the recognition and recall of cognitions, emotions and behaviours that have preceded offending behaviour in the past and which will function as important warning signs to the offender in the prevention of future recidivism. Therefore, perhaps programmes should begin by focussing on re-training offenders to encode the specifics of everyday events, thereby reducing future overgeneral encoding. The use of a diary can aid this process.

This study is one of the first to systematically examine the cognitive components of problem-solving as recommended by Fisher and Howells (1993), and, albeit with a limited sample size, it has highlighted possible areas of deficit in individuals within this offence sub-group. As described above, overgeneral memory recall can also exacerbate existing problem-solving deficits. Future studies of this nature should be conducted with much larger sample sizes and a variety of sexual offence sub-groups in order to further investigate the trend suggested here. In addition, it would be beneficial to implement thorough assessments of the cognitive and performance aspects of problem

solving to ensure that treatment programmes meet the specific needs of the offenders. The use of a combination of techniques, for example questionnaires, interpreting video taped interactions and role-plays of simulated situations relating to offending behaviour would help researchers and clinicians to begin to understand these complex individuals.

As it would appear that deviant sexual interests begin during adolescence which, it is postulated, is one of the factors leading to the adoption of a generic cognitive style, perhaps offenders within this age group should also be targeted for more systematic treatment. The North Wales policy (NCH Action for Children - Wales, 1997) for working with children and young people who sexually abuse others states *“sexual offending may begin at an early age and in contrast to other forms of offending, is a form of behaviour which young people tend to grow into rather than out of. Sexual behaviour is learned”*.

### **Methodological Limitations**

It is acknowledged that the present study has several methodological limitations which influence the validity of any conclusions drawn from the data. Firstly, attention must be given to the sample sizes used in the study. This factor was greatly influenced by the number of sexual offenders against children known to the North Wales Probation and Forensic Psychiatric Services at the time that the study was conducted. For adequate sample sizes to be obtained it would be necessary to extend the data collection period or, alternatively to conduct a two-centre study.

Secondly, in this study it was decided not to question the control participants regarding CSA experiences. Yet, as Baker and Duncan (1985) suggested that 8% of males are subjected to sexually abusive experiences before the age of 16 years, it is reasonable that at least one of the control participants would have reported a history of CSA. Questions regarding experiences of physical abuse during childhood could also have been included in the general information questionnaire, although Kuyken and Brewin (1995) indicated that individuals who had been subjected to physical abuse only did not display more overgeneralised memory recall than the control group. The format of



questioning used by Bryer, Nelson, Miller and Krol (1987) could be adapted for this purpose in future studies (Appendix XIV).

Ideally, replication of this study should attempt to assess attributional style at pre- and post-treatment in order to examine further the efficacy of this programme component. This would necessitate conducting assessments soon after conviction or during the initial stages of imprisonment. Although this method of data collection was considered it was beyond the scope of the present study.

In addition, future studies should account for any influence that answering questions about CSA or sexual offending behaviour prior to completing the AMT and the IPSAQ would have on the responses obtained. This may be overcome by alternating the administration order of the test booklet and the general information questionnaires and comparing the specificity of AMT responses and externalising bias scores.

Lastly, despite research evidence to indicate that sexual offenders do not differ from the general population on measures of intellectual ability (Fisher, 1994), all the offender participants in this study fell within grades III to V on the Raven's Standard Progressive Matrices (Raven, 1976). Several explanations are offered for this finding. That sexual offenders, as a broad group, are normally distributed with regards to intellectual ability, but that sexual offenders against children are not. That the more intellectually able sexual offenders are less likely to 'get caught' for their offending. A further possibility is that the more able offenders declined the offer to participate in this study, whereas those individuals of lower intellectual ability were more compliant.

### ***Conclusion***

To summarise, the offender participants were found to be significantly more overgeneral in their autobiographical memory recall than non-offender controls. Although it would seem that depressed mood and history of CSA may both be associated with this overgenerality, it is argued that other critical factors are also in action. It is postulated that the development of deviant sexual interests during adolescence and the negative affectivity that occurs in response to deviant intrusive thoughts or acting upon these interests are also important factors in overgeneral

memory recall. The use of avoidance strategies in social problem-solving concurs with this postulation.

Further research is now required to examine these aspects of cognitive processing in larger samples of offenders from different sexual offence sub-groups, for example rapists, exhibitionists, familial and non-familial sexual offenders against children. Greater attention should also be paid to developmental experiences such as childhood sexual, physical and emotional abuse, age at which the offenders first became interested in deviant sexual behaviour and the age at which they committed their first offences. Furthermore, as the literature propounds, more comprehensive assessments should be conducted in order that sexual offender treatment programmes meet the specific needs and deficits of this heterogeneous group.

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## Appendix I

Diagnostic & Statistical Manual for Mental Disorders – 4<sup>th</sup> Edition

(DSM-IV)

(American Psychiatric Association, 1994)

### Diagnostic features of Paraphilia

‘The paraphilias described here are conditions that have been specifically identified by previous classifications. They include Exhibitionism (exposure of genitals), Fetishism (use of nonliving objects), Frotteurism (touching and rubbing against a non-consenting person), Pedophilia (focus on prepubescent children), Sexual Masochism (receiving humiliation or suffering), Sexual Sadism (inflicting humiliation or suffering), Transvestic Fetishism (cross-dressing), and Voyeurism (observing sexual activity). A residual category, Paraphilia Not Otherwise Specified, includes other paraphilias that are less frequently encountered.’

## Appendix II

Diagnostic & Statistical Manual for Mental Disorders – 4<sup>th</sup> Edition  
(DSM-IV)  
(American Psychiatric Association, 1994)

### Diagnostic criteria for F65.4 Pedophilia

- A. Over a period of at least 6 months, recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children (generally age 13 or younger).
- B. The fantasies, sexual urges, or behaviors cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The person is at least age 16 years and at least 5 years older than the child or children in Criterion A.

**Note:** Do not include an individual in late adolescence involved in an ongoing sexual relationship with a 12- or 13-year-old.

***Specify if:***

Sexually Attracted to Males

Sexually Attracted to Females

Sexually Attracted to Both

***Specify if:***

Limited to Incest

***Specify type:***

Exclusive Type (attracted only to children)

Nonexclusive Type

## **Appendix III**

**Letters from the University of Wales, Bangor and the Health Trusts of  
North Wales confirming ethical approval**



c.c. Dr. Isabel Hargreaves

August 20, 1997

Ysgol Seicoleg  
Prifysgol Cymru Bangor  
Bangor, Gwynedd LL57 2DG  
Ffôn: Bangor (01248) 382211  
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School of Psychology  
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e-mail: [pss029@bangor.ac.uk](mailto:pss029@bangor.ac.uk)  
<http://www.psych.bangor.ac.uk/>

Julia Wane  
Clinical Trainee  
North Wales Clinical Psychology Course  
University of Wales  
Bangor  
Gwynedd LL57 2DG

Dear Colleague

Your research proposal (referred to above and on the attached sheet) has been reviewed by the School of Psychology Research Ethics Committee and they are satisfied that the research proposed accords with the relevant ethical guidelines. If you wish to make any substantial modifications to the research project please inform the committee in writing before proceeding. Please also inform the committee as soon as possible if research participants experience any unanticipated harm as a result of participating in your research.

You should now forward the proposal to the Research Ethics Committee of Gwynedd Hospitals NHS Trust Research Ethics Committee West. They expect one of the investigators to make an oral presentation in support of the proposal at their meeting. You will be contacted by their committee with details as to the date and place of the meeting at which your proposal will be considered.

You may not proceed with the research project until you are notified of the approval of the GHA ethics committee.

Yours sincerely

Kath Chitty  
Coordinator - School of Psychology Research Ethics Committee



—————  
PWYLLGOR MOESEG YMCHWIL (GORLLEWINOL)  
AWDURDOD IECHYD GOGLEDD CYMRU  
—————

Ffôn/Tel : (01248) 384877 (direct line)

Ffacs/Fax : (01248) 370629

Room 1/178  
Ysbyty Gwynedd  
Bangor  
Gwynedd LL57 2PW

Certificate of Confirmation of Ethics Approval

Name of Lead Researcher : Ms J Wane

Date of Ethics Review : 21.8.97

Title of Study : Cognitive processing of convicted male sex-offenders as compared to non-offender controls.

I confirm that all requirements have now been received for the study mentioned above. The research therefore has this Committee's full ethics approval.

If, during the course of the study, there are protocol changes, serious adverse events, or major subject recruitment problems, you are required to notify the Committee as soon as possible .

It is also requested that you provide an annual interim report on the conduct and progress of the study, plus a final report within three months of completion .

The Committee wishes you well in your research.

Signed : ..........

 Dr.D.R.Prichard , Chairman .

Date : 22.8.97

## **Appendix IV**

**Letter of support from the North Wales Probation Service**

*Fe ddarparwn ein gwasanaeth i chi yn eich dewis iaith  
We will provide our service in the language of your choice*



*Gwasanaeth Prawf*  
GOGLEDD CYMRU

.....

NORTH WALES  
*Probation Service*

Ms Julia Wane  
North Wales Clinical Psychology Course  
University of Wales, Bangor  
43 College Road  
Bangor  
Gwynedd

Group Work Team  
13 Prince's Drive  
Colwyn Bay  
CONWY, LL29 8HT  
Tel: 01492 532692  
Or: 01492 530600  
Fax: 01492 532283

5 June 1997

Dear Julia

RE: SEX OFFENDER RESEARCH

I can confirm that the North Wales Probation Service is willing to co-operate with your proposed research by facilitating access to male sex offenders.

The Probation Service does not have an ethics committee as such, but the research has the approval of Senior Management.

Yours sincerely

*Llew Owen*  
Llew Owen  
Senior Probation Officer  
Group Work Team

**Mrs Carol R Moore**

*Prif Swyddog Prawf / Chief Probation Officer  
Pencadlys / Headquarters*

*Ty Alexandra, Ffordd Abergele, Bae Colwyn, Conwy, LL29 9YF Ffôn: 01492 513413 Ffacs: 01492 513373*

**POLISI: HAWL I'R UNIGOLYN WELD EI FFEIL**

*"Hwyrach fe ddarparir eich gohebiaeth i'r person dan sylw oni ddywedwch  
ei fod yn gyfrinachol"*

**POLICY: SUBJECT ACCESS TO RECORDS**

*"Please note that unless informed to the contrary, correspondence will be  
considered as subject accessible"*

## **Appendix V**

Information sheets:-

- a) Offender participants
- b) Control participants

***Cognitive processing in convicted male offenders as compared  
to non-offenders***  
***Non-Offender Participants' Information Sheet***

**Researcher:- Julia Wane, Trainee Clinical Psychologist**  
North Wales Clinical Psychology Course  
University of Wales, Bangor  
Tel: 01248 383613 (answer phone)

**Supervisors:- Dr I R Hargreaves, Clinical Director**  
North Wales Clinical Psychology Course  
**Mr B Napier, Head of Psychology Services (Mental Health)**  
Gwynedd Community Health Trust

***Nature of the research***

You are invited to take part in a study to compare the ways in which individuals who have been convicted of sexual offences and those who have not think about and remember events and the methods that they use for dealing with problems. The overall aim is to look at how we can improve sex offender treatment programmes.

***Procedures***

You will be asked to attend a general information interview, complete an aptitude test and five further tests related to the main aims of the research. Although most of the test material and answers will be in English, the researcher is Welsh speaking and will be on hand to answer any questions. Very little writing will be necessary when completing the tests. Testing will take no longer than three hours and will be completed in one session. All sessions will be held on the University of Bangor campus (a map will be provided).

***Confidentiality and anonymity***

Your answers will be completely confidential. Your name will not be included on any test material. Instead a code number will be given to each set of tests, however, as no record matching subject names and code numbers will be kept, it will be impossible for you to be identified from the results. Raw test results will not be available to anyone outside the above named team.

***Withdrawal from the study***

Should you agree to participate, you will have the right to withdraw from the study at any point without penalty, even after completion of the testing. Also, should you feel unhappy about answering any of the test questions, you do not need to do so.

***Reimbursement***

You will be financially reimbursed for your involvement with this study - £1 will be received for attendance, followed by £1 for every half hour of your time.

***Complaints***

Should you wish to make a complaint regarding any aspect of the study or the researcher, these should be addressed to:-

Professor C.F. Lowe  
Head of School  
School of Psychology  
University of Wales  
Bangor  
LL57 2DG

***Cognitive processing in convicted male offenders as compared  
to non-offenders  
Sexual Offender Participants' Information Sheet***

**Researcher:- Julia Wane, Trainee Clinical Psychologist  
North Wales Clinical Psychology Course  
University of Wales, Bangor  
Tel: 01248 383613 (answer phone)**

**Supervisors:- Dr I R Hargreaves, Clinical Director  
North Wales Clinical Psychology Course  
Mr B Napier, Head of Psychology Services (Mental Health)  
Gwynedd Community Health Trust**

***Nature of the research***

You are invited to take part in a study to compare the ways in which individuals who have been convicted of sexual offences and those who have not think about and remember events and the methods that they use for dealing with problems. The overall aim is to look at how we can improve sex offender treatment programmes.

***Procedures***

You will be asked to attend a general information interview, complete an aptitude test and five further tests related to the main aims of the research. Although most of the test material and answers will be in English, the researcher is Welsh speaking and will be on hand to answer any questions. Very little writing will be necessary when completing the tests.

Testing will take no longer than three hours and will be completed in one session. Whenever possible, the sessions will be arranged to occur at the same time as your existing appointments in order to cut down on the amount of travelling required. Should you have to travel specifically to attend the session your travel expenses will be reimbursed at public transport rate.

***Confidentiality and anonymity***

Your answers will be completely confidential. Your name will not be included on any test material. Instead a code number will be given to each set of tests, however, as no record matching subject names and code numbers will be kept, it will be impossible for you to be identified from the results. Raw test results will not be available to anyone outside the above named team.

***Withdrawal from the study***

Your participation in this study is completely voluntary, you are not obliged to do so. Should you agree to participate, you will have the right to withdraw from the study at any point without penalty, even after completion of the testing. Withdrawal from the study will not affect the future treatment that you receive. Also, should you feel unhappy about answering any of the test questions, you do not need to do so.

***Complaints***

Should you wish to make a complaint regarding any aspect of the study or the researcher, these should be addressed to:-

Professor C.F. Lowe  
Head of School  
School of Psychology  
University of Wales  
Bangor  
LL57 2DG

Mr L. Wood  
Chief Executive  
Clwydian Community Care  
Catherine Gladstone House  
Hawarden Way  
Mancot  
Deeside  
CH5 2EP



## **Appendix VI**

Consent form

## *Consent Form*

### *Consent*

*I agree to take part in this study. I have been given a copy of the information sheet and had an opportunity to read and consider it. I am aware that I can withdraw from the study at any time, even after testing, without penalty.*

⋮

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Signature of researcher: \_\_\_\_\_

Has the participant been given a copy of this form ?

Yes/No

### *Feedback*

Although the collected test results will not be available to you, the researcher will be happy to provide general feedback when the testing has been completed. Please indicate whether you would like to receive general feedback about the study

Yes/No

Address to which information should be sent:-

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Should you require further information please contact Julia Wane in writing at the North Wales Clinical Psychology Course, University of Wales, Bangor, Gwynedd, LL57 2DG

## **Appendix VII**

**General information questionnaire:-**

- a) Offender participants
- b) Control participants

**General Information Questionnaire**

*All your answers are completely confidential. No-one else outside of this study will have access to your answers.*

*If you do not fully understand any questions, please ask for more information. You are not obliged to answer any questions that you do not feel happy about.*

**1 General Details**

a) Age \_\_\_\_\_

b) Marital status (delete as appropriate)      married/single/divorced/separated/common law

c) Number of children \_\_\_\_\_

d) Employment status (delete as appropriate)  
employed/unemployed/self-employed/student/retired

e) Level of education attained (delete as appropriate)  
Left school before 16 yrs/after 16 yrs/further education (college)/higher education

**2 Regarding your offence**

a) What offence were you convicted of? \_\_\_\_\_

b) Did you admit to the offence of which you were convicted?      Yes/No

c) Was it your 1<sup>st</sup>/2<sup>nd</sup> offence? \_\_\_\_\_

d) What sentence did you receive? \_\_\_\_\_

e) Have you received any treatment for your offending? Yes/No

f) If yes, what form did the treatment take? Group/individual/both/other

If other, give details \_\_\_\_\_

g) How long did the treatment last? \_\_\_\_\_

h) How often was the treatment? \_\_\_\_\_

i) Who was the person/people you saw for treatment?

\_\_\_\_\_

j) When did the treatment end? \_\_\_\_\_

**3 Physical health problems**

a) Have you had any physical health problems (including injuries to the head)? Please give details.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**4 Drugs and alcohol**

a) Do you take any of the following drugs? (delete as appropriate)

cannabis/speed/acid/ecstasy/heroin/cocaine/crack/other

If other, please specify \_\_\_\_\_

b) How many times a day/week do you take them? \_\_\_\_\_

c) Do you drink alcohol? Yes/No

d) How much do you drink each day/week? \_\_\_\_\_

**5 Past history**

a) As a child (under 16 years of age) did you ever have any sexual contact with a person much older than yourself?

Yes/No

*Thank you very much for answering these questions. Please do not hesitate to tell the researcher if you have any concerns regarding the questions, as time will be made available to discuss them.*

### General Information Questionnaire

*All your answers are completely confidential. No-one else outside of this study will have access to your answers.*

*If you do not fully understand any questions, please ask for more information. You are not obliged to answer any questions that you do not feel happy about.*

**1 General Details**

a) Age \_\_\_\_\_

b) Marital status (delete as appropriate)      married/single/divorced/separated/common law

c) Number of children \_\_\_\_\_

d) Employment status (delete as appropriate)  
employed/unemployed/self-employed/student/retired

e) Level of education attained (delete as appropriate)  
Left school before 16 yrs/after 16 yrs/further education (college)/higher education

**2 Physical health problems**

a) Have you had any physical health problems (including injuries to the head)? Please give details.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**3 Drugs and alcohol**

a) Do you take any of the following drugs? (delete as appropriate)

cannabis/speed/acid/ecstasy/heroin/cocaine/crack/other

If other, please specify \_\_\_\_\_

b) How many times a day/week do you take them? \_\_\_\_\_

c) Do you drink alcohol?

Yes/No

d) How much do you drink each day/week? \_\_\_\_\_

**4 Past history**

a) As a child (under 16 years of age) did you ever have any sexual contact with a person much older than yourself?

Yes/No

*Thank you very much for answering these questions. Please do not hesitate to tell the researcher if you have any concerns regarding the questions, as time will be made available to discuss them.*



## **Appendix VIII**

SPSI-R

Name or I.D. Number: \_\_\_\_\_

Age: \_\_\_\_\_ Sex: M \_\_\_\_\_ F \_\_\_\_\_ Today's Date: \_\_\_\_\_

Instructions

Below are a series of statements that describe the way some people might think, feel, and behave when they are faced with problems in everyday living. We are talking about important problems that could have a significant effect on your well-being or the well-being of your loved ones, such as a health-related problem, a dispute with a family member, or a problem with your performance at work or in school. Please read each statement and carefully select one of the numbers below which indicates the extent to which the statement is true of you. Consider yourself as you typically think, feel, and behave when you are faced with problems in living these days and place the appropriate number in the parentheses ( ) next to the number of the statement.

- 0 = Not at all true of me  
 1 = Slightly true of me  
 2 = Moderately true of me  
 3 = Very true of me  
 4 = Extremely true of me

1. ( ) I spend too much time worrying about my problems instead of trying to solve them.
2. ( ) I usually feel threatened and afraid when I have an important problem to solve
3. ( ) When making decisions, I do not usually evaluate and compare the different alternatives carefully enough.
4. ( ) When I am attempting to decide what is the best solution to a problem, I often fail to take into account the effect that each alternative is likely to have on the well-being of other people.
5. ( ) When I am trying to find a solution to a problem, I often think of a number of possible solutions and then try to combine different solutions to make a better solution.
6. ( ) I usually feel nervous and unsure of myself when I have an important decision to make.
7. ( ) When my first efforts to solve a problem fail, I usually think that if I persist and do not give up too easily, I will be able to find a good solution eventually.

- 0 = Not at all true of me
- 1 = Slightly true of me
- 2 = Moderately true of me
- 3 = Very true of me
- 4 = Extremely true of me

- 8. ( ) When I am attempting to solve a problem, I usually act on the first idea that comes to mind.
- 9. ( ) When I have a problem, I usually believe that there is a solution for it.
- 10. ( ) I usually wait to see if a problem will resolve itself first, before trying to solve it myself.
- 11. ( ) When I have a problem to solve, one of the things I do is analyse the situation and try to identify what obstacles are keeping me from getting what I want.
- 12. ( ) When my first efforts to solve a problem fail, I get very angry and frustrated.
- 13. ( ) When I am faced with a difficult problem, I often doubt that I will be able to solve it on my own no matter how hard I try.
- 14. ( ) When a problem occurs in my life, I usually put off trying to solve it for as long as possible.
- 15. ( ) After carrying out a solution to a problem, I do not usually take the time to evaluate all of the results carefully.
- 16. ( ) I usually go out of my way to avoid having to deal with problems in my life.
- 17. ( ) Difficult problems make me very upset.
- 18. ( ) When I am attempting to decide what is the best solution to a problem, I try to predict the overall outcome of carrying out each alternative course of action.
- 19. ( ) I usually confront my problems "head on", instead of trying to avoid them.
- 20. ( ) When I am attempting to solve a problem, I often try to be creative and think of original or unconventional solutions.
- 21. ( ) When I am attempting to solve a problem, I usually go with the first good idea that comes to mind.
- 22. ( ) When I attempt to think of possible solutions to a problem, I cannot usually come up with many alternatives.

- 0 = Not at all true of me
- 1 = Slightly true of me
- 2 = Moderately true of me
- 3 = Very true of me
- 4 = Extremely true of me

- 23. ( ) I usually prefer to avoid problems instead of confronting them and being forced to deal with them.
- 24. ( ) When making decisions, I usually consider not only the immediate consequences of each alternative course of action, but also the long-term consequences.
- 25. ( ) After carrying out a solution to a problem, I usually try to analyse what went right and what went wrong.
- 26. ( ) After carrying out a solution to a problem, I usually examine my feelings and evaluate how much they have changed for the better.
- 27. ( ) Before carrying out a solution to a problem in the actual problematic situation, I often practice or rehearse the solution in order to increase my chances of success.
- 28. ( ) When I am faced with a difficult problem, I usually believe that I will be able to solve the problem on my own if I try hard enough.
- 29. ( ) When I have a problem to solve, one of the first things I do is get as many facts about the problem as possible.
- 30. ( ) I often put off solving problems until it is too late to do anything about them.
- 31. ( ) I think that I spend more time avoiding my problems than solving them.
- 32. ( ) When I am attempting to solve a problem, I often get so upset that I cannot think clearly.
- 33. ( ) Before I try to think of a solution to a problem, I usually set a specific goal that makes clear exactly what I want to accomplish.
- 34. ( ) When I am attempting to decide what is the best solution to a problem, I do not usually take the time to consider the pros and cons of each solution alternative.
- 35. ( ) When the outcome of my solution to a problem is not satisfactory, I usually try to find out what went wrong and then I try again.
- 36. ( ) I hate having to solve the problems that occur in my life.

- 0 = Not at all true of me
- 1 = Slightly true of me
- 2 = Moderately true of me
- 3 = Very true of me
- 4 = Extremely true of me

- 37. ( ) After carrying out a solution to a problem, I usually try to evaluate as carefully as possible how much the situation has changed for the better.
- 38. ( ) When I have a problem, I usually try to see it as a challenge, or opportunity to benefit in some positive way from having the problem.
- 39. ( ) When I am attempting to solve a problem, I usually think of as many alternative solutions as possible until I cannot come up with any more ideas.
- 40. ( ) When I am attempting to decide what is the best solution to a problem, I usually try to weigh the consequences of each solution alternative and compare them against each other.
- 41. ( ) I often become depressed and immobilised when I have an important problem to solve.
- 42. ( ) When I am faced with a difficult problem, I usually try to avoid the problem or I go to someone else for help in solving it.
- 43. ( ) When I am attempting to decide what is the best solution to a problem, I usually consider the effect that each alternative course of action is likely to have on my personal feelings.
- 44. ( ) When I have a problem to solve, one of the things I do is examine what sort of external circumstances in my environment might be contributing to the problem.
- 45. ( ) When making decisions, I usually go with my "gut feeling" without thinking too much about the consequences of each alternative.
- 46. ( ) When making decisions, I generally use a systematic method for judging and comparing alternatives.
- 47. ( ) When I am attempting to find a solution to a problem, I try to keep in mind what my goal is at all times.
- 48. ( ) When I am attempting to find a solution to a problem, I try to approach the problem from as many different angles as possible.
- 49. ( ) When I am having trouble understanding a problem, I usually try to get more specific and concrete information about the problem to help clarify it.

- 0 = Not at all true of me
- 1 = Slightly true of me
- 2 = Moderately true of me
- 3 = Very true of me
- 4 = Extremely true of me

- 50. ( ) When my first efforts to solve a problem fail, I tend to get discouraged and depressed.
- 51. ( ) When a solution that I have carried out does not solve my problem satisfactorily, I do not usually take the time to examine carefully why it did not work.
- 52. ( ) I think that I am too impulsive when it comes to making decisions.

**I.P.S.A.Q.**

Name: \_\_\_\_\_

Sex: \_\_\_\_\_

Age: \_\_\_\_\_

Occupation: \_\_\_\_\_

Date Completed: \_\_\_\_\_

**INSTRUCTIONS**

Please read the statements on the following pages. For each statement please try to vividly imagine that event happening to you. Then try to decide what was the main cause of the event described in each statement. Please write the cause you have thought of in the space provided. Then tick the appropriate letter (a,b or c) according to whether the cause is :

- a) Something about you
- b) Something about another person (or a group of people)
- c) Something about the situation (circumstances or chance)

It might be quite difficult to decide which of these options is exactly right. In this case, please pick **one option**, the option which **best** represents your opinion. Please pick **only one** letter in each case.

Thank you for your time and co-operation.

**Note For Users**

This scale was designed by Peter Kinderman and Prof. Richard P. Bentall, of the Department of Clinical Psychology, Whelan Building, P.O. Box 147, Liverpool, L69 3BX, based on previous work by McArthur (1972) and Bentall, Kaney and Dewey (1991). The scale is a research tool and should not be used for routine clinical assessment. Permission is granted for its use in research protocols on condition that the authors are first notified.

**References**

- Bentall, R.P., Kaney, S., & Dewey, M.E. (1991) Paranoia and social reasoning. An attribution theory analysis. *British Journal of Clinical Psychology*, 30, 13-23.
- McArthur, L.A. (1972) The how and what of why: Some determinants and consequences of causal attribution *Journal of Personality and Social Psychology*, 22, 171-193

**1. A friend gave you a lift home.**

What caused your friend to give you a lift home?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**2. A friend talked about you behind your back.**

What caused your friend to talk about you behind your back?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**3. A friend said that he(she) has no respect for you.**

What caused your friend to say that he(she) has no respect for you ?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**4. A friend helped you with the gardening.**

What caused your friend to help you with the gardening?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?



**5. A friend thinks you are trustworthy.**

What caused your friend to think you are trustworthy?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**6. A friend refused to talk to you.**

What caused your friend to refuse to talk to you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**7. A friend thinks you are interesting.**

What caused your friend to think you are interesting?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**8. A friend sent you a postcard.**

What caused your friend to send you a postcard?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**9. A friend thinks you are unfriendly.**

What caused your friend to think that you are unfriendly?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**10. A friend made an insulting remark to you.**

What caused your friend to insult you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**11. A friend bought you a present.**

What caused your friend to buy you a present .  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**12. A friend picked a fight with you.**

What caused your friend to fight with you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**13. A friend thinks you are dishonest.**

What caused your friend to think you are dishonest?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**14. A friend spent some time talking to you.**

What caused your friend to spend time talking with you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**15. A friend thinks you are clever.**

What caused your friend to think you are clever?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**16. A friend thinks you are sensible.**

What caused your friend to think that you were sensible?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**17. A friend refused to help you with a job.**

What caused your friend to refuse to help you with the job?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**18. A friend thinks you are unfair.**

What caused your friend to think that you are unfair?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**19. A friend said that he/she dislikes you.**

What caused your friend to say that he/she dislikes you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**20. A friend rang to enquire about you.**

What caused your friend to ring to enquire about you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**21. A friend ignored you**

What caused your friend to ignore you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**22. 'A friend said that she(he) admires you.**

What caused your friend to say that she(he) admired you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**23. A friend said that he(she) finds you boring.**

What caused your friend to say that he(she) finds you boring?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**24. A friend said that she(he) resents you.**

What caused your friend to say that she(he) resents you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**25. A friend visited you for a friendly chat.**

What caused your friend to visit you for a chat?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**26. A friend believes that you are honest**

What caused your friend to believe that you are honest?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**27. A friend betrayed the trust you had in her.**

What caused your friend to betray your trust?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**28. A friend ordered you to leave.**

What caused your friend to order you to leave?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**29. A friend said that she(he) respects you.**

What caused your friend to say that she(he) respects you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**30. A friend thinks you are stupid.**

What caused your friend to think that you are stupid?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**31. A friend said that he(she) liked you.**

What caused your friend to say that he(she) liked you?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

**32. A neighbour invited you in for a drink.**

What caused your friend to invite you in for a drink?  
(Please write down the one major cause)

.....

Is this :

- a. Something about you ?
- b. Something about the other person or other people ?
- c. Something about the situation (circumstances or chance) ?

## Instructions for the Autobiographical Memory Test – Self Report Version (Williams & Broadbent, 1986)

I am interested in your memory for events that have happened in your life. Below you will find some words. For each word, I want you to think of an event that happened to you which the word reminds you of. The event could have happened recently (yesterday, last week) or a long time ago. It might be an important event, or a trivial one. Write the event down in the space provided and the time since the event happened (less than a week, less than a year).

Just one more thing: the memory you recall should be a specific event. So if I said the word “good” – it would not be O.K. to say “I always enjoy a good party”, because that does not mention a specific event. But it would be O.K. to say “I had a good time at Jane’s party” (because that is a specific event).

Here are some practice words:      enjoy  
   friendly  
   bold

<i>Word</i>	<i>Event of which you are reminded</i>	<i>Time since event</i>
happy		
guilty		
grass		
relieved		
hopeless		
gigantic		
proud		
failure		
absence		
eager		
grave		
wildlife		



<i>Word</i>	<i>Event of which you are reminded</i>	<i>Time since event</i>
glorious		
ugly		
bread		
sunny		
worse		
search		

## Instructions for the Autobiographical Memory Test – Self Report Version (Williams & Broadbent, 1986)

I am interested in your memory for events that have happened in your life. Below you will find some words. For each word, I want you to think of an event that happened to you which the word reminds you of. The event could have happened recently (yesterday, last week) or a long time ago. It might be an important event, or a trivial one. Write the event down in the space provided and the time since the event happened (less than a week, less than a year).

Just one more thing: the memory you recall should be a specific event. So if I said the word “good” – it would not be O.K. to say “I always enjoy a good party”, because that does not mention a specific event. But it would be O.K. to say “I had a good time at Jane’s party” (because that is a specific event).

Here are some practice words:      enjoy  
   friendly  
   bold

<i>Word</i>	<i>Event of which you are reminded</i>	<i>Time since event</i>
devoted		
grief		
pottery		
hopeful		
rejected		
ladder		
amazed		
helpless		
occasion		
pleased		
blame		
moderate		

<i>Word</i>	<i>Event of which you are reminded</i>	<i>Time since event</i>
<i>calm</i>		
<i>awful</i>		
<i>nursery</i>		
<i>bright</i>		
<i>mistake</i>		
<i>shallow</i>		

## Appendix IX

### Published Norms for the Social Problem-Solving Inventory – Revised (SPSI-R) Sub-Scales (D’Zurilla, Nezu & Maydeu-Olivares, 1997)

	Positive Problem Orientation	Negative Problem Orientation	Rational Problem Solving	Impulsivity/ Carelessnes s Style	Avoidance Style
	Mean S.D.	Mean S.D.	Mean S.D.	Mean S.D.	Mean S.D.
High School Students (N = 708) <sup>a</sup>	11.47 3.81	17.68 8.43	41.45 13.00	16.81 6.44	12.02 5.73
College Students (N = 1053)	11.90 3.92	15.93 9.06	43.46 13.74	13.70 7.04	9.88 6.58
Middle- Aged Adults (N = 100) <sup>b</sup>	13.53 3.85	9.46 7.02	47.90 15.07	9.11 6.00	6.30 5.87
Elderly Adults (N = 100) <sup>b</sup>	11.64 3.62	12.06 8.78	41.82 13.98	11.43 6.34	8.71 5.17
Alzheimers , Caregivers (N = 116) <sup>c</sup>	11.39 4.49	12.18 9.86	42.63 16.36	7.48 6.66	6.83 7.40
Nursing Students (N = 221)	11.65 3.77	14.27 8.97	41.21 12.90	14.21 6.85	10.02 7.01

a – Sadowski, Moore & Kelley (1994)

b – Kant, D’Zurilla & Maydeu-Olivares (1996)

c – Rothenberg, Nezu & Nezu (1995)

**SPSI-R Sub-Scale Norms for Psychiatric or Distressed Populations  
(D’Zurilla, Nezu & Maydeu-Olivares, 1997)**

	<b>Positive Problem Orientation</b>		<b>Negative Problem Orientation</b>		<b>Rational Problem Solving</b>		<b>Impulsivity/Carelessness Style</b>		<b>Avoidance Style</b>	
	<b>Mean</b>	<b>S.D.</b>	<b>Mean</b>	<b>S.D.</b>	<b>Mean</b>	<b>S.D.</b>	<b>Mean</b>	<b>S.D.</b>	<b>Mean</b>	<b>S.D.</b>
<b>Psychiatric Adults (N = 100)a</b>	9.47	5.02	21.38	10.89	34.59	16.31	16.63	8.52	11.20	7.68
<b>Psychiatric Adolescents (N = 63)b</b>	9.40	4.27	24.35	9.63	36.16	14.75	21.46	6.44	15.92	6.10
<b>Adult Cancer Patients (N= 74)c</b>	9.30	5.33	22.03	9.77	34.17	15.22	15.21	7.05	16.19	6.43
<b>Depressed Outpatients (N = 43)</b>	7.21	3.99	29.07	8.64	28.09	16.98	21.04	7.92	18.04	6.10

a – Nottingham & D’Zurilla (1993)

b – Sadowski, Moore & Kelley (1994)

c – Nezu, Nezu, Friedman, DelliCarpini, Houts, Faddis & Rothenberg (1996)

## Appendix X

**Comparison Data for the Internal, Personal & Situational Attributions  
Questionnaire (IPSAQ) published by Kinderman and Bentall, 1997**

	<b>Control Group (n = 20) (13 male)</b>	<b>Depressed Group (n = 20) (15 male)</b>	<b>Paranoid Group (n = 20) (15 male)</b>
<b>Attributional Locus</b>	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>
<b>Positive Events - Internal</b>	<b>7.00 (2.51)</b>	<b>9.15 (3.23)</b>	<b>8.75 (2.81)</b>
<b>Personal</b>	<b>3.70 (1.98)</b>	<b>3.25 (2.51)</b>	<b>4.45 (2.19)</b>
<b>Situational</b>	<b>5.30 (2.25)</b>	<b>3.60 (2.62)</b>	<b>2.80 (2.24)</b>
<b>Negative Events - Internal</b>	<b>5.10 (2.15)</b>	<b>8.95 (3.90)</b>	<b>5.75 (2.63)</b>
<b>Personal</b>	<b>4.25 (2.73)</b>	<b>2.45 (2.42)</b>	<b>7.55 (2.93)</b>
<b>Situational</b>	<b>6.65 (3.31)</b>	<b>4.60 (3.22)</b>	<b>2.70 (2.77)</b>
<b>Externalising Bias</b>	<b>1.90 (2.85)</b>	<b>0.20 (3.86)</b>	<b>3.00 (3.58)</b>
<b>Personalising Bias</b>	<b>0.40 (0.26)</b>	<b>0.32 (0.26)</b>	<b>0.75 (0.24)</b>

## Appendix XI

### Comparison Data for the Autobiographical Memory Test obtained by Williams & Scott (1988)

**Mean proportion of first responses which were specific  
autobiographical memories**

	Positive Cues	Negative Cues
<b>Williams &amp; Scott – Control Group (n = 20) (7 males)</b>	<b>Approx .75</b>	<b>Approx .63</b>
<b>Williams &amp; Scott – Depressed Group (n = 20) (7 males)</b>	<b>Approx .30</b>	<b>Approx .50</b>
<b>Present Study – Control Group</b>	<b>.75</b>	<b>.81</b>
<b>Present Study – Offender Group</b>	<b>.47</b>	<b>.54</b>

## Appendix XII

Published Norms for the Symptom Checklist – 90 – R (SCL-90-R) (Derogatis, 1994)

	<b>Male Psychiatric Outpatients (n = 425)</b>	<b>Male Psychiatric Inpatients (n = 158)</b>	<b>Male Non-patients (n = 494)</b>
	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>	<b>Mean (S.D.)</b>
<b>Somatization</b>	.70 (.67)	.82 (.78)	.29 (.33)
<b>Obsessive- Compulsive</b>	1.41 (.89)	1.22 (.96)	.34 (.39)
<b>Interpersonal Sensitivity</b>	1.36 (.90)	1.03 (.87)	.25 (.31)
<b>Depression</b>	1.59 (.92)	1.41 (1.02)	.28 (.31)
<b>Anxiety</b>	1.30 (.83)	1.22 (.95)	.22 (.27)
<b>Hostility</b>	1.00 (.89)	.73 (.76)	.29 (.37)
<b>Phobic Anxiety</b>	.65 (.74)	.71 (.88)	.08 (.19)
<b>Paranoid Ideation</b>	1.07 (.90)	1.08 (.84)	.34 (.40)
<b>Psychoticism</b>	.90 (.65)	.91 (.78)	.13 (.22)
<b>Global Severity Index</b>	1.14 (.64)	1.06 (.74)	.25 (.24)
<b>Positive Symptom Distress Index</b>	2.04 (.58)	1.99 (.72)	1.31 (.37)
<b>Positive Symptom Total</b>	47.64 (19.22)	43.90 (22.95)	16.97 (13.85)



## **Appendix XIII**

### **Pearson Correlation Coefficient Tables:-**

- a) Across group correlations
- b) Within offender group correlations
- c) Within control group correlations

*Across Group Pearson Correlation Coefficients for AMT Responses, BDI, Global Severity Index of the SCL-90-R, Externalising and Personalising Bias Scores of the IPSAQ and Components of the SPSSI-R (SPS, NPO, ICS & AS)*

	AMT - Total	AMT - Positive	AMT - Negative	AMT - Neutral	BDI	GSI	EB	PB	SPS	NPO	ICS	AS					
AMT – Total	1.00	.58**	.43*	.59**	-.48*	-.04	.35	.03	.24	-.20	-.28	-.26					
AMT – Positive		1.00	.48*	.48*	-.28	-.17	.41*	-.00	.34	-.18	-.40	-.33					
AMT – Negative			1.00	.23	-.35	-.24	-.09	.23	.19	-.21	-.22	-.30					
AMT – Neutral				1.00	-.35	.04	.36	-.02	.00	.14	-.00	-.11					
BDI					1.00	.57**	-.49*	.35	-.51*	.47*	.28	.52**					
GSI						1.00	-.36	.37	-.60**	.52**	.46*	.49*					
(Global Severity Index)							1.00	-.14	.26	-.09	-.21	-.21					
EB								1.00	-.17	.22	.18	-.04					
(Externalising Bias)									1.00	-.76**	-.77**	-.81**					
PB										1.00	.65**	.74**					
(Personalising Bias)											1.00	.50*					
SPS												1.00					
(Social Problem Solving)													1.00				
NPO														1.00			
(Negative Problem Orientation)															1.00		
ICS																1.00	
(Impulsivity Carelessness Style)																	1.00

\* signif at .05 level \*\*signif at .01 level

*Pearson Correlation Coefficients for AMT Responses, BDI, Externalising Bias Scores of the IPSAQ and Components of the SPSSI-R (SPS, NPO, ICS & AS) within the Offender Group Only*

	AMT - Total	AMT - Positive	AMT - Negative	AMT - Neutral	BDI	EB	SPS	NPO	ICS	AS
AMT – Total	1.00	.86**	.58*	.70*	.38	.06	-.22	.27	-.04	.24
AMT – Positive		1.00	.40	.44	.60*	-.08	-.01	.06	-.30	.11
AMT – Negative			1.00	.00	.21	-.57*	-.21	-.06	.03	.09
AMT – Neutral				1.00	.00	.42	-.28	.55	.19	.31
BDI					1.00	-.30	-.23	.17	.00	.04
EB (Externalising Bias)						1.00	.04	.12	-.09	.06
SPS (Social Problem Solving)							1.00	-.74**	-.71**	-.81**
NPO (Negative Problem Orientation)								1.00	.67*	.68*
ICS (Impulsivity Carelessness Style)									1.00	.50

\* *signif at .05 level*

\*\* *signif at .01*

*Pearson Correlation Coefficients for AMT Responses, BDI, Externalising Bias Scores of the IPSSAQ and Components of the SPSS-I-R (SPS, NPO, ICS & AS) within the Control Group Only*

	AMT - Total	AMT - Positive	AMT - Negative	AMT - Neutral	BDI	EB	SPS	NPO	ICS	AS
AMT – Total	1.00	-.15	-.35	.20	-.55	.41	.24	-.23	-.21	.09
AMT – Positive		1.00	.15	.24	-.37	.64*	.43	.16	-.29	-.52
AMT – Negative			1.00	.01	.37	-.25	.08	.57	-.16	.00
AMT – Neutral				1.00	-.12	.08	-.16	.17	.05	-.16
BDI					1.00	-.51	-.29	.06	.17	.07
EB (Externalising Bias)						1.00	.24	.12	-.12	-.10
SPS (Social Problem Solving)							1.00	-.56	-.86**	-.51
NPO (Negative Problem Orientation)								1.00	.47	.37
ICS (Impulsivity Carelessness Style)									1.00	.18

\* signif at .05 level

\*\* signif at .01

## Appendix XIV

### Format of Questions Regarding Childhood Sexual & Physical Abuse as Used by Bryer, Nelson, Miller & Krol, 1987

#### Sexual Abuse –

“Before (or after) you were 16 years old, did any of the following people ever pressure you into doing more sexually than you wanted to (by sexually we mean being pressured against your will into forced contact with the sexual parts of your body or his/her body)?”

#### Physical Abuse –

“Everyone gets into conflicts with people and sometimes these lead to physical blows such as hitting really hard, kicking, punching, stabbing, throwing someone down, etc. Before (or after) you were 16, did any of the following people do that to you?”

Each of these questions was followed by a list of potential perpetrators.