

**The effectiveness of a pilot group intervention
based on a cognitive-behavioural approach for
adolescents with conduct problems in a
mainstream school.**

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Abstract

The mental health and wellbeing of our children and young people is at the forefront of the educational agenda, with academic achievement and life prospects severely compromised for children with conduct disorder (CD) and oppositional defiant disorder (ODD). Effective treatments for this client group include those based on cognitive behavioural therapy (CBT). However, a subgroup of children with CD, those who also present with high-level callous-unemotional (CU) traits, have been identified, with the relationship between CU traits and treatment effectiveness as yet unclear.

This research adopted a mixed methods design to evaluate the effectiveness of a group CBT-based intervention for adolescents (aged 11-13 years) in a mainstream secondary school in Hertfordshire. The intervention, developed from Kazdin's *Problem Solving Skills Training*, Lochman and Larson's *Anger Coping Programme* and Shure's *I Can Problem Solve*, ran for 6 weeks with two groups of students (n=15). Data collected from participants at two time points: pre-intervention (T1) and 8 weeks later post-intervention (T2), measured self-reported behaviour, CU traits, empathy, peer relationships and social goals. Further, data relating to behaviour was collected using the school's database (SIMS), and teacher report measure. Qualitative data from student interviews, (T1) and focus groups (T2), explored students' perceptions of the intervention. A research journal and post-session evaluations with teaching staff provided further qualitative data related to development and implementation of the intervention.

Findings revealed a significant reduction in clinical severity for CD, with no significant change across all other measures. Qualitative data revealed the intervention had been positively received by students. This data set

contributed to the development of best practice; informing understanding of practicalities in implementing interventions in mainstream schools, from the perspective of the students, the school and the service provider.

Declaration

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I hereby declare that except where explicit attribution is made, the work presented in this thesis is entirely my own.

Word Count: 42, 434 words
(exclusive of list of references and bibliography)

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Acknowledgements

I would like to thank my researcher supervisor, Jennifer Allen, for her continued support and constructive feedback and for her encouragement during the course of this research. I would also like to thank my EP colleagues and placement supervisor, Sarah Lewis for their continuous encouragement during the course of this research, with specific thanks to Yoshimi Hester for her wealth of knowledge relating to CBT interventions and her calming influence.

My thanks go to the school staff who supported me in delivering the programme, for the time and effort that they gave to this research and the support they gave to me. I would also like to thank the young people who took part in the research and their parents and teachers.

Finally I am grateful to my friends and family for their support, time and encouragement they have given me over the course of the last three years. Particular thanks go to my mum for her understanding and patience.

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Glossary of Key terms

Callous-unemotional Traits

Callous-unemotional (CU) traits are associated with childhood-onset of behavioural problems and have been described as the 'cornerstone of psychopathic personality' (Cleckley, 1976). CU traits signify a specific group of children with antisocial behaviour, (Pardini, Lochman, & Frick 2003). Children described as having a 'callous-unemotional disposition' (Viding, Frick & Plomin, 2012; Frick 1998) exhibit low levels of empathy (callousness), low levels of guilt (uncaring) and low levels of emotionality or feeling (unemotional). This view of CU traits has been supported by research (Kimonis et al., 2008; Essau, Sasagawa, & Frick, 2006; Roose, Bijttebier, Decoene, Claes, & Frick, 2009; Fanti et al., 2009).

Cognitive Behavioural Therapy

Cognitive behavioural therapy (CBT) combines the two psychological approaches of behaviourism and cognitive psychology. Beck (1991) argued against the approaches put forward by psychoanalysis and behaviourists which viewed the client as 'helpless' and the therapist as the 'expert' able to determine meaning to past events or provide a reinforcement schedule to alter behaviour. Beck (1991) proposed CBT as a tool to explore an individual's thinking and in particular 'automatic thought' processes. CBT thus enables the client to change their behaviours by first considering the thoughts and beliefs that underpin their actions. This model empowers the individual and imbues them the necessary skills and ability to resolve their own problems.

Conduct Disorder

Conduct Disorder (CD) is a mental disorder defined by the Diagnostic and Statistical Manual for clinicians (DSM-IV TR) (APA, 2004). It is characterised by serious misbehaviour; the child may exhibit physical or non physical aggression towards people, animals or property. These behaviours may include stealing, intentional injury, and forced sexual activity and they may be belligerent, destructive, threatening, physically cruel, deceitful, disobedient, or dishonest. The disorder may be classified as child-onset (diagnosis prior to age 10) or adolescent-onset (diagnosis after age 10) It may also be classified as mild, moderate or severe. The more recent, DSM-V, (APA, 2013) adds a 'descriptive features specifier' to the criteria for the conduct disorder of limited prosocial emotions (e.g., limited empathy and guilt). Individuals who meet the full criteria but also present with this specifier are described as having relatively more severe form of CD and will have different treatment responses, requiring more specific and intensive treatment. For more details of both DSM-IV and DSM V see Appendix A.

Conduct Problems

Conduct problems (CP) is an umbrella term that covers the diagnostic categories of Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD) as outlined above and below respectively.

Oppositional Defiant Disorder

Oppositional Defiant Disorder (ODD) is a childhood mental disorder defined on the DSM-IV TR as an ongoing pattern of anger-guided disobedience, hostility, and defiant behaviour toward authority figures that goes beyond the bounds of normal childhood behaviour. Characteristics of a child with ODD include persistent and excessive anger with frequent temper tantrums, as well as disregard for authority. For a child to qualify for a diagnosis of ODD, these behaviours must cause the family considerable distress or interfere significantly with their academic or social functioning. For more details of the DSM-IV and more recent DSM-V (APA, 2013) diagnostic criteria for ODD see Appendix B.

Chapter 1

Introduction

1.1 Overview of chapter

This chapter explores the political agenda and national drive for improvement in children's emotional, social and economic well-being and sets the professional context within which this exploratory research was carried out.

The impact of conduct problems (CP) on society and the individual are considered with reference to the role of the professionals who work with these children. The need for effective therapeutic interventions to address the difficulties these children face is established, in particular for children with conduct problems who also exhibit high-level callous-unemotional (CU) traits. This is set within the context of a local authority, where a significant proportion of children in secondary schools are on fixed term exclusions or permanent exclusion and for whom the long term prospects are not favourable.

1.2 National and local context

Children's mental health and emotional wellbeing has become a central part of the UK Government's educational policy since the Every Child Matters agenda (Department for Education and Skills, 2004), and has been identified as a factor impacting on academic achievement and later adult life prospects. The United Nations International Children's Emergency Fund

report, (UNICEF, 2007), placed UK children 18th in terms of material well-being and 20th for subjective well-being. The Government Green Paper published in May 2012 entitled *Support and Aspiration*, (Department for Education (DFE, 2012) raised questions concerning the categorisation of Behavioural, Emotional and Social Difficulties (BESD) and the underlying emotional issues that impact on children's behaviour and mental health.

Atkinson, Bragg, Squires, Wasilewski and Muscutt (2012) demonstrated that there is a clear need for the provision of therapeutic interventions across the country. They conducted a survey of 455 Educational Psychologists (EPs) from Local Authorities Services in the UK, using an online questionnaire completed by qualified and trainee EPs. This survey revealed that 92% of EPs used therapeutic work in their current practice. The two types of therapeutic work most likely to be drawn upon were Solution Focussed Brief Therapy (85%) followed by Cognitive Behavioural Therapy (65%).

These findings were reflected in the context of the EP service where the researcher currently works, where the need to expand the provision of therapeutic interventions across the county was identified. An in-house survey (January 2013) of the Local Authority's (LA) EP Service and of 54 of the county's schools found that 55% of EPs had used CBT as a therapeutic intervention in schools in the previous 2 year period. This survey also revealed that 65% of schools had sought advice for behaviour management and that 43% had received support for pupils with social and emotional issues.

1.3 The impact of conduct problems

Scott, Knapp, Henderson and Maughan (2001) compared the cost to public services in the UK, for three groups of adults: those who received childhood diagnosis (i.e. by the age of 10 years) of Conduct Disorder (CD); those who received childhood diagnosis of a conduct problem (CP) and finally those who had received no such diagnoses. Their findings indicate that by the age of 28 those who had had a childhood diagnosis of CD had cost society ten

times that of their counterparts i.e. adults for whom there had been no diagnosis, and three and a half times that of an adult with a childhood diagnosis of a CP. In fact they surmised that 12% of the population, (who presented with either CD or CP), were utilizing approximately 50% of public expenditure. This included the cost of crime, educational resources, foster or residential care as well as the cost of state benefits and health services for this group of individuals. They concluded that antisocial behaviour places a heavy burden on the public purse.

So the financial cost is evident, but what of the personal cost? Childhood onset CP are the most common reason for referral to child mental health services and the most reliable predictor of all types of adult mental 'ill-health', with either childhood onset of CD or ODD retrospectively linked to every adult mental health disorder according to Kim-Cohen et al. (2003). Individuals with a childhood diagnosis of CD are also at a social and educational disadvantage; they tend to leave school with no qualifications or are permanently excluded and risk life-long social exclusion (Kim-Cohen et al., 2003; Moffitt et al., 2002). Statistics from the Department for Education (DFE, 2013) indicated that 4390 children (0.14% of the school population) were permanently excluded from state-funded secondary schools in the academic year 2011-2012 and 252, 210 (7.85% of the school population) received a fixed-term exclusion. In the Local Authority where the researcher works the figures for permanent and fixed-term exclusions are 43 (0.05%) and 5348 (6.66%) respectively in the same academic year. The most common reason for permanent exclusion is actual or threatened assault on a member of staff or pupil. Statistics show that approximately 1% of children who are permanently excluded from school go on to gain five A*-C GCSEs compared to around 70% of the school population (DFE, 2012).

1.4 The therapeutic role of schools and educational psychologists (EPs)

Schools have been identified as key agents for meeting children's needs by the National Institute for Health and Clinical Excellence, (NICE, 2008) and the Department for Children, Schools and Families (DCSF, 2009). The DFE report entitled *Me and My Schools* (2011) referred positively to the promotion of therapeutic intervention work delivered by EPs. The Government's mental health strategy, as outlined in *No Health without Mental Health*, (DoH, 2011), indicates that the "capacity for mental health interventions is to be developed in schools" (p45-46), and this ties in with the introduction of the Education, Health and Care (EHC) Plan in September 2014, initially outlined in the SEN and Disability Green Paper *Progress and Next Steps* (DFE, 2012) and then enshrined in law through the Children and Families Bill (DFE, 2013). This new way of working brings together professionals from Children's Services such as EPs, Social Services, Speech and Language Therapists, as well as Advisory Teachers and school staff, alongside medical professionals and parents, placing the child at the centre of the EHC Plan.

The SEN Green Paper (DFE, 2012) was committed to both embedding evidence based practice and extending the skills and knowledge for a range of professionals who work with children and young people (CYP). EPs are well placed to deliver interventions to support children's well-being as they are already in-situ (in schools) where they are able to work systemically (Fox, 2003; Squires, 2010).

The DCSF (2009) and the Department of Health (2008) indicated that ten percent of school aged children could be described as having a mental health disorder. Atkinson et al. (2011) drew attention to the fact that many EPs already routinely work with small groups of children in a therapeutic way. Squires (2010) viewed EPs as applied psychologists, working with consultative models and bringing to bear a wide theoretical knowledge base of psychology embedded in evidence-based practice.

1.5 Cognitive behavioural therapy (CBT) interventions for conduct disorders (CD)

Adult CBT-based interventions have had some success with children and young people (CYP) when adapted for their use (Squires, 2010). Several researchers put forward the case for EP practitioners to use CBT interventions with children and adolescents (Squires, 2010; Squires & Caddick, 2012; Atkinson et al., 2012), pointing out that EPs are able to work flexibly to develop and implement CBT interventions that target the specific needs of their client group.

There has been a great deal of interest in CBT as a therapeutic intervention and a wealth of research has been carried out to support its efficacy as an intervention with children and adolescents with a range of disorders: Obsessive Compulsive Disorder (OCD), impulsivity, Attention Deficit Hyperactivity Disorder (ADHD), sexual abuse, disruptive behaviours and aggression. Squires and Caddick (2012) noted that CBT has been successfully applied with children to treat a range of issues, and there is a growing body of evidence of the benefits of CBT interventions within the school setting for pupils with low-level disruptive behaviour (Burton, 2006; Lochman, Wayland & White, 1993; Ruttledge & Petrides 2011; Squires, 2001; Webster-Stratton, Reid, & Hammond, 2001, & 2004).

Making a comparison of these studies to draw cumulative evidence is difficult however, as a range of different CBT interventions have been used, with a variety of client groups who exhibit a range of disorders which differ in degree of severity or have co-morbidity. Several authors have carried out detailed reviews of this literature, such as Bennett and Gibbons (2000); Fonagy, Target, Cottrell, Phillips and Kurtz (2005); Ghafoori and Tracz (2004); Sukhodolsky, Kassinove and Gorman (2004). These researchers carried out meta-analyses, where these factors have been considered and accounted for in effect size calculations: providing some of the strongest evidence for the efficacy of CBT interventions. Their findings pointed to

positive outcomes of CBT interventions for youth with social, behavioural or anger problems in residential settings, clinics and in some cases in schools.

There is strong evidence for positive outcomes of 'group CBT' interventions for adolescents (12-14 year olds) with externalizing/disruptive behaviours (Squires, 2001; Squires & Caddick, 2012; Ruttledge & Petrides, 2011; Kazdin & Weisz, 1998; Lochman, Whidby & FitzGerald, 2000; Shure & Healey, 1993). Bailey (2001) suggested social skills and social problem solving skills training as a more appropriate focus for CBT-based interventions with this age group, including those with conduct disorder.

Callous-unemotional (CU) traits, (defined in the glossary), have been identified as a factor in the effectiveness of treatment, although there has been limited research into the impact of CU traits on treatment effectiveness for CYP (Frederickson, Jones, Warren, Deakes & Allen, 2013). This is an emerging concept in understanding behavioural disorders, particularly in children, and Frederickson et al. (2013) suggested that treatments designed to treat CD in CYP with CU traits should be tailored to meet the specific needs of this distinct group.

In summary then, children's mental health has arrived on the political agenda and is a contributing factor to educational achievement and lifetime outcomes. The economic climate, government reports and legislation highlight the requirements for schools and all professionals working with CYP to identify and address needs through early intervention by adopting evidence-based treatments. EPs already work as applied psychologists within the education system; schools are seeking therapeutic interventions, with market forces shaping the way that Local Authorities are organising and delivering these services.

The current research, therefore aimed to explore the impact of a brief group therapeutic intervention for adolescents in a mainstream setting with conduct problems. The intervention was developed by the researcher in her role as a trainee EP, to address the needs of CYP with CD and CU traits adopting the principles of CBT and evidence based programmes, including

the *Problem Solving Skills Training* programme (Kazdin & Weisz, 2003), *I Can Problem Solve*, (Shure, 1992) and the *Anger Coping Programme*, (Lochman & Larson, 1992).

In the following chapter the literature relating to CP and CU traits, CBT interventions and the evidence base for their effectiveness and treatment outcomes is explored in more detail.

Chapter 2

Literature Review

2.1 Overview of chapter

The chapter focuses on the literature relating to conduct problems (CP) and callous-unemotional (CU) traits with reference to Social Information Processing (SIP). It is beyond the scope of this research project to review the wealth of literature that exists relating to CBT as a therapeutic method. However, there are several current meta-analyses of CBT interventions available, and these form the background to this review, with particular consideration given to the evidence base for 'group CBT interventions' targeting children and young people (CYP) with conduct problems (CP); the client group included in the present research. This will consider a number of factors that are thought to influence treatment outcomes and in particular the presence of CU traits. The literature relating to children with conduct problems (CD and/or ODD) and callous unemotional (CU) traits will be explored in relation to effective treatment and outcomes for this distinct client group.

2.2 Conduct problems (CP) and early intervention

The lasting effects of childhood onset conduct problems (CP), with negative outcomes both for the individual as well as for society, were highlighted in Chapter 1 (Scott et al., 2001). However, Kim-Cohen et al., (2003) proposed that there is an opportunity to reduce the burden of cost to society and to impact on the negative trajectory for children diagnosed with CD, through

working with them as a preventative measure against the development of associated adult disorders. Scott et al., (2001) also indicate the need for effective and early intervention in schools, noting that interventions with teenagers with serious antisocial behaviours are currently less effective. They call for evidence-based interventions to be implemented by those agencies involved in working with children and children's mental health. There is therefore an overall need for effective interventions targeting CP in children.

2.3 Callous-unemotional traits

Callous-unemotional (CU) traits refer to an aspect of personality characterised by: low levels of empathy towards others (callousness); low levels of guilt (uncaring); and low levels of emotion (unemotional), (Pardini, Lochman & Frick, 2003; Essau, Sasagawa & Frick, 2006; Kimonis et al., 2008; Fanti, Frick & Georgiou, 2009; Roose, Bijttebier, Decoene, Claes, & Frick, 2009; Pardini, 2011). These traits have been linked to personality traits in adults, such as narcissism and impulsivity within the dimensions of psychopathic personality (Frick & Morris, 2004).

Adopted measures for CU traits in contemporary research tend to represent these traits on a continuum, with low, average and high ranges (Frick, Kimonis, Dandreaux & Farell, 2003; Moran, Ford, Butler & Goodman, 2003; Rowe et al., 2010; Viding, Frick & Plomin, 2007). Frick et al. (2003) classified high-level CU traits as those on or above the upper quartile for their population sample, whereas Viding et al. (2007) adopted an average range for CU trait levels which were within 1 standard deviation (sd) of the mean for their sample, with a standard deviation of 1.31 or more above the mean classified as 'high-level' CU traits.

There is also increasing evidence for a 'distinct group' of children with CP who are also high in CU traits (Frick, 2004a; Frick & White, 2008; Moran, Ford, Butler & Goodman, 2008; Rowe et al., 2010). In an attempt to identify

the children who could be 'fledgling psychopaths', Moran et al. (2008) examined the associations between teacher-rated CU trait scores and parent-rated outcomes at 12 and 24 month intervals. They recruited 7977 families with a child or children aged 5-16 years, using random stratified sampling, from the respondents to the British Child and Adolescent Mental Health Survey 2004. Parents were interviewed face-to-face to collect data on socio-economic status, and they also complete an established measure of childhood psychopathology, the Strengths and Difficulties Questionnaire (SDQ). Teachers were asked to respond to a 7-item questionnaire relating to CU traits. Each item consisted of a behavioural description that was rated as 'not true' (0), 'partly true' (1) or 'certainly true' (2), giving possible total scores ranging from 0 -14, and Moran et al. (2008) demonstrated good internal consistency for this scale. CU trait scores were obtained for 55% of the original sample and the mean score was 1.65 (sd=2.25). Moran et al. (2008) showed higher level CU scores to be associated with gender (male), age (older), ethnicity (minority), and household income (lower). Moran et al. (2008) considered CU traits as a continuous variable, conducting statistical analyses that indicated that high-level CU traits were a strong predictor of hyperactivity, conduct and emotional difficulties, at 12- and 24- months. They concluded, therefore that CU traits are related to the degree and impact of childhood psychopathology.

Rowe et al. (2010) also studied families from the British Child and Adolescent Mental Health Survey (2004), (Green et al., 2005 in Rowe et al., 2010 p 689) with children aged 5-16 in the UK. They found that overall 2% of the children in their large sample met criteria for CD (based on DSM-IV criteria and assessed through child, parent and teacher interview) and 3.8% of the overall sample could be classified as high-level CU traits, (based on the same 7-item questionnaire as adopted by Moran et al., 2008 described above), but this time completed by parents with each item was now rated as 'not true' (0), 'partly true' (0) or 'certainly true' (1). Rowe et al. (2010) used a cut-off score of 2 or more, to identify children with CU traits. In their sample just under 97% scored less than 2, and 3.5% of their sample crossed the

threshold and were classified as being high in CU traits (2% scored 2, 0.7% scored 3 and 0.8% scored >4).

Rowe et al. (2010) also acknowledged that children with CD make up a 'heterogeneous' group, and suggested that CD can be precipitated by a range of risk factors and that there are differing forms of CD (e.g., CD with high-level CU traits), that follow different developmental pathways, ultimately leading to different outcomes in adulthood. From their data, Rowe et al. (2010) were able to identify four groups: children who did not meet criteria for conduct disorder or high-level CU traits (no CD/CU); children meeting criteria for conduct disorder with high-level CU traits (CD+); children meeting criteria for conduct disorder with low-level CU traits (CD-); and those who exceeded the threshold for high-level CU traits but had did not reach criteria for conduct disorder (CU only). The distribution within the sample for these three groups was found to be: CD+ = 0.9%; CD- = 1.1%; CU only = 2.9%. Of the total percentage of the sample meeting criteria for CD, (i.e., 2%), 46% were classified as CD+ and 54% as CD-. Rowe et al. (2010) also noted that the children classified as CD+ had more severe behavioural difficulties and showed less prosocial behaviours than the CD- group. This difference in prosocial behaviour remained significant even after levels of conduct problems were controlled for, as measured by the Strengths and Difficulties Questionnaire, (SDQ). However, the CD- children were no longer significantly different in this variable than the 'no CD/CU' group, which suggests a difference for children with CD and high-level CU traits in the nature and severity of their difficulties. Moffit et al. (2008), cited in Rowe et al. (2010, p689), state that the age of onset of CD is an important factor in determining outcomes, with early onset CD, (before age 10), associated with poorer outcomes. Rowe et al. 2010, go further to suggest that CU traits may form a 'marker' for the more severe cases of CD. As previously mentioned (see Glossary) the DSM-V (2013) now includes a further specifier for children who meet the criteria for CD to include those with low levels of empathy, guilt and emotion (i.e., high-level CU traits) suggesting that these traits are important indicators of a unique developmental pathway, leading to severe antisocial behaviour in adulthood for these individuals (Frick, 2004a; Frick &

Morris, 2004). Further evidence for this and treatment outcomes are discussed in more detail later in Sections 2.4 & 2.6.

Frick (2004a) identifies a number of dispositional risk factors, (e.g., neurochemical differences, child temperament, reward-dominant response style, deficits in processing social information) and contextual risk factors, (e.g., poor quality care, parental psychopathology, poverty, exposure to violence), that can lead to conduct disorder and argues that the number of risk factors is more important than the type of factor. There is evidence to support a substantial genetic influence on CU traits for children with CP, and this was found to be independent of antisocial behaviour (Viding & McCrory, 2012; Larson, Anderson & Lichtenstein, 2006, cited in Frick & White, 2008). Further evidence from twin studies presented by Viding, Jones, Moffitt and Plomin (2008) pointed to this high heritability factor of conduct problems, although they reported a difference in the heritability factor, indicating this was increased for children with high level CU. They found a heritability factor of 81%, for antisocial behaviour in children with high levels of CU traits, whereas this was reduced to 30% for children with lower levels of CU traits. Viding, Frick and Plomin (2007) suggest that 76% of CU traits, for children with CD could be attributed to genetic factors. Furthermore, Viding et al. (2008) also explored the contribution of shared environmental factors to behavioural difficulties in children with CD and suggested that for those low in CU traits environmental factors were found to have a greater influence (34%) over antisocial behaviour rather than genetic influences, whereas for those high in CU traits no environmental contribution was found. Consistent with this, is the finding that CU traits are linked to behavioural patterns that are not thought to be influenced by parenting practice, (Pardini et al., 2003). Although, the genetic influence of CU traits may indicate a predisposition for CP, or act as a marker, as suggested by Rowe et al., (2010), this does not necessarily suggest these traits are static or impervious to change (Frick et al., 2003; Masi et al., 2011; Frederickson et al., 2013) .

2.3.1 CU traits and social cognition

The impact of CU traits on social cognition will now be explored further in order to establish how these traits may influence antisocial behavioural outcomes.

Higher level CU traits have been associated with differences in social cognition, for example, skewed perceptions in the use of aggression, characterised by the tendency to over-estimate the positive outcomes of aggression (Fanti et al., 2009) and minimise the negative outcomes (Pardini & Byrd, 2012); a lack of fear regarding the punishment of aggressive acts (Pardini et al., 2003); a reward-orientated behavioural pattern (Pardini et al., 2003); and low levels of emotional expression (Woodworth & Waschbusch, 2007). Pardini (2011) supported these findings further and suggested that individuals high in CU traits develop social goals that relate to dominance and revenge and tend to lack relationship building goals following conflict with peers.

Skewed perceptions in the use of aggression

Fanti et al. (2009) and Frick et al. (2003) explored the relation of CU traits to aggression. Dodge (1991), cited in Larson and Lochman (2002, p4), separated aggression into proactive aggression (unprovoked aggressive acts intended to coerce another and instrumentally-driven) and reactive aggression (defensive reaction to a perceived threat and emotionally-driven). He suggested that these were useful constructs when developing interventions for CYP with behavioural difficulties. Proactive aggression is thought to be more goal-orientated than reactive aggression and children with elevated levels of CU traits tend to show greater concern for dominance over their peers (Pardini & Byrd, 2012). Further research findings revealed a positive correlation between higher level CU traits and proactive aggression as well as higher levels of combined 'proactive-reactive' aggression (Fanti et al., 2009; Frick et al., 2003). There is however, conflicting evidence regarding the level of CU traits and aggression, with Kempes, Matthys, Maassen, van Goozen, and van Engeland (2006) finding no correlation between CU trait

levels and proactive aggression. Fanti et al. (2009) report a lack of clarity regarding the complex relationship between CU traits and children who exhibit pure 'proactive' or 'reactive' aggression, compared to or those presenting with combined 'proactive-reactive' aggression. .

Lack of fear regarding the punishment

Pardini and Byrd, (2012) also found that children high in CU traits showed lower levels of concern regarding punishment following an aggressive act. This supported findings by Pardini et al. (2003) that higher levels of CU traits were positively related to outcome values (i.e., positive reward and dominance) but negatively related to outcome expectations (i.e., that aggression will lead to punishment). This supports the concept of skewed perceptions of use of aggression whereby the individual high in CU traits is more likely to over estimate the positive outcomes and underplay the negative effects of aggression.

Reward orientated behavioural pattern

Marini & Stickle (2010), however, found that higher levels of CU traits were associated with lower reward responsivity, although they suggested that this was due to an emotional rather than intellectual deficit. This tends to support the component of low levels of emotional expression within in CU traits. Their sample, although large (n=148), mostly consisted of Caucasian young people aged 11-17, so it is not possible to generalise these results to the wider population.

2.3.2 Callous-unemotional traits and empathy

CU traits appear to impact on the emotional responses of children with CP with a crucial difference for those high in CU traits in relation to cognitive and affective empathy noted by Pardini et al. (2003). Pardini and Byrd (2012) also found that children high in CU traits showed lower levels of empathic concern. They reported that CYP with CD and high CU traits displayed low levels of awareness that violence would lead to victim suffering (cognitive empathy) and low levels of empathic concern (affective empathy). This

indicates that CYP high in CU traits are less aware that their aggressive behaviour could lead to the suffering of others and they also feel less remorse following aggressive acts than their low CU trait peers. They suggested that CU traits have a negative relationship with empathic concern and the ability to take the perspective of another. Their findings supported several hypotheses, but most notably here the idea of a strong association between high CU traits and deficits in affective and cognitive empathy.

Further support for the affective empathy deficit hypothesis was found by Woodworth and Waschbusch (2007) who investigated the emotional responses of CYP with disruptive behaviours and found that those with a high level of CU traits had difficulty interpreting 'sad' facial expressions and labelling sad emotions in stories. They concluded that there are differentiated emotional responses for children with CD depending on the level of CU traits they exhibit. These would imply that antisocial behaviour would be more likely in those high in CU traits as they are less likely to empathise with their potential 'victim', putting themselves in their place and imagining their distress.

The evidence presented here indicates that CYP with high level CU traits present with a unique and deviant social schema which is not common to all aggressive children. In particular this evidence would indicate therefore that any interventions targeting CYP with CP and high CU traits should also include elements that address these deficits in empathic concern.

2.4. Callous-unemotional traits and childhood conduct problems

The research evidence exploring the nature, predictive power and development trajectory of conduct problems (CP) and CU traits comes from a variety of methodologies. Fontaine, McCrory, Boivin, Moffitt, and Viding (2011) and McMahon, Witkiewitz and Kotler (2010) both found that CU traits were highly predictive of later antisocial outcomes, and when CU traits are

used in conjunction with CD diagnoses it improves predictive ability. Fontaine et al. (2011) also suggested an asymmetrical relationship between CU traits and CP; children with high levels of CU traits were rated as high severity for CP, but not all children with high severity of CP were found to be high in CU traits. They suggest that this high CU high CP trajectory was rare but indicative of the poorest outcomes on measures of hyperactivity, peer problems and emotional problems.

Frick et al. (2003) and Masi et al. (2011) proposed that although CU traits are associated with a poor response to psychosocial treatments in adults, these traits may be more malleable in children and adolescents.

Frick and White (2008) carried out a systematic review of 31 studies that looked at different emotional, cognitive and personality characteristics of antisocial youth with and without CU traits. These researchers surmised that behaviours associated with CU traits are relatively stable from childhood through to adolescence and as such they warrant the label of 'trait'. They cite evidence for this, whether CU traits were measured by self-, parent- or teacher-report, as well as across a longitudinal study (Munoz & Frick, 2007; Frick, Kimonis, Dandreaux & Farell, 2003; Obradovic, Pardini, Long & Laber, 2007: in Frick & White, 2008, p 360). In other words, the construct of CU traits represents a distinct and enduring set of behaviours that can be measured with reliability over time. Frick and White (2008), however, also imply that CU traits do not represent an unchangeable set of behaviours, rather more, that they can be influenced by psychosocial factors, including socio-economic status, quality of parenting and degree of conduct problems i.e. they are not a fixed dimension of personality but are malleable. Research studies have indicated a decrease in CU traits over time, and Frick et al. (2003) concluded from their 4-year longitudinal study that there is some variability in psychopathic trait levels over time, with a decrease in level more likely for adolescents who had initially presented with a higher level of psychopathic traits. This would suggest that interventions during childhood or early adolescence targeting these traits may be successful in changing their developmental trajectory.

2.4.1 Conduct problems, callous-unemotional traits and treatment

Findings from research into CU traits (Pardini et al., 2003; Frick & White, 2008; Viding et al., 2008) indicated that increased knowledge of the different characteristics of youth with CU traits could then help to inform these interventions. For example, Pardini et al. (2003) found links with CU traits and deficits in emotional empathy, indicating that this is an area to address in any intervention work with children and young people high in CU traits. Other evidence points to deviant social cognitions and a skewed perception of the use of aggression, (Pardini et al., 2003; Woodworth and Waschbusch, 2007; Fanti et al., 2009; Pardini 2011; Pardini & Byrd 2012) indicating other areas to target when devising a specific intervention for this group. Furthermore, Viding and McCrory (2012) hypothesised that children with CP and high-level CU traits may respond to treatment in different ways to children with CP and low-level CU traits. They suggested the need to examine not only the effectiveness of different forms of intervention in bringing about positive change for children with CP and high-level CU traits, but also how treatment outcomes vary relative to differing levels of CU traits.

The evidence presented here tentatively suggests that interventions for individuals with CU traits may bring about positive outcomes, particularly when they are tailored to the needs of this specific group, although further research is needed to deepen understanding of treatment implications of high-level CU traits and to develop comprehensive and individualized programmes for CYP with CP (Frederickson et al., 2013).

The examination of the impact of difficulties related to CU traits on social cognition, in Section 2.3, would suggest that in order for interventions for CYP with CP and CU traits to be successful, they would need to target social cognitions, focussing on the development of social problem solving skills through enhancing interpersonal skills and challenging perceptions of the use of aggression. It would also suggest that interventions based on purely

behavioural techniques of reward and punishment would be less effective and that cognitive aspects of social problem solving should be addressed.

2.5 Social problem solving

Current understanding of social problem solving is based on the social information processing model (SIP).add a ref. This provides a framework for the cognitive steps involved when an individual is confronted with challenging social situation, from perception, interpretation through to response generation and evaluation. The SIP model is outlined in more detail below and the implications of research findings for CU traits are discussed in relation to this model.

2.5.1 The social information processing model (SIP)

This model sets out to explain the cognitive processes that underpin the formation of behavioural responses to challenging social stimuli. Crick and Dodge (1994a) proposed the Social Information Processing (SIP) model outlining several processing steps that lead to a chosen behavioural response. Revised models (Crick & Dodge, 1994b; Pettit & Dodge, 2003) present a more cyclic view of the process and incorporate patterns of thinking based on schemata or knowledge structures that have developed through experience, comprised of an individual's memory store, their knowledge of acquired rules and social schemata as well as social knowledge. These are referred to as 'latent mental structures', and McCrory and Farmer (2009) described how these provide feedback at each step of the process and guide the individual through the stages. McCrory and Farmer (2009) also suggested that children with SEBD tend to see themselves and others as more aggressive and also hold more negative views of both self and others.

Furthermore, later models also introduce the factor of peer evaluation and response which feeds back into the knowledge structure, thus influencing

future responses. Social competence is characterised by skilful processing at each step: deficient processing at any stage can lead to antisocial behaviour, see Figure 1 (Social Information Processing model).

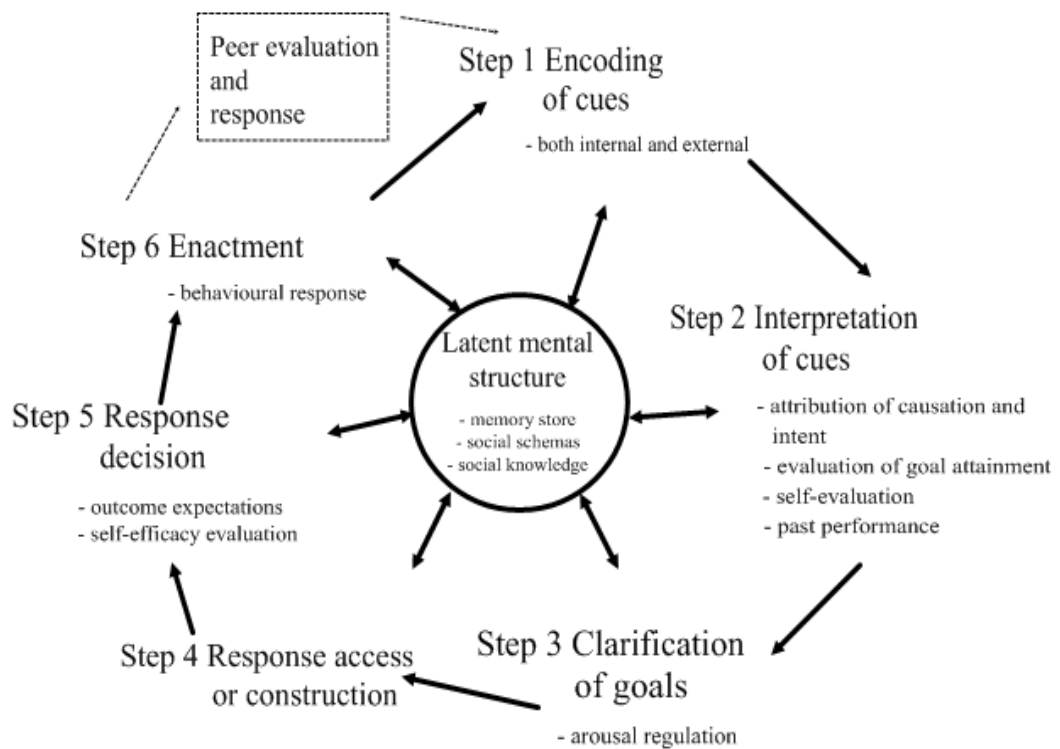


Figure 1 Social Information Processing Model (adapted from Crick & Dodge 1994b)

Stickle, Kirkpatrick and Brush (2009) described the decision process, starting with the encoding and interpretation of social cues (e.g., deciding if someone had bumped into you by accident or if it was deliberate). Accessing existing social schemata would then help to clarify social goals, supported by existing social knowledge of possible prosocial or antisocial responses (e.g., push them back, walk away, say something). The next step involves evaluation of these responses in terms of their outcomes, deciding which will lead to a positive or a negative outcome and then the final stage requires selection of the desired action and its execution.

McCrory and Farmer (2009) report that multimodal interventions are more beneficial and suggest that interventions that address each stage of the SIP model are more effective, citing evidence from Lochman, FitzGerald and Whidby, (1999) and Van Manen, Prins and Emmelkamp, (2004), (in McCrory and Farmer, 2009, p366). They suggest that challenging core beliefs and cognitive restructuring are important elements in any CBT-based intervention with children with CD.

A small number of research studies have been carried out in the last 10 years directly investigating links between CU traits, SIP, impulsivity, aggressive beliefs and aggressive behaviour. One such study by Stickle et al. (2009) involved a large sample (n=150) of antisocial adolescents in detention centres in a small town in the United States. They measured aggressive behaviour, impulsivity control problems, CU traits, SIP, beliefs about aggression and outcome expectancies and relational aggression. They concluded that beliefs about aggression predict social information processing biases, which in turn mediate behavioural outcomes. They discuss the implications for interventions with antisocial youth and CU traits: suggesting further research into the SIP model to focus on emotional aspects of this. They also suggest that emerging evidence indicates the possibility of successful treatment outcomes for those with CU traits.

2.5.2 Social information processing and callous-unemotional traits

When considering the impact of CU traits on the steps within the SIP model there are three aspects that could influence behavioural outcomes: skewed perception of aggression; reward- orientated behavioural responses and low levels of empathy. The effect of each of these will now be considered at relevant stages of the model.

Encoding and interpretation of cues

Previous research into CU traits already discussed supports this. For example, Woodworth and Waschbusch (2007) observed that children high in CU traits were less accurate at recognising emotions (labelling sad faces), which may impact at the cue encoding and interpretation stages.

Clarification of goals

Lochman, Wayland and White (1993), propose that social goals represent the desired outcome for the end of the problem solving process. It is believed that social goals provide an insight into the motivational drive behind behaviour and reveal deep-held cognitive schemata that influence behaviour in social situations. Pardini (2011) showed that high levels of CU traits were negatively associated with prosocial goals relating to peer relationships and Pardini and Byrd (2012) found that CU traits were associated with social goals that endorsed deviant outcomes, such as dominance and revenge, together impacting on the SIP stage of clarification of goals and interacting with schema/knowledge structure, i.e., previously held beliefs.

Response access or construction and response decision

Waschbusch et al. (2007a) found that children high in CU traits tend to generate more anti-social solutions to social problems than prosocial solutions. The response decision will be influenced by outcome expectations and for children and young people high in CU traits these are known to be biased towards overestimating the positive outcomes and minimising negative outcomes for aggression (Pardini et al., 2003). Following enactment, there may be consequences, i.e., punishment for an anti social act, or reward for a social action. Previous research has shown those high in CU traits are less responsive to sanctions (Pardini, 2011; Pardini et al., 2003), and that they also show lower reward responsivity (Marini & Stickle, 2010).

Peer evaluation and response

Finally, there is the factor of peer evaluation to consider. As established by Pardini (2011), individuals high in CU traits showed less concern towards

suffering inflicted on the victim and were also less likely to recognise the sadness of others (Woodworth & Waschbusch, 2007). The links with the encoding and interpretation of cues stages and the process has now come full circle.

However Waschbusch et al. (2007a) examined the association between social problem solving skills and CP in CYP and noted an unexpected finding: CP were associated with deviancy in problem solving only when the level of CU traits was low. This finding runs counter to the findings of other research studies presented here (Pardini & Byrd, 2012; Pardini, 2011; Marini & Stickle, 2010; Stickle et al., 2009; Woodworth & Waschbusch, 2007; Pardini et al., 2003), although some research has supported this finding (e.g., Frick et al., 2003, cited in Waschbusch et al., 2007a, p302). One possible explanation provided by Waschbusch et al. (2007a) is that across all these studies different aspects of social cognitions have been measured, with their own study focussing on the ability to generate solutions to social problems. However, the sample size in their study was relatively small, (n= 53), in comparison to the other research and their sample included children with co-morbidity, i.e., CP and ADHD. These factors may offer some explanation of their findings and furthermore cast a shadow on the validity and generalisability of their findings.

This would indicate that interventions developed for CYP targeting CP and CU traits would benefit from addressing these issues through the SIP model, focussing on skewed perceptions of aggression, allowing for reward-dominant goal orientation and reduced effectiveness of sanctions, as well as considering the characteristic low emotionality and empathic concern of these individuals. As suggested earlier, CBT interventions have been developed with the SIP model mind, but how effective are they in addressing aggressive behaviour?

2.6 Cognitive behavioural therapeutic approaches and social problem solving

Beck et al. (1979) describe the CBT approach as a technique to address thinking errors or faulty information processing. This is underpinned by the fundamental principle that an individual's thoughts can affect their emotional and physical well-being which in turn impact on their behaviour. For example, in a person with depression, thinking can become extreme and unhelpful, dwelling on themes whereby the individual sees themselves as worthless, incompetent, or a failure. This in turn impacts on their behaviour, including reduced levels of social interaction, avoiding activity previously enjoyed, and the possible development of inappropriate coping strategies (e.g. excessive drinking or self-injury). It is the interplay between these two areas, thinking (cognition) and behaviour, which is the basis of CBT-based interventions.

Beck's (1971) original model referred to aspects of cognition such as 'negative automatic thoughts' (NATs), 'absolutistic dichotomies', 'selective abstraction' and 'arbitrary inference'. However, more recently Williams and Garland (2002) proposed a Five Areas model of CBT, not as an alternative approach but rather as a jargon-free and more user-friendly presentation of the traditional CBT approach. For example, in their description, 'faulty information processing' is referred to as 'extreme and unhelpful thinking', and 'negative automatic thoughts', are referred to more simply, as the tendency to focus on negatives, with 'absolutistic dichotomies' described as 'black and white, rigid thinking'. According to Williams and Garland (2002), traditional models of CBT are relevant to the client through focussing on the 'problem', relationship building between practitioner and client and developing the clients' self-management skills that can then be applied in the real world .

Dobson and Dozois (2010) refer to three main classes of CBT interventions; coping skills therapies; problem solving skills training and cognitive restructuring methods. These vary in the degree of change they aim to elicit in cognition and/or behaviour. For example, coping skills therapies, such as Larson and Lochman's (2002) 'Helping school children cope with anger' , are

aimed at working with clients where 'external problems' are the main cause of difficulties, with success measures being a reduction in overt negative behaviours and the subsequent consequences of these. Cognitive restructuring therapies, on the other hand, are intended for more 'within-person' difficulties and aim to reduce situation-specific, negative automatic thoughts.

Problem-solving programmes, such as Kazdin's 'Problem Solving Skills Training' (Kazdin, 2010), have developed from the roots of CBT and sit between the two classes outlined above, with their emphasis on facilitating an individual in the 'problem-solving' process. Problem solving involves both the overt and cognitive processes, and allows an individual to generate a variety of effective responses for coping in a problem situation (D'Zurilla & Goldfried, 1971). Kazdin (1978) refers to the process of 'cognitive-behavioural modification' whereby overt behaviour can be changed through the modification of thoughts, interpretations, and assumptions to alter an individual's response strategies. D'Zurilla and Goldfried (1971) identified five steps in problem-solving, beginning with an 'initial orientation', (set), involving the individual's perception of a given social situation, followed by 'problem definition and formulation'. Successful problem-solvers then generate a range of alternative actions, decide on the most suitable, seeking verification from others after acting, in order to evaluate their performance. D'Zurilla and Goldfried (1971) proposed that it is through an individual's early social experiences that their knowledge base is built and labels given to social situations. It is through these labels that an individual's emotional response to social situations can better be understood. For example, the child in the class who reacts aggressively to a teacher's request to 'stop talking', may be labelling the situation according to their own pre-conceived 'script'; perhaps feeling threatened or undermined by this perceived 'public negative attention', due to previous negative social experiences. This in turn influences their response, e.g. answering back, which leads to a further negative social experience, thus adding to their 'script'.

2.6.1 Cognitive behavioural therapy for antisocial behaviour

Wheldall and Merritt (1991) proposed that CBT for CD should be offered within a wider approach, involving parents and schools, with teachers given training and advice on behaviour management. Furthermore, Kendall and Choudhury (2003) suggested that research into treatments for aggression and conduct disorders has traditionally focussed on heuristic or multi-modal models with beneficial outcomes. These models involve several treatment programmes, such as parent training, problem solving and anger management training, as well as CBT interventions and the interaction between these. Parent training has been suggested as useful for younger children with CD (Webster-Stratton 2001; Hawes & Dadds, 2005). Furthermore, Scott (2008) reviewed a range of interventions for children and young people with conduct disorders and concluded that parent training was the most effective form of intervention.

However, Fossum, Handegard, Martinussen and Morch (2008) found that age was a factor in the efficacy of intervention programmes; their findings indicated that older children and adolescents benefited more from CBT style interventions than younger children. Blakemore and Choudhury (2006) describe adolescence as a time of increasing self-awareness and reflection, suggesting that CBT by its very nature could be a 'best fit' therapeutic approach for this client group. Kendall and Choudhury (2003) suggest that adolescents, with their emerging need for autonomy, require less or limited parental involvement. The researcher is in agreement with Kendall and Choudhury (2003) that limited parental involvement is required for interventions with adolescents. In the current research therefore parental involvement is not sought beyond providing information and gaining and consent. Consideration was also given to the time factor for this research and it was judged that parental involvement would increase the work load beyond the time available.

Ghafoori and Tracz's (2004) meta-analysis of 20 studies of CBT interventions for school-aged children (5 to 13 years) with significant behaviour problems

identified mediating variables of client, methodology and treatment. Client variables included socio-economic status (SES), ethnicity and diagnosis. The moderating effects of these factors on the effectiveness of CBT were identified, with lower SES related to greater benefits from CBT interventions than low-middle SES. Similar moderating effects were seen for ethnicity, with Caucasian children receiving greater benefit from CBT interventions than mixed race children. Finally diagnosis was an important factor; children with a single diagnosis of conduct disorder (CD) were more responsive to CBT-based treatment than those with a co-morbid diagnosis. Kendall and Choudhury (2003) had also outlined age, ethnicity, SES, type of problem, practitioner skill and the mode of delivery (group versus individual), as moderators and mediators for CBT interventions for both externalizing and internalizing disorders in CYP.

Ghafoori and Tracz (2004) noted moderating effects of treatment variables, including the type of intervention and setting; and methodological variables, including the measured outcomes selected as measurements of treatment effectiveness. Kendall and Choudhury (2003) provided a comprehensive overview of past and present research into the use of CBT with children and adolescents and pointed to future directions in research. They explored in detail the nature and magnitude of improvements gained through CBT, looking both at externalising and internalising disorders. However they raised some questions about research methodology, noting that assessment of improvements should be more than simply measuring a reduction in symptoms, and they believed further research was needed to look into the quality of life for youth receiving CBT. Furthermore they raised the question of the 'hard to treat' cases, as however effective the research showed CBT to be, there were always children who do not make any improvements.

In the current research, therefore collection of data relating to FSM and ethnicity was carried out in order to explore the significance of these moderating factors in relation to intervention effectiveness. Parental

involvement however, was not included beyond the collection of this data and consent.

2.6.2 Group CBT interventions for conduct disorder

Bailey (2001) maintained that working with children with CD is a challenge for any therapeutic technique and that CBT interventions designed for use with children would differ from the programmes developed for adults, given the limitations of younger children with meta-cognition and labelling feelings. The last 12 years has seen an increasing body of research for CBT interventions with children and adolescents with behavioural difficulties. Lochman, Whidby and Fitzgerald (2000) indicated that CBT interventions were an effective treatment for aggression and conduct disorder in CYP (in Kendall & Choudhury, 2003). Many research studies have used group intervention as a framework, partially to reduce time and costs and increase efficiency. Carr (2010) suggests that group interventions for behaviour disorders are not more cost-effective, as the effects of 'negative contagion' outweigh the benefits of group work. However, he refers to Dishion and Dodge (2005), who looked at residential based interventions with children and adolescents with severe behavioural difficulties and clinical diagnoses of Conduct Disorder (CD) or Oppositional Defiant Disorder (ODD). Squires (2001), Squires and Caddick (2012) and Ruttledge and Petrides (2011) show strong evidence for positive outcomes of 'group CBT' interventions for adolescents (12-14 year olds) with externalizing/disruptive behaviours.

As noted in Chapter 1, social skills and social problem solving skills training have been identified as more appropriate CBT-based interventions with CYP and CD, which has been described as 'mainly a cognitive deficit of social skills and problem solving', Bailey, (2001, p224). Furthermore, she indicated that interventions including role play, coaching to teach principles and social competency as well as 'coping modelling' rather than 'mastery modelling' (Goodwin & Mahoney, 1975, in Bailey, 2001) were most appropriate when addressing CD.

Several group CBT interventions targeting social cognitions have been found to be successful in treating youths with antisocial behaviours. Kazdin and Weisz (1998) identified problem solving skills training (PSST) as a successful approach reducing aggression and anti-social behaviours in CYP and Larson and Lochman (2005) reported a strong evidence base to support their Anger Coping Programme as an effective CBT treatment programme for CYP with aggressive behavioural problems (e.g., Brestan & Eyberg, 1991; Smith, Larson, DeBaryshe, & Salzman, 2000, both cited in Larson & Lochman, 2005 p85). Shure (1992) developed the *I Can Problem Solve* an evidence-based intervention, that adopts the CBT approach and has been developed for use with three age groups: preschool, intermediate and elementary grades. It is supported by over 20 years of research and found to be effective in reducing negative, impulsive behaviours and increase prosocial responses.

Social Skills Training

Research evidence suggests that Social Skills training is an effective treatment for CD and Carr (2010) described group interventions based on both approaches for adolescents as effective (referring to *Problem Solving Skills Training*, Kazdin and Weisz, (2003) and the *Anger Coping Programme*, Lochman et al., (2003) as examples of these). Kazdin and Weisz, (2003), developed the Problem Solving Skills Training, (PSST), intervention for 9-13 year olds, based on clinical research with children with CD. Randomised control trial studies (RCT) such as that by Kazdin, Siegel and Bass, (1992) provided robust evidence for PSST as an effective treatment for reducing deviance, (aggressive, antisocial, and delinquent behaviour) and for increased prosocial competency for children aged 7-13 (n = 97). They found that PSST and Parent Management Training (PMT) combined led to greater positive changes in child and parent functioning than PSST alone, although this was also effective as a stand-alone treatment intervention. They reported that a significant proportion of CYP were within the normative range of functioning post-intervention and at one-year follow up.

Anger Coping Programme

Lochman (1992) found sustained improvement in behaviour over 3 years for a school based anger management programme. This intervention targeted the development of awareness of aggressive behaviours and identification of aggression triggers. These aspects are important for interventions for children with CD due to their distorted perception of aggression; a tendency to underestimate levels of aggression, blame others for aggressive behaviours and to see aggression as an effective technique for solving social problems (Bailey, 2001).

Lochman et al., (2000) reviewed the Anger Coping Programme; a CBT group intervention designed to reduce aggressive and disruptive behaviours, and to enable CYP to cope with difficult social situations and the feelings these evoke. They cite research studies using RCT such as Lochman, Burch, Curry and Lampron, (1984); Lochman, (1985); Lochman and Curry, (1986) which have supported the effectiveness of this treatment programme with the long term positive effect found by Lochman and Lampron, (1988) and Lochman, (1992).

I Can Problem Solve

Shure (1992) developed the *I Can Problem Solve* (ICPS) intervention. This is an evidence-based intervention that adopts the CBT approach and has been developed for use with three age groups: preschool, intermediate and elementary grades. It is supported by over 20 years of research and found to be effective in reducing negative, impulsive behaviours and increasing prosocial responses. Shure (1992) found that training using the ICPS method increased prosocial behaviours including empathy and decreased negative impulses and behaviours with children aged 10. Shure and Healey, (1993) used a wait-list condition study, with the experimental group (age 10-12) receiving ICPS training whilst the wait-list group received impersonal cognitive skills training (i.e., Piagetian thinking skills). They found that ICPS significantly increased prosocial behaviours and reduced negative impulses and behaviours. It was noted that it took longer for negative behaviours to decrease with older children. A more recent RCT study found significant

improvement for boys with behaviour difficulties, both in behaviour as reported by parents, and in their academic achievement (Elias, Marturano, Motta & Giurlani, 2003).

The researcher's background in teaching was influential in planning the research and intervention. With confidence in knowledge, experience and skills relevant to working with adolescents with CP relatively high, the intention was to capitalise on the benefits of working with groups in schools, including the repertoire of activities that can be employed, e.g., role play and discussions drawing on the views of same age peers (Bailey, 2001). Programmes outlined such as Kazdin and Weisz's (2003) PSST and Lochman and Larson's (1992) Anger Coping Programme advocate the use of video feedback, which was also recommended by Bailey (2001). However, as it was not possible to offer this within the time scale and budget of this intervention, peer evaluation of role play was used as 'feedback' to inform the 'peer evaluation' step within the SIP model. Bailey (2001) also maintains that programme integrity is important for CBT interventions targeting children and adolescents with CD, and advocates the use of explicit work towards generalisation. These considerations were taken into account in planning the intervention for this research study.

2.6.3 School-based studies

Squires (2001) investigated a group CBT intervention with pupils from Year 5 to Year 8 (n=18) in two school settings, run by an EP and school staff. The intervention consisted of six, weekly one hour sessions. Students were selected by teachers based on criteria relating to disruptive behaviours in class. Self-report questionnaires pre and post-intervention were used to collect data relating to self-concept, peer relations and self control. This quantitative data was enhanced by the use of open-ended questions to elicit the perceptions of the participants. Further rigour was lent to the study by including data for classroom behaviour from teacher ratings on an observation checklist. Findings were less than conclusive: all but one of the

pupils showed an improvement in at least one area across pre and post-measures, but the only significant differences found post-treatment were for the variables of self-control and classroom behaviour. Qualitative data revealed that pupils' self-perceptions had changed positively and they felt that peer relationships had improved. For some pupils self-report scores for self-esteem had decreased, although Squires (2001) attributed this to an increase in self-awareness.

Follow-up data at two and six months post-intervention indicated that teachers' attitudes towards these pupils had improved over the course of the intervention. Therefore, a 'systemic effect' may provide an explanation for the reduced teacher ratings for behaviour, post-intervention. For example, teachers may have been more prepared to overlook or discount minor misdemeanours in the classroom due to a new-found positive perception of these pupils, reflected in their comments regarding 'connections' they had made with the pupils (Squires, 2001; Squires & Caddick, 2012).

More recent work involving school-based treatment studies also found reductions for disruptive behaviours was reported by pupils, teachers and parents, improvement in self concept and emotional awareness (Burton, 2006; Ruttledge & Petrides, 2011; Squires & Caddick, 2012). Together this research indicated that the cognitive behavioural group approach is a promising intervention for adolescents with disruptive behaviour. Furthermore, benefits were also found to persist over time (Squires, 2001; Ruttledge & Petrides, 2011).

The strength of this research lies in their methodologies, with Burton (2006) adopting a mixed methods approach to allow for triangulation of data, and several studies including a follow-up (Ruttledge & Petrides, 2011; Squires, 2001). Furthermore, a repeated measures design was adopted by Ruttledge and Petrides (2011) and a matched pairs design by Squires and Caddick (2012).

Ruttledge and Petrides (2011) and Squires (2001) were not able to examine a gender effect as only 27% of their samples were female. However, Burton (2006) reported that girls (n=3) made greater improvement in their behaviour than the boys (n=2). Although the numbers here are too small to draw any statistical conclusions, it is perhaps noteworthy that the researcher carrying out the intervention was female and that there may have been an interactive gender effect between therapist and pupil.

However, caution must be exercised in drawing conclusions from these studies. The sample sizes are relatively small, ranging from the smallest of n=5 (Burton, 2006), and the largest of n=22 (Ruttledge & Petrides 2011), with an attrition rate ranging from 12% to 26% (where reported). Further limitations arise from co-morbidity of diagnoses in some studies (Squires, 2001; Ruttledge & Petrides, 2011), whereas in other research co-morbidity of diagnosis was used as an exclusion criterion (Burton, 2006). Furthermore, in one study there was extra support provided by the school for those participants with special educational needs (SEN) other than their social, emotional and behavioural needs. The demographics and ethnic diversity of samples varied from study to study: Burton (2006) carried out her research in a large shire county, whereas Ruttledge and Petrides (2011) conducted their study in Ireland. It is therefore, difficult to generalise the findings from this research to the wider population as their samples were not representative of the ethnic diversity across the UK or indeed in London based schools.

2.6.4 The impact of callous-unemotional traits and treatment

Few studies have directly tested the role of CU traits in treatment response, with the exception of Hawes and Dadds (2005 & 2007), Caldwell, Skeem, Salekin and Van Rybroek (2006), Waschbusch et al. (2007b), and Masi et al. (2011) and more recently Frederickson et al. (2013). These treatment studies have examined the impact of CU traits on behavioural intervention programmes, parent training programmes, and combined medication and

behavioural treatments. As much of the research relating to parent training programmes was conducted with younger children, the literature reviewed in this section is limited to research involving older children and adolescents.

Frederickson et al. (2013) found a significant improvement in pupils' externalizing behaviour in their treatment study (n=29), using a behavioural intervention differentiated to address the needs of children high and low in CU traits (based on their neurocognitive profiles). They reported this improvement for all pupils regardless of their level of CU traits at onset. Further analysis of their data indicated that the measured improvement in behaviour was associated with a reduction in CU scores for pupils who had been high in CU traits pre treatment. However, for pupils who were low in CU traits at the onset their positive behavioural change was associated with improved executive functioning. However, there was no wait-list or control group used in this study which reduces experimental validity as it lacks rigour, and their findings cannot be generalised across gender due to the male-only sample. It is perhaps also noteworthy that methodology and design have been found to influence the outcome of research: Fossum et al. (2008) observed a greater mean effect size (ES), for studies into the effectiveness of psychosocial interventions with no control group (d=0.95) compared to those with a control group (d=0.62).

Further evidence of the mediating effect of CU traits was found by Masi et al. (2011). They evaluated a psychosocial therapeutic programme to treat a sample of 6–14 year olds (n=38) with ODD or CD, and found that 17 of the children who were classed as non-responders following treatment were also found to be higher in CU traits than peers who had responded to the treatment programme. It would seem that CU traits can be predictors of poor treatment outcome (Hawes & Dadds, 2005; Waschbusch et al., 2007b; Masi et al., 2011). Furthermore, Masi et al. (2011) proposed that the callous element of CU traits was the strongest predictor of poor outcomes, and they suggest the need for further research into the predictive value of CU traits for treatment outcomes, especially as these traits may be labile. Hawes and Dadds (2007) also reported that CU traits are not necessarily static,

describing them as either 'stable' or 'malleable'. They found that children with CP who were highest in CU traits showed the least improvement post-treatment and their CU traits were therefore judged to be stable.

This perceived resistance to treatment for CU traits, poses the question of the appropriateness of interventions for the treatment of CU traits. The implication of which, is a need to examine closely the relationship between treatment type and treatment compatibility. Caldwell et al. (2006) suggested two important implications of their work into the effect of treatment on adolescent offenders with psychopathic features: firstly that future research should endeavour systematically to examine "whether and how treatment changes psychopathy"; secondly, that in order for progress in the development of treatments, research should aim to disentangle 'treatment resistance' from 'treatment type'.

"Although it is reasonable to assume that psychopathy may require specialized treatment techniques, it is also possible that individuals with psychopathic features may derive benefit from existing treatment techniques if they are delivered in sufficiently consistent and intensive doses, overcoming any resistance." (Caldwell et al., 2006 p. 592)

Further research is called for to enable the delivery of empirically supported treatment tailored to the needs of this group of individuals; children with externalizing disorders and CU traits (Frederickson et al., 2013; Stickle et al., 2009; Waschbusch et al., 2007a). Stickle et al., (2009) recommended future research to inform the development of interventions focussing on CU traits. Frederickson et al. (2013) indicated that established treatments may be less effective for this group and suggested the further development of modified treatments to be beneficial for children high in CU traits.

2.7 Educational psychology and research rationale

As discussed in Section 1.2, the national agenda points towards EPs delivering effective interventions aimed at promoting mental health and creating emotionally literate environments and psychologically safe schools for our children to be educated in. The local context, within which the EP service exists, is currently in a state of flux, and psychologists are keen to promote a range of services which have demonstrable credibility for schools to purchase.

Woolfe, Dryden and Strawbridge (2003) set out an overview of research and categorised it into 'four generations' of research from 1950 to 2000. They describe a transition through stages, from single case studies to evidence-based practice (EBP) which was developed through large scale studies in clinical settings using randomised control trials (RCT), seen as the gold standard conduct for research. These studies looked at the efficacy of interventions when carried out under ideal conditions, and Parry (2000) refers to EBP as a central tenet of all health-related professionals and indeed the HCPC Code of Conduct (2012) sets out the need for EPs to use interventions that are evidence-based in their practice. Barrett (2000) noted that the majority of research for CBT interventions has been conducted in clinical settings (on groups of adolescents with anxiety disorders); far less had looked at the effectiveness of CBT interventions within school settings.

Carr (2010) makes a clear distinction between efficacy and effectiveness of psychotherapeutic interventions using Cochrane's (1972) criteria. Efficacy studies refer to those where clients with a single diagnosis (no co-morbid difficulties) are assigned to random control trials (RCT) and there is a treatment and control group. In these studies the treatment group receives a 'pure and potent' form of specific therapy under ideal conditions; a skilled psychotherapist in a centre of excellence. However, effectiveness studies are those carried out in more routine settings and with 'typical' therapists: with a normal caseload. In these cases the clients represent more typical cases such as those with a combination of difficulties. In a sense these are closer to 'a real-world' application of practice as opposed to pure forms of treatment. Effectiveness studies tell us more about how the intervention will

work in real life application, whereas efficacy studies tell us more about the potency of a treatment when delivered with a high level of fidelity or idealised practice. It is felt to be preferable to conduct research in a real life setting that is as much like the setting where the intervention is intended for use and evaluate its effectiveness under these conditions. In this way a practice-based evidence model is developed that is grounded in the day-to-day work of - practitioners in the field (Woolfe et al., 2003). There is now a growing body of evidence of the effectiveness of CBT interventions in schools (Burton, 2006; Frederickson et al., 2013; Ruttledge & Petrides, 2011; Squires, 2001; Squires & Caddick, 2012)

Given this issue with research, it is prudent for EPs to be proactive in contributing to in-situ evidence for therapeutic interventions (e.g. CBT) in schools as suggested by Fox (2003). Scott (2008), reviewed a range of effective treatments for children with conduct disorder (CD), and suggested that any treatment or intervention should be carried out in the very environment where the behaviour change is required. The importance of the setting then, should not be overlooked when carrying out research into real world practice. A strength of my research study, therefore, is that it is to be carried out in the very context for which its implications for practice are intended to contribute; an EP conducted intervention in a local school with adolescents. Conducting research in the real world lends authenticity and ecological validity. Findings from this can be generalised to other similar schools and to other similar client groups. Furthermore the specificity of this study makes it 'fit for purpose' in informing the LA and EP Service of the effectiveness of an intervention.

2.8 Focus of this study

There is evidence then to support the use of CBT interventions as an effective way of working with adolescents with conduct disorders or emotional and behavioural problems (Ghafoori & Tracz 2004; Kendall & Choudhury 2003). However, a subset of children with conduct disorders has been identified as those high in CU traits (Frick & White 2008; Waschbusch

et al., 2007; Pardini et al 2003; McMahon et al., 2010), and while treatment appears to be effective in reducing CU traits, high levels of these traits have been indicated as a contributing factor to the poor outcomes following interventions (Caldwell et al., 2006; Waschbusch et al., 2007b; Masi et al., 2011; Frederickson, et al., 2013).

As Scott (2008) suggested, treatment studies should be carried out in the environment where the behaviour change is required. Conducting research in the real world lends authenticity and ecological validity and my research study is to be carried out in the very context for which its implications for practice are intended to contribute; an EP conducted intervention in a local school with adolescents.

Kazdin and Weisz (1998) reported several successful CBT interventions with anti-social youth, targeting deviant social cognitions. However, Rait, Monsen and Squires (2010) argued that the decision about whether or not to use CBT interventions with CYP is complex. Bolton (2005) argued for careful assessment of each individual case, including the types of thought processes that may underpin the presenting problem, while Waschbusch et al. (2007b) identified a gap in the research, stating that further research is needed to enable the delivery of empirically supported treatment, tailored to meet the needs of individuals with CP and CU traits. Although recent work has begun to address this, indicating that CU traits are not resistant to interventions (Frick et al., 2003 and Frick & White, 2008), there has been little research into the impact of CU traits on the effectiveness of a CBT intervention with adolescents (Frederickson et al., 2013). It is crucial then, that educational psychologists consider not only the benefits of any CBT interventions being considered, but also their limitations in application.

This research therefore will focus on a group CBT intervention, aimed at targeting social problem-solving skills, delivered to adolescents exhibiting behavioural difficulties. The study will include a measure of CU traits and the outcome variables of behaviour, empathy, social goals (prosocial and deviant), in order to establish the impact and effectiveness of this form of

treatment intervention in the intended real life setting: adolescents with behaviour difficulties attending a mainstream secondary school. The specificity of this study makes it 'fit for purpose' in informing the LA and EP Service of the effectiveness of an intervention, and furthermore, findings from this study can be generalised to other similar schools and to other similar client groups.

2.9 Research questions

Overarching question

What is the impact of a brief group therapeutic intervention programme (based on the principles of CBT) for adolescents who present with behavioural difficulties? In particular, does the intervention reduce callous-unemotional (CU) traits, and is it able to change social cognitions: altering the perceptions that pupils have of the suffering of others (empathy) and their social goals and behaviour?

RQ1 Does the CBT intervention significantly reduce disruptive behaviour?

RQ2. Does the CBT intervention significantly reduce CU traits?

RQ3: Does the CBT intervention significantly promote empathy and prosocial goals?

RQ4. What were the key stakeholders' perceptions of the therapeutic intervention programme?

Chapter 3

Methodology

3.1 Overview of chapter

This chapter provides a detailed description of the methodology adopted for this research, followed by clarification of the researcher's role and position adopted in conducting the research. Considerations are given to the ethical issues in carrying out this research and steps taken to address these. A detailed description is provided of the research process, including the selection and recruitment of participants and study procedures. The validity and reliability of the quantitative measures used is reported. A description of the collection of both quantitative and qualitative measures is provided and the intervention programme is outlined, along with a discussion of the use of a reflective research journal to support the research process.

3.2 Methodological approach

This research was conducted using a pragmatic approach, placing the methodology at the heart of the of the research process. This was appropriate for this study, where the development and implementation of the intervention programme is integral to the research and underpins the method itself. The aim of the study was to develop a shared understanding of the factors necessary to implement an effective intervention aimed at promoting positive change for a heterogeneous group of children and young people with

conduct problems, through the development of social problem solving skills. This required a pragmatic approach, using different methodologies, analyses and reasoning to answer different questions.

The pragmatic approach can be both objective and subjective in its epistemology, allowing the researcher to switch between these positions. Guba and Lincoln (2005) accept this approach, as long as methods are applied with a shared ontological perspective. The researcher is in agreement with their rationale and has therefore matched the methods used to specific research questions, working between the two approaches, subjectively and objectively to build a fuller picture of the phenomenon being studied.

The researcher is aware of subjectivity and that her own perspectives and beliefs would influence both the interpretation and evaluation of the data. However, this sits within this methodological approach, whereby immersing oneself in the research and the data allows for a richer picture to develop, and the researcher kept a research journal of the journey through the processes in order to facilitate this.

The pragmatic approach also supposes ontological relativism: there is an objective reality which is open to unique interpretation by individuals (Tashakkori & Teddlie 1998; Mertens, 2009). The research methodology reflected this through gathering the key stakeholders' points of view i.e., the pupil-participants and the supporting teacher-facilitators. Although, within this research, quantitative measures have been adopted to enable some of the more 'difficult to define' concepts, such as 'empathy' to be quantified (building the internal validity of this research), the qualitative data collected alongside this allowed for deeper exploration of the participants' perspectives (i.e. their personal perceptions of the intervention and of change within themselves), at a more subjective level than a purely quantitative research methodology would have yielded.

Collecting both qualitative and quantitative data also allows the researcher to move between inductive and deductive reasoning, fitting with the logistical viewpoint of the pragmatic approach, that of abductive reasoning (Morgan, 2007). The pragmatic approach incorporates multiple stages or methods of data collection with the use of abductive reasoning to develop a better understanding of a problem. Parsimonious explanations are reached based on the best information available at the time, and this approach values the experience and intuitions of the researcher, the reliability of empirical data and the validity of key stakeholders' real-life experiences (Wheeldon & Ahlberg, 2011).

Thus the researcher is able to use results deduced from quantitative analysis to serve as indicators of 'change' and to form a basis for the inductive analysis of qualitative data in order to deepen understanding of that change. Working between the data sources, to develop a reasonable understanding of the processes of change, through simple and economic explanations, will enable the development of tailored intervention programmes and guide their implementation, to meet the needs of the key stakeholders.

3.3 Design

The research presented here adopted a mixed-methods equivalent status design with approximately equal emphasis on quantitative and qualitative methods of data collection and their analysis, in order to address the research questions. The use of a mixed methods design allowed for triangulation of data, with qualitative data adding credibility and depth to the findings from statistical analyses of quantitative data.

Quantitative data included pupils' self-reported and teacher-reported perceptions of CU traits, peer conflict, social goal orientation and disruptive behaviour in school or at home. As shown in Figure 2, these data were collected at two time points: pre-intervention (T1) and 2 weeks post-intervention (T2). Further teacher report of sanction and reward points for

each pupil on a lesson-by-lesson basis was taken from the School Information Management System (SIMS) database. These data were collected for the two week period prior to the onset of the intervention (T1) and for the two week period post-intervention (T2).

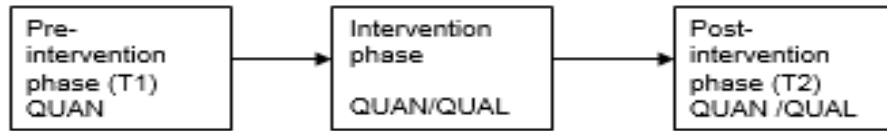


Figure 2 Procedures for data collection

Figure 2 also indicates the qualitative data collection times, pre-intervention (T1) and post-intervention (T2). These took the form of (i) face to face pupil interviews (T1); (ii) a reflective research journal which was kept by the researcher during the initial process of setting up the intervention (T1) and also whilst running the programme in school; (iii) post-session evaluations of each individual session in collaboration with the teacher involved in running that session; (iv) focus group discussions (T2) exploring the participants' experience of the programme and face to face interviews with the participating teachers (T2).

This research area is relatively new in terms of exploration of CU traits e.g. Frederickson et al., (2013) and is not therefore at the RCT stage. The aim of the current research study was to develop and conduct a brief, pilot group-CBT intervention for a heterogeneous group of adolescents presenting with CP in schools, and to explore its impact on a number of outcome measures, including CU traits.

Quantitative data and qualitative data were collected in order to quantify the level of change and to explore the process of change in greater depth. Incorporating the reflective journal as part of the research process recognises the role of the researcher and will facilitate the development of an intervention that is based on best practice. The design adopted here is a pilot evaluation of a group intervention for antisocial adolescents in mainstream school and allows for the exploration of the key stakeholders' perspectives

on this intervention, as well as its impact on disruptive behaviour and CU traits.

The collection of quantitative data from both pupils and teachers as well as qualitative data from a variety sources allowed for the triangulation of data adding richness to the findings through exploration of perspectives of key stakeholders. It was the intention that qualitative data from the post-intervention focus groups and the researcher's reflective journal, compiled during the 'intervention phase' of the study, would allow a practical guide to the brief-CBT intervention programme to be developed. The purpose of which would be to outline key content of the intervention and offer practical advice, making the programme accessible for other practitioners in the field to adapt and implement for their use (see Appendix C for an overview of the intervention).

3.4 Researcher's role

The researcher's role was to evaluate the effectiveness of a brief group intervention for 15 adolescents, with conduct problems (CP), in a mainstream school. The researcher was heavily involved in the development of the intervention programme and its delivery alongside other professionals in the school setting. It was useful that a range CBT-based intervention programmes with a strong evidence base already existed, and the researcher was able to select the activities that were appropriate for the age group and area of change being targeted. This was developed in consultation with school staff who knew the participants well and their input enabled the researcher to fine-tune sessions for the pupils involved.

The researcher was also involved in selection of the school where the intervention was to run as it was important to have the cooperation of key staff members in the school and to build good working relationships. It is important to recognise that the researcher's objectivity may be compromised due to the level of involvement in the process. Steps were taken to reduce

this possibility, including collaboration with school staff in planning and evaluating individual sessions, and collection of objective school measures of behaviour. The researcher did not attend the focus group session post-intervention as it was felt this may have restricted the ability of participants to freely express their views of the programme. Furthermore, the process of developing an intervention programme required the researcher's participation and involvement with the day to day running of such an intervention. Introducing the use of a reflective journal helped to focus the researcher on her personal influences and biases. It was also felt that the researcher's proximity and involvement with the pupil participants would facilitate the reduction of participants' inhibition over time and allow the inclusion of observational data of the participants in their natural setting, as well as data collected during face-to-face interviews.

3.5 Context and location

Within the researcher's EP Service there are several themed working parties (Learning Sets), where EPs develop their practice and share knowledge and understanding. These include a Learning Set for Therapeutic Interventions of which the researcher is a member. A member of the EP team has completed training in CBT at Masters Level and the LA maintains an interest in developing this skill base amongst its EPs. The researcher shares a keen interest in this area of EP work and the current research has been developed within this context and in consultation with colleagues.

The current study took place in a mainstream secondary school within a large shire county local authority in England. The study took place across three phases between September 2013 and January 2014, with data collected at two time points; the two-week pre-intervention data collection phase (T1), followed by the six-week intervention phase and finally a two-week post-intervention data collection phase (T2). (See Table 1 for a timeline of research phases).

3.6 Ethical considerations

The design and implementation of this research was approved by the Institute of Education Ethics Committee in September 2012. The researcher adhered to the British Psychological Society's (2009) Code of Conduct and Ethics with reference to research with human participants and also followed the General Professional Practice Guidelines (Division of Educational and Child Psychology [DECP], 2002) and the General Professional Practice Guidelines- Second edition (BPS 2008).

Table 1 Timeline for research phases

Autumn Term 2013 7th Sept – 1st Nov	Phase 1	Pre-intervention phase -School identified -School staff identified -Participants identified -Consent gained -Pre-intervention data collected (T1)
Autumn Term 2013 8th Nov- 21st Dec	Phase 2	6 week intervention phase -Intervention run -Reflective journal kept
Spring Term 2014 6th Jan - 15th Feb	Phase 3	Post-intervention phase - Qualitative data collected from staff and pupils -Post-intervention data collected (T2)

In order to gain fully informed consent prior to the research taking place, letters explaining the purpose of research and providing the opportunity to contact the researcher with any questions, and 'opt-out' consent forms were drafted (see Appendix D), and sent in advance of any interviews or questionnaires. Parents were then sent questionnaires to complete and informed of the start date of the intervention. Concurrently, the pupil-participants were invited to meet the researcher. In order to gain truly freely

given informed consent from participants, the researcher spent some time establishing a dialogue about the aims and objectives of the research and about how the research will be carried out. Prospective participants were also provided with written information, and the participants were given a consent form to sign at this time.

The risk to emotional health and well-being in this study should be no greater than the risk experienced in normal everyday life. The researcher is aware that taking part in a group intervention can potentially raise challenging emotional issues. Dishion, McCord and Poulin (1999) suggested several factors that may produce stronger iatrogenic effects: the nature of the presenting behaviour (antisocial), homogeneity of group, age of youth (early adolescence) and level of 'structure' of group intervention. This would suggest that an unstructured group intervention made up of solely antisocial adolescents would be more likely to produce negative effects on behaviour. They suggest that stigmatising (i.e., of being in a group for 'antisocial' behaviour) and also 'deviancy training' may underlie this process. They defined deviancy training as 'contingent positive reactions to rule-breaking discussions' (p756). However, Weiss et al., (2005) evaluated the evidence for iatrogenic effects in the literature and concluded that, 'We find little support in the literature for iatrogenic effects, deviancy training based or otherwise' (p1044). Weiss et al. (2005) argued that deviancy training may well occur in intervention groups, but that it also occurs in a variety of settings, and that the time spent in the group is relatively small compared to time spent in school and home environments. They also argued that adult-led challenges to deviant behaviour occur during group interventions, an important difference to time spent in other peer-related activities.

The researcher considered the risk of deviancy training and iatrogenic effects prior to this research. The participants in this study are adolescents; they are already known to one another as they are in the same school and the same year group, and they already have a history of deviant behaviour. These are all factors associated with positive outcomes for group CBT for antisocial behaviour. The participants' sensitivity to the reason for their inclusion in the

research study was addresses through the researcher and pastoral heads of year explaining to the participants the anticipated benefits of taking part, and using a non-controversial title for the intervention, 'Problem Solving Group'. This was chosen to reflect the positive aspects of the groups' aims, whilst remaining non-judgemental in order to reduce the potential for stigmatisation by others. In addition, the participants were encouraged from the onset to take ownership of their group, forming a unique identity through selecting a group name and generating their own rules for the sessions. Finally, the researcher ensured that she was aware of local support services and held up to date information regarding counselling, and other advice centres to which to direct participants in case of need.

The right to withdraw and anonymity of data collected were guaranteed. There was no intention to use financial or other incentives and participants were informed of their rights to withdraw at any time without penalty and to withdraw their data up to the date of completion of the thesis.

Data were stored on an encrypted USB data storage device, during collection and analysis. All secondary data such as behavioural, attendance records and demographics were only collected in as far as these were relevant to the explicit research aims. The participants' permission was sought prior to this, and these data were treated in line with the data protection policies of the organisations from which the data came. All data were anonymised during the research process, so only the researcher was able to identify where each data item has come from. All participants were de-briefed at the end of the research process and given the opportunity to withdraw their data if they so wished.

In the current report the anonymity of the participants and of the school involved has been maintained. All the individuals who took part in the study remain unidentifiable, including the teacher-facilitators. Consideration has also been given to the fact that there was only one female participant in one of the intervention groups. Where reference to gender would compromise her identity she has been referred to as if male. Finally any data still held by the

researcher are intended to be destroyed following the satisfactory examination of this thesis.

3.7 Sampling

In March 2013 the Educational Psychologists across the local authority were informed of the aims and nature of the proposed research project and asked to identify schools known to them which may be interested in delivering the group intervention programme to support social problem solving skills for pupils in Year 8 and/or Year 9. Four schools were identified following this and the data below (see Table 2) were gathered from the Government website <http://www.ofsted.gov.uk>, and schools were rated in terms of their most recent OFSTED rating in order to select schools rated at a satisfactory level or above, in order to avoid any conflict of interest i.e., between external agency direction and the research remit.

Table 2 Information gathered in relation to potential research schools

School Type	Age Range	Gender	No. on roll	SEN %	FSM %	OFSTED rating
A Voluntary aided/ Academy status	11-19	Mixed 50.6% Girls	678	4.9% Below average	28.2% Above average	Good
B Religious denomination school/C of E	11-18	Mixed 49.6% Girls	1490	4.8% Below average	10.5% Below average	Good
C Academy	4 -19	Mixed	340	Average	Above average (high)	Making satisfactory progress
D Community School	11-18	Mixed 47.7% Girls	670	5.5% Below average	26.5% Average	Requires improvement

The two schools that were rated as 'good' by Ofsted were contacted, as it was considered these schools would be best positioned to support an intervention programme of this nature without external pressures or influence on areas of improvement. Meetings were set up with the SENCO and head

teacher to discuss the planned programme in more detail and establish the selection criteria for participants (see Section 3.8 below). It was a requirement that schools were able to identify six or more pupils as suitable to take part in the programme, as this would be the minimum number that could participate as a single intervention group. Following these meetings, both Schools A and B met this requirement. However of these schools A was able to identify a greater number of pupils who were likely to meet the inclusion criteria and therefore this school was selected for invitation to participate. School B was offered the opportunity to partake in the programme later in the school year if they wanted to do so. However, they did not follow up this opportunity.

3.8 Participants

Fifteen adolescents aged between 12 and 14 (12 boys: 3 girls) with a mean age of 13 years and 5 months, ($M=160.8$ months $SD=6.20$), participated in the intervention programme. Participants were recruited via referral from the school. Initially the two Pastoral Heads of Year (PHOYs) and school Deputy Head (DH) identified a number of young people whom they felt would be suitable for the intervention, based on age and behavioural concerns held by the school staff.

From this initial selection phase, the school identified and compiled a list of 19 participants across two year groups (Years 8 and 9). For the purpose of this study, the following exclusion criteria were applied: no current diagnosis of a psychotic disorder or primary autism, no concurrent psychiatric treatment or medication, no developmental delay (estimated at $IQ < 80$); and no major medical disorder that has significantly interfered with family/school life.

Research into externalising disorders (ODD and CD) that excludes major, naturally occurring co-morbidities, such as ADHD, affective/anxiety disorders, learning problems, and mild autistic features, is inconclusive and therefore

these would only be allowed if secondary and less severe than the conduct problems. The researcher then met and consulted with the PHOYS and DH to discuss and screen potential participants further. In order to select from the school's list those students who were most suitable to be invited to take part, the following inclusion and exclusion criteria were applied:

Inclusion criteria

- Pupils age 12-14 in mainstream secondary school
- Pupil must have a pastoral support plan (PSP) in place
- Pupil at risk of exclusion (but not about to be excluded)
- Pupils will have had 1-2 fixed term exclusions in current year.
- Pupils who are regular school attendees (attendance > 80%)

Sixteen pupils were identified and the school and researcher contacted their parents (see parent letter and opt out form in Appendix D) to inform them of the research project and the intervention programme and to obtain their consent for their child to take part. One parent opted out at this stage. Following this the 15 remaining potential participants were invited to meet with the researcher, where a more detailed explanation of the nature of the proposed intervention programme was given, supported by a written information sheet (see Appendix E). Pupils were encouraged to ask questions about the intervention and the research project. They were informed orally and in writing about their rights as participants, and written informed consent was sought from pupils at this point (see Appendix E).

Allocation to one of two intervention groups was determined by year group, and resulted in a Year 9 intervention group consisting of 8 pupils (7males; 1 female) and a Year 8 intervention group consisting of 7 pupils (5 males; 2 females). Information regarding the pupils' behaviour, FSM eligibility, ethnic background and any previous interventions that had been tried with these students is summarised by group in Table 3.

Table 3 Pupil participant information

Intervention group and no. of participants	Gender	Mean Age in years: months with [SD]	Ethnicity					Percentage FSM	Previous interventions	
			White other	White British	Black British/African	Black Caribbean	Mixed White & Black		School only	School and outreach
Year 8 Group N=7	5m 2 f	12:10 [2.36]	3	2	2	0	57%	7	1	
Year 9 Group N=8	7m 1f	13:10 [3.89]	1	3	2	2	50%	8	0	

3.9 Procedures

Following the identification of the sample and receipt of written informed consent (as outlined in Sections 3.6 to 3.8 above) the researcher met with the fifteen identified pupils individually to screen for CD and ODD using the KSads-PL Version 1.0, (see Appendix F), abridged version (Kaufman, Birmaher, Brent, Rao & Ryan, 1996). All pupils were found to meet the inclusion criteria with n=9 meeting criteria for a diagnosis of CD, and n=9 meeting criteria a diagnosis of ODD. A small number of participants met the criteria for both CD and ODD pre-intervention (n=7). The research and intervention programme then took place across the following three phases shown in Figure 3. Quantitative data were collected at two time points, pre-intervention (T1) and post-intervention (T2) across an eight week time period: the pre-intervention phase, intervention phase and post-intervention phases shown in Figure 3 over.

<p>Phase 1: <u>Pre test data collection (T1)</u> Quantitative and qualitative data collected from pupils and teachers.</p>
<p>Phase 2: <u>Start of treatment</u> 6 x 1 hour weekly CBT group intervention.</p> <p>Compilation of - Reflective Research Journal - Post session evaluations - Pupil worksheets/comments</p>
<p>Phase 3: <u>Post-test data collection (T2)</u> Quantitative and qualitative data collected from pupils and teachers.</p>

Figure 3 Phases of data collection during the research process

3.9.1. Data collection

At Phase 1 the teacher measures, (Inventory of Callous-Unemotional Traits, ICU-T1; Peer Conflict Scale, PCS-T1; and Strengths and Difficulties Questionnaire, SDQ-T1) were administered, via the relevant PHOY (see Section 3.10 for detailed description of all quantitative measures). The PHOY also sent reminders to teachers via email and used school systems already in place to exchange this information relating to pupils between members of staff securely. The pupil outcome measures (Peer Conflict Scale, PCS-Y; Beck Youth Inventory, Disruptive Behaviour subscale, BDBI-Y; and Individual Reactivity Index, IRI-Y) were administered to participants individually by the researcher in a quiet room. Questions were read out to the participants if required. This method of administration was selected in order to reduce ambiguity or misinterpretation of any of the questions, and allowed the researcher to clarify any words the participant was unsure of. The remaining pupil outcome measures (KSads-PL and Children’s Social-Goals Measure,

CSGM) consisted of semi-structured interviews administered by the researcher and audio recorded for later scoring and reliability analysis.

In Phase 2, two staggered intervention groups were run by the researcher with the support of the relevant PHOY. The groups ran across one half-term, for six weeks and were scheduled for one hourly session each week. Where possible this took place in the same room for each of the groups. Half-hour meetings were also held with the relevant PHOY, before and after each session to plan and then reflect on each of the sessions. The researcher kept a reflective journal during this time.

3.10 Quantitative outcome measures

Outcome measures assessed the intervention's targeted elements of promoting prosocial goals, cognitive and affective empathy, and reducing peer conflict, disruptive behaviour and CU traits. These measures were trialled prior to conducting this research project, with two students of the same age in another school known to the researcher in order to check their suitability and accessibility for this age group.

Analysis of the outcome measure scales was carried out to establish internal consistency of scales, using Cronbach's alpha, with values of α ranging from 0.7 to 0.8 generally accepted as indicating reliability (Kline, 1999). However, there is an argument that lower levels, ($0.5 \leq \alpha \leq 0.8$) are acceptable for psychological constructs such as those assessed in this study (Nunnally, 1978 cited in Field, 2013). All scales were found to be within this range both at T1 and T2, with the exception of the IRI subscale of Empathic Concern (EC), where $\alpha = .431$ post intervention, and the Fantasy subscale (FS), where $\alpha = .395$ pre- intervention and $\alpha = .405$ post-intervention. The FS scale was checked for scoring errors as it included a reverse score item, which was found to be accurate. Therefore caution must be exercised in drawing conclusions from the data analysis of these two subscales. Any adaptations

that were made to measures and their reliability (Cronbach's alpha) values are reported for each measure below.

3.10.1 Diagnostic measure Kiddie-Schedule of Affective disorders and Schizophrenia-Present and Lifetime Version 1.0 (KSads-PL)

Kiddie-Schedule of Affective Disorders and Schizophrenia-Present and Lifetime Version (KSads-PL) (Kaufman et al., 1996) is a semi-structured interview focusing on common behavioural disorders using DSM-IV criteria. The version designed for use with adolescents was adopted and sections were utilised that assessed against criteria for diagnosis of ODD and CD. This assesses respondents on clinical characteristics for a diagnosis and severity rating for ODD and CD, (see Appendix F for the abridged version used in this study). Kaufman et al. (1997) indicated concurrent validity of screens for KSads-PL and they noted excellent levels of for test-retest reliability, with kappa coefficients ranging from .77 – 1.00 on all screens including ODD and CD.

In the present research, this was applied as a tool to establish criteria for inclusion in the study, rather than as a clinical, diagnostic tool. In order to establish a diagnosis of CD or ODD, under DSM criteria, difficulties across more than one setting would need to be established. In the KSads-PL interview it is possible to reach threshold for CD or ODD through reporting of difficulties in only one setting. Therefore, participants could potentially reach threshold for diagnosis without exhibiting difficulties across more than one setting (i.e. both at home and at school) as is required for clinical diagnosis.

The interview was audio recorded, with recorded interviews scored by a trainee colleague independently to ensure consistent application of the criteria and reliability of the 'clinical severity' rating.

3.10.2 Disruptive behaviour

i) **Beck's Youth Inventory (BYI-II): Disruptive Behaviour Scale (BDBI-Y)**

The disruptive behavior subscale (BDBI-Y) of the Beck Youth Inventory Second Edition (BYI-II) consists of 20 items, aimed at assessing conduct problems in children aged 7-18 years. Respondents indicate how often each statement has occurred for them over the last two weeks, using a four-point Likert scale (never=0; sometimes=1; often=2; always=3) with a maximum of 60 on this subscale, where higher scores indicate greater levels of disruptive behaviour.

This subscale is a suitable tool in this context as it is brief (5 - 10 minutes), and can be self-administered so it is easy to use in the school context individually or in groups. Self-report measures of antisocial behaviour in youth have the advantage of potentially capturing behaviour that may not be apparent to others (parents or teachers) (Kazdin, 1987; Sholevar, 1995, in Beck, Beck, Jolly and Steer, 2005). The BDBI-Y has high internal consistency $\alpha = .86$ (male) and $\alpha = .90$ (female) for age 11-14 and criterion validity ($r = .049$, $p < .001$) when compared to Connor's Oppositional Scale (Steer, Kumar, Beck & Beck, 2001). Strong to moderate reliability coefficients were obtained $\alpha = .812$ and $\alpha = .557$ pre and post intervention.

ii) **Strengths and Difficulties Questionnaire (SDQ)**

The teacher measure for disruptive behaviour used was the Strength and Difficulties Questionnaire (Teacher version). This questionnaire consists of 25 items assessing child adjustment and prosocial behaviour. The SDQ consists of 5, five-item scales: Hyperactivity, Emotional Symptoms, Conduct Problems, Peer Problems and Prosocial Behaviour. Teachers report how accurate each item is of the pupil from 0=*not true*, 1=*somewhat true* or 2=*certainly true*. Summing the subscales scores for hyperactivity, emotional symptoms, conduct problems, and peer problems generates a total difficulties score ranging from 0 to 40. The prosocial scale score is not included in the total difficulties score, as Goodman (1997) viewed the

absence of prosocial behaviours as conceptually different from psychological difficulties.

Goodman (1997) established evidence for the concurrent validity of the SDQ, and is well-established in terms of validity and reliability (Elander & Rutter, 1996 in Goodman, 1997). The SDQ has subsequently been widely used to assess conduct problems in research on the treatment of children's antisocial behaviour with CU traits (Hawes & Dadds, 2005, 2007; Fontaine et al., 2011).

Due to low returns it was not possible to use data from this measure in the final analyses and reliability statistics were not computed.

iii) School Information Management System (SIMS): Reward and consequence points for disruptive and prosocial behaviour.

The research school used this system to manage information re: registration and attendance of pupils, as well as pupil performance. This database contained information regarding pupil behaviour that had been captured on a lesson by lesson basis. This provided detailed information of individual pupil-participant behaviour as recorded by their class teachers along with a log of both consequences (C) and rewards (R) points. These were rated according to the severity of each incident, for example the code R2 refers to a demonstration of 'pride in work' and is given 3 reward points, whereas the code C2 refers to 'interrupting teaching' and receives 3 sanction points (see Appendix G for a comprehensive list).

3.10.3 Callous -unemotional traits

Inventory of Callous Unemotional Traits (ICU; Frick, 2004b)

The ICU assesses CU traits in youth, and can be used as a self-report and teacher report questionnaire. The scale consists of 24 items, responded to using a four-point Likert rating scale from 0=*not at all true* to 3=*definitely true*. Items include statements such as, '*I do not care who I hurt to get what I*

want'. Scores range from 0-72, with higher scores indicating higher levels of CU traits. Essau et al. (2006) identify three factors within the scale: 'Callousness', (a callous attitude to others), made up of 11 items; 'Uncaring', (a lack of caring about self and performance), made up of 8 items; and 'Unemotional', (a lack of empathy or emotional expression), made up of 5 items, supported by Kimonis et al. (2008). Roose et al. (2009) reported excellent validity data for this measure and concluded that across all three versions, (parent, teacher and youth), the ICU is a valid psychometric measure. Moderate reliability coefficients were obtained $\alpha = .688$ and $\alpha = .510$ pre and post intervention.

3.10.4 Empathy

Interpersonal Reactivity Index (IRI)

This is a multidimensional measure of empathy, including: Perspective Taking, (PT) measuring the ability to see things from another's point of view; Fantasy, (FS) measuring the tendency to identify with characters in fictional situations; Empathic Concern, (EC) measuring feelings of warmth and compassion for others and Personal Distress, (PD) measuring the emotional reactions to the negative experiences of others. Both PT and FS are classed as cognitive aspects of empathy, whereas PD and EC are seen as affective aspects Each of these four scales consists of seven items answered on a five-point Likert scale ranging from 0= *does not describe me well* to 4 =*describes me very well*. Each scale has a total possible score ranging from 0 to 28, with high scores denoting greater levels of the corresponding attribute. Summation of the four scales is meaningless, as the four subscales are not all positively correlated, (Davis, 1983); therefore they are analysed separately in this research.

Internal reliability across the four subscales has been established ($\alpha = .70$ to $.78$ for males and females, Davis, 1983). In the current research, moderate to strong coefficients were found using Cronbach's alpha, which indicating

that this measure was reliable across all four subscales $\alpha = .754$ and $\alpha = .679$ pre and post intervention.

3.10.5 Aggression

Peer Conflict Scale (PCS)

Aggression was assessed using the teacher and youth versions of the PCS. This consists of 40 items to assess aggressive behaviour in children and adolescents. It consists of four 10 item subscales, two of which assess proactive aggression and two of which assess reactive aggression. The two proactive subscales are the Proactive Overt (physical) Aggression (PO) and Proactive Relational Aggression (PR) subscales, which assess aggression where the intended outcome is to physically hurt or socially harm others in a pre-meditated or planned way. The two reactive subscales are Reactive Overt (physical) Aggression (RO) and Reactive Relational Aggression (RR), and these include items worded in such a way as to indicate clear provocation, and a reaction intended to physically hurt or socially harm the other person. Each item on the scale is scored as either 0=*not at all true*, 1=*somewhat true*, 2=*very true* or 3=*definitely true*. Each scale can have a score ranging from 0 to 30, with higher scores indicating greater aggression.

The validity of the scale has been shown in a number of studies relating to CU traits (Crapanzano, Frick & Terranova, 2010; Kimonis et al., 2008; Munoz, Frick, Kimonis & Aucoin, 2008). Crapanzano et al. (2010) report the internal consistency of the four aggression scales as adequate, ($\alpha = 0.85$ for both types of Proactive Aggression (PR and PO) and for Reactive Relational Aggression, with $\alpha = 0.88$ for Reactive Overt Aggression). Strong reliability coefficients were obtained for these scales when analysed, with $\alpha = .763$ and $\alpha = .783$ pre and post intervention.

3.10.6 Social goal orientation

Children's Social Goals Measure (CSGM)

The Child Social Goal Measure, developed by Lochman et al. (1993), consists of four stories that are read to the child (or parent). The stories concern interpersonal interactions and the child has to decide what is of most importance to the character in the story (i.e. decide what their social goal would be). A pilot of this measure indicated a number of questions to be adapted for use with UK students. Minor changes were made to three of the CSGM scenarios to update the vignettes, (e.g., 'computer party' changed to 'X-box party', or to change terms to those more familiar to English language speakers, e.g., 'sneakers' changed to 'trainers' (see Appendix H). The child's responses are coded under categories such as Relational/pro-social, Relational/non-social, Non-relational/self, Non-relational/things. Coding criteria were adapted from previous research and a trainee colleague coded the responses independently in order to establish consistency of application of these criteria (see Appendix I for full coding criteria).

The CSGM also requires respondents to rate the importance of four social goals on a four point scale, where 1 = *not very important* and 4 = *very important*. The four goals assessed were the pro-social goals, i) avoiding conflict, ii) reconciliation, or the 'deviant goals', iii) revenge, iv) dominance. Ratings are then summed across the four vignettes to give a total score for each of the social goals, where a high score indicates the greater importance of that goal. Finally respondents are asked to state their primary goal for each of the stories. This allowed a score to be calculated relating to an individual's tendency to focus on escalating conflict, by subtracting the frequency of a prosocial primary goal being selected from the frequency of a deviant primary goal being selected. A tendency to focus on escalating conflict would be indicated by a score of -2 or -4 (with -4 indicating a stronger focus on deviant social goals). Prosocial tendencies would be indicated by a score of 2 or 4, with 4 indicating a stronger prosocial tendency. Finally a score of 0 represents a more neutral focus, neither strongly prosocial nor deviant. Pardini (2011) recorded the internal consistency of this scale as

good ($\alpha=.61-.80$), with strong validity of measures. Strong reliability coefficients were obtained for these scales when analysed, with $\alpha = .707$ and $\alpha = .774$ pre and post intervention.

3.11 Qualitative measures

As discussed earlier, in Section 3.9, qualitative data were collected throughout all three stages of the research (shown in bold in Table 4). The individual pupil interviews (T1) were semi-structured and were carried out at the same time as administration of the CSGM. During the intervention, qualitative data were recorded in the form of a reflective research journal. Post-intervention follow up for teachers and pupils was carried out to ascertain participants' reflections on participation in the intervention. This involved two focus groups of pupil participants, and post-intervention teacher evaluation interviews (T2).

The researcher carried out all the pre-intervention interviews with pupil participants. These were audio recorded and transcribed following their collection. The interviews were based on CSGM; however participants were able to elaborate through open ended questioning of their selected responses to closed questions. This allowed for a fuller explanation of the participants' approaches to social problem solving and the cognitive processes underlying their interpretation of social information.

Table 4 Outline of research stages showing qualitative and quantitative data collection points with measures

	(T1) Phase One	Phase Two	(T2) Phase Three
Teacher	ICU-T1 PCS-T1 SDQ-T1		ICU-T2 PCS-T2 SDQ-T2
Pupil	Pupil interview CSGM-T1 ICU-Y-T1 PCS-Y-T1 BDBI-Y-T1 IRI-T1		Focus group CSGM-T2 ICU-Y-T2 PCS-Y-T2 BDBI-Y-T2 IRI-T2
Other	SIMS data	Reflective journal Debrief sessions	SIMS data

3.11.1 Focus Group

The use of focus groups allowed for the collection of data that related to participants' feelings, attitudes, beliefs, experiences and reactions to the intervention as individuals within a group. Focus groups were carried out as a form of group interviewing, with the focus on the interactions within the group, based on discussion of relevant topics. Each focus group was given the same topics to discuss as set out on the interview guide which included open ended questions (see Appendix J). The researcher was interested in the data produced by interactions between the participants and the insight that this lends to understanding the processes involved in the intervention. Two focus groups were set up involving all pupil and teacher participants: one for Year 8 and one for Year 9 as group dynamic for each group were already established from the intervention programme. These one hour interviews were audio recorded to allow for later transcription and analysis.

3.12 The intervention

The focus of this intervention was on social problem solving skills, which involved exploring positive solutions to everyday conflicts. The intervention applied cognitive-behavioural techniques with social skills training and it was based on two evidence-based and well established group CBT interventions, Larson and Lochman's (2002) 'Helping school children cope with anger' and Kazdin's 'Problem Solving Skills Training' (Kazdin, 2010). As outlined in Chapter 2 (Section 2.6). These established programmes have been developed within the cognitive-behavioural tradition and the interplay between thoughts-feelings and behaviours formed an integral element within the intervention developed here (see Table 5). Additional activities were adapted from Shure's 'Interpersonal Cognitive Problem Solving Programme' (Shure, 1992). In particular the intervention was comprised of activities from these evidence-based interventions that were intended to target the CU traits of reward-orientated behavioural patterns, uncaring attitudes towards negative outcomes for self and low levels of empathy.

The researcher and PHOY worked together planning and timetabling the six week programme. A suitable room was discussed to hold the sessions and wherever possible the sessions were held in the same room.

Intervention protocol

The intervention followed the format of a small group intervention involving 6-8 participants. The researcher implemented the programme with the additional support of a member of school staff. The intervention was run for six one-hour weekly sessions which took place on the same day and at the same time for each of the two groups. The final session included completion of an Evaluation Form to allow participants to provide feedback on the sessions and activities.

Each session was preceded by a short briefing, of approximately 30 minutes, with the relevant staff member. This provided an opportunity to discuss the

content of the session, choice of pupils for paired or group work and to make any minor changes. The activities involved in the sessions varied each week but involved role play, paired and group work with peer mediation and self-reflection opportunities. A brief summary of the content of each session is outlined in Table 5. Following each session, a debriefing took place and the staff member and researcher evaluated the session using an intervention integrity checklist (see Appendix K). The researcher also completed the research journal at this point. Intervention integrity was assessed to rate compliance with core elements of training for each session. The researcher and two members of school staff closely involved in running the sessions completed these together following each session and high rates of fidelity to the intervention protocol were reported, ranging from 75 to 100% (M=91.2%).

Table 5 Summary outline of the intervention programme including CBT element of each session

Focus	Possible activities	CBT element
1 Introduction session 'Perception & thinking'	Explain what the group is all about and establish a group identity, our shared group rules and ice-breakers. Look at CBT premise - Perceptual and thinking processes using social situation cartoon. Goal setting explanation and discussion. Assignment task - 'Goal setting'	General orientation i.e., perceptual set <i>Exploring cues and interpretation of external stimuli relevant to real-life situations, e.g., relationships and practical problems.</i>
2 Anger Management & Self control	Review of previous session/assignment Assess problem solving skills Introduce Anger Management & Self control and use of Self instruction Assignment - keep an anger diary for a day (graph)	Altered emotions and physical feelings. <i>Exploring emotions and developing techniques for self-control/self efficacy.</i>
3 Perspective taking	Review of previous session/assignment Assess anger management and control and Self instruction Introduce Perspective taking and concept of different interpretations Assignment - walk a mile in someone else's shoes!	Altered thinking <i>Exploring alternative interpretations and ways of thinking in relation to social situations.</i>
4 Choices & Consequences	Review of previous session/assignment Assess Perspective taking Introduce Choices and Consequences for typical problems that adolescents face Generate solutions. Play Tic-Tac-Toe game. Assignment -bring real life problems for role play next week.	Altered behaviours and alternative responses <i>Generation of range of actions in response to external social stimuli. Application of altered behaviours in real-life.</i>
5 Steps for problem solving.	Review of previous session/assignment Assess Choices and Consequences Introduce Steps for problem solving - make a poster Explore some of their issues together. Paired work role play different solutions. Assignment - practice these steps at least once before our next session	Embedding behavioural change <i>Exploring real-life application of range of choices and experience and evaluation of success of these new behaviours.</i>
6 Consolidation & summary of learning. Evaluation	Review of previous session/assignment. Assess Steps for problem solving. Introduce topic - summary of sessions and evaluation/feedback	Evaluation process <i>Discussion of consequences of altered behaviours to reinforce positive choices and consolidate new ways of thinking and behaving.</i>

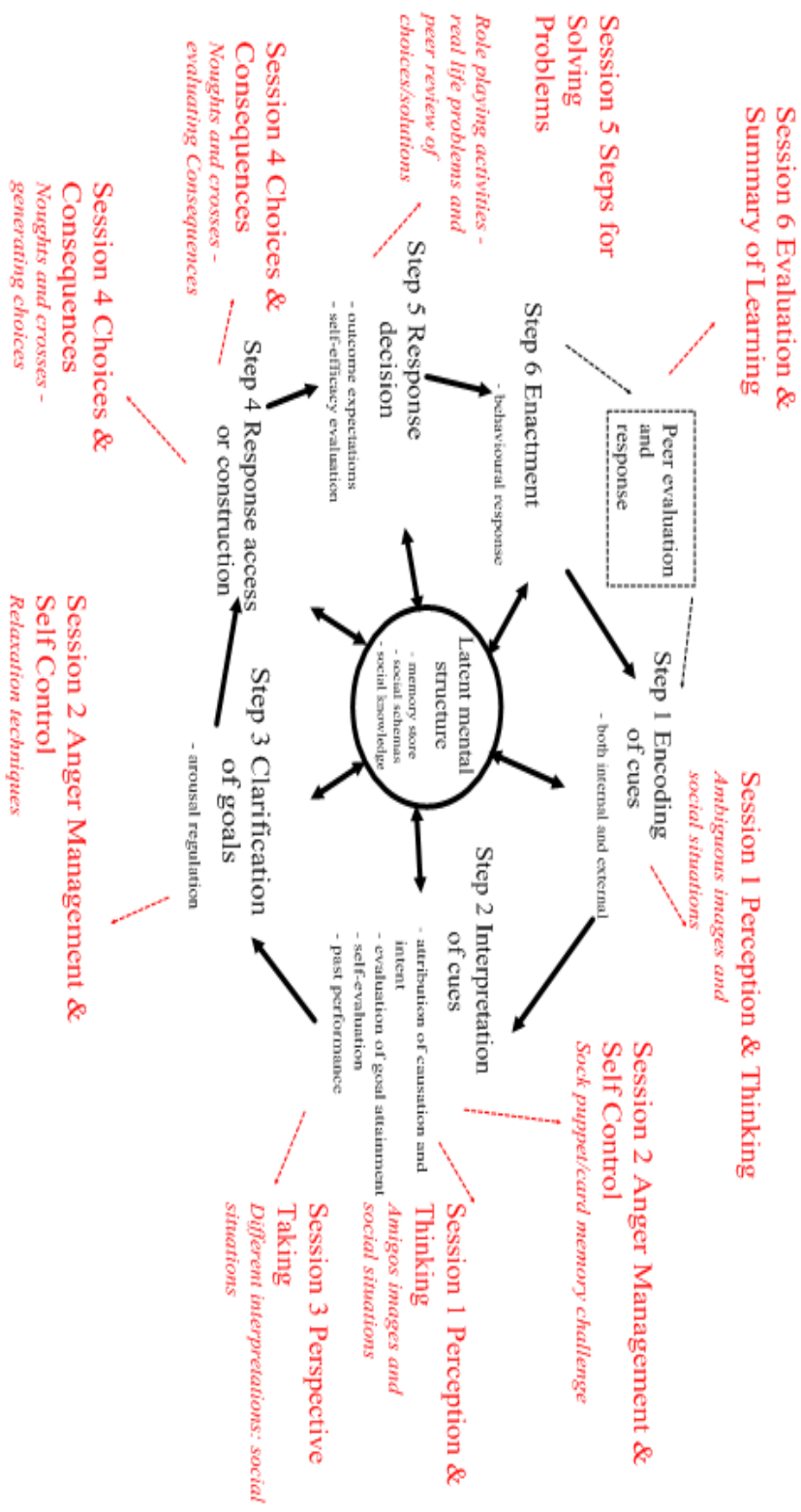


Figure 4 Outline of the SIP model and intervention sessions and activities addressing each aspect

Chapter 4

Results

4.1 Overview of chapter

This chapter provides an overview of the data, describing the research findings using both the qualitative and quantitative data collected. The quantitative data analysis procedure adopted is outlined in detail, including initial exploratory data analysis where the quantitative data were explored to see if they met the criteria for parametric statistical analysis. The statistical data analysis programme Statistical Programme for Social Scientists 20.0 (SPSS 20.0) was used to test for normality of distribution of the data, and homogeneity of variance i.e., skewness and kurtosis. The findings of the statistical analysis are then presented in relation to individual research questions which are addressed in turn. Finally, relevant findings from thematic analysis of the qualitative data are presented to enrich the picture.

4.2 Data and analytic approach

A total of 15 adolescents took part in this research as participants in the two intervention groups. Complete quantitative data sets were obtained for 14 of the pupil participants at T1 (pre-intervention) and T2 (post intervention). One participant left the school due to a family move and it was not possible to collect post-intervention data for this participant. Teacher participant data were also collected at T1 (pre-intervention) and T2 (post intervention) in the form of a questionnaire pack of measures (ICU-T, SDQ-T, PCS-T). However

complete data sets were not obtained at either time point, (see Table 6 below), and due to the low number of complete returns across all measures, it was not possible to include the teacher data in the analyses. Teacher comments and annotations on the questionnaire packs indicated that several of the teachers did not feel comfortable filling in some sections of the questionnaire pack. The scales that required the respondent to comment on peer relationships or pupils' emotional reactions i.e., ICU and PCS tended to be less fully completed. Reasons given related to not knowing the pupil well enough or to not 'feeling qualified' to comment on personal or social aspects of pupils' lives. For example one teacher commented, 'I don't always see him in social time,' and did not complete questions 38, 39, and 40 on the Peer Conflict Scale for both the pre and post questionnaire.

Table 6 Return rates of questionnaires

Scale	Number of complete returns from teachers (T1) n=15	Number of complete returns from teachers (T2) n=14
Peer Conflict Scale (PCS)	10	9
Inventory of Callous-unemotional traits (ICU)	8	10
Strengths & Difficulties Questionnaire (SDQ)	6	9

4.3 Quantitative data analyses

4.3.1 Clinical severity ratings and diagnostic-threshold scores for CD and ODD

Evaluation of the clinical severity rating of CD and ODD pre and post-intervention using the KSads-PL diagnostic assessment indicated that the clinical severity rating for both disorders had reduced (see Table 7). Ten

pupils reached a clinical severity rating ≥ 4 (diagnostic threshold for CD) prior to the intervention and this had fallen to 5 post intervention. Similarly 9 pupils reached a clinical severity rating ≥ 4 (diagnostic threshold for ODD) prior to the intervention taking place and this number had reduced to 5 post intervention. A small number of participants reached this diagnostic threshold for both CD and ODD pre-intervention (n=7) and again this was reduced post-intervention (n=3). One pupil who had met the threshold for ODD diagnosis at T1 but not for CD subsequently was at criterion level for CD but not ODD at T2. Three participants who had not met the diagnostic threshold at T1 for either ODD or CD, and two participants who had met the diagnostic threshold for both at T1, remained stable across treatment.

Table 7 Percentage of participants who reached threshold for clinical diagnosis of CD and/or ODD pre and post intervention

	Pre (T₁) %	Post (T₂) %
Threshold for diagnosis of ODD	60.00 %	35.71%
Threshold for diagnosis of CD	66.67%	35.71%
Threshold for diagnosis of both CD/ODD	40.00 %	21.43%
	n=15	n=14

Further examination of clinical severity revealed a general trend in reduction of clinical severity for both ODD and CD at T2. And this is reflected in their mean scores pre and post-intervention (see Table 8).

Table 8 ODD and CD clinical severity ratings pre and post intervention

Clinical Severity Rating	ODD		CD	
	Pre (T1)	Post (T2)	Pre (T1)	Post (T2)
6	0.00	0.00	0.00	0.00
5	33.33	21.43	6.67	0.00
4	60.00	35.71	66.67	14.29
3	100.00	92.86	100.00	85.71
2		100.00		100.00
1				
Mean	3.93	3.50	3.36	3.00
[SD]	[.884]	[.941]	[.842]	[.555]

Inspection of individual participant data revealed that participants who showed a reduction in clinical severity of CD at T2 were also the participants who measured lowest in CU traits at T₁ (M=25 SD= 3.85 n=6) for clinical severity of CD decrease group and M=29.71 SD= 7.781 n=7 for the no change or increase group).

4.3.2 Outcome measures at T1 and T2

The mean and standard deviations (SD) were calculated for all outcome measures in order to get a general sense of the data. The results are shown in Table 9.

4.3.3 Exploratory data analysis

Exploratory analysis was carried out to assess the data's suitability for further analysis using parametric statistical testing. Data collected were at the interval level and were checked for normality visually. Further analysis of the data was carried out to explore skewness and kurtosis of the data. (Appendix L: Skewness and Kurtosis). This was found to be within the range $-1.96 < x > +1.96$ across all measures.

Table 9 Mean scores and SD for main outcome measures

Element	Measure	Pre (T1) Mean [SD]	Post (T2) Mean [SD]
Disruptive Behaviour	BDBI-Y	11.00 [5.707]	9.79 [3.215]
	PCS-Y (TOT)	11.67 [8.103]	11.57 [6.345]
	PCS RO	5.93 [4.383]	5.57 [3.368]
	PCS RR	2.87 [2.323]	3.43 [2.563]
	PCS PO	1.00 [1.254]	1.00 [1.038]
	PCS PR	1.87 [2.722]	1.57 [2.102]
CU Traits & Empathy	ICU-Y (TOT)	26.07 [7.196]	26.85 [5.640]
	IRI PT	15.13 [4.373]	14.57 [4.941]
	IRI FS	12.53 [4.357]	12.57 [4.183]
	IRI EC	18.67 [4.530]	16.64 [4.272]
	IRI PD	12.27 [4.527]	11.64 [4.088]
Pro-social behaviour	CSGM Pro	25.67 [2.854]	25.57 [3.081]
	CSGM Dev	13.00 [4.614]	10.57 [2.766]
Classroom behaviour	SIMS Sanctions	24.47 [17.533]	21.29 [16.226]
	SIMS Rewards	20.13 [7.972]	17.57 [10.704]

Further analysis using Kolmogorov-Smirnov to test for normality of distribution revealed that the assumptions of univariate normality were not violated for the majority of the main variables (see Appendix M Kolmogorov-Smirnov). However the Clinical Severity rating for ODD (T1 and T2) and for CD (T1 and T2), BDBI-Y (T2) and CSGM Deviant scores (T1) and Prosocial scores (T2) were found to be significantly non-normal.

However according to central limit theorem (in Field, 2013 p.871) where $n \geq 15$ significant results from the Kolmogorov-Smirnov test can be disregarded. Where $n=14$ it was felt that this was close enough for the purposes of this research to the cut off value ($n=15$) and furthermore visual inspection of histograms and skewness and kurtosis for the above measures indicated that normality assumptions were not violated.

Observations of box plots showed that there was only one severe outlier. However, examination of relevant histograms and normal Q-Q plots did not indicate these were unusual and furthermore, data analyses were carried out

including and excluding outliers and this had no effect on the outcome. The analysis presented here therefore includes these outliers

Having established suitability of the data for parametric statistical analysis, the data were first explored through correlational analysis and the influence of time on the participants' clinical severity rating of ODD and CD was investigated. As assumptions of normality are met across all data sets, further parametric statistical analysis was carried out using a Repeated Measures Analyses of Variance, (ANOVAs). This test is designed to explore the relations between the study variables for a repeated measures design.

4.4 Correlational analysis

Two-tailed Pearson's product-moment correlation coefficients were calculated to explore relationships between key study variables pre and post-intervention. In order to carry this out it is important to ensure linearity and normality of data (Field 2014). As outlined above all data meets criteria for normality, which is important for smaller sample sizes. All data considered is at interval level which is a requirement for predictor variables. As a number of correlations were carried out Bonferroni's correction was applied in order to reduce the likelihood of a Type I error occurring.

Calculation of Bonferroni-corrected significance level:

The number of correlations carried out $c = 16$

Bonferroni-corrected significance level $\alpha^* = \alpha/c$

$= 0.05/16$

$= 0.003$

4.4.1 Correlations between clinical severity of CD and ODD

Initially a significant positive correlation was noted between ODD at T2 and deviant social goal scores, and a moderate positive correlation of CD post-intervention with empathic concern. However, following Bonferroni-correction

these correlations were found to be non-significant. Therefore no significant correlations are reported for clinical severity of either CD or ODD with the following variables, ICU, PCS, CSGM-Dev, BDBI-Y at either T1 or T2 (see Table 10).

Table 10 Significant correlation scores for clinical severity of CD and ODD with deviant social goals scores, (CSGM subscale), and empathic concern scores, (IRI subscale), post-intervention

Measure	CSGM Deviant T2	IRI EC T2
ODD T2	0.597* n=14	-----
CD T2	-----	0.534* n=14

* Correlation significant at the 0.05 level (2-tailed) before correction
 ** Correlation significant at the 0.01 level (2-tailed) before correction
 *** Bonferroni-corrected significance level $\alpha^1 = \alpha/16 = 0.05/15 = 0.003$

4.4.2 Correlations between pupils' self-report of disruptive behaviour

Pupils' self-report scores for disruptive behaviour pre-intervention were significantly positively correlated with, total sanction points received prior to taking part in the intervention, self-report scores for peer relationship difficulties pre-intervention and also pupils' self-report of disruptive behaviour post-intervention. However, applying Bonferroni-corrected significance levels revealed these to be spurious and therefore must be considered non-significant (see Table 11).

Table 11 Correlations between pupils' self-report of behaviour with SIMS Sanction and Peer Conflict scores (T1)

Measure	SIMS Sanction T1	PCS T1	BDBI-Y T2
BDBI-Y T1	0.537* n=15	0.865** n=15	.901** n=14

* Correlation significant at the 0.05 level (2-tailed) before correction
 ** Correlation significant at the 0.01 level (2-tailed) before correction
 *** Bonferroni-corrected significance level $\alpha^1 = \alpha/16 = 0.05/15 = 0.003$

4.4.3 Callous-unemotional traits

Initial analysis indicated that callous-unemotional traits were positively correlated with scores for prosocial social goals, i.e., orientated towards avoidance or reconciliatory outcomes. There was also a significant positive correlation found for deviant social goal scores (CSGM Deviant) pre and post-intervention. However, after applying Bonferroni-corrected significance levels these were found to be spurious and therefore must be considered non-significant (see Table 12).

Table 12 Correlation between measures

Measure	CSGM T1	Prosocial	CSGM Deviant T2
ICU T1	0.607*		-----
	N=15		
CSGM Deviant T1	-----		0.614*
			n=14

* Correlation significant at the 0.05 level (2-tailed) before correction
 ** Correlation significant at the 0.01 level (2-tailed) before correction
 *** Bonferroni-corrected significance level $\alpha^1 = \alpha/16 = 0.05/15 = 0.003$

4.5 Analysis of the impact of the treatment programme

Within-participants ANOVA were carried out to assess the effects of treatment on these outcome variables: CD and ODD severity; disruptive behaviour; CU traits; social goal orientation and empathy.

4.5.1 The impact of the intervention on clinical severity of CD and ODD

There was a significant main effect of time for the KSads-PL CD severity subscale with $F(1, 13) = 13.52$, $\eta^2 = .510$, $p < .05$, such that clinical severity of CD was significantly reduced post intervention.

However no effect was found for time for the KSads-PL ODD severity subscale with $F(1, 13) = 2.33$, $p = .151$, $\eta p^2 = .152$.

4.5.2 The impact of the intervention behaviour

There was no significant main effect of time on behaviour as measured by the BDBI-Y subscale with $F(1, 13) = 2.664$, $\eta^2 = .170$, $p = .127$. No significant effect found of time on SIMS Sanctions ($F(1, 13) = .293$, $\eta^2 = .022$, $p = .597$) or for SIMS Rewards ($F(1, 13) = .547$, $\eta^2 < .040$, $p = .473$).

4.5.3 The impact of the intervention on callous-unemotional traits

No significant main effect of time for the scores on the ICU-Y scale with $F(1, 12) = .137$, $\eta^2 = .011$, $p = .718$, was found.

4.5.4 Callous-unemotional traits: Cognitions

i) Skewed perception of the use of aggression

There was no significant main effect of time on peer conflict scores:

$F(1, 13) = .040$, $\eta^2 < .003$, $p = .845$.

For CSGM (Deviant) a significant main effect of time was found with $F(1, 13) = .6561$, $\eta^2 = .335$, $p = .024$, such that deviant social goals scores were significantly reduced post treatment. (At T1, $M = 13.00$, $SD = 4.614$; at T2, $M = 10.57$, $SD = 2.766$). No significant main effect of time was found for CSGM (Prosocial) with $F(1, 13) = .005$, $\eta^2 < .001$, $p = .945$.

ii) Reward orientated behaviour pattern

Further exploration of this significant reduction for CSGM (Deviant) as reported above was carried out to look for patterns in how the social goals scores had changed. A decrease in the percentage of some deviant goal responses was noted (see Table 13) with an increase in some of the social goal responses (see Table 14). A decrease for one pro-social goal was noted

(Code 1, 'Pro-social: a desire to improve the relationships') from 36.67% at T1 to 28.57% at T2.

Table 13 Deviant goals showing reduction in response

Goal code and descriptor	Code 5 'Satisfy needs of the self. No reference to relational goal'	Code 2 'Non-social: a desire to gain power and/or revenge'
T1	31.67	10.00
T2	14.29	3.57

Table 14 Pro-social goals showing an increase in response

Goal code and descriptor	Code 4 Avoidance', where the primary motivation is to avoid the problem	Code 7 'Relational/Non-relation. both pro-social relationship and non-relational concerns'
T1	8.33	5.00
T2	16.07	8.93

4.5.5 Callous-unemotional traits: Characteristics

In order to explore the impact of the intervention on callous unemotional traits further, the three subscales of the ICU; Uncaring, Unemotional and Callousness, were analysed separately to determine if an aspect may have been affected and the effect masked by changes on another aspect. A within-participants ANOVA was carried out on the data for the 'Uncaring' subscale, and no significant effect was found, with $F(1, 13) = .010$, $\eta^2 = .001$, $p = .924$, $p > .05$. A within-participants ANOVA was carried out on the data for the 'Callousness' subscale and no significant effect of treatment was found on callousness, $F(1, 12) = .0808$, $\eta^2 < .063$, $p = .387$, $p > .05$. There was also no significant effect of treatment for the 'Unemotional' subscale scores, $F(1, 13) = < .001$, $\eta^2 < .001$, $p > .05$.

4.5.6 The impact of the CBT intervention on pro-social goals

The PCS can be analysed as two subscales that separate 'proactive' and 'reactive' responses into two categories; one that is related to material gain or self-gratification, or 'Object' in nature; and one where interactions or relationships are the primary focus, or 'Relational' in nature. Although the total PCS Scale did not indicate a significant difference, separating the responses into categories allowed exploration of any impact at a more specific level. No significant differences were found (see Table 15).

Table 15 Objective and Relational aggression scores at T1 and T2

PCS subscales Variables	Mean SD T1	Mean SD T2		F (1, 13)
Reactive Object (RO)	5.93 4.383	5.57 3.368	Object aggression	2.10
Proactive Object (PO)	1.00 1.254	1.00 1.038		
Reactive Relational (RR)	2.87 2.323	3.43 2.563	Relational aggression	.014
Proactive Relational (PR)	1.87 2.722	1.57 2.102		
PCS Total aggression score	11.67 8.103	11.57 6.345	Total aggression	.040

4.5.7 The impact of the CBT intervention on empathy

In order to explore the impact of the intervention on empathic concern and other affective traits associated with CU traits the IRI's four subscales: Perspective taking (PT); Fantasy (FS); Empathic Concern (EC) and Personal Distress (PD), were analysed further. Table 16 below shows the results of the within-participants ANOVAs carried out on these data, which indicated that there were no significant effects of the intervention on any dimension of child self-reported empathy.

Table 16 Results of ANOVAs for the four IRI subscales

Variables	Mean SD T1	Mean SD T2	F (1, 13)
IRI EC	18.67 [4.530]	16.64 [4.272]	2.912
IRI PT	15.13 [4.373]	14.57 [4.941]	.041
IRI- FS	12.53 [4.857]	12.57 [4.183]	<.001
<i>IRI PD</i>	12.27 [4.527]	11.64 [4.088]	.025

4.6 Qualitative data analysis

Qualitative data were collected from several sources at different times across the intervention. Post-intervention (T2) data was collected from two focus groups held with the participants: Year 8 (n=6) and Year 9 (n=7). Data were also included in the thematic analysis taken from the following sources during the intervention: evaluation sessions with PHOYs, pupils' worksheets, and the researcher's reflective journal which included a record of pupil comments from the sessions. As outlined previously, the thematic analysis was carried out following the eclectic coding procedures described by Saldaña (2013). The first cycle method adopted was a combination of 'affective' and 'descriptive' coding of the data in variable units to identify emerging patterns. A coding book was kept where the codes were written down and 'analytic memos' were recorded in order to begin to synthesise and unify the codes into emerging themes within the data. In this way the inductive process was followed in the analysis to ensure that themes emerged from within the data, rather than fitting the data into themes from previous research. Table 17 provides an extract from the coding manual to illustrate first and second cycle codes.

Table 17 Extract from coding manual

Raw data	Preliminary code	Final code
Participant 1 When I get bit angry....err...like I haven't actually done anything and like the teacher tells me off.	Disruptive behaviour in class	Home versus School (Theme 1)
Participant 1 Like when I don't do much, like when I don't do a lot of work or when I get up and talk to people, and stuff...or I might get distracted or something like that.	Passive/aggressive	Other deviant behaviours (Theme 1)
Participant 5 Twice a week, maybe three times get very angry in class as well with the teachers.	Confrontational	Angry Outbursts (Theme 1)
Participant 5 If he (teacher) gives someone a C2 or like a behaviour point thing I'll say he didn't do anything and then I'll get into trouble ad I'll either walk out of the class or just don't want to do anything – I will go to sleep or something in class.	Passive/aggressive	Other deviant behaviours (Theme 1)
Participant 1 Just get the books and basically go that's what I would do. There's no point making n argument over that	Social goals – avoid problems	Proactive assertive (Theme 4)
Participant 1 No, I would act as quickly as possible to make up with him, not avoid him.	Social goals – avoid problems	Friendships (Theme 4)
Participant 1 Say sorry, I don't know. It's better than getting into an argument....just not make any fuss or anything	Social goals – avoid problems	Proactive assertive (Theme 4)

In collaboration with colleagues, these codes were grouped and re-grouped into themes, and relationships between these themes were then explored. As discussed, the inductive thematic analysis was repeated twice, keeping the pre-intervention data, from the semi-structured interviews with 15 pupils (T1), separate from the data collected throughout intervention, in the form of; staff evaluations, researcher's reflective journal and pupil the focus group (T2). These data sets were analysed separately as they relate to different aspects

of the research. Initial qualitative data from semi-structured interviews provided insight into cognitive and affective aspects of pupils' social information processing, whereas staff evaluations, the researcher's reflective journal and focus group data informed findings relevant to the practicalities of running a group intervention in the school, as well as the key stakeholders' perceptions. However, there was some overlap in the data and links between these separate thematic analyses were explored where appropriate. The initial data set is considered below.

4.6.1 Exploration of qualitative data from pupil interviews (T1)

Part of the qualitative component of this study involved semi-structured interviews with 15 pupils, pre-intervention (T1), which were transcribed and analysed as described above. This allowed for the conversion of quantitative data into qualitative data that could be analysed using alternative (qualitative) techniques. This is a 'qualitizing' technique, described as '*converting quantitative data into narratives that can be analysed qualitatively*' that produces 'qualitized data' (Tashakkori & Teddlie 1998 p126). This qualified data has been analysed to enrich the understanding of the participant group (pre intervention) particularly in relation to their self-reported behaviour patterns and their social problem solving skills and strategies.

It is important to acknowledge the researcher's position at this point and the extent of involvement with the research process, including designing and running the intervention programme. It was felt therefore, that thematic analysis, which allowed for the subjective interpretation of the content of the data, would be the most appropriate approach. Thus, latent content analysis was carried out whereby the context of the participants' utterances was considered within the analysis (Manning and Cullum-Swan 1994 in Tashakkori and Teddlie (1998, p121). In this way not only the frequency or intensity of particular acts or behaviours (manifest content) were encoded but also the participant's motivation, opinion or reflection on the act could be induced and thus incorporated in the coding and analysis of these data.

As shown in Figure 5 this reduced the data set into a number of analytic categories which were grouped into four main themes; Behaviours that cause the adolescent difficulty in school; Home versus School; Social Goal Orientation, Prosocial and Deviant and Approaches to the Process of Solving Social Problems. The qualitative findings for this data set will be discussed under these four themes with the number of data units (frequency of responses coded) for each theme and category given in brackets.

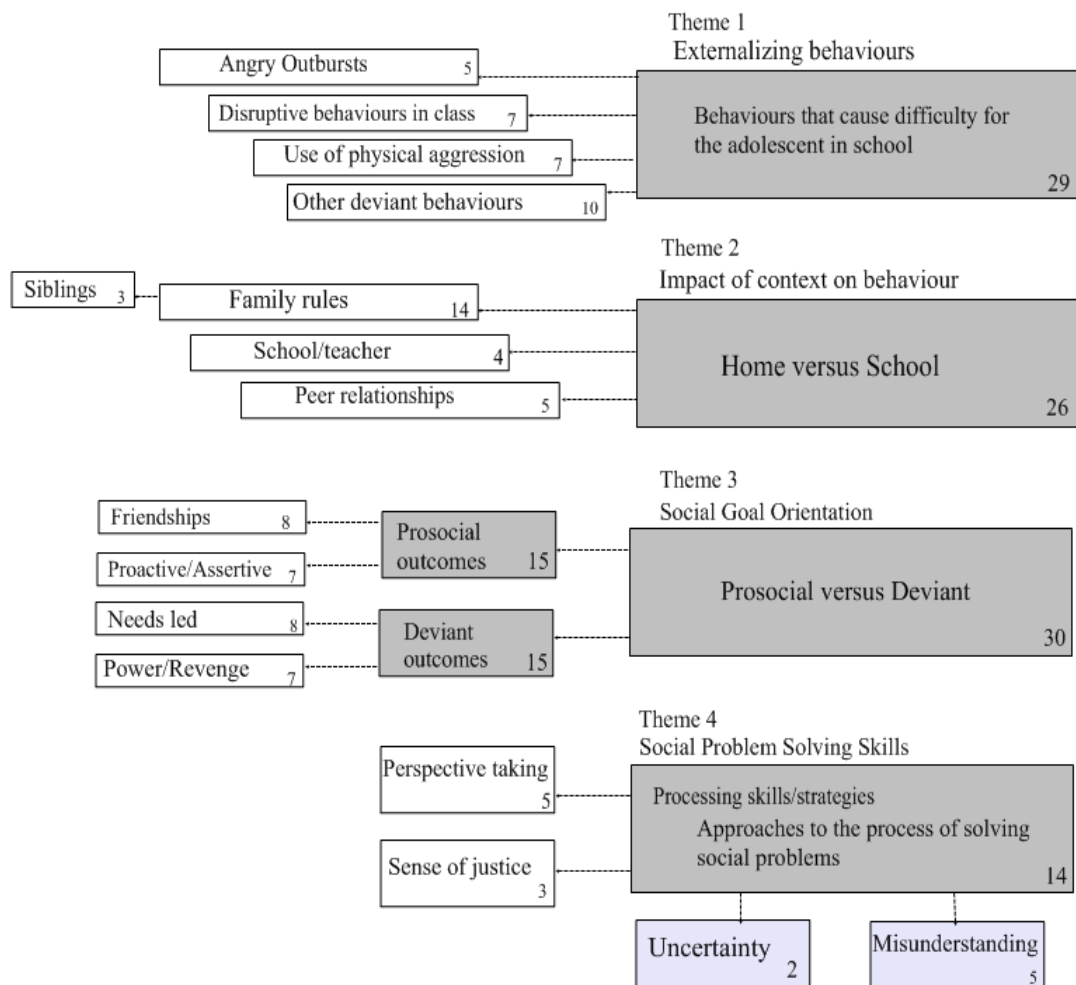


Figure 5 Themes from pre-intervention thematic analysis of qualitative data (number of data items given in brackets)

4.6.2 Theme 1: Externalizing behaviours that cause difficulty in school (29)

From the semi-structured interview a range of behaviours were revealed that the young people reported as happening frequently (more than twice a week). The key responses were related to outbursts of anger (5), disruptive behaviour in class (7), and physical aggression (7). The young people were extremely candid about some of their behaviours in school.

Outbursts of anger were characterised by 'shouting' or 'arguing mostly' (80%) and these were consistently described as occurring 'often' or 'every lesson'. Disruptive behaviour in class ranged from passive/aggressive behaviours such as in the following response,

'I am moody and if the teacher tries to tell me something I don't interrupt but I don't listen' (Participant 3),

to more proactive examples such as, 'walking out of class', or getting up to 'talk to people and stuff' or 'making an annoying noise', to more confrontational behaviour directed towards staff such as 'answering back' (1)

Physical aggression included acts of aggression towards other people (5) or towards inanimate objects (2) and was referred to as occurring infrequently, 'once in primary school' (5). Approximately half the fights reported were as a result of reactive aggression (4), 'he pushed me and I pushed him back'. One atypical response reported a surprising element of memory loss,

'I don't remember what I do, I don't know...say if I push someone over I don't remember doing it and then my friends say what did you do that for and I say I didn't know I am sorry.' (Participant 5)

Other deviant behaviours reported were lying, stealing, and not following school rules (10). These behaviours occurred both in and outside of school. A typical example of the latter was,

‘At school.....’cos of my skirt, cos well I roll it up. I get told I will go into internal. All the time they tell me to roll down my skirt. I roll it down but then when they go I roll it back up again, when the teacher’s gone, (laughs).’ (Participant 3)

Stealing was rarely reported (2) and where it was it was always from home. The thefts reported were of small amounts of money and were opportunistic rather than pre-meditated.

No student reported truanting from school, and this was highlighted by one participant who expanded, ‘I’m too scared to do that ‘cos you get excluded. There’s cameras everywhere.’ (Participant 3)

4.6.3 Theme 2: Impact of context on behaviour: Home versus School (26)

Responses from participants revealed that their behavioural responses were dependant on context, and the category of ‘Home versus School’ (26) reflected this. Within this category data items were coded to reflect behaviours that individuals report in relation to family rules and/or expectation, ‘Family Rules’ (14), and those that were specific to their sibling relationship, ‘Siblings’ (3), and finally behaviour that only occurred in school or with specific staff members, ‘School/teacher’ (4) or with ‘Peer Relationships’ (5). See Figure 6 below. Table 8 gives a fuller description of each of the codes.

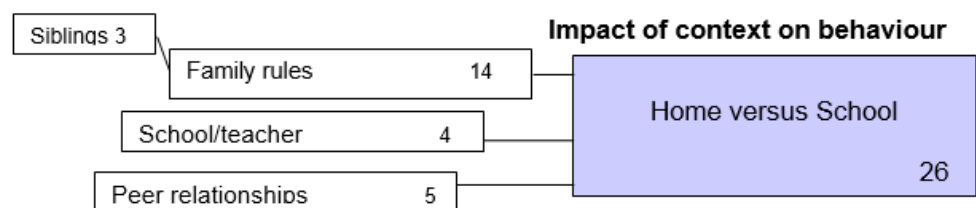


Figure 6 Theme 2: Impact of context on behaviour

Table 18 Examples of participant responses that reflect codes for the theme 'Home versus School'

Theme 2: Home versus school - the impact of context on behaviour	
Code	Example of data unit
Family Rules	'Not at all important, 'cos he's her son, so he can't really be in charge.' (Participant 1)
Siblings	Well, the only time I will tell a lie, is if I try to defend my sister...' (Participant 4)
School/teacher	Was there ever a time you would argue a lot with adults? Yes, in school...yes more than once with a particular teacher (Participant 15)
Peer Relationships	'Friends, not teachers, parents....sometimes...once in a while...' (Participant 4)

4.6.4 Theme 3 Social goal orientation: pro social versus deviant (30)

The third theme that emerged came predominantly from the elaborations that the participants made when considering the various scenarios on the CSGM. It was through their explanations of why they chose to act in a particular way that richer information was revealed about the cognitive process they were applying to these social problems. Broadly these goals could be separated into two categories: those that were focussed on pro-social outcomes and those that were focussed more on meeting one's own needs (for revenge and power, avoiding trouble or material gain). The former category was labelled as Prosocial (15) and the latter as Deviant (15). These main goal orientations were made up of several different approaches to a problem, depending on whether the behaviour suggested was passive, assertive and/or aggressive (see Figure 7).

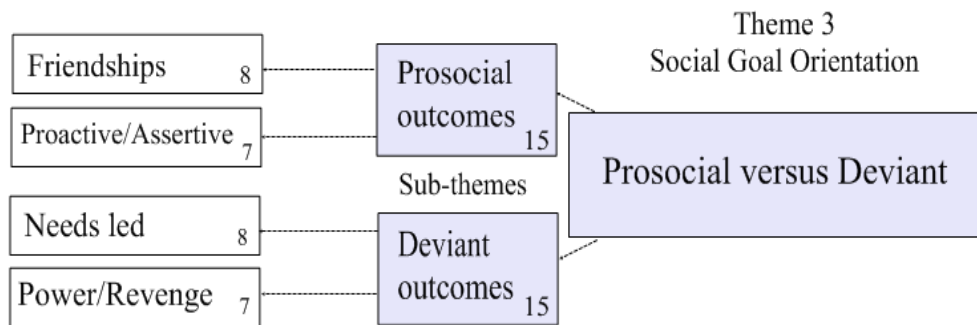


Figure 7 Theme 3: Social Goal Orientation showing sub-themes and codes

In the Prosocial sub-theme, friendship seemed to be a relatively important factor in deciding on an action. The option of working things out was selected as the most important 53.33% of responses for reasons such as , ‘he will have his friendship back’ (8).

The second main category of prosocial responses was coded as Proactive/assertive (7) and involved ‘sorting things out’. These were characterised by a prosocial outcome focus that attempted to resolve a problem to mutual satisfaction.

‘I think you can’t really come in without making a noise.....it’s impossible though innit? I think he should say to his mum, sorry like, but it wasn’t my fault, I tried to come in my quietest’.....’to get his point across to his mum that he tried his best but it didn’t work.’(Participant 15)

The Deviant (15) sub-theme contained responses that were either ‘needs-led’, related to gaining ‘power and revenge’ or involved ‘passive avoidance’. The first category of ‘needs-led’ (8) outcomes covered proactive behaviours that focussed on either personal gain for the young person (3) or avoidance which would keep them out of trouble (5), e.g., ‘...at school I don’t really lie; at home it is when I know I am gonna get in trouble’.

The second category of ‘power and revenge’ (4) was made up of responses that described behaviours with the primary focus on exerting power over the other or of seeking revenge, e.g., ‘Errm...I don’t know...to retaliate’.

There were a small number of passive responses (3) that were characterised by avoidant behaviour focussed on taking no action, such as 'just leave it and get on with it', in the expectation that this would, 'make his life easier, then he won't get into trouble'.

4.6.5 Theme 4 Approaches to the social problem solving process (18)

The last theme that emerged from the data related to the cognitive processes that the young people used to try and solve social problems. There were several examples of misunderstanding the social issue (5), and these were excluded from any further analysis. There were also two cases of uncertainty, where the participant was unable to suggest what the character in the scenario should do.

The processing skills that emerged from the data involved strategies of perspective taking (5), and sense of justice (3). Perspective taking referred to the participant elaborating on the thoughts and/or goals of the other person, and the young person considered different options, seeking information to clarify the scenario before deciding on the course of action they would recommend. For example,

'cos maybe he might have thought he had done it deliberate...so he might want revenge.' (Participant 14)

'Sense of Justice' involved verbalisation whereby the rules of 'fairness' or justice were drawn upon to decide on the best course of action. The extract below, from participant 4, gives a clear example of this discourse with the researcher and the decision-making process of the young person,

Participant: 'I think he would be disappointed because he has been a bit naughty in the pasts few days so ... yes that's it.

Researcher: *Okay. What do you think he might want to do?*

Participant: Think about his behaviour and improve it.

Researcher: *Why?*

Participant: Because he has been wanting a pair of trainers for a long time and she hasn't really done anything....oh, he hasn't....his behaviour....he does not deserve....

Researcher: *At first she said she would give him the trainers because he had been good and now she says he can't have them.*

Participant: He would feel angry because he is not going to get the trainers although his mum has just promised him but he is in the wrong because he has been misbehaving for the past few days so...

Researcher: *Okay. What would he want to get out of this situation the most?*

Participant: Improve his behaviour because his mum said he would get them because his behaviour was good but he misbehaved so'

4.7 Post-intervention qualitative data

4.7.1 Exploration of the key stakeholders' perceptions of the therapeutic intervention programme

Initial exploration of the pupil participants' perceptions was carried out using data collected in the final intervention session from the completed Pupil Evaluation Form. Pupils were able to rate each session on a five point Likert scale, according to how useful they had found it. Their responses were scored from +2 = 'very useful', to -2 = 'not at all useful'. The total rating score for each session was calculated (see Table 19), with session activities rated thereafter (see Table 20).

Table 19 Overall ratings for sessions from Pupil Evaluation Forms for Years 8 and 9 combined

Session no	Title	Rating
2	Anger management and Self control	12
3	Perspective taking	11
1	Introduction: Perception and Thinking	10
4	Choices and consequences	9
6	Recap and reflection.	0
5	Five Steps for solving problems	-1

Furthermore, Year 8 rated Session 2 as most helpful more frequently than other sessions, whereas Year 9 rated Session 4 as most helpful more frequently than other sessions. However, both year groups had rated Session 1 as the least helpful more frequently than the other sessions.

Participants preferred activities that involved working with others, either in role play or other paired activities, as Table 20 shows. Comments relating to improving the intervention were also explored and these comments were grouped along four aspects: Activities in Sessions, '*Make it more fun with games*', (3); Group Membership, '*Include a diverse amount of people*', (2); Number/Frequency of Sessions, '*Have more than 1 session a week*' (1); and lastly, Nothing to Improve/ no comment (3)

Table 20 Preferred activities mean ratings (pupil evaluation form)

Activity	Mean Rating Y8	Mean Rating Y9	Overall Mean Rating
Worksheets <i>e.g. Problem solving steps, choices and consequences</i>	3	1.5	2
Group discussions based on stimulus material <i>e.g. optical illusions, cartoon scenes, script reading</i>	1.75	1.5	1.56
Games <i>e.g. Don't get mad, Pass-the bomb, Telephone messages</i>	1.25	1.25	1.38
Relaxation techniques <i>e.g. muscle relaxation, breathing exercises, visualisation</i>	2.33	1.8	2
Role-play activities <i>e.g. roving reporter and different endings</i>	2	1.8	1.88
Paired activities <i>e.g. Sock puppets, Card memory test, Noughts and Crosses choices</i>	2	1.75	1.86

4.8 Post-intervention emerging themes

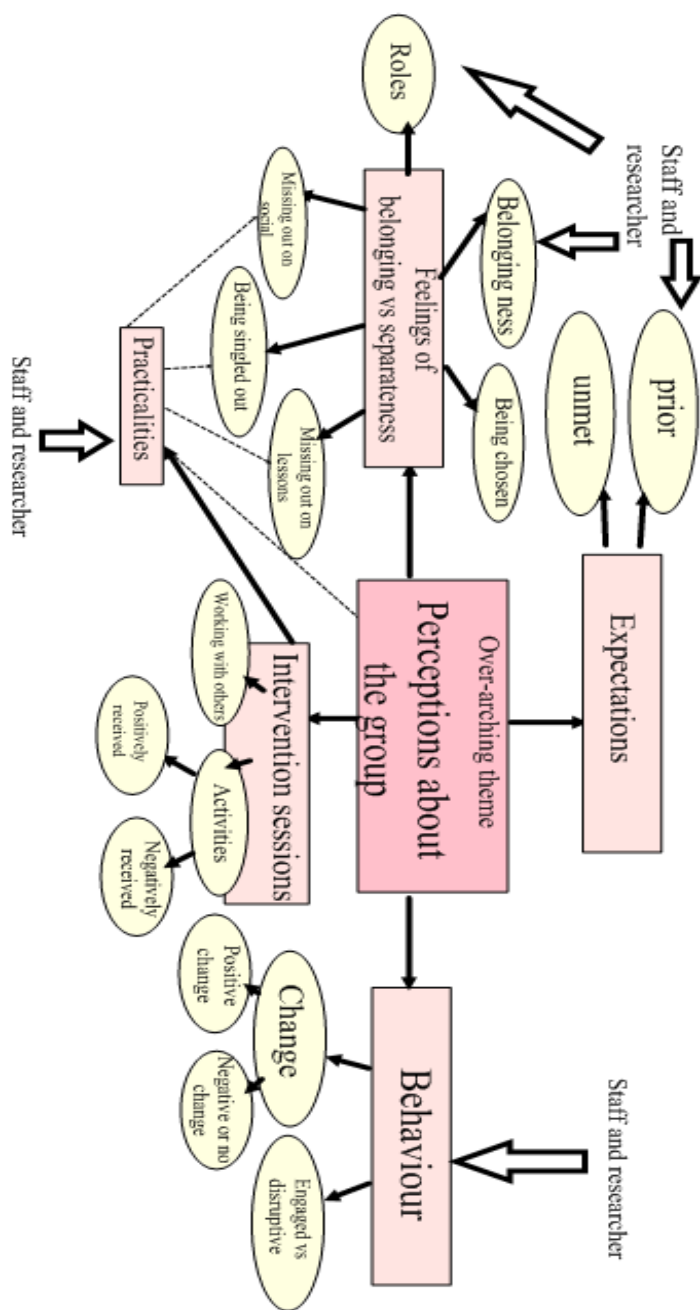
Initially, the focus group transcripts were read through and reread to look for patterns in the data and these were coded using first cycle techniques as described previously. The remaining data, from teachers' evaluations, researcher's journal and pupil-generated data from the intervention (i.e. worksheets, goal sheets etc) was then examined and coded separately. However, as expected there was an overlap for some categories and a split for others. Themes were redefined accordingly to accommodate newly data codes and to begin to link the information together. In order to this the researcher approached the task as an overall evaluation of the intervention synthesising the key stakeholders' perspectives, keeping pupil voice dominant in the process (see Table 21).

Table 21 Emerging themes from post-intervention focus group

Source Theme	Focus group year 8	Focus group year 9	Further pupil data	Teacher data	Researcher generated data
Feeling part of the group/Belongingness/ Being chosen	✓ ✓	✓ ✓	✓	✓	✓
Roles within the group				✓	✓
Separateness/ Feeling singled out/different/ Missing lessons/social	✓ ✓	✓ ✓	✓	✓	✓ ✓
Expectations/ Prior to taking part/ Unmet expectations	✓ ✓	✓ ✓	✓	✓	✓
Activities that were well received	✓	✓	✓	✓	✓
Activities that were less well received	✓	✓	✓	✓	✓
Working with others	✓	✓		✓	✓
Practical issues with programme delivery	✓	✓	✓	✓	✓
Awareness and understanding of changes	✓		✓		✓
Awareness of continued difficulties	✓	✓	✓		✓
Level of engagement in group and activities			✓	✓	✓

The final themes that emerged could be grouped into five key components: expectations, feelings, behaviours and thoughts, relating to the processes of the intervention, and practical concerns relating to carrying out the sessions. Figure 8 shows how these themes are constructed from the coded data and the links between some of these themes. It also indicates where researcher and staff generated qualitative data has been incorporated into the narrative.

Figure 8 Themes derived from analysis of qualitative data; focus groups; reflective journal and staff evaluation



The key stakeholders' perceptions will now be explored further through description of the qualitative data theme by theme. Information is provided for each theme relating to where the data were generated, by pupil, teacher or researcher. The number in brackets refers to the total number of data items associated with that code.

4.8.1 Theme 1: Expectations (16)

The majority of the data that made up this category (87.5%) was pupil-generated from the focus groups. Pupil expectations were divided into expectations they had held at the start of the programme in the form of goals, for example 'to control your anger and control your actions' (8), and expectations they felt were unmet after taking part in the intervention, for example 'how to be more respectful' (6). Remaining data items (2) were found in the researcher's reflective journal relating to differences in expectations between school and researcher.

4.8.2 Theme 2: Feelings of belongingness versus separateness (44)

Three sub-themes linked together to form this theme, Belongingness, Separateness and Roles.

Belongingness, (11), was characterised by a sense of feeling part of the group and a general enjoyment of taking part, 'It felt like a family' (6). Only two comments expressed negative or neutral responses, e.g. 'I felt I had to go'. The reflective journal yielded three data units relating to the pupils positive approach to rule setting in the groups and also that one group had wanted to establish a group identity and had chosen a name for themselves that reflected the concept of a new or fresh start.

Feelings about being selected to take part in the group were also coded in this category (11). The data revealed confusion over why they had been selected, 'Why was I picked out? I'm not even bad or angry', (8), with only one positive response, 'I was grateful I had been chosen', and two neutral responses.

Data items that reflected feelings of being separated from school life in terms of missing lessons and/or social aspects of school life, as well as feelings of being singled out by peers were coded into the category of Separateness, (22). This data reflected pupils' attitudes to missing lessons, where PE, music and drama were lessons they did not like to miss out on to take part in the programme (3). This conflicted with data from school staff where Maths, Science and English were the three lessons they avoided taking the participants out of to take part in sessions (1). Although pupils tended to say that missing lessons was a 'good thing' (4), there were also comments regarding specific activities/lessons that they had been disappointed about missing, (5), such as '...a lesson making my CD I didn't want to miss that'. Missing out on social aspects of school was characterised by a sense of missing out on big stories, 'like fights and things' (3), and also pupils did not like being singled out by peers (6), for example 'Someone said it was about anger management. It was embarrassing'.

4.8.3 Theme 3: Interventions sessions (39)

What they liked (10)

The pupils enjoyed the sessions where they could work with others; 'I thought the role-play was really good', 'I liked the pair work' and enjoyed the games; 'I liked the noughts and crosses. I wanted to win'. The stress activity was also described as being 'relaxing' and that it had 'helped keep us calm'.

What they didn't like (6)

The pupils' comments predominantly reflected their dislike of written tasks, and researcher reflections indicated that the 5 step problem solving task had

not been well received or well executed; it was judged to have been too abstract, requiring concrete examples to illustrate the process.

Working with others (23)

This theme was centred on group dynamics, and the roles and relationships within the group. Pupil data (11) tended to reflect their feelings about their ability to be open and honest in front of others in the group, expressed as either, 'Yes I was comfortable' (2), or 'I couldn't say things in front of them', 'sometimes I just stretched the truth'(3). The behaviour of other group members also had an impact on them, for example '...when others talks and make noises you can't really learn' (4). Relationships and group dynamics also featured here, with one pupil comment reflecting assertiveness within the group and another referring to bonds within the group. Most data for relationships and dynamics was drawn from teacher comments and the researcher's reflective journal (12) and these covered teacher-pupil relationships as well as the dynamics of researcher and school staff conducting the sessions together, for example, 'For this activity to be successful it was important to have a good relationship between facilitator and school staff supporting the session and to have planned this out carefully before hand, so each person's role was clear' (Reflective journal session 2).

4.8.4 Theme 4: Practicalities (8)

The majority of the data for this theme came from researcher's reflective journal and the teacher generated data from post session evaluations. The focus of these was on strategies that helped the sessions go well and practical issues that had hindered the session. Activities were also discussed for suitability and appropriateness before and after the sessions so changes could be made if necessary. Issues that were felt to have caused difficulties were timetabling and room access: different rooms each session meant pupils would 'often arrive late'. Careful consideration of pairings and groups was also felt to be a factor, and this required collaboration on part of staff and

researcher. This is characterised by the following extract from the reflective journal.

‘PHOY commented at the end of the session today that participants 3 and 7 had messed about a lot when they were ‘working’ together. It was agreed that we need to think more carefully about groups or pairings ahead of each session’.

Some spaces worked better than others and both staff and researcher noted that the pupils worked much better in the drama hall and this larger space felt more appropriate for role play activities, as noted

‘there was a more positive and cooperative feel about the session today, the room definitely made a difference for this kind of work, lots of space so they could spread out.’

4.8.5 Theme 5: Behaviour (29)

Engaged versus Disruptive (10)

This category included helpful factors in promoting positive behaviours, such as ‘referring to the group’s own rules’ and using immediate rewards e.g. ‘star of the class’ and ‘sweets’. However there were several challenging behaviours that hindered work in the groups. These ranged from passive-aggressive behaviours, such as refusing to join in with activities, to verbally-aggressive behaviours, including making ‘under the breath comments’, ‘calling out’ and ‘cussing’, (especially family), to more proactive-aggression such as, ‘taking people’s things’ and finally to physical-aggression, such as ‘hitting’ and, on one occasion, stabbing another child with a blunted set of compasses.

A further influence on behaviour seemed to be ‘other things’ that were going on in school for the pupils. For example, PHOY reported that ‘the year group

have been mad all week. They have been given so many behaviour points last week it's ridiculous. I don't know what is going on'.

Change in behaviour -positive (12)

Some data reflected positive changes in behaviour with a reduction of negative behaviours 'Since I've come here I haven't argued really', and using strategies they had learned in the sessions, '.....well with one teacher and I used one of the techniques I had learned here'. Further evidence of this was reported in the reflective journal, relating to an incident during one of the sessions where a pupil had tried to apply a strategy: participant 13 asked if he could leave room as he was feeling wound up by another group member'.

Other examples of pupils applying strategies to solve problems included the use of perspective taking; for example a role play activity was narrated by Participant 4 and he included the perspectives of the main characters in a scenario set in school canteen. However, he extended this to account for other people in the canteen, i.e. other pupils, possibly younger who may be influenced by the behaviour of older pupils.

Change in behaviour - negative (7)

Pupil-generated data revealed no change or a negative impact on behaviour post intervention, with reports that 'Things have got worse; I am losing my temper more'.

The session notes also revealed that some pupils would tend to give negative solutions to social problems that involved hitting or threatening, when in front of other pupils Also pupils did not always fully engage with the materials, as exemplified in the following reflective journal entries after session three: 'They were giving stock answers, the things that they think we (teachers) want to hear', and 'When asked what he would do if someone spilled their drink on him, participant 6 said that he would apologise. This was clearly inappropriate (for the scenario) and he was able to respond more appropriately when this was pointed out to him by PHOY'.

Chapter 5

Discussion

5.1 Overview of chapter

In this chapter the implications of the research findings are explored in relation to the research aims and hypotheses; to establish the effectiveness of a brief group CBT intervention for adolescents with conduct problems in a mainstream school setting, including the practicalities of implementing such an intervention. The research questions are considered within the context of theories and models introduced in the literature review, relating to the SIP model, CP and CU traits and their responsiveness to treatment. The qualitative data exploring key stakeholders' views of the intervention and the difficulties and challenges faced in running this programme are discussed in relation to implications for future practice.

5.2 The impact of the intervention on conduct problems

No significant effect was found for the intervention for reduction in the number of participants who reached threshold criteria for either CD or ODD, as measured by KSads-PL in this research study. However, a within participants ANOVA , ($F(1,13) = 13.52, \eta^2 = .510, p < .05$) indicated that there was a significant reduction in the clinical severity of CD post-intervention, as outlined in Section 4.5.1. No such change was found for

clinical severity of ODD. Although a reduction in clinical severity for both disorders was observed, this decrease was not found to be a significant for ODD. Ghafoori and Tracz (2004) observed that CBT interventions were more effective with children with CD than those with co-morbidity or no diagnosis. The findings here, suggest that the intervention may have impacted on aspects of CD but did not have a comparable effect on the ODD. One possible explanation of this finding is that CD criteria include specific actions such as, 'the use of a weapon', 'stealing while confronting a victim' or 'physical cruelty to animals', whereas criteria for ODD relate to everyday behaviours such as 'loss of control over temper' or 'arguing with adults'. These everyday behaviours may therefore occur more frequently and regularly. The intervention may have impacted on the more severe behaviours, leaving these more mundane, low-level disruptive behaviours unaffected.

An alternative explanation of these results could be experimenter effects; the participants and researcher had been working together over period of several weeks and the pupils may have had a greater awareness of the aims of the research post-intervention and therefore responded in a way that they felt they were expected to i.e., by playing down their more extreme behaviours.

Importantly there was no increase found either in diagnoses or clinical severity of ODD or CD, indicating that iatrogenic influences had not played a part in this group intervention and consistent with the findings of Van Manen et al., (2004). Furthermore, significant reductions in adolescents' self-report of disruptive behaviour in school were not found post-intervention, and this was further reflected in data collected using teacher-generated measure (SIMS Sanctions points).

5.3 The impact of the intervention on behaviour

As noted earlier, in the current study there were poor response rates for teacher reports of antisocial measures, therefore no findings for teacher

outcome measures could be reported. However a reduction in mean scores was noted observed post-intervention for the two teacher measures of PCS and SDQ, (n=10 and n=6 respectively) as well as in the teacher-generated data, SIMS Sanction points, where a marginal effect or trend was found (T1: M = 24.47, [17.533]; T2: M= 21.29. [16.226] see Section 4.3.2).

Significant improvement in disruptive behaviour measures have been found following CBT interventions addressing externalising behaviours, for parent, teacher and pupil report (Ruttledge & Petrides, 2011), and for teacher report measures, (Frederickson et al., 2013), with a reduction in externalising behaviour noted for adolescents presenting with conduct problems, regardless of the level of CU traits measured at the onset of the study. Many studies have shown that CBT interventions targeting social cognitions have been found to be successful in treating youths with antisocial behaviours (Larson & Lochman, 2005; Lochman, Whidby & Fitzgerald, 2000; Kazdin & Weisz, 1998). The difference in findings in the current study are possibly due to methodological differences, with the larger scale studies using RCTs, providing more robust findings and convincing evidence for the effectiveness of CBT treatments in reducing antisocial behaviour in CYP.

Other small scale studies, such as Burton (2007) and Ruttledge and Petrides (2012), (n= 5 and n=22 respectively), have shown statistically significant improvements in pupils' self-report measures for behaviour and indicated positive changes in pupils' self perceptions. As in the research presented here, these studies took place in schools, involved CBT-based interventions run by EPs with 'homogenous' groups, i.e. consisting of adolescents with behavioural difficulties and with no peer-group, role-models. Differences in findings may reflect differences in the intervention programmes adopted: although these studies adopted interventions based on similar principles i.e. a CBT approach to build problem solving skills, there were marked differences in the length of interventions, ranging from 8 weeks, to a term of approximately 12 weeks, to several months. Longer interventions not only provided more contact time to build skills and explore emotional responses to challenging situations, but also provided more opportunities for participants

to practise their newly acquired skills in real-life situations and receive feedback on success, and/or reward and praise. The brevity of the current intervention therefore may account for the inconsistency of findings with this research. However, Squires and Caddick (2012) delivered a 'low-level CBT' intervention over 8 weeks in one hour sessions to adolescents, (n=12), with disruptive behaviours and found both pupil participants and teachers perceived a positive change in behaviour. Their study used a matched pairs design with a control group who received no direct intervention beyond the routine support provided by the school.

Frederickson et al., (2013) carried out a longer intervention (one year), in a special school, and included training staff to use the CBT approach involved in their programme, with positive impact on reported antisocial behaviour. This raises the question of possible explanations for the inconsistencies in findings of the research study presented here and previous research (Frederickson. et al, 2013; Ruttledge & Petrides, 2011; Burton, 2007; Squires and Caddick, 2012). For example, in the Frederickson et al. (2013) study, the school staff in a special school had a greater engagement with the intervention and they may have been more motivated to succeed than staff in a mainstream setting and this could have affected the outcome.

There are several other factors that may impact on the effectiveness of any interventions conducted in real world settings, for example, demographics of participants including age, gender, SES, as well as school type and ethos, behaviour management style, how engaged school staff are with the intervention, the nature and length of intervention implemented, the skill level of facilitators for the intervention, the level of parental concern or involvement, as well as difference in the outcome measures used. Any number of these factors may vary between studies. For, example, in the Ruttledge & Petrides (2011) study, the sample included children with SEN and with varying co-morbidity of diagnosis, and this may have impacted on outcomes.

However, the qualitative data yielded in this study presented a more positive picture and indicated that there was a reduction in pupils' self-report of disruptive or negative behaviours. As outlined in Section 4.8, where the key stakeholders' perceptions were explored post-intervention, five main themes emerged in relation to the intervention, expectations, feelings, behaviours, thoughts and practicalities. Related to behaviour (Section 4.8.5) the majority of comments (64%) from the pupils' post-intervention theme 'change in behaviour' (Theme 5) were concerned with positive changes. Pupils reported that they were involved in fewer arguments, were more able to control their anger or were able to calm down more quickly in difficult situations. These more positive findings from qualitative data may have been due to 'experimenter effects', with pupil participants trying to 'please the experimenter in post-intervention focus groups. The researcher observed a disparity between the comments pupils made in the focus groups and their behaviours. For example on several occasions pupils would use appropriate phrases to ask others to listen to them, but would not offer others the same courtesy. The researcher was conscious that transcribing the focus groups interviews was considerably more difficult than the individual interviews due to participants' 'cross-talking'.

Further qualitative data supported positive behavioural change with pupils mentioning CBT strategies they were implementing (e.g., applying breathing techniques to calm down, or walking away when they started to feel angry), and when reported, these were said to have been successful. Two incidents in separate sessions were also recorded in the researcher journal that revealed various levels of success in applying strategies to their real life problems. For example, in the first session participant 5 reported using problem solving skills during the session. When he was no longer able to work within his group this participant spontaneously came and asked if he could work with one of the other two groups. Secondly, a challenging incident occurred in another session which involved one pupil asking to leave the room as he was 'being wound up' by another pupil. However, this initial attempt to use a prosocial problem solving strategy (i.e., cope with his anger by removing himself from the situation), was not carried out, as he was

provoked further and responded with physical aggression before he managed to leave.

This may indicate that whilst a cognitive awareness of appropriate prosocial solutions was apparent, the intensity of the emotion evoked by the social situation may influence the actual behavioural outcome i.e., deviant response (aggression) despite conscious awareness of possible appropriate behaviour. This fits with the hypothesis that participants could be giving more 'socially appropriate' responses post-intervention, as they better understood the researchers' expectations and were able to problem solve appropriately theoretically, but less able to put this into practice in the real world. The quantitative data collected from the pre-intervention interviews with pupils illustrated this, for example; Participant 1 described outbursts of anger that might lead their friends to ask, 'what did you do that for?' (Pre-intervention Theme 1, 'Externalizing Behaviour'). Furthermore, a number of participant comments in Theme 2, 'Home versus school', indicated a belief that making friends again after a disagreement was easy and that they would not need actively to do anything to achieve this. This could impact on the peer evaluation element of the SIP model, indicating a deficit or distortion in their understanding of the impact of negative behaviours on others.

However, the brevity and low intensity of this intervention may also offer an explanation of the findings. Pupils may not have had opportunities to practice the techniques and strategies offered in the intervention in their setting. Furthermore, parental and teaching staff involvement (e.g., Scott, 2008; Wheldall & Merritt, 1991) would have delivered a more joined-up approach and supported the consolidation of new learning for the participants.

5.4 The impact of the intervention on callous-unemotional traits

Findings of this study indicated that there was no significant change in the level of CU traits for participants as measured by the ICU total score. (Within participants ANOVA for ICU-Y at T1 and T2 $F(1,12) = .137$ $\eta^2 = .011$,

$p=.718$) found no significant effect, (see section 4.5.4). Further analysis of this measure (ICU-Y) also found no significant changes for pupils post-intervention, on the sub scales: Callousness, Uncaring or Unemotional. This would indicate that the intervention had no impact on CU traits. However, there was a significant reduction found in the overall clinical severity rating of CD, (see Section 4.5.1), indicating some positive change in this variable.

Previous research has found consistent improvements for all participants post intervention, regardless of their level of CU traits at the onset of their study, (Frederickson et al., 2013). Furthermore, research by Frick and White (2008), Fontaine et al., (2011), Caldwell (2006) and McMahon et al., (2010) all indicated that CU traits were susceptible to change. The findings of the current research, however, would appear to indicate that this was not the case: in this study CU traits remained unchanged, which may suggest a resistance to treatment for this trait (Hawes & Dadds 2005; 2007; Waschbusch et al., 2007b). However, treatment studies that have found significant reductions in CU traits included high-intensity and longer duration CBT interventions, carried out by skilled practitioners, focussed on reward-orientated behaviours, included the teaching of empathy skills and focussed on self-interests of participants (Caldwell, 2006), Therefore it is important to consider the low intensity and brief nature of the intervention in this study when examining the findings, as well as components of the intervention that may have been compromised (e.g., rewards and sanctions discussed in more detail in Section 5.5.2)

5.5 Mediating factors

As mentioned earlier in the discussion there are several factors in real life studies that can influence outcomes and these are considered in relation to the current research here.

5.5.1 The intervention

It must also be considered that lack of cognitive shift could be explained by a failure in part of the intervention, in that it may have impacted only on the participants' behaviour and not on their social information processing skills. Frederickson et al. (2013) concluded that when developing interventions, the needs of children and young people with CU traits should specifically be addressed. Although this was planned for when developing the current treatment programme, and the SIP difficulties identified as being specific to individuals with CU traits were targeted, the possibility that the intervention itself failed to address these needs, cannot be overlooked.

Bailey (2001) stated that programme integrity is an important factor for CBT interventions targeting children and adolescents with CD and she also advocated the use of explicit work towards generalisation of skills. Post - evaluation sessions and the integrity checklists indicated that the programme was adhered to in this research study, with key components of the sessions being consistently delivered with minimal omissions. Activities were incorporated in the intervention to encourage participants to apply their newly acquired problem solving skills in a range of hypothetical scenarios as well as in the students' day to day lives. Furthermore, qualitative data from the focus groups indicated that the intervention was perceived as a positive activity by pupils, with examples given of strategies they had been able to use in practice, although, there was felt to be some scepticism on the part of teachers and the school staff involved in the intervention which may have impacted on the outcomes. However, flaws within the methodology of the research study itself cannot be ruled out, and limitations are discussed in greater detail in Section 6.2.

5.5.2 The ethos of the school and level of engagement

As mentioned earlier, school ethos may influence outcomes of interventions in schools. In the current research the school's behavioural policy relied heavily on operant conditioning principles, involving gratification and

punishments which were often deferred. This was in contrast to the principles of the intervention and indeed the needs of the client group the intervention was intended for and may have impacted on the outcomes.

A second factor to consider was the level of engagement of school staff. The qualitative data collected pre and post-intervention revealed that staff scepticism related to both the intervention itself and also to a sense of the level of challenge that this client group presented. From pre-session discussions and post-session evaluations it was noted that practicalities of the intervention were questioned in terms of the appropriateness of some of the activities and running the intervention with a group of target children and no role models. The research journal also reflected that for the school staff, 'confidence in the intervention did not feel strong at the outset'.

Scott (2008) and Wheldall and Merritt (1991) (cited in Bailey, 2001) noted that CBT interventions should be run in schools within a multi-modal approach that included advice for teachers on behaviour management techniques and positive teaching methods. This is in contrast with Ghafoori and Tracz (2004) who found that teacher contingency training did not impact on ES for CBT interventions in schools. Further research to explore the effectiveness of the intervention programme developed for this study running concurrently with teacher training programmes is needed to explore this factor.

5.5.3 Within-participant factors (demographics)

Another possible factor accounting for the CU traits could relate to the time of intervention. Masi et al. (2011) suggested that early intervention may be more effective for individuals presenting with CU traits and aggressiveness. It could be that case that a group CBT intervention such as the one conducted in this study would have shown greater effectiveness in addressing CU traits if it had been implemented with pre-adolescents. CBT interventions for antisocial children are typically designed for those age 7 and above (*PSST*

Kazdin, 1996) or age 8-11 above (*Coping Power Program*, Lochman & Wells, 2002; *I Can Problem Solve*, Shure (1992). Taking this into account and considering Frick and White's (2008) finding that CU traits are relatively stable from early childhood to adolescence and can be influenced by psychosocial factors, this could indicate a window of opportunity, or 'sensitive period', for malleability for CU traits, prior to 12 years of age (lower limit of age range in this study). This is an area which would benefit from further research exploring the impact of age on malleability potential of CU traits through a brief CBT intervention.

It is not therefore possible to conclude from this study that CU traits are non-malleable for several reasons; the intervention may have failed to address these traits; any changes in cognition may have only manifested some time after post-intervention and finally the extent to which the school adopted the underlying principles of the intervention or were 'on board' with its running could also have contributed to this lack of shift. Further investigation is needed into this as by comparison to group interventions using the same approach in a range of schools, a greater understanding of the 'moderating effect' of school involvement could be explored.

5.6 The impact of the intervention on social goal orientation (pro-social and deviant responses)

There was a significant reduction for deviant social goal scores (CSGM; Lochman et al., 1993) pre and post intervention (as shown by within participants ANOVA for CSGM Deviant scores at T1 and T2 $F(1, 13) = .6561$ $\eta p^2 = .335$ $p = .024$, see Section 4.5.4). However, there could also be an effect due to social desirability bias and this may have been more influential at T2 than T1 due to the researcher's level of involvement. Participants may have given less deviant responses on the post-intervention scale as these were completed face to face with the researcher, who had also carried out the intervention. During the six week intervention phase a level of rapport had been built with the participants and aspects of social problem skills had been

discussed, therefore it can be argued that the participants were aware of the type of responses that they were expected to give and would be more likely to give the 'socially acceptable' answer post intervention. This would indicate an awareness of prosocial responses rather than a cognitive shift or schema change with new skills internalised as a part of their belief system.

However the reduction in deviant goal scores was mirrored by the further exploration of the frequencies of goal codings used pre and post-intervention on the social problem scenarios. The greatest reduction in goal frequency was found for satisfying self-needs, with no reference to relational aspects. The second goal where a reduction was found in the frequency of use pre and post-intervention was 'Non-social: a desire to gain power and/or revenge'. This finding is not in agreement with Pardini and Byrd (2012) who identified 'dominance over peers' as a goal associated with CU traits. Furthermore, the significant reduction in deviant goals found in this study does not support findings of Waschbusch et al., (2007) that CU traits are associated with fewer prosocial responses and more antisocial responses (deviant) being generated to hypothetical social problems, as there was no corresponding significant relationship between social goals and CU traits.

Waschbusch et al. (2001a) had surprisingly noted that children with CP who were low in CU traits reported more deviant social responses. However this was not found to be the case in the current study as there was no correlation between CU traits and deviant goal scores (CSGM) found pre or post intervention, although clinical severity of ODD at T2 was found to be positively correlated to deviant social goal scores (CSGM). An unexpected finding in this study was that CU traits were significantly positively correlated with prosocial response scores on CSGM pre-intervention. This would indicate that adolescents high in CU traits were more likely to rate as 'most important' the prosocial responses to challenging social situations (e.g., 'avoid problems' or 'try to make up'). This is counter-intuitive and is not consistent with previous research findings such as Pardini (2011) and Pardini and Byrd (2012) who showed CU traits to be negatively associated with

prosocial goals relating to peer relationships and positively associated with deviant social goals such as dominance and revenge.

There is also the possibility of confounding gender effect relating to prosocial responses as a result of treatment, with a significant positive correlation for CSGM and gender found post-treatment, although not at T1. This indicated that female participants rated prosocial responses as more important than males at T2. One possible explanation is that the intervention elicited greater changes for female participants in prosocial response generation, which is consistent with evidence that was found by Burton (2007) that a CBT-based intervention run by a female EP yielded greater benefits for female participants. This effect could be explained through the interaction between the EP delivering the intervention and the participants being in qualitatively different for male and female participants, or it may be the case that girls respond better than boys to CBT-based interventions. Qualitative data from the researcher's reflective journal indicates that one female participant was able to generate a greater range of pro-social responses in relation to the 'noughts and crosses' game in Session 5 than male participants. However, in both this study and Burton's work the number of female participants was too small to allow generalisation to theory regarding gender and responsiveness to treatment.

These findings appear to imply that taking part of the intervention was related to a significant reduction in deviant responses to hypothetical social situations. However, it is with caution that this implication is suggested, as these are self report measures and could not be triangulated with either parent or teacher generated data in this study.

5.6.1 The impact of the intervention on proactive and reactive aggression in relation to social goals

From the correlational analyses, outlined in Section 4.4, this study did not find a significant relationship between CU traits and adolescents self-reported proactive and reactive aggression (as measured by the PCS; Frick et al., 2006). This is consistent with the findings of Kempes et al., (2006) who did not find an association between either proactive or reactive aggression and CU traits and Fanti et al., (2009) who did not find any association with reactive aggression. However, Fanti et al., (2009) were able to establish a link with CU traits to higher levels of proactive aggression and this was not borne out in the research presented here.

There are several possible explanations for this. One reason may relate to the robustness of measures. Masi et al., (2011) suggested a possible issue with self-report of CU traits in their research (using the outcome measure of ICU), stating that some adolescents may tend to over report the level of their CU traits thus making this variable less robust. However, given the evidence base for this measure the brevity of the intervention and/or its low intensity would be the more likely explanation. However, it is also important to note that for the social goals measure (CSGM) participants were asked to suggest their own response first and then to rate importance of four suggested responses. On several occasions participants offered a response that did not match their subsequent ratings of those suggested, perhaps indicating a cognitive awareness of the socially accepted response, rather than an internalised belief, as it did not match their initial reaction to the scenarios.

Furthermore it is noteworthy that the social situations were considered on a hypothetical basis and may not reflect how an individual would react in the same situation in real life. It may also have been the case that participants in this study were less likely to give honest responses in a face to face interview (on CSGM) and social desirability bias may have played a part. When offering an initial self generated prosocial response (*'Pick the books up.....because his books are important'*) to a challenging social situation on

the CSGM, one participant was recorded as adding, '*But if that was me I would do something else*', and then laughed nervously. This would suggest that participants were not answering as they would act in real life and thus the outcome measure has reduced validity. This issue of the use of single outcome measures was noted by Frick and White (2008) who suggested the use of more refined techniques for these hard to measure psychological constructs, for example employing multiple methods (i.e., rating scales and interviews). Attempts to address this were made in the study presented here, through the simultaneous use of CSGM and recorded interviews, with the results obtained highlighting this very issue.

5.7 The impact of the CBT intervention on empathic response rate.

Analysis of subscales of Individual Reactivity Index (IRI: Davis 1980) using within participants ANOVA indicated no significant change was pre and post-intervention on adolescent self-reported empathy (see Section 4.5.7). Furthermore, no evidence was found from correlational analysis (see Section 4.4) to suggest that CU traits are associated with a reduction in empathy, either cognitive or affective, with no correlation found between CU traits and the IRI subscale measures of cognitive empathy (Perspective Taking and Fantasy scales) or affective empathy (Empathic Concern or Personal Distress scales). This does not support the findings of Pardini et al., (2003) who stated that CU traits were associated with lower levels of empathy and low emotional expression.

Frederickson et al., (2013), also reported a reduction in measures of cognitive and affective processes for individuals high in CU traits, putting forward the hypothesis of a genetic basis for aspects of CU traits, and noting in particular a reduced emotional responsiveness to others associated with high CU traits. These findings are not supported by the current research study, however the researcher is aware that the IRI scale required participants to rate their responses in a slightly different way to the other

scales, ('describes me well' to 'does not describe me well at all') and on several occasions participants required support in completing the scale, asking for clarification of on how to rate themselves on this scale. It may be that case therefore that errors or inconsistencies in responses from the participants in this study compromised the accuracy of this outcome measure.

It was noted in the results section that this scale returned poorer reliability measures (Cronbach's alpha for Empathic Concern subscale at T1 and Fantasy subscale at T1 and T2 were just outside the acceptable range ($\alpha = .5$) for psychometric construct data). It has been argued however, that for research at an early stage such as this lower levels are acceptable and also that for construct measures with fewer items reliability is harder to establish. However, there is some question of the reliability of this measure for both cognitive and affective empathy in the current research and caution should be used in interpreting these findings.

5.8 Implications for social information processing model

The findings from parametric statistical analysis (see Section 4.5) do not fit comfortably with the SIP model, with no deficit found in cognitive or affective empathy, nor in levels of personal distress. Furthermore, these factors were not found to correlate with levels of CU traits (see Section 4.4). It is felt, however, that as outlined above, methodological shortcomings are more likely to be responsible for these findings.

In the current research some positive correlations were tentatively noted, particularly between the measures of disruptive behaviour at T1; SIMS Sanctions points; Beck's Youth Inventory for disruptive behaviour; and the Peer Conflict Scale, although this evidence was not considered robust, as following Bonferroni correction no significant correlations could be reported. However, the association of these factors would be consistent with the SIP

(Crick & Dodge 1994) model as discussed in Chapter 2. Adolescents with deficits in social information processing also tend to exhibit behavioural difficulties. For example, adolescents who report high levels of peer conflict also report high levels of behavioural difficulties. This increased disruptive behaviour then increases the likelihood of them receiving sanction points in school.

5.9 Exploration of the key stakeholders' perceptions of the therapeutic intervention programme

The purpose of this component of the study was to explore pupils' perspectives of their involvement in the intervention and any changes they may have experienced as a result of taking part. It was also intended to synthesise these findings with implications of qualitative data collected from other sources (i.e., debriefing sessions, worksheets, teacher, Pastoral Head of Year (PHOY) and pupil comments) as well as the research journal to explore perceptions further and to inform recommendations for future group CBT interventions.

Earlier in this chapter, (Sections 5.2 to 5.5) the qualitative findings were explored alongside quantitative data relating to behaviour, CU traits and empathy where appropriate. It is the intention here to explore other findings of the qualitative data related to the key stakeholders' perceptions. i.e., pupils, school and parents, through the themes identified in Chapter 4 (Section 4.9) and also to consider the intervention and research process as a whole through self-reflection of the researcher. Limitations of scope of the study and word-count for this report restrict the fullest exploration of the data, therefore the most salient aspects are considered here.

5.9.1 Expectations and perceptions of the intervention sessions (Themes 1 and 3)

The session found to be most helpful for Year 8 was on anger management whereas for year 9 it was a session involving an exploration

of choices and consequences (see Table 18). This could be related to the participants' age and level of emotional maturity. Year 9 pupils being perhaps more self aware and concerned with more mature aspects of social cognition (as Pardini & Byrd, 2012 refer to this as 'conscience development').

Some comments made in the focus groups illustrate Year 8's expectations for the group to focus on anger management, with disappointment expressed that more was not done to address this. Year 9 on the other hand mentioned peer relationships as an expectation of the intervention's focus. However, during the sessions the Year 8 group were able to carry out the activities with less embarrassment than Year 9 who may have felt more self-conscious in front of peers.

Pupils returned post-intervention evaluation sheets revealed Year 8 students had rated the relaxation technique sessions higher than any other and this was the element most talked about them during the focus group. The research journal data indicates that the Year 9 pupils were moved (so that they faced away from each other) when trying these techniques, due to constant distractions and giggling. This then made the activity possible for the majority of the group. The researcher's own experience as a teacher using similar relaxation techniques with classes of students in mainstream school had also yielded very positive feedback from students for these sessions. When this was discussed in more depth it was noted that in many cases this was a novel activity; students had not experienced using relaxation techniques beyond 'taking depth breaths' or 'counting to ten'.

A further finding from the focus groups data was that the Year 9 pupils focussed on interpersonal relationships and comments related to 'the way we bonded', or how it felt to being female in the male dominated groups, as well social rules, such as, 'people didn't turn up on time' or that 'when others talk you can't learn'. The Year 9 group therefore seemed more concerned with interpersonal relationships and social

etiquette whereas the Year 8 focus group was more concerned with their individual personal development outcomes.

Sessions that were preferred by pupils tended to be those where pupils worked together, on role play activities or paired work. Sessions that were least preferred involved written work, related to the five steps of problem solving, and the researcher would describe this as the more formal session involving written work with less scope for activities the groups had indicated they enjoyed such as, role play and games. This was reflected in pupils' recommendations for improvement the sessions e.g., '*make it more fun with games*', as well as initial comments, noted in the research journal that the pupils stated they do not enjoy written work.

Pupils were often frustrated by others talking over them and placed importance on being able to be honest and open although not always finding this possible. However, it was noted in the research journal that sessions were calmer when pupils were seated and had a concrete activity to work on although they were still working together in pairs or small groups. Post session debriefs discussions indicated that these sessions provided a middle ground, meeting pupils preferences and the allowing the intervention facilitators to manage behaviours more effectively

Session 5, for Year 9, was only attended by 4 pupils and this impacted on the group dynamic. The researcher adapted the planned paired writing activity into a small group activity to make it more appropriate for session. During this session the PHOY was recorded as being very active in pursuing comments made by students and challenging their thinking by asking them to imagine themselves in the hypothetical scenarios. Personal knowledge about students helped, as the scenario that was most appropriate to them could be explored in greater detail, e.g., a scenario involving not being chosen for a sports team was explored in great depth with one of the group for who was a strong sportsperson. In this case the initial response was 'that wouldn't happen to me, I always

get picked'. However, by challenging this and guiding the student to imagine the possibility that this could happen enabled them to think more fully about their own feelings and led to more interesting solutions.

Similarly, drawing on pupils' real life experiences, for example if they stated that a social problem scenario had actually happened to them, then allowed session facilitators to find out how they acted and to explore how they had felt. Further discussion with peers led to alternative courses of action and their consequences. Both the PHOYs and researcher commented on group dynamics as recorded in the research journal, focussing on facilitator and staff relationships as well as group dynamics. Post evaluation for this session revealed that this was felt to be a very beneficial activity, which on reflection worked well with the smaller number in the group and the more informal feel. This session took place towards the end of the autumn term with the Christmas holidays close approaching and a more relaxed and informal ambience in the group was noted.

5.9.2 Behaviour (Theme 5)

Evaluative information on what had and had not gone well was collected during the debriefing sessions and this revealed that the PHOYs' perspectives relating to individual sessions tended to focus on pupil behaviour first and on how well they felt activities had been received by pupils, second. In particular the school were keen to continue with their behaviour management policy and to award sanction or reward points in the sessions. This was negotiated after the initial session, so that positive behaviours would be rewarded in line with school policy as well as rewarded within the group and there was also scope for 'star of the class' to be awarded in these sessions.

However, sanctions were also implemented (in the form of the school's sanctions points). The intervention was intended to focus on positive behaviour and there is some evidence suggesting that sanctioning negative

behaviour may not be an optimal approach to intervention for youth high in CU traits (Pardini et al., 2011; Pardini et al., 2003), and Lochman (1992) noted that any behaviour management scheme needs to be 'simple and effective' with a systematic programme of external consequences. On reflection the researcher feels that the behaviour management element of this was intervention compromised, through the lack of clarity of the rewards and sanctions for pupil. Although, Ghafoori and Tracz (2004) reported that teacher implemented contingency was not found to be a mediating factor for success of CBT interventions and therefore the implementation of school sanctions may not have influenced outcomes for this study. Also, the pupils themselves generated their own rules for behaviour and during the initial sessions this was found to be a powerful tool for promoting positive group behaviour. The rules generated were displayed in the room during each session and it as described in the literature (Kazdin and Weisz, 2003; Lochman et al., 2003), and it was felt by PHOYs and researcher that this was beneficial as it gave the participants' ownership of the group.

5.9.3 Being in the group: belonging, separateness' and roles (Theme 2)

Overall the pupils' perceptions of being in the group were positive and they thought it 'felt good' or 'was like a family'. Year 8 had given their group a name and the research journal indicated that positive comments were made by some of the participants on spotting that the group name has been included on certificates presented to them post intervention, and they also referred back to this in the focus group reflecting that they liked having an identity.

However, there was some level of concern over why they had been asked to take part. Some pupils were aware of their difficulties and reported being 'grateful' to be picked. However, most felt that their behaviour wasn't that bad' and that 'other people need more anger management help'. However, there was thought to be an element of face saving in these comments, with one participant saying, 'I am the best guy here....' adding '....out of the

naughty people'. The researcher and PHOYs had spent considerable time prior to intervention identifying potential participants and there was inclusion and exclusion criteria were applied. The researcher on reflection felt that there was a diversity of presenting difficulties and maturity levels within the groups which may have impacted on dynamics. In hindsight running the groups across year group with more careful allocation of participants based on PHOYs knowledge of pupils may have helped to reduce some of the more challenging behaviours between individuals within groups.

One of the most significant factors appeared to be the class teacher's reluctance to complete some of the questions about their pupils, in particular those related to pupils' peer interactions and their emotional responses. This appeared to be prompted by their concerns over not knowing the individual pupils well enough, despite some teachers noting they had known them for 18 or more months, or not feeling 'qualified' to make such judgements. This was dependent not only on how well they knew the student but also whether or not they had 'proof or examples to be able to tick any box'. Frederickson et al., (2013) were able to secure 100% return of data from teachers as they conducted semi-structured interviews in order to collect data. This method, although too time consuming for the scope of the study presented here, would perhaps have been able to ensure greater yield of both qualitative and quantitative data. In this study teachers were provided with written information explaining the purpose of the research and rationale for data collection (see Section 5.9.4 Theme 4: Practicalities for a more detailed explanation of the issues encountered). Again, given the limited time available the researcher was unable to follow up on unreturned questionnaires, and would therefore recommend any future research discuss measures carefully with teachers or staff not directly involved in the study to reassure them of the intended use and benefits of this data.

One aspect of the involvement of the researcher that was difficult to manage was that of a sense of having dual roles. Working in the LA that was understaffed, as a trainee EP brought with it a high level of demand on time which did not always allow for flexibility, for example restrictions were made

on the available time of the researcher during the intervention phase, due to statutory work that could not be postponed. Another aspect that the researcher felt impacted on her professional role was the time spent as teacher which was a different role to the role of EP although the boundaries between the two were blurred when working in a group intervention. Secondly it was noted that rapport building with individual staff was beneficial to the implementation of the intervention and this made working together a more cohesive process when the relationship was stronger and roles were clearly identified in the classroom. Self reflection on this led the researcher to understand that their interpretation the level of support afforded to the intervention by staff members corresponded to greater confidence in leading the sessions with the group and in turn this enabled a positive dynamic to develop leading to a stronger team work approach.

5.9.4 Practicalities (Theme 4)

As stated in Chapter 4 (Section 4.9.1.4) the focus of this theme was factors that hindered or facilitated the smooth running and effectiveness of the intervention according to the perceptions of key stakeholders. These are considered below along with the researcher's reflections.

i) School versus pupil needs

Initial discussions with school considered the type of space for the intervention and recommendations were put forward in line with those from evidence-based interventions (PSST, Anger Coping and I Can Problem Solve), However, it is the researchers experience from time spent as a teacher and in the current role of EP work that schools are notoriously restricted in availability of rooms. This was borne out in the current intervention where the same room was not available for each group each session. Disruption was kept to a minimum and the school operated a two week timetable, so the same rooms were used fortnightly.

Accommodating the needs of different stakeholders was difficult, for example pupils asked to miss certain lessons and these tended to be the very lessons that the school staff did not want them to miss, typically English, Maths and Science. This impacted on sessions whereby pupils were missing one of their preferred lessons, with their mood affecting their level of cooperation and engagement.

ii) Time and place

The impact of the space on behaviour was noted, and qualitative data revealed that sessions in the drama hall were characterised by fewer behavioural difficulties in particular, when the use of this room coincided with role-play activities it was felt that the space lent itself to these far better than a classroom. A second difficulty of differing rooms meant that pupils were late to sessions and were then able to proffer the excuse that they had gone to the wrong room. On one occasion a last minute room change was made and although messages had gone out to pupils some did not receive them, resulting in a difficult start to the session. A knock on effect of lateness was that it made following a tightly timed lesson plan difficult and over the course of the intervention the researcher reworked sessions in an effort to reduce the number of activities whilst not compromising the objectives to be covered.

A further factor, which was touched on earlier was the time the intervention was run. It started later than proposed, due to finding and selecting the research school which meant the intervention started in the second half of the autumn term. Researcher is aware from teaching experience that this term is particularly stressful for teachers and in particular the few weeks running up to the holiday, as school take on more seasonal activities. The research school was a religious denomination school and this could have impacted on the demands on staff at a time when the intervention and research process was concluding. In final session with one year group the pupils themselves discussed their anticipation of the impending holiday and their impatience for it to arrive which may have impacted on their levels of

engagement with later sessions and also their behaviour in school as the ambience changed.

iii) Involvement of key stakeholders

Although initial research outlined in literature review suggested that the involvement of parents in the intervention programme was neither necessary nor appropriate (Kendall & Choudhury, 2003) others, (e.g., Scott 2008) have argued for the opposite. In the current research study, the school were confident from the onset that parent responses would be difficult to obtain, and this was borne out by the zero response rate to questionnaires. My initial thoughts were that, with parental consent sought and information provided, a minimal level of parental involvement or interest could not be ruled out. It would appear, however, from the qualitative data that there was very little discussion at home about the group which may have been due to the age of the participants; adolescence notoriously being a less communicative time with parents (Kendall & Choudhury, 2003).

Further exploration of research journal indicates a sense that the level of involvement and support from school varied across the research phases, with initial input and interest levels high, but over time this was not maintained. Staff expressed pressures and demands of work making it difficult for them to attend briefing sessions and the time spent on this was reduced. Post evaluation sessions were similarly reduced to 'corridor conversations'. Mid way through the intervention one of the PHOYS supporting the session was replaced in the session, with no prior warning or explanation. Although this was later found to be due to a serious incident occurring that necessitated their involvement, it impacted on the researcher's understanding of the importance of the intervention within the school.

iv) Homogeneity of the group

Initial concerns were raised by the teaching staff about working with a homogenous group, although my rationale for this was explained as set out in

Chapter 3 (Section 3.12). The experience of running the group however, did reflect the difficulties of working with a homogenous group of adolescents who presented with challenging behaviours. The research journal describes the groups as 'hard to settle', and teachers comments such as 'having all the naughty ones together is what makes it so difficult' sum up the feelings of the researcher, and the reflection of the sessions as 'tough'. The researcher would agree with Bailey (2001) who pointed out that therapeutic interventions with groups of young people with CP are always going to be challenging. Implications for future research would include explorations of the impact of staff to pupil ratio for homogenous groups or including role models to form heterogeneous groups.

vi) The nature of the intervention

From the researcher's perspective and through comparing to teaching experience this way of working that allowed a different relationship to build between researcher and participant, which was more reciprocal than a teacher-pupil relationship. It was clear from the onset that the researcher needed the pupils' participation as much as, if not more so, than the participants needing to participate. In fact, it was made clear to the participants that they could withdraw at any time and there would be no repercussions.

The researcher noted that for the post-intervention interview one participant required considerable time to complete post-intervention questionnaires, as they did not want to miss a particular lesson. The researcher was able to take time to encourage the participant to complete the measures, which would not have been the case for a teacher with a busy timetable and pressing demands. The researcher felt that being able to take time to explain and help the pupils to rationalise their feeling helped them to feel 'special' and valued. One of the benefits working in this way with CYP was the ability to be able to spend time, individually and collectively in a non-punitive way, exploring a real-life issue and then applying principles of the group session to this. This in itself is a positive aspect of such interventions.

vii) Inaccuracy of measures and difficulties collecting information

Social desirability bias has been discussed previously (Section 5.5) in regard to pupil measures. However, there is further indication that pupils did not always candidly report antisocial behaviours. For example, staff confirmed an act of theft in school by a pupil who had completed BDBI- Y responding with 'never' to the statement 'I steal'. This pupil was under investigation by the school at this time, and may have therefore felt that answering truthfully would have resulted in disciplinary action. This links with the aspects of 'roles' and it would have been interesting to find out pupils perceptions of my role. Running the intervention jointly with staff may give the impression that the researcher was one of them, whereas the impression that was intended was one of neutrality.

Finally data from teachers was difficult to collect as stated earlier. This impacted on the analysis as triangulation of data was not always possible, and furthermore, exploration of teacher responses indicated a lack of knowledge regarding pupils, which is in the researcher's experience more symptomatic of secondary schools, where teachers spent less time in close contact with each child or indeed in direct contact with parents and families. The comment below, taken from the researcher journal was made by a PHOY regarding a completed teacher questionnaire and indicates that opinions about individual pupils also differ.

'Oh this teacher has said X isn't concerned about his work, but I think he is. He comes to see me about that. I think he would hurt others too, and the teacher has put no. I disagree.'

Finally a parallel was drawn between the questionnaires teachers were asked to complete for this study and questionnaires they receive from paediatricians (e.g., when assessing for ADHD). These were described as taking a long time to complete, with some questions being too hard as they do not know the pupils well enough and the questionnaires were felt to be boring and tedious.

Chapter 6

Conclusions

6.1 Overall effectiveness

The purpose of this exploratory research was to investigate the impact of a brief CBT-based intervention programme targeting adolescents in mainstream secondary schools who exhibit behavioural difficulties. The intervention was developed specifically for this research as a pared down version (designed to run over six weeks) of established, evidence-based interventions for this client group, targeting social problem solving skills.

This study set out to address four research questions, the first of which explored the impact of the CBT-based intervention on disruptive behaviour. However, the findings suggest that the intervention was ineffective in achieving this, and impacted on the clinical severity of CD alone, with no significant change on other relevant outcome measures, such as clinical severity of ODD or disruptive behaviour as reported by pupils (BDBI-Y) or through teacher measures (SIMS sanctions).

The second research question to be addressed, considered the impact of the CBT-based intervention on CU traits. Once again no significant effect was found for CU traits as measured by pupil self-report (ICU-Y). Furthermore, other outcome variables associated with CU traits, including aggression (PCS-Y) and social goal orientation (CSGM-Dev) were also unchanged following the intervention

In answer to the third research questions, relating to impact of the intervention in the promoting empathic concern (IRI-EC) and pro-social goals (CSGM-Pro), these were also found to be unaffected by the intervention. Therefore the intervention did not have a positive effect in raising pro-social behaviours or developing participants' empathic concern.

Finally, the fourth research question exploring key stakeholders perceptions of the intervention programme was addressed through analysis of qualitative data. This indicated pupils preferred practical activities and group work to written work, and that they had welcomed the introduction of relaxation techniques. Furthermore, pupil reports indicated self-perceived behavioural change and that participants had successfully applied some of skills and strategies from the programme in their daily lives. Group dynamics was also indicated as a factor, with feelings of being valued and belonging important factors in pupil engagement. Qualitative data analysis of teacher and researcher related data revealed key practical issues of running a short-term intervention including, availability of rooms and resources, staff time, school ethos and attitudes as well as within-facilitator factors, such as confidence, experience, skills and aptitude levels.

There was therefore, little evidence to support the effectiveness of this intervention or to add to the evidence base for CU traits requiring a specific intervention to address them (Frederickson et al., 2013; Masi et al., 2011). These findings are inconsistent with existing literature that suggests CU traits are malleable, and that interventions designed to target behavioural difficulties that consider the needs of those with CU traits are able to impact on these traits as well as reduce other outcome measures as specified.

However it is important to bear in mind that the intervention developed here was brief in duration and low-intensity. This contrasts with the *Let's Get Smart*, intervention, developed by Laura Warren, and implemented by Frederickson et al. (2013), which ran for a full academic year. This intervention also targeted specific aspects of CU traits through motivating individuals to be more interested in the needs or perspectives of others and the behaviour management strategies adopted by the school were moulded into his approach. It is therefore possible to conclude that although no significant effects of treatment on outcome measures, other than clinical severity of CD, were found in the current study, these results were likely to be due to the interventions inability to address the needs of the participants, including those specific to CU traits, rather than to conclude that these traits are non-malleable. Elements of the intervention were able to impact on clinical severity of CD and therefore it was not totally ineffective; perhaps the intervention was simply not intense enough or run for long enough to effect a significant change.

The research presented here was exploratory in nature and as such did not include a control or wait list condition, so any changes cannot be attributed to the intervention alone as they may have occurred naturally over time. Furthermore there are several possible mediating factors that are not accounted for by the findings presented here, raising questions for further exploration. However, qualitative data allowed for the exploration of how the intervention was received and of perceptions of change. The strengths and limitations of the current research are explored in Section 6.2 below with consideration given to implications for further research.

6.2 Strengths, limitations and implications

Strengths

Previous research in this area is predominately quantitative and adopting similar measures in this study facilitated the comparison of findings with

previous research using equivalent measures. However, a number of studies used the Antisocial Personality Screening Device (Frick & Hare, 2002) to assess CU traits (Fontaine et al., 2011; Hawes & Dadds 2005 & 2007; Kimonis et al., 2008; Masi et al., 2011). It has been argued by Mc Mahon et al., (2010) that this is not the best measure to use as only a few items on this questionnaire relate to CU traits and often this scale shows poor internal reliability. Therefore the Inventory of Callous Unemotional Traits (ICU) was selected as the most appropriate measure of CU traits.

Adopting a mixed-methods approach allowed the research to address both the impact on outcome measures as well as the perceptions of participants and this was beneficial in providing a fuller, richer picture of the impact of the intervention, not only on measurable outcomes such as behaviour and CU traits but also the participants' cognitions relating to their underlying motivation for selecting particular solutions to social problems and their perception of the impact of the intervention on themselves. This allowed for a deeper understanding of how changes in cognitions relate to the social information processing model. It is also the case that a strong element of pupil voice is reflected in research findings and this felt by the researcher to be a strength, as this is a vulnerable and often marginalised group of young people, who were capable of willing to articulate their thoughts and ideas.

Conducting the interviews with participants and at the same time completing questionnaire packs, allowed for near complete data sets to be returned from pupils. It was also possible to discuss any misunderstandings of questions that the pupils may have had and this supported the consistency of understanding of questions on these measures.

Other sources of qualitative data from the focus groups, teacher evaluations and researcher's journal fulfilled a second aspect of the research; exploring the practicalities of delivering group intervention work such as this to schools. In this way this research was able to throw some light onto the particular issues and difficulties that may be encountered when carrying out this type of group intervention. This has an added benefit of allowing the practical

application of these findings both in future research and in practice. These are explored in more detail in Section 6.4.

Limitations

Whilst the researcher acknowledges that the use of a control group or 'wait list condition' would have allowed for comparison of treatment versus non-treatment conditions, the aim of this research was to investigate feasibility and pilot evaluation of the brief CBT treatment in the setting. However, the focus of this study was to evaluate a '*pilot* group intervention' and as such this research is not yet at the stage for large scale randomised control trial study. The intervention was novel in terms of its brevity and the evaluation of its impact on CU traits.

A further limitation of this research is the use of a convenience sample; however as a pilot study this was unavoidable given the time limitations. Although overall in this research study the findings point to trends similar to findings in the literature related to group CBT interventions and CD there is need to tighten up procedures in order to explore mediating factors more rigorously. There may have been confounding variables within the research and there were a number of factors that were not controlled for e.g., when and where it was implemented, parental involvement, gender, ethnicity and SES.

The effect of time of year the research took place cannot be ruled out. The intervention was run from November up to Christmas, and it may be that behaviour in school deteriorated towards the end of the autumn term, or that teaching staff were tired and less stringent in applying behaviour management strategies. Parental involvement was also not considered in this research and again this may have impacted on outcomes.

Furthermore, this gap in the data reduced the validity of the study as it was not possible to triangulate outcome measures. This was further impacted on by gaps in the data returned from teachers, which meant findings relied heavily on self-report measures. A further impact of this lack of data from

parents meant that this research study was unable to comment on the impact of SES on outcomes as the school provide limited data on demographics school i.e., FSM eligibility and ethnicity only.

Placing the researcher at the centre of the research, (i.e., developing and running the intervention), was initially considered to be a strength, and important for interpretation of qualitative data. However, this brought with it potential issues of experimenter and social desirability biases. The internal validity of this research would have been improved if the post-intervention focus group had been run by another professional not connected to the development of intervention and not known to the participants, in order to ensure they were able to offer their candid opinions.

Implications for future research

Future research into the impact of CU traits as a moderating factor for CBT interventions would benefit from moving the research to the next stage, conducting research studies with larger samples across different settings and adopting RCT or matched pairs design to explore both CU traits and a range of mediating factors as discussed.

The debate over heterogeneity versus homogeneity of group members continues with Weiss et al. (2005) suggesting that consideration of iatrogenic effects prior to conducting group based interventions is prudent, although the research here did not reveal any iatrogenic effects. This would appear to support Arnold and Hughes (1999), cited in Weiss et al. (2005), and Mager, Milich, Harris and Howard (2005) cited in McCrory and Farmer (2009) who claim that iatrogenic effects do not come into play with participants who are previously known to each other. Furthermore, van Manen, Prins and Emmelkamp (2004) suggest that group CBT interventions have positive impact rather than iatrogenic for homogenous groups. Thus another possible direction for future research would be to explore the impact of running such an intervention with a heterogeneous group, i.e., non-homogeneity of

difficulty, and including role models. This would help to clarify the implications of the selection and allocation of individuals for such school based interventions.

Another possible mediating factor that future research could explore would school ethos and the impact of adopting the school's behaviour management policy or utilising a distinct policy for the intervention sessions. In the current research the schools policy relied heavily on operant conditioning principles, involving gratification and punishments, often deferred. This was felt by the researcher to be in contrast to the principles of the intervention and to the needs of the client group the intervention was intended for. Although the sessions were designed to be run with support from school staff, consideration of the impact of this through exploration of their role in the setting could also be explored, by looking at whether senior or middle managers, pastoral leaders, form teachers or teaching assistants or external professionals are better placed to support this work.

The near-to-zero return rate of questionnaires from parents was seen as unique to this research; the significance of which could be explored through future research, investigating the impact of levels of parental concern, involvement and cooperation with schools, in relation to the intervention programme outcomes.

Finally, time constraints meant that it was not possible to collect follow-up data some months post-intervention, as a number previous research studies have done. It may be possible that delayed benefits occurred as a result of this intervention, with changes in beliefs and cognitive shifts becoming apparent some time after the intervention, when behavioural changes have been consolidated through repetition and practice in real life situation Future research using several follow up data collection points to explore this hypothesis would develop understanding of these processes.

6.3 Implications for practice

The Local Authority in which the research was conducted have moved towards traded services, and the establishment of an evidence base of interventions on offer would have been benefited both the client and the provider. One of the aims of this research was to explore the practicalities of running group CBT interventions in schools from the perspective of EPs or other peripatetic professionals, thus offering the opportunity to expand the range of work carried out by the EP Service, raise the profile this service and develop an intervention to better fit the local need and client group, whilst also adding to the wider evidence base for therapeutic interventions. What this study revealed however, were several unexpected challenges to the successful implementation of even a brief programme.

Practical difficulties

In the researcher's opinion, with previous experience as a teacher as well as running this intervention group, working with a homogenous group was a challenge. Therefore, as an intervention protocol for brief group CBT programmes, this may not be the most suitable way of working. Nor may it be cost effective, bringing about as it did little or no measurable change for the participants. Reflecting on the researcher's experience of running this as a practitioner led to the identification of several factors, such as working with unknown adolescents, unfamiliar staff, and feeling under scrutiny and pressure to bring about change in the participants' behaviour. This led to the conclusion group programmes for antisocial behaviours for adolescents is a challenging way to deliver interventions and recommendations for practice would therefore include supervision for the professional delivering the intervention with a supportive focus to address this issue and avoid burn out.

Furthermore, in discussion with colleagues the question of who is best qualified to deliver such interventions was considered. If this was a challenge to an EP with many years experience of teaching adolescents, of delivering group interventions and with recent training in using the CBT approach, then who would deliver such an intervention with this client group?

It would seem that this is indeed challenging work as Bailey (2001) stated and therefore an important consideration before venturing on such work would be to consider the professional qualifications and experience of the programme facilitator as well as those supporting whether directly in the classroom or in supervisory roles.

A third consideration when deciding on ways of working in a school would be to examine carefully the ethos of the school, including teachers' attitudes towards the target group and the possibility of change. Similarly consideration should be given to the roles of supporting staff and their level of involvement clarified from the onset. Teachers' time is precious and building in pre and post evaluation sessions was important for the programme, but this was not always able to be a priority for staff members, whose demanding and sometimes conflicting roles led to these sessions being shortened to a quick talk while we walk down the corridor. In this intervention programme having two pastoral heads of year supporting the sessions sometimes seemed to bring a conflict of roles, i.e., as behaviour managers it was difficult to let certain behaviours go in the sessions, e.g., use of slang or street language that would not have been acceptable in lessons. In particular the staff were concerned about how the pupils behaved towards me, whereas I was open to utilizing any challenging behaviours as illustrative learning points in the sessions.

Finally the practicalities of running an intervention in a large and busy secondary school impacted on the when and the where of running session, which as discussed impacted on both the behaviour and engagement of participants. The space that lent itself the best to these sessions was the drama studio, where perhaps participants have an association of a 'different' type of lesson, with less emphasis on traditional teaching and learning methods.

6.4 Self reflection

I began my journey through this research with more recent experience of applied psychology and qualitative approaches to research with a strong background in teaching, psychological theory and only limited quantitative research experience. My approach and stance therefore was more qualitative and initially I planned to fit the research to my stance. However, through supervision and reading I explored the quantitative approach and I was able to develop my understanding of the range of research approaches and this led me to adopt the approach that best suited the questions I wished to address, that of mixed methods approach, allowing both quantitative and qualitative data to inform the findings of the research carried out in a real-life setting and to answer different research questions.

On reflection the researcher's heavy involvement in the research process was felt to have led to a conflict in roles. On the one hand, as a doctoral student with research to complete I wanted to be as thorough and rigorous as deadlines would allow. However, as an ex-teacher I was also mindful of the school's limited availability of time and I felt a sense of gratitude to the research school and to the pupils for taking part. Finally as the researcher I wanted to meet with the form teachers and parents face to face to explain the nature of study and answer their questions. This was not felt necessary by the school and was difficult to manage in terms of time yet I was aware that as a research practitioner insisting on this contact time could have increased the data return responses and informed the findings further as well as fostered positive public perceptions for psychological research.

6.5 Implications for educational psychologists

Evidence-based practice is important to the work of EPs as guidelines for professional practice indicate (HPCC 2010). Fox (2003) argues that EPs are well placed to carry out research on interventions in the settings in which they are intended to be implemented, developing practice-based evidence, as the current research is an example of. This research will be presented to

EP colleagues as part of professional development practice in the active local authority where this research work was carried out.

As outlined in Chapter 2, CBT interventions have received 'good press' as treatment programmes for children and young people with behavioural difficulties, and the researcher suggests that their popularity is partially due to the ease of their measurable outcomes, compared to other psycho-educational treatments, for example individual, psychodynamic therapeutic approaches. At the same time research bias can occur, with results published that support current trends in thinking and those that do not fit the zeitgeist overlooked. It is important therefore to publish and disseminate research where strong positive findings are not reported, to bring a voice of caution to the formulation of generic programmes which may then be implemented without consideration of the profile of the client group and the appropriateness of the intervention for this group. This research is important in providing such a cautionary note. As professional practitioners who work with vulnerable young people, it is imperative that the interventions and approaches EPs adopt are effective in bringing about positive outcomes for those young people.

The researcher suggests that with the recent economic climate fuelling the coalition Government's political agenda of cutbacks within the public sector, the selection and application of appropriate and effective treatments for particular client groups is even more imperative (Office for National Statistics, 2012). In order for EPs to continue to deliver a comparable quality of service there is a need to ensure both the efficiency, and effectiveness of intervention delivery, and thus ensure that EPs continue to have a valued and necessary role in education, delivering the services that best fit need and make a difference.

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Appendices

Appendix A

Diagnostic criteria for Conduct Disorder

A. A repetitive and persistent pattern of behaviour in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of three (or more) of the following criteria in the past 12 months, with at least one criterion present in the past 6 months:

Aggression to people and animals

(1) often bullies, threatens, or intimidates others

(2) often initiates physical fights

(3) has used a weapon that can cause serious physical harm to others (e.g., bat, brick, broken bottle, knife, gun)

(4) has been physically cruel to people

(5) has been physically cruel to animals

(6) has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery)

(7) has forced someone into sexual activity

Destruction of property

(8) has deliberately engaged in fire setting with the intention of causing serious damage

(9) has deliberately destroyed others' property (other than by fire setting)

Deceitfulness or theft

(10) has broken into someone else's house, building, or car

(11) often lies to obtain goods or favours or to avoid obligations (i.e., "cons" others)

(12) has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering; forgery)

Serious violations of rules

(13) often stays out at night despite parental prohibitions, beginning before age 13 years

(14) has run away from home overnight at least twice while living in parental or parental surrogate home (or once without returning for a lengthy period)

(15) is often truant from school, beginning before age 13

B. The disturbance in behaviour causes clinically significant impairment in social, academic, or occupational functioning.

C. If the individual is age 18 years or older, criteria are not met for [Antisocial Personality Disorder](#).

Specify type based on age at onset:

Childhood-Onset Type: onset of at least one criterion characteristic of Conduct Disorder prior to age 10 years (new code as of 10/01/96: 312.81)

Adolescent-Onset Type: absence of any criteria characteristic of Conduct Disorder prior to age 10 years (new code as of 10/01/96: 312.82)

(new code as of 10/01/96: 312.89 Unspecified Onset)

Specify severity:

Mild: few if any conduct problems in excess of those required to make the diagnosis and conduct problems cause only minor harm to others

Moderate: number of conduct problems and effect on others intermediate between "mild" and "severe"

Severe: many conduct problems in excess of those required to make the diagnosis or conduct problems cause considerable harm to others

Taken from the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision. Copyright 2000 American Psychiatric Association

Appendix B

Diagnostic criteria Oppositional Defiant Disorder DSM IV - TR

A. A pattern of negativistic, hostile, and defiant behaviour lasting at least 6 months, during which four (or more) of the following are present:

- (1) often loses temper
- (2) often argues with adults
- (3) often actively defies or refuses to comply with adults' requests or rules
- (4) often deliberately annoys people
- (5) often blames others for his or her mistakes or misbehaviour
- (6) is often touchy or easily annoyed by others
- (7) is often angry and resentful
- (8) is often spiteful or vindictive

Note: Consider a criterion met only if the behaviour occurs more frequently than is typically observed in individuals of comparable age and developmental level.

B. The disturbance in behaviour causes clinically significant impairment in social, academic, or occupational functioning.

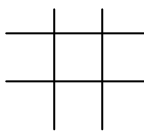
C. The behaviours do not occur exclusively during the course of a psychotic or mood disorder.

D. Criteria are not met for [Conduct Disorder](#), and, if the individual is age 18 years or older, criteria are not met for [Antisocial Personality Disorder](#).

Taken from the [Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision](#). Copyright 2000 [American Psychiatric Association](#)

Group Leaders' notes				
<ul style="list-style-type: none"> introduce idea of thinking processes to control feelings ensure role play is well planned and rehearsed ahead of session 				
No	Session focus	Main activities	Time	Resources
2	Anger Management & Self control			Flip chart or whiteboard and pens Rules sheet
	Opening activity - Review of previous session/assignment	Remind of rules and rewards and sanctions Pass the ball (one person speaking at a time). Share goals and award points. Discuss 'sparkly moments' in previous week- what helped them to achieve these.	5 min 10 min	A ball to pass
	Warm up - Assessing the group's skills for problem solving NB Good opportunity for awarding points!	Ask members to take a sock each (having put out too few). Observe group reaction. Discuss what the problem is and how they tried to solve it. Did it work? Is there another way? A better way? Were any rules broken?	5 min	A selection of clean socks One Sock puppet
	Main activity - Introduce Topic Introduce concepts of <ul style="list-style-type: none"> self-talk, distraction techniques, relaxation methods NB Set clear rules about taunts - at puppet not person, no swearing or racial/sexual or homophobic abuse. (20-30 sec each)	Modelling - Leader takes puppet and second adult taunts the puppet. Discuss how puppet might feel and how might they have dealt with this. Repeat but this time leader models self-talk, then models distraction and finally a relaxation technique such as 7-11 breathing* Group activity - role play taunting the puppet and puppeteer responds calmly using one of the techniques given. Ask puppeteer to vocalise what the puppet is saying to help keep calm.	5 min 10 min	A selection of clean socks One Sock puppet Coloured tape (to mark out space on floor) *Relax booklet for breathing techniques.
	End activity <ul style="list-style-type: none"> Feedback Points tally Set assignment: Record your angry moments and technique used 	Ask group members to say one positive thing about the session today and state one technique they will try next week. Write this down on sheet (bring back for points!)	10 min	'Angry moments' sheet (adapted sheet from ACP p160 Hassle Log)

Group Leaders' notes				
<ul style="list-style-type: none"> introduce idea of perspective taking and different opinions first 'required' role play activity and may need to encourage some members to participate 				
No	Session focus	Main activities	Time	Resources
3	Perspective taking			Flip chart or whiteboard and pens
	Opening activity - Review of previous session/assignment	Remind of rules and rewards and sanctions Pass the ball (one person speaking at a time). Share Angry Moments and coping strategies used.	5 min 10 min	A ball to pass Praise success
	Warm up - Assess the group's skills for perspective taking	To establish the concept of different interpretations. Use a stimulus picture to elicit different perceptions of 'what the problem is' Use differences in perceptions as a discussion point. <ul style="list-style-type: none"> Is there one real problem? Would all the people see the same problem? Did you change your mind as you listened to others pov? 	5 min 5 min	Stimulus picture for ICPS (have several pictures available in case need to repeat)
	Main activity - Introduce Topic <ul style="list-style-type: none"> perspective different opinions problem recognition looking at things from another person's point of view. 	Problem recognition Role play. Use a stimulus picture with lots of characters and ambiguity. Assign group member to each and one leader is a 'roving reporter' Reporter describes lead up to problem and freezes action just after problem arises. Interview each character for their perspective. Discuss these differences as a group.	3 min 8 min 4 min	Questions for reporter to ask <ul style="list-style-type: none"> What were you doing before the problem arose? When did you first see a problem? What were you thinking? How did you feel? What did you do? What are you planning on doing next?
	End activity <ul style="list-style-type: none"> Feedback Points tally Set assignment: 	Ask group to summarise ideas from the session today. Praise efforts and explain next session will involve more. Ask group to bring their own real-life problem to solve next time,	10 min	

Group Leaders' notes																			
• introduce idea of problem-solving model as a way to think about problem (not solve it)																			
No	Session focus	Main activities	Time	Resources															
4	Choices and Consequences			Flip chart or whiteboard and pens															
Opening activity - Review of previous session/assignment		Remind of rules and rewards and sanctions Tine to think activity	2 min 5min	Pass the bomb -for quick one Pencil and paper Egg timer															
Warm up - Assess the group's skills from previous session		Tic-tac-toe game Then model with solutions/enumerations Now play in teams (X and O) with problem and solutions. Can repeat with real-life problems or made up ones-in pairs Discuss one playing board in terms of consequences	2 mins 2 mins 5 mins 2 mins	Flipchart and two different colours Sweets for prizes 															
Main activity - Introduce Topic <ul style="list-style-type: none"> • anger as a problem which we all need to learn to cope with • different choices of things we can do when angry • these have consequences • process for thinking about problem stays the same but situations vary for each problem. 		Select one problem that children have brought to focus on. Group activity Brainstorm all the possible choices that they could make. Use post-its to write these on and put on board. Review each choice and assess in terms what they would nee to do these e.g. anger coping skills and/or self-control. Identify any self-statements that led to choices. Discussion: what is a consequence? Predict consequences for each choice in scenario and rate each one as +/-	2 min 5 min 5 min	Post-it notes and pencils Problem statement: Problem holder: <table border="1" data-bbox="1133 1153 1444 1321"> <thead> <tr> <th>Choices</th> <th>Consequence</th> <th>+/-</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> <i>Stress importance of <u>all possible</u> choices i.e. good and bad choices</i>	Choices	Consequence	+/-												
Choices	Consequence	+/-																	
End activity <ul style="list-style-type: none"> • Feedback • Points tally • Set assignment: 		What do you think are important first steps to take when you are faced with a real-life challenge or problem? Game to end - Pass the bomb problem solving	5 min 5 min	Pass bomb and problems to try															

Group Leaders' notes				
<ul style="list-style-type: none"> • making video need to be very organised and keep to time • this session should be longer - say 1 ½ hours • will return with edited video and interview students time tbc • refreshments and certificates to be given out at the end 				
No	Session focus	Main activities	Time	Resources
6	Evaluation and summary of learning			Flip chart or whiteboard and pens
	Opening activity - Review of previous session/assignment	Read scripts out and decide on best problem (voting)	10 min	Video camera Range of paper and pens etc
	Main activity - Introduce Topic	Group to practice role play up to and including first ending. Think about videoing this how - what perspective etc. Practice second and third endings. When ready video straight through (do 2 or 3 runs). Video each one, twice	20 min	Rehearsal time
			10 min	
			10 min	Filming time
	End activity	Discuss the process and main learning points from today's session. Overall what have they taken from these sessions? Complete evaluation sheets.	20 min	Play back and edit suggestions.
	<ul style="list-style-type: none"> • Feedback • Refreshments • Certificates 			

Appendix D

Parent information and opt out letter

Angie Tudor

Department of Psychology &
Human Development
Institute of Education
25 Woburn Square
London WC1H 0AA

Date October 2013

Dear Parent/Carer,

I wrote to you recently regarding a group intervention programme school that I am running after half term to tell you that your son/daughter has been selected to take part.

The programme has been developed to help pupils to understand and deal with their emotions better. The sessions are both a fun and challenging and they are intended to support your child to develop problem solving skills to help them with real-life challenges that they may face.

If you DO NOT wish your son/daughter to take part please sign the slip below and return it to the school as soon as possible.

You will also receive a questionnaire pack which I would be grateful if you could complete and return by..... This information will remain confidential.

Please feel free to contact me at anytime if there is anything that is not clear or if you would like more information. My contact details are at the end of this letter.

Angie Tudor
3rd Year Trainee
Educational Psychologist
Institute of Education
Email: atudor@ioe.ac.uk

Re: Intervention Programme

I DO NOT wish my child _____ (child's name) to
take part in this intervention programme.

Your name _____

Signature _____

What will happen if we take part?

Your son/daughter will come along to six one-hour group sessions once a week across the Autumn term. These will be run by the researcher with support of one member of school staff.

During these sessions we will use games, drama and discussion to develop pupils' knowledge of helpful strategies to cope with feelings of anger and to develop their problem solving skills for real-life challenges.

I will be collecting data from all those who take part in the project at different times throughout the intervention and afterwards.

We will be asking you and your son/daughter's teachers to complete some short questionnaires, before and after the six-week programme, so that we can assess how helpful the programme has been for you and your child

I will also be interviewing your son/daughter before the programme starts and this will be audio recorded.

- *Any data collected will be completely anonymous and will be collected and stored in accordance with the Data Protection Act 1998.*
- *All data held will be deleted on the completion of the study (April 2014).*
- *You can ask at any time to have all the information I have collected about you and your child destroyed without giving a reason.*

Do we have to take part?

No. It is up to you and your son/daughter to decide if you want to take part.

- *If you do decide to take part then you will be able to withdraw from the study at any time and you do not need to give a reason*
- *You are also entitled to withdraw any data/information that you have provided at any time prior to its inclusion in my final report (April 2014).*
- *Making a decision to withdraw at any time will not affect the standard of care you or your child receive or disadvantage them in any way.*

What will happen to the results of the research?

You will receive a brief summary about the programme once I have collected information from everyone taking part. I will also publish the findings as part of my Doctoral Thesis. I may also present the study and its findings to colleagues and other professionals, practitioners and researchers in education.

- *All participants will remain anonymous and will not be identifiable in any way in the research report.*

N.B. This research project has been approved by the Institute of Education Research Ethics Committee

Appendix E

INFORMATION SHEET for Student Participants

The effectiveness of a problem-solving intervention for young people who are experiencing behavioural difficulties in mainstream secondary school.

This study has been approved by the Institute of Education Research Ethics Committee

Name and contact details of researcher:

Angie Tudor
Mobile: 07500 782471

I would like to invite you to take part in a research project.
You should only take part if you want to.
If you choose not to take part this will not disadvantage you in any way.

Before you decide if you want to take part, it is important for you to read the following information carefully and discuss it with others if you want to. Ask us if there is anything that is not clear or if you would like more information about.

What is it all about?



This project aims to find whether group meetings can help young people who are experiencing some difficulties in school to develop ways of dealing with their anger to help them solve social problems and to get on with other people better.

What will happen if we take part?

We would like you to come along to six one hour group meetings that will take place in school weekly across the Autumn term. During these meetings we will use games, drama and discussion to explore everyday social problems that young people may face and to look at helpful strategies you can use to build positive relationships with your peers and to get along with others better. There will be opportunities for you to practise these skills in the sessions as well as at school and at home. There will be 6-8 young people in the groups and two adults to help and support you.

Data and personal information

I will be collecting some information on those who take part in the project at different times throughout the intervention and afterwards to help me

to find out how helpful the group meetings have been.

I will carry out a short interview with you before the sessions start, which will be audio recorded, and also ask you to fill out some short questionnaires before and after you have been to the sessions.

Any information used in this project will not have your names on it and will be collected and stored in accordance with the Data Protection Act 1998. All data held will be deleted on the completion of the study (April 2014).

Do we have to take part?

It is up to you to decide if you want to be a part of this project or not.

Remember:

1. You should only take part if you want to.
2. If you choose not to take part this will not disadvantage you in any way.
3. If you do decide to take part then you can still withdraw from the project at any time without giving a reason.
4. You can also withdraw any data/information that you have provided at any time prior to its inclusion in the final report (April 2014).

CONSENT FORM – STUDENT PARTICIPANTS

Please complete this form after you have read the information above and any queries have been answered.

Thank you for agreeing to take part in this research. If you have any questions arising from the Information Sheet or the explanation given to you, please ask the researcher before you decide whether to join in. You will be given a copy of this Consent Form to keep and refer to at any time.

- I have read the information sheet and the project has been explained to me. I have had the opportunity to ask questions and discuss the project.
- I understand what the research study involves.
- I have been given the name of an individual to contact if I have any further questions about the project
- I understand that I am free to withdraw from the project at any time without giving any reason.
- I give my consent for the processing of my personal information for the purposes of this study only. I understand that an audio recording will be made of an interview with me. I understand that all information will be treated as strictly confidential and will be handled in accordance with the terms of the Data Protection Act 1998.
- I understand that I will be able to withdraw my data at any time up to the point of publication.
- I understand that the information I have submitted will be published in the form of a report and that it will not be possible to identify me from this
- I consent to the collection of information from my parents and the school about how I am getting on.

Your name: _____

Signed: _____ Date: _____

Appendix F

K-SADs diagnostic interview questions

ODD

1. **Loses temper**
2. **Argues with adults**
3. **Disobeys rules**

1. Has there ever been a time when you would get upset easily or lose your temper?

-did it take much to get you mad?

-how often do you get really mad or lose your temper?

-describe what you were like when you had a temper or a tantrum

0 = no information

1= not present

2 = sub threshold (occasional temper outburst/more severe than typical child of same age)

3 = Threshold: severe temper outbursts 2 – 5 times a week.

2. Was there ever a time when you would argue a lot with adults?

-who was it with your parents or teachers?

- about what kinds of things?

-did you argue a lot?

-how bad did fights get?

0 = no information

1= not present

2 = sub threshold (occasionally argues with teachers and/or parents. Arguments more severe and more often than typical child of same age)

3 = Threshold: often argues with parents and/or teachers: daily or nearly daily.

3. Has there ever been a time when you got into a lot of trouble at home or at school for not following the rules?

-did you get into trouble with teachers?

-what kinds of things for?

- did you parents ever get mad at you for not doing chores etc?

-how often did this happen?

-how often did you get away with things?

0 = no information

1= not present

2 = sub threshold (occasionally actively defies or refuses adult requests or rules. Disobeys more often than typical child of same age)

3 = Threshold: often actively defies or refuses adult requests: daily or nearly daily.

K-SADs diagnostic interview questions

CD

1. Lies
2. Truants
3. Initiates physical fights
4. Bullies threatens or intimidates others
5. Nonaggressive stealing

1. Has there ever been a time when you told lies?
-to your friends, teacher parents?
-tell me about the types of lies you told
- what's the worst lie you ever told?
-did you lie to get others to do things for you?
-or to get out of paying someone back money?
-how often did you lie?
-has anyone ever called you a liar/con etc?

0 = no information
1= not present
2 = sub threshold (occasionally lies. Lies more often than typical child of same age)
3 = Threshold: lies often, multiple times per week or more

2. Has there ever been a time when you played truant/bunked off school?
-where did you go?
-did you ever leave school early when you shouldn't?
-or go in late?
-or miss classes?
-how often?
-how old when you first did this?

0 = no information
1= not present
2 = sub threshold: truants on one isolated incidence
3 = Threshold: truants on numerous occasions i.e. 2 or more times

(Only rate positive incidences of truancy before the age of 13)

3. Has there ever been a time when you got into physical fights?
-who started them?
-tell me about the worst fight you ever got into?
- did anyone ever get hurt?
-have you ever hit a teacher or adult?
- how often did you fight?
-have you ever tried or wanted to kill someone?
-how often did you do these things?

0 = no information
1= not present
2 = sub threshold: fights with peers only. No serious injury to peer (medical attention required)
3 = Threshold: multiple fights with one or more resulting in serious injury to a peer. Or at least one physical fight with an adult (teacher or parent)

4. Has there ever been a time when any kid ever got on your nerves?

- *did you do anything to get back?*

- *what kind of things? Call them names/ threaten them/hit/push them?*

0 = no information
1 = not present
2 = sub threshold: bullied, threatened or intimidated another on only one or two occasions.
3 = Threshold: bullied, threatened or intimidated another three or more occasions.

5. In the past have you ever stolen anything?

- *what is the most expensive thing you stole?*

- *what else have you stolen?*

- *from who or where? E.g. A toy from a store?*

Money from your mum?

Anything else?

How often?

- *how often did you do these things?*

0 = no information
1 = not present
2 = sub threshold: has stolen without confrontation of the victim on only one occasion.
3 = Threshold: has stolen without confrontation of the victim on two or more occasions.

(Only count thefts of non-trivial value e.g £20 +)

If received a score of 3 on any of the CD items carry out the current conduct disorder section in supplement no 4, behavioural disorders at end of screening interview.

Appendix G

Consequence and rewards points

Consequence points

C points with value	Reason
C1 = 1	<i>Incorrect uniform Not fully prepared for learning Limited progress made Lack of respect towards others Disruption to teaching/chatting</i>
C2 = 3	<i>Lateness (> 2 mins) No homework internet misuse Contribution to negative learning environment Interrupting teaching and learning Challenging instructions No progress made/success criteria not met Lack of respect for the learning of others</i>
C3=5	<i>Lateness (> 3 mins) Resolution issue (achieved) Resolution issues (failed) NB: leads to detention Walked out of lesson Use of discriminatory/derogatory language Chewing gum/eating or littering</i>
C4 = 10	<i>Defiance Removal within teaching and learning area</i>
C5 = 20	<i>Fighting/aggressive behaviour Abusive language Damage to school property Bullying Truantiing</i>

Reward points

R points with value	Reason
R1 = 1	<p><i>Shows an interest in learning</i> <i>Good numeracy/literacy shown</i> <i>Good practical skills</i> <i>Meet all the success criteria</i> <i>Respectful towards others</i></p>
R2 = 3	<p><i>High levels of engagement</i> <i>Responsibility taken for learning</i> <i>Pride in work demonstrated</i> <i>Drive and ambition demonstrated</i> <i>High quality extended work</i> <i>Worked independently</i> <i>Consistently well behaved</i> <i>Supportive of the learning of others</i> <i>Student leadership demonstrated</i> <i>Star of the class</i></p>
R3 = 5	<p><i>Participation in school life</i> <i>Excellent progress made</i> <i>Teaching and Learning Award</i> <i>Student manager award</i> <i>Form tutor award</i></p>
R4 = 10	<p><i>100% attendance</i></p>
R5 = 20	<p><i>Head teachers Recognition Award</i></p>

Appendix H

CHILD SOCIAL GOAL MEASURE

Directions: "I'm going to read you some stories about children and adults and ask you some questions about what the characters in these stories would think is important."

(Interviewer: Please fill in the bubble of the corresponding answer as completely as possible.)

Scenario A

Rick is changing classes at school and is hurrying down the hall to the next class. A group of older pupils are standing by the wall, talking and laughing with each other, and they are watching kids as they go by. While Rick is noticing this group, a new kid at his school whom he doesn't know very well comes down the hall from the other direction and bumps into Rick's shoulder hard, knocking his books to the floor.

1. What would be most important to Rick in this situation?

Why?

2. In this story, how important would the following goals be to Rick?

	Not at all important	Not very important	Pretty important	Very important
A. Avoid problems with the new kid; get away from the situation as soon as possible				
B. Let the new kid know who's boss or who's in charge				
C. Get back at him				
D. Work things out with the new kid so they can have a good time together				

3. If there is a tie in the highest ranked goal, ask child to choose which of these the main goal is. **(Please circle the letter of their corresponding answer.)**

A B C D

Scenario A

Last week Mark invited Joe to an n X box party on Saturday. On Friday, Mark said that Joe wasn't invited to the party anymore because he'd picked an argument with him the day before.

4. What would be most important to Joe in this situation?

Why?

5. In this story, how important would these goals be to Joe?

	Not at all important	Not very important	Pretty important	Very important
A. Avoid problems with Mark; get away from the situation as soon as possible.				
B. Let Mark know who's boss or who's in charge				
C. Get back at him				
D. Work things out with Mark so they can have a good time together				

6. If there is a tie in the highest ranked goal, ask child to choose which of these the main goal is. ***(Please circle the letter of their corresponding answer.)***

A B C D

Scenario C

"Hey, quiet down," Ms. Brown tells her son, Louis, as he bursts into the house. "I just got the baby down to sleep finally."

Louis says "How come you're always telling me to be quiet when I'm not the one who cries all the time?" "Because you're older," Ms. Brown said.

7. What would be most important to Louis in this situation?

Why?

8. In this story, how important would these goals be to Louis?

	Not at all important	Not very important	Pretty important	Very important
A. Avoid problems with his mother; get away from the situation as soon as possible				
B. Let his mother know who's boss or who's in charge				
C. Get back at her				
D. Work things out with his mum so they can have a good time together				

9. If there is a tie in the highest ranked goal, ask child to choose which of these the main goal is. ***(Please circle the letter of their corresponding answer.)***

A B C D

Scenario D

Last week, Ms. Jones promised her son, Tom, she would buy him the pair of trainers he'd been wanting for a long time because he'd been behaving so well all week. Today Ms. Jones told Tom that she had changed her mind, because he'd been a nuisance the past few days.

10. What would be most important to Tom in this situation?

Why?

11. In this story, how important would these goals be to Tom?

	Not at all important	Not very important	Pretty important	Very important
A. Avoid problems with his mother; get away from the situation as soon as possible				
B. Let his mother know who's boss or who's in charge				
C. Get back at her				
D. Work things out with his mum so they can have a good time together				

12. If there is a tie in the highest ranked goal, ask child to choose which of these the main goal is. ***(Please circle the letter of their corresponding answer.)***

A B C D

THANK YOU: THERE ARE NO MORE QUESTIONS

Peer Conflict Scale-Y

Instructions: Please read each statement and decide how well it describes you. Mark your answer by circling the appropriate number (0-3) for each statement. Do not leave any statement unrated.

PCS-Y

	Not at all true	Somewhat true	Very true	Definitely true
1. I have hurt others to win a game or contest	0	1	2	3
2. I enjoy making fun of others	0	1	2	3
3. When I am teased, I will hurt someone or break something	0	1	2	3
4. Sometimes I gossips about others when I'm angry at them	0	1	2	3
5. I start fights to get what I want	0	1	2	3
6. I deliberately exclude others from my group, even if they haven't done anything to me	0	1	2	3
7. I spread rumours and lies about others when they do something wrong to me	0	1	2	3
8. When someone hurts me, I end up getting into a fight	0	1	2	3
9. I try to make others look bad to get what I want	0	1	2	3
10. When someone upsets me, I tell my friends to stop liking that person	0	1	2	3
11. I threaten others when they do something wrong to me	0	1	2	3
12. When I hurt others, it makes me feel powerful and respected	0	1	2	3
13. I tells others' secrets for things they did to me a while back	0	1	2	3
14. When someone threatens me, I end up getting into a fight	0	1	2	3
15. I makes new friends to get back at someone who has made me angry	0	1	2	3

PCS-Y

	Not at all true	Somewhat true	Very true	Definitely true
16. I hurts others when I am angry at them	0	1	2	3
17. When others make me mad, I write mean notes about them and pass the notes around	0	1	2	3
18. I threaten others to get what I want	0	1	2	3
19. I gossips about others to become popular	0	1	2	3
20. If others make me mad, I hurt them	0	1	2	3
21. I am deliberately cruel to others, even if they haven't done anything to me	0	1	2	3
22. When I am angry at others, I try to make them look bad	0	1	2	3
23. To get what I want, I try to steal others' friends from them	0	1	2	3
24. I carefully plan out how to hurt others	0	1	2	3
25. When someone makes me mad, I throw things at them	0	1	2	3
26. When I gossip about others I feel it to makes me popular	0	1	2	3
27. I hurts others for things they did to me a while back	0	1	2	3
28. I enjoy hurting others	0	1	2	3
29. I spread rumours and lies about others to get what I want	0	1	2	3
30. When I have gotten into arguments or physical fights, it is usually because I acted without thinking	0	1	2	3
31. If others make me mad, I tell their secrets	0	1	2	3
32. I ignore or stop talking to others in order to get them to do what I want	0	1	2	3

PCS-Y

	Not at all true	Somewhat true	Very true	Definitely true
33. I like to hurt kids smaller than me	0	1	2	3
34. When others make me angry, I try to steal their friends from them	0	1	2	3
35. I threaten others, even if they haven't done anything to me	0	1	2	3
36. When I get angry, I will hurt someone	0	1	2	3
37. I have gotten into fights, even over small insults from others	0	1	2	3
38. When I have started rumours about someone, it is usually because I acted without thinking	0	1	2	3
39. I say mean things about others, even if they haven't done anything to me	0	1	2	3
40. When someone makes me angry, I try to exclude them from my group	0	1	2	3

Appendix I

Coding sheet for CSGM

Code	Primary motivation of response	Focus	Examples
1	Relational: response that involves some aspect of the relationship between two characters in the story.	Pro-social defined by desire to improve relationship	To act better at home Try to work things out Apologise
		Non-social defined by desire to gain power or revenge	Tell the boy to pick up his books Make him pick the books up
2			To make up with his friend Be quiet so baby can sleep Keep cool
3		Unclear: recast an interaction, from story. This is a narrow category and will probably only include the example responses given	To get back at his friend Tell him it was mean to uninvited him Talk back to his mum (story 3) Being a nuisance (story 4)
4		Avoidance: primary motive is to avoid the problem. NB if this is used with another social goal then code that goal (why question will tell you if avoidance is for another goal)	Avoiding problems with the other person Not go to the party to avoid problems He is being good anyway Avoid his friend Walk away to avoid situation
5		Self: these needs are related to self	Trying to get to class Getting the shoes To pick his books up She broke her promise To get the shoes, the books, to the party etc
6		Things: responses that state one element of story i.e. response is a thing	Going to the party Getting attention from his mum Not get laughed at Not wanting to get into trouble
7		Relational/Non-relational: elements of both pro-social relationship concerns and non-relational concerns.	Act better so he can get the shoes Try to make up with his friend so he can go to the party
8		Gathering more info: primary motivation is to find out more about the other person's intention. Needs to be element of direct interaction...not just 'I wonder what he is thinking...'	Find out why he got uninvited Find out what he did to not get the shoes Find out what he could have done differently to get avoid the problem Why is the one to be quiet
9		Misunderstood: use when the story has clearly been misunderstood...use this code conservatively.	
10		Emotional: clear emotional response without any other codes present	He would be mad
11		Angry: clearly anger emotion displayed	He would cry
		Non-Angry: clearly non-anger emotional response	He would be sad

Appendix J

Focus Group Topics

Thank you to all of you for taking part in the sessions last term, and for being part of my research project. The purpose of this focus group today is to explore your perceptions of taking part in the sessions – I want to know more about what it was like for you individually but also as a group.

I will give you four themes or topics to discuss: 'Being part of a group', 'What is the point', 'What worked for you' and 'What changed for you'. I am going to record this session so I can remind myself of what you have said later.

Please try to listen to others and to take turns sharing your ideas and thoughts.

Topic one: The Mechanics of being in an 'intervention group'

1. What did it feel like being in the group? *Did you feel special? Singled-out? Annoyed at missing lessons? Happy to miss some lessons?*
2. Did you feel as though you were part of something that belonged to you? *What helped you feel this way e.g. group name, rules etc. What stopped you feeling like you belonged?*
3. Were there any knock on effects (positive or negative) from taking part that you did not anticipate? *E.g. missing lessons and gaps in learning? Missing out on things your friends did? Not knowing about homework set? Other students asking questions about the group and why you were in it? Forming better relationships with peers or teaching staff?*
4. Did your parents or peers ask you about the group or did you talk to them about it? *Why was this? Did it help or hinder you in taking part?*

Topic two: Purpose of the group.

1. Thinking back to before the sessions started what did you think you hoped to gain from taking part?
2. Did you have any expectations before we started? If so what were your expectations?
3. Were there things you expected that the group would do but the group did not provide? What were they?

Topic three: The nuts and bolts of the sessions.

1. A lot of people liked the stress management session. Why do you think this was? *Was it different to things you have done before?*
2. Are there any other sessions or activities you particularly liked or disliked? *Why?*
3. Were you comfortable being part of this group? *Were there any benefits of working with others you may not have worked with before? (Peers and adults).*

Could you say what you really felt or not? If not why not? Was it because of one of your peers or teacher/adult?

Topic four: The effect of the group

1. Did you set a goal or target for yourself at the start?
2. Do you think the sessions helped you to achieve it? Completely? Partially?
3. What changes if any have you noticed in yourself? In others?
4. Can you think of any aspects of the sessions that have helped you make these changes?
5. Would you recommend taking part in this group to a friend or sibling who was having difficulties in school?

Thank you for your help

Appendix K

Example of Integrity checklist for session 1

Integrity checklist: SESSION 1 Commencement of intervention

Tick if completed a

Setting up the session

- Explanation of aims of group
- Established group identity
- Collaborative rules setting
- Ice breaker activity

Main activity

- Fly activity
- Explanation of different perspectives
- Individual narratives
- Discussion about who is right?

Homework task

- Explanation of a goal
- Reminder of group aims
- Individual goal setting in relation to group aims

Session end

- Positive comments
- Thank you
- Calm exit

Appendix L

Means, Standard Deviation (SD) and Skewness and Kurtosis for the main study variables at T1

Measures	Mean	SD	Skewness	Kurtosis
Clinical Severity Rating ODD T1	3.93	.884	.142	-1.783
Clinical Severity Rating CD T1	3.73	.594	.091	-.171
SIMS Rewards T1	20.13	7.972	.402	-1.230
SIMS Sanctions T1	24.47	17.533	1.216	1.511
Behaviour (BYI) T1	11.00	5.707	.112	-1.092
Peer Conflict Scale (pupil) T1	11.67	8.103	.773	.566
Callous-unemotional Traits (pupil) T1	26.07	7.196	-.184	.276
Emotionality (IRI)				
Subscale PT (pupil) T1	15.13	4.373	-.074	-1.028
Subscale FS (pupil) T1	12.53	4.357	1.149	1.449
Subscale EC (pupil) T1	18.67	4.530	-.765	.073
Subscale PD (pupil) T1	12.27	4.527	-.227	-.443
Social goals:				
CSGM Pro-social T1	25.67	2.854	.153	-.086
CSGM Deviant T1	13.00	4.614	1.133	.229

Means, Standard Deviation (SD) and Skewness and Kurtosis for the main study variables at T2

Measures	Mean	SD	Skewness	Kurtosis
Clinical Severity Rating ODD T2	3.50	.941	.647	-.576
Clinical Severity Rating CD T2	3.36	.842	.074	1.182
SIMS Rewards T2	17.57	10.704	.854	.110
SIMS Sanctions T2	21.29	16.226	.568	-1.393
Behaviour (BYI) T2	9.79	3.215	-.131	.128
Peer Conflict Scale (pupil) T2	11.57	6.345	.717	-.688
Callous-unemotional Traits (pupil) T2	26.85	5.640	-.062	-.147
Emotionality (IRI)				
Subscale PT (pupil T2)	14.57	4.941	-.311	-1.100
Subscale FS (pupil T2)	12.57	4.183	.801	.221
Subscale EC (pupil T2)	16.64	4.272	-.417	-.737
Subscale PD (pupil T2)	11.64	4.088	1.065	2.249
Social goals:				
CSGM Pro-social T2	25.57	3.081	.380	.652
CSGM Deviant T2	10.57	2.766	1.158	.711

Appendix M

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Clinical severity rating ODD T1	.255	15	.010	.782	15	.002
Clinical severity rating ODD T2	.345	14	.000	.801	14	.005
Clinical severity rating CD T1	.340	15	.000	.758	15	.001
Clinical severity rating CD T2	.357	14	.000	.735	14	.001
SIMS Total sanction T1	.201	15	.107	.895	15	.079
SIMS Total sanction T2	.223	14	.057	.855	14	.026
SIMS Total reward T1	.173	15	.200*	.920	15	.194
SIMS Total reward T2	.164	14	.200*	.910	14	.156
BYIB_TOT_pupil_T1	.104	15	.200*	.958	15	.653
BYIB_TOT_pupil_T2	.239	14	.029	.865	14	.035
PCS_TOT_pupil_T1	.123	13	.200*	.969	13	.876
PCS_TOT_pupil_T2	.220	13	.085	.878	13	.066
ICU: TOT pupil T1	.145	14	.200*	.969	14	.859
ICU_TOT_pupil_T2	.208	9	.200*	.922	9	.408
IRI_TOT_pupil_T1	.116	15	.200*	.963	15	.736
IRI_TOT_pupil_T2	.180	12	.200*	.947	12	.597
CSGM_Prosocial_TOT_T1	.146	15	.200*	.957	15	.637
CSGM_Prosocial_TOT_T2	.230	14	.042	.957	14	.667
CSGM_Deviant_TOT_T1	.334	15	.000	.831	15	.010
CSGM_Deviant_TOT_T2	.225	14	.054	.857	14	.028
SDQ total - Teachers T1	.219	6	.200*	.941	6	.667
SDQ_TOT_teach_T2	.203	9	.200*	.905	9	.285
ICU_TOT_teach_T1	.241	8	.189	.866	8	.138
ICU_TOT_teach_T2	.226	10	.161	.915	10	.319
PCS_TOT_teach_T1	.214	10	.200*	.925	10	.397
PCS_TOT_teach_T2	.197	9	.200*	.872	9	.129

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction