

The Relationship between Shame,
Guilt, Avoidance of Responsibility
and Disruptive Behaviour Disorders
in Pre-adolescents

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OVERVIEW

Volume 1 of this D.Clin.Psy. thesis contains a research project carried out to investigate emotional and cognitive factors that may be implicated in the development and maintenance of disruptive behaviour disorders. The research was designed to have clinical relevance and also to advance the current findings within this area.

The volume is divided into three parts. The first part is a literature review of the research within the area of disruptive behaviour disorders. Current knowledge is examined with a particular focus on what is known about intrinsic emotional and cognitive factors and the role they may have in disruptive behaviour. At the conclusion of this section a hypothetical model, incorporating emotional factors (shame and guilt) and cognitive factors (avoidance of responsibility), is presented for future investigation.

Part 2 of this volume is an empirical paper written to describe the investigation of this proposed model. The paper outlines the background to the study before describing the methodology and analysis of the results. Finally the paper discusses the findings of the study and their implications.

Part 3 is a critical appraisal of the research process. It considers how the research questions arose and presents an extended discussion on the limitations and implications of the findings of the research study.

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Please see appendix L - pg 169 for a list of acronyms used throughout this thesis.

Part 1

Literature Review

PART 1: LITERATURE REVIEW

ABSTRACT

This paper presents a review of the literature within the field of childhood onset disruptive behaviour disorders (DBD). Recent research in this area has focused on identifying risk factors, developmental pathways and causal mechanisms involved in DBD. Focus on these areas has led to somewhat of a neglect of intrinsic factors, which may also play a role in the development and maintenance of DBD and prove important to increase our understanding of how best to intervene with individuals with these difficulties. This review presents a brief introduction to the area and then considers the evidence for intrinsic factors being implicated in DBD. Initially cognitive factors are explored, in particular examining cognitive processes such as avoidance of responsibility, which has been proposed to play a role in maintaining disruptive behaviour. The review then moves on to explore emotional factors, including the distinction between children exhibiting callous-unemotional traits and those without this emotional profile. The review considers whether there is any evidence to consider any other emotional factors in a model of disruptive behaviour, focusing in particular on whether there is a role for shame. Finally a hypothetical model of the maintenance of disruptive behaviour is presented, integrating both emotional and cognitive factors. The implications of such a model on future research are discussed.

OVERVIEW OF DISRUPTIVE BEHAVIOUR DISORDERS

The disruptive, and often anti-social, behaviour exhibited by children who fit a diagnosis of Conduct Disorder (CD) or Oppositional Defiant Disorder (ODD) has serious implications for parents, teachers and society as a whole. Children and adolescents with disruptive behaviour disorders (DBD) constitute the majority of all referrals to child mental health services (Herbert, 1995; Loeber, Burke, Lahey, Winters & Zera, 2000). It is a problem of such stability, severity and prevalence that it has been proposed that CD, in particular, should be considered as one of the main public health problems of our time (Hill, 2002; Werry, 1997). This has, not surprisingly, sparked much interest and research into this area and recently several comprehensive articles have been published reviewing the literature (Burke, Loeber & Birmaher, 2002; Hill, 2003; Loeber, 1990; Loeber, Burke et al., 2000).

Disruptive behaviour disorder (DBD) is a generic term that includes the diagnoses of CD and ODD. ODD is defined as a pattern of negativistic, hostile and defiant behaviour, without serious violations of the rights of others. CD is characterised as a persistent pattern of conduct in which the basic rights of others, or major age-appropriate norms or rules, are violated (American Psychiatric Association, 1994). DBD encompasses a wide range of behaviours, including delinquency, antisocial behaviour, substance abuse and aggression alongside CD and ODD. The problem with this variation in taxonomy of the behaviours that fall under the DBD heading has been discussed previously (Hinshaw & Lee, 2003; Tremblay, 2003). For the purposes of this review literature in all the behavioural areas listed above has been considered as relevant.

Prevalence

Maughan, Rowe, Messer, Goodman and Meltzer (2004), in a cross-sectional study of over 10,000 children aged 5-15 in the UK, found prevalence rates for CD of 0.8% for girls and 2.1% for boys. They found that these rates increased with age. For ODD the prevalence rates were 1.4% for girls and 3.2% for boys, these rates were found to decrease as children grew older.

The reporting of prevalence rates for DBD is complicated by changes in the rates of its occurrence over age and gender, as well as the heterogeneity of the behaviours considered. Overt behaviour difficulties, particularly physical aggression, peak in pre-school years and then decrease with age (Tremblay et al., 1999) whilst covert disruptive behaviour increases with age (Maughan et al., 2004). Some of the changes across age may be affected by overlapping diagnoses of CD and ODD. If ODD is not counted once it develops into CD, levels of ODD appear to decrease with age, whilst if the overlap is accounted for it appears to remain stable (Maughan et al., 2004). Loeber, Burke et al. (2000) conclude that it is not possible, with current research, to make any conclusions about how prevalence varies with age.

Whilst the literature is clear that the prevalence of DBD in boys is much higher than in girls (Loeber, Burke et al., 2000; Maughan et al., 2004) there are inconsistencies in how the rate alters as a function of age and gender. Some research indicates that age serves to widen the gap between boys and girls whilst other suggests that during adolescence the difference between rates of DBD in boys and girls becomes less significant (Loeber,

Burke et al., 2000). It is unclear whether this would be due to a dramatic increase of DBD in adolescence for girls or whether prevalence might be lower in childhood for girls due to gender-based diagnosis bias. For example the diagnostic criteria rely on descriptions of behaviour such as “physically fights” or “argues with adults”, such behaviours may be more culturally acceptable and therefore more likely to occur in boys than in girls. Once again it seems difficult to come to any firm conclusions beyond that boys seem at much greater risk of being identified as having DBD, particularly childhood onset.

Stability and Severity

The stability of aggressive behaviour is a well-documented phenomenon. For a subgroup of the population who show aggressive behaviour from age 2, this continues to be stable throughout the life span (Cummings, Iannotti & Zahn-Waxler, 1989). Research shows a strong relationship between the occurrence of disruptive behaviour before the age of 11 and antisocial behaviour persisting into adolescence and adulthood (Hill, 2003).

It is not just the stability of disruptive behaviour that is a cause for concern but also the severity of outcome for children that exhibit such behaviour in childhood. At the most extreme CD has been associated with the later development of anti-social behaviour disorder and psychopathy (Vitelli, 1998). Lahey, Loeber, Burke and Rathouz (2002) summarise a range of studies and conclude that nearly all adults who meet diagnostic criteria for anti-social personality disorder met criteria for conduct disorder in childhood.

Conversely of children who are diagnosed with CD 30 – 50 % go on to develop ASPD (Hill, 2003; Lahey et al., 2002). The stability of the disorder is related to its severity, with more severe behaviour problems in childhood more likely to lead to persistent anti-social behaviour later in life (Loeber, Burke et al., 2000). In children with CD who do not develop ASPD there is still an association with other maladaptive outcomes later in life (Hill, 2003). Childhood CD has been related to later substance use, teenage pregnancy, domestic abuse and mood disorder (Keenan, Loeber & Green, 1999; Loeber, Burke et al., 2000).

Risk Factors and the development of Disruptive Behaviour Disorders

Much research has focused on identifying individual risk factors that predict the development and outcomes for children exhibiting DBD. These factors have been described extensively in the literature (see Burke et al., 2002; Dodge & Pettit, 2003; Hill, 2003; Lahey et al. 2002; Nagin & Tremblay, 1999; Shaw, Gilliom, Ingoldsby & Nagin, 2003) and include genetic, parenting, peer, social and cultural influences. The consensus in the literature appears to be that the many factors identified interact recursively in different ways to create a multitude of developmental pathways towards DBD (Dodge & Pettit, 2003; Hinshaw & Lee, 2003).

Lahey et al. (2002) followed a group of boys exhibiting conduct disorder over the course of seven years with the aim of identifying which risk factors predicted more or less favourable outcomes for this group in adolescence. More positive outcomes were associated with less severe conduct problems, fewer symptoms of attention deficit or

hyperactivity, high verbal intelligence and well-educated parents of high social economic status and without antisocial behaviour themselves. Lahey et al. (2002) go on to discuss the applicability of their findings as many of the variables they identify are not easily modifiable and therefore the study provides little information for those hoping to prevent or treat disruptive behaviour.

One of the main difficulties with proposing models to describe the development of DBD is that they seem to contain a list of risk factors, which are generic to many psychiatric diagnoses. The concepts of multifinality (the same developmental pathways and risk factors leading to different outcomes) and equifinality (varying different developmental pathways and risk factors leading to the same outcome) are pertinent to this area of research. Whilst in other areas of psychopathology these concepts may have been neglected in DBD the wide heterogeneity of children presenting with problematic behaviour and therefore falling under this category has long been recognised (Frick et al., 2003a; Hinshaw & Lee, 2003).

This heterogeneity means that any proposed model has to encompass and explain a wide variety of behaviour and developmental processes and therefore loses some of its specificity and clinical usefulness. In order to try and combat this problem a large area of research within the field has attempted to sub-type the diagnosis of conduct disorder into more homogenous groups.

Sub-types of Disruptive Behaviour Disorder

This next section will look at the research that has focused on identifying more homogenous groups within the DBD category. These groups tend to differ by either developmental course or type of behaviour exhibited and intra-individual or intrinsic factors have been somewhat neglected. Groups based on types of behaviour are largely descriptive and do not aid our understanding of why different children may exhibit different behaviours. Groups based on developmental pathways may be useful to help identify children in high risk situations but the definition of more and more different and specific groups tends to overshadow the concept of equifinality, that is these children may share similar characteristics and outcomes, regardless of developmental course. The research on developmental pathways tends to consider external (e.g. parenting style) and difficult to modify, often retrospective, factors (e.g. age of onset) which do not offer insight in terms of how to intervene to help children with DBD on an individual level.

Sub-typing by Behaviour

Various researchers have attempted to divide DBD into more homogenous sub-groups based on behavioural descriptions of types of behaviour exhibited. The presence or absence of aggression in the behavioural repertoire of children with DBD has been one of the key factors implicated in de-lineating developmental pathways and outcomes. Physical aggression has been correlated with an earlier onset of other disruptive behaviour (Lahey, Loeber & Quay, 1998) and with the later development of mental health problems (Loeber, Green, Lahey & Kalb, 2000). Different developmental

pathways of aggressive behaviour have been identified in terms of age of onset, level of aggression and whether individuals desist from the behaviour or not (Broidy et al., 2003; Nagin & Tremblay, 1999; Shaw et al., 2003). Variance in these different groups has been linked to socio-economic factors (Nagin & Tremblay, 2001) and both child and parent characteristics (Shaw et al., 2003).

Further sub-types, based on behavioural observation, include the grouping of children into those that show reactive aggression versus proactive or instrumental aggression, with the latter being associated with poorer outcomes, whereas reactive aggression appears to be accompanied by a greater number of additional deficits (Frick & Ellis, 1999). Another distinction is that made between the presence of overt and covert behaviours. Overt includes such behaviours as non-compliance and aggression whereas covert includes lying, stealing and truancy. Poor outcome is linked most strongly to combined overt-covert presentations where evidence of conflict with authority is also present (Loeber et al., 1993). This finding fits with proposals to not only consider type of behaviour but also variety of behaviours displayed (Frick et al., 1993). Loeber (1990) argues for sub-typing along two axes, one of aggression and one of versatility. He proposes that this model can explain developmental differences in age of onset, rate of progression, desistence in adulthood and associated deficits.

As well as the presence or absence of aggression another behavioural type that has received some attention in the literature is the presence or absence of attention deficit hyperactivity disorder (AD/HD) symptoms. Manuzza, Klein, Abikoff and Moulton (2004) argue for a separate pathway to CD via impulsive and hyperactive behaviour,

following the finding that children with AD/HD are at increased risk of later CD, even in the absence of other behavioural markers. However other researchers argue that hyperactivity does not predict DBD independently of other early behavioural difficulties, although it may interact to exacerbate the development of DBD (Shaw et al., 2003). It would appear that the age at which hyperactivity is considered might be crucial in explaining these different findings. If hyperactivity is considered a result of neurodevelopmental processes then it may be considered to underlie early behavioural difficulties itself, whereas if it is not considered until school age then it may appear to be secondary to early manifestations of DBD.

There is a huge amount of research in this area that looks at ever more specific patterns of behaviour. To date it appears that both type and variety of behaviour are useful variables for identifying those children at most risk of developing chronic DBD. However the research remains largely descriptive of behavioural prototypes. There lacks any consideration of how behaviour types might interact with any intrinsic factors, except impulsivity, or why different children might exhibit different types of behaviour. The child with DBD appears neglected in favour of descriptions of his behaviour and there is no consideration of his thoughts or feelings and whether these impact on the development of DBD. It is arguable that it is these factors, rather than a detailed description of behaviour, that may prove modifiable and therefore crucial to designing effective interventions for children with DBD.

Sub-typing by age of onset

Sub-groups of DBD have also been defined by developmental course, in particular age of onset. Both Loeber (1990) and Moffitt (1993) make the distinction between early/childhood onset (also known as life-course persistent) and adolescent onset conduct disorder. This sub-typing is on the basis of two clear developmental pathways. Children who develop behavioural difficulties earlier on in life exhibit more aggressive behaviour, have more associated deficits (e.g. low verbal IQ; Loney, Frick, Ellis & McCoy, 1998) and are twice as likely to develop anti-social personality disorder in adulthood than their peers who develop conduct problems after the age of 11 (Hill, 2003). Moffitt (1993) proposed that early onset is due to a characterological disturbance leading to an interactional process between child temperamental factors and environmental factors. Adolescent onset relies more upon environmental factors and association with a delinquent peer group reinforcing problem behaviour. Loeber (1990) proposed that there is an interaction between age of onset and type of behaviour with the early onset sub-group exhibiting more aggressive behaviour and more versatile disruptive behaviour.

This method of sub-typing de-lineates two clear groups with differing risk for developing persistent, severe DBD. There is some limited consideration of intrinsic factors, in that temperament is included in the early-onset model however this is implicated in general terms and its specificity to DBD is not explained.

Further sub-typing – the presence of callous-unemotional traits

In DSM III (American Psychiatric Association, 1980) a distinction was made between under-socialised and socialised conduct disorder. This was an attempt to capture the difference between children that showed disruptive behaviour yet formed bonds and attachments to others and those children that appeared to have little empathy or attachment for others and showed no remorse for their actions. The criteria for diagnosing this difference were found to be hard to operationalise and therefore the distinction was abandoned in favour of more behaviourally descriptive criteria, e.g. age of onset in DSM IV (American Psychiatric Association, 1994). However more recently, given the links established between adult psychopathy and childhood DBD (Vitelli, 1998), the interpersonal-affective style of children exhibiting disruptive behaviour has come back into focus.

Research suggests that there may be a sub-group of the childhood onset conduct disorder population that exhibit traits very similar to those seen in adult psychopathy and who show more extreme forms of behaviour (Abramowitz, Kosson & Seidenberg, 2004; Frick & Ellis, 1999; Vitelli, 1998). These children are characterised by a distinctive emotional style, referred to as callous-unemotional (C/U) traits (Frick et al. 2003a), which is similar to the affective interpersonal factor in the adult construct of psychopathy (Frick, O'Brien, Wootton & McBurnett, 1994). Whilst many children showing DBD are known to have behaviour that is impulsive and irresponsible, (the other factor in the adult construct of psychopathy), those children that also exhibit C/U

traits are at stronger risk of developing severe and violent behaviour patterns that continue into adulthood (Salekin, Leistico, Neumann, DiCicco & Duros, 2004).

This differentiation on the basis of emotional style is of particular interest as it adds to our understanding of individuals with DBD and is not based on purely a behavioural or developmental description of their difficulties. In addition it indicates that whilst external factors have been firmly implicated as having a role in the development of DBD, there may also be important factors which are intrinsic to the child and potentially may explain differences in development and types of behaviour exhibited.

SHIFTING THE FOCUS TO INTRINSIC FACTORS

To date there has been limited research on identifying internal processes, which might increase the risk of a child developing DBD. The research focus on identifying risk factors and developmental processes has implicated many external factors which play a role in DBD but, as has already been discussed, many of these are not easily modifiable (Lahey et al., 2002). An increased understanding of potential intrinsic factors involved in DBD may prove beneficial in developing interventions for individuals, as currently there is little established evidence base for working in this area (Frick & Ellis, 1999). This next section of the review will look at what is known about intrinsic factors in two areas: cognitive and emotional.

Cognitive Factors and DBD

Cognitive Deficit Models

It has been proposed in a number of models that cognitive neuropsychological deficits may be linked to some DBD. This section reviews models that examine cognitive deficits in terms of theory of mind, verbal reasoning, impulsivity and inhibition.

Happé and Frith (1996) proposed that children with DBD might have an impairment of theory of mind, which is the ability to perceive and attribute mental states to others. They argue that children with DBD may struggle to read the minds of others and therefore not appreciate the consequences of their actions or feel guilt or empathy towards others. However in their study no evidence was found that children with DBD had impaired theory of mind, although they did show a skewed performance towards understanding negative events better. Happé and Frith (1996) argue that their results may be due to a ceiling effect with the theory of mind tasks used, however another study using a more complex theory of mind task also found no evidence of an impairment (Sutton, Reeves & Keogh, 2000).

Alternatively Happé and Frith (1996) proposed that children with DBD have a better understanding of negative reactions from others and that this reinforces the behaviour that gets these reactions. There appears to be some differentiation between the cognitive ability to take another person's perspective and the emotional ability to feel guilt and empathy from that perspective. Sutton et al. (2000) found that theory of mind

performance was not related to DBD but was linked to lack of remorse, which in turn was associated with DBD. It appears that children with DBD do not have a cognitive deficit in terms of theory of mind ability but that on an emotional level their experience may differ from children without DBD. These deficits in guilt and empathy may be attributable to other causes, examined later, besides theory of mind.

Children with DBD have been identified in the literature as suffering from deficits with verbal reasoning and executive functions. For the latter, once ADHD was controlled for, there was found to be little evidence of executive deficits (Hinshaw & Lee, 2003). However the poor performance of most children with DBD on verbal reasoning tasks remains a more robust finding (Loney et al., 1998). Many theories have been proposed to account for this finding, including that children with poor verbal reasoning have greater difficulty regulating their behaviour. This is thought to be due to a variety of reasons; a failure in internalised speech, a greater difficulty recognising others' emotions or a difficulty in anticipating consequences of behaviour. There is also the possibility that the relationship may be explained by a third variable, that of school failure and associated peer rejection (Loney et al., 1998). However a verbal reasoning deficit has been found to only apply to a sub-group of children with DBD. Loney et al. (1998) found those children with ODD or CD generally performed more poorly on verbal reasoning than a clinical control but that if the DBD group also had callous/ unemotional traits then the verbal reasoning deficit was not evident. This indicates that other factors, possibly related to emotional styles, may also be important in the development of DBD.

Impulsivity has been implicated as a neurocognitive deficit involved with DBD and impulsivity items are included in diagnostic criteria for CD, ODD and of course AD/HD (Frick, 2000). Children with co-morbid AD/HD and DBD have a poorer prognosis than those with either disorder separately (Hinshaw & Lee, 2003). Impulsivity is considered to be at the root of the higher levels of physical aggression and greater diversity of behaviour exhibited by this sub-group of children. There is mixed evidence as to whether AD/HD is an independent risk factor for the development of later conduct problems or whether the relationship between the two conditions can be accounted for by the presence or absence of ODD (Nagin & Tremblay, 1999; Shaw et al., 2003). Hinshaw & Lee (2003) suggest that AD/HD may be linked to later conduct problems by causing an earlier onset of difficulties. They argue those children with impulsive and hyperactive temperaments are more likely to elicit detrimental environmental responses, leading to the earlier emergence of ODD.

Nagin and Tremblay (1999) carried out a longitudinal study and found that only 13% of chronically aggressive children and 23% of chronically oppositional children were chronically hyperactive meaning that impulsivity is not a deficit generalisable to all children with DBD. Once again this illustrates the heterogeneity of this group of children and indicates that impulsivity may be a deficit involved for some children with DBD but by no means all.

Inhibition is another area of cognitive functioning that has been linked to DBD in the literature. The de-lineation of behavioural impulsivity and inhibition is not particularly clear and they may be considered similar constructs i.e. a child with good inhibition is

less likely to be impulsive (Eisenberg et al., 2003). Eisenberg et al. (2003) consider inhibition to consist of two factors; effortful control and ego control, with the former being a voluntary cognitive ability to inhibit a dominant response and activate a sub-dominant response and the latter being reactive, instinctive and more similar to traditional views of behavioural inhibition. They argue that good inhibitory control, in both these systems, can act as a protective factor against a child developing negative behaviour such as DBD. Good inhibitory control has been correlated with emotional expression and socialisation (Shiner, 1998) and with a greater latency in getting angry (Kochanska, Murray & Harlan, 2000) and greater internalisation of moral reasoning and emotions (Kochanska, Murray & Coy, 1997). Poor inhibitory control could therefore be considered an alternative to the theory of mind deficit implicated as causal in the difficulties in experiencing empathy and guilt exhibited by children with DBD.

Interestingly emotional factors are considered important to the relationship between inhibitory control and behavioural difficulties. Eisenberg et al. (2003) argue that inhibitory control protects from negative emotions leading to negative behavioral outcomes. Pardini, Lochman and Wells (2004) investigated the role of inhibitory control in protecting against the use of substances associated with three negative emotions (fear, sadness and anger) in adolescence. They found that high levels of anger and low levels of fear, when present in individuals with poor inhibitory control, led to increased risk of substance use. Whether inhibition is related to other anti-social behaviours in addition to substance use has yet to be investigated. It remains interesting as a cognitive concept implicated in DBD, particularly because of its interaction with emotional factors, which are explored in the next section of this review. It is also a concept discussed in a final

cognitive deficit model, applicable to a sub-group of DBD children, those that show callous-unemotional traits. It appears that as a concept poor inhibition can apply to different sub-groups of DBD children, although the mechanism through which it may influence their behaviour may differ according to the group.

Blair (1995) proposes a cognitive deficit model of inhibition to account for the difficulties evident in children identified as having callous-unemotional (C/U) traits, similar to traits seen in adult psychopathy (Abramowitz et al., 2004; Frick & Ellis, 1999; Vitelli, 1998). In several studies it has been demonstrated that adults with psychopathy have difficulties with moral reasoning tasks and the attribution of guilt (Blair et al., 1995; Mitchell & Blair, 2000), whilst attributions of other emotions are comparable to a control population. In particular psychopathic individuals have been shown to fail to make a distinction between transgressions of moral values and transgressions of conventional values. Moral transgressions are defined by their consequences for others' rights and include examples such as hitting other people and stealing. Conventional transgressions are violations of social norms and behaviours and include examples such as talking in class (Blair, 1997).

Blair (1995) argues that humans are evolutionarily programmed with a violence inhibition mechanism (VIM). This is activated by others' distress or fear and inhibits further aggressive behaviour in such circumstances. In his cognitive developmental model a functioning VIM is a prerequisite for the development of moral emotions and behaviour; that is the development of remorse, empathy and guilt, the capacity to inhibit violent action and the ability to distinguish between moral and conventional

transgressions. In psychopathic individuals there is an absence of VIM, either via physiological deficits or due to early life experiences that leads to a failure to develop moral emotions or behaviour.

Blair, Monson and Frederickson (2001) found that children with conduct problems and higher levels of C/U traits failed on vignette tasks requiring them to distinguish between moral and conventional transgressions. They argued that this along with their hyporesponsiveness to others' distress, demonstrated by their reaction to images (Blair, 1999) and difficulty with attributing guilt (Blair, 1997) was evidence for a model of VIM deficit being applicable to some conduct problems in children.

Cognitive deficit models have attempted to identify underlying difficulties that may explain the development of DBD in different groups of children. In particular inhibition, either in terms of behavioural control in general (Eisenberg et al., 2003) or in terms of a more specific violence inhibition mechanism (Blair, 1995) is a concept which has been implicated as important in the development of DBD. Whilst the causal processes remain unclear, inhibition appears related to the development of an internalised morality (Kochanska et al., 1997, Blair et al., 2001) which may be linked to DBD. There are also interesting links to emotional factors, such as the expression of guilt and empathy and the relationship between negative emotions and negative behaviour. This review will move on to consider emotional factors and DBD once the role of cognitive processes has been examined.

Cognitive Process Models

Dodge, Price, Bachorowski and Newman (1990) were some of the pioneers of considering cognitive processes in DBD. They found that adolescent males with a history of aggressive crimes were more likely to make hostile attributions in ambiguous situations, leading to feelings of anger and reactive aggression. This finding was robust over ethnicity, socio-economic status and IQ. Dodge et al. (1990) proposed a social information processing cognitive model of aggressive behaviour, where information processing biases at the encoding, response access, response selection and response enactment stages placed individuals at an increased risk of reacting aggressively in ambiguous situations.

Dodge and Pettit (2003) go on to generalise this model to other DBD symptoms beyond aggression. They argue that a key factor in whether a child exhibits antisocial behaviour or not, is that child's individual pattern of processing social information. This is the child's own set of rules on how to act with other people. This set of rules will be affected by a vast range of external and internal influences such as parenting, peer experiences, child's temperament and is what, Dodge and Pettit (2003) argue, mediates between early life experiences and the expression of aggressive and anti-social behaviour. Similarly to the earlier model, they propose four patterns of social information processing bias that predict later chronic conduct problems; failing to encode relevant cues, hostile attributional biases, aggressive response generation and positive evaluations of aggressive responses. They propose that children with these processing biases are more likely to respond to situations in an aggressive manner.

However other researchers have questioned whether this information-processing model is applicable to other anti-social and disruptive behaviours beyond aggression. Dodge et al. (1990) found that in their original study the attributional bias model failed to generalise to nonaggressive crimes or acts of proactive aggression. This indicates that there may be a specific role for this model in reactive aggression and suggests that processes may interact with emotional factors such as anger. Dodge and Somberg (1987) argued that it was emotional arousal that critically interfered with accuracy of aggressive children's interpretations and led to some of the attributional biases described.

Crick and Dodge (1994) argue that different cognitive processes might be differentially important to different sub-types of DBD. They argue that hostile attributional biases are specifically related to reactive aggression whereas for instrumental aggression it is positive evaluations of aggressive responses and beliefs about self-efficacy that predict continued difficulties. Sukhodolsky and Ruchkin (2004) found that other cognitive beliefs are also important in maintaining DBD behaviour patterns. Their research indicated that adolescent juvenile delinquents of both aggressive and nonaggressive types legitimised their behaviour more than a control population but that there was no difference in the normalising beliefs about the behaviour between the two groups.

Another cognitive factor that has been linked to disruptive behaviour is that of locus of control. This refers to whether an individual attributes control over their behaviour, successes and failures to factor lying within themselves (internal locus of control) or forces outside themselves e.g. luck (external locus of control) (Rotter, 1966). An

external locus of control has been shown to be associated with emotional and behavioural difficulties (Nunn & Parish, 1992), increased hostility and aggressiveness and symptoms of psychopathy and conduct disorder (Parrott & Strongman, 1984).

The proposed link between external locus of control and DBD led to some interventions being focused on developing a more internal locus of control in these children (Lewis, 1996). A difficulty with much of the research into locus of control and DBD is that it has treated children with behavioural difficulties as a homogenous group and compared them to “normal” children and hence found that they differ in locus of control scores, although not greatly (Lewis, 1996). Lewis (1996) studied a group of children referred for behavioural difficulties to see whether locus of control differed between sub- types of behavioural difficulties, including internalising versus externalising difficulties. He found no relationship between locus of control and behaviour type and argued that whilst the construct may distinguish children with problems from those without it does not offer any further distinctions amongst the problem group. This, he argued, devalued locus of control as a useful construct when considering behavioural difficulties and how to intervene with them.

However more recently Jackson, Frick and Dravage-Bush (2000) demonstrated that children with DBD were shown to have an unknown locus of control across a variety of situations. Jackson et al. (2000) argue that this means that these children feel uncertain and therefore are more likely to show difficult behaviour to test the boundaries and the control in these situations. They argue that locus of control is specific to different contexts and that previous discrepant results in the literature are from a failure to take

this into account or to consider the third “unknown” dimension of locus of control. However the study only included a clinical population and therefore it is not known how locus of control relates to sub-clinical levels of DBD and whether the “unknown” locus of control may be specific and causally related to DBD.

A cognitive concept that has been investigated in adolescents showing conduct disorder and antisocial behaviour is that of avoidance of responsibility. This concept includes cognitive strategies that an individual uses to avoid taking responsibility for his/her own behaviour and hence the negative consequences of that behaviour (Powell & Rosen, 1999). It could be argued that adopting an external locus of control, a legitimising stance or a hostile attributional style are means of avoiding responsibility and providing some external justification for behaviour (Powell & Rosen, 1999). Powell, Rosen and Huff (1997) investigated avoidance of responsibility in a sample of students and found a strong relationship between avoidance of responsibility and DBD symptomatology. In particular Powell et al. (1997) identified four key factors of the avoidance of responsibility construct:

- a) immoral attitude – lying to avoid being caught
- b) adopting the victim role – blaming behaviour on past experience
- c) No remorse
- d) Playing dumb – not acknowledging the consequences of behaviour

Powell and Rosen (1999) went on to investigate the construct in a clinical sample of adolescents with conduct disorder. They found that, in comparison to a control sample

without conduct disorder, the clinical sample rated more highly on measures of both avoidance of responsibility and external locus of control. Powell et al. (1997) argue that this cognitive style maintains DBD symptoms as an individual who avoids responsibility for his/her behaviour also avoids linking their behaviour with any negative consequences and therefore has no motivation to modify or alter it. The behaviour becomes negatively reinforced. Sutton, Reeves and Keogh (2000) went on to investigate avoidance of responsibility in children aged 11-13 and found the same relationship between higher levels of avoidance of responsibility and higher levels of DBD. In particular they identified that “shifting blame” was an avoidance of responsibility strategy that was significantly associated with increased levels of DBD symptoms.

The maintenance model proposed for avoidance of responsibility does not make any prediction over causal sequences. It is unclear whether this cognitive style arises from disruptive behaviour and then serves to maintain it, or whether it is a cognitive style that predisposes individuals to exhibit disruptive behaviour. The direction of causality is particularly difficult to determine given that studies have only been conducted within adolescent and adult samples, when any disruptive behaviour is likely to have been well established. These samples may also be heterogeneous including individuals with both childhood onset and adolescent onset DBD, where research has indicated different developmental pathways may be implicated in each subgroup. In addition studies to date have relied upon self-reported disruptive behaviour symptoms and it may be that only a sub group of children who avoid responsibility for behaviour and therefore are happy to endorse such behaviour on checklists have been identified. It seems important to study the applicability of linking DBD and avoidance of responsibility in younger samples and

where DBD symptoms are not only obtained via self-report. It seems a valuable cognitive construct to investigate particularly in that it begins to consider the internal experience of the child with DBD and make links with emotional factors. For example one of the negative consequences of DBD, which it is proposed the use of these cognitive strategies can help avoid, is experiencing guilt and empathy for others. The construct also seems worth further investigation in that the maintenance model appears theoretically valid and may highlight areas where intervention could be effective in altering DBD.

Hinshaw and Lee (2003) propose a model of DBD, which tries to incorporate both the cognitive deficit and cognitive processing factors. They argue that genetic and prenatal factors may lead to cognitive deficits in verbal reasoning, and high impulsivity, which then interact with the environment to lead the child to develop some of the cognitive biases outlined above. These, in combination, lead to further negative environmental risks such as peer rejection and school failure and so the cycle escalates. However absent from this model, and many other cognitive explanations of DBD, are any emotional factors intrinsic to the child. Hinshaw and Lee (2003) do observe that the cognitive factors implicated in their theory, of poor verbal reasoning, lack of inhibition and information processing biases, all place the child at risk of being emotionally dysregulated. However, they note the lack of research in this area and do not include emotional factors in their model.

Emotional Factors and DBD

The emotional profile of children exhibiting DBD is varied and seems to explain some of the heterogeneity within this category (Frick, Cornell, Barry, Bodin & Dane, 2003b), yet it is an area that has been largely neglected in the research until the recent focus on callous-unemotional traits. This may be partly due to the severity of behaviour exhibited by some children with DBD. Earls (1994) argues that this leads to a definition of the disorder where "(a) greater emphasis is given to the impact of such behaviour on others than on the personal distress or discomfort of the individual child." (p 308). This next section will review what is known about the role of emotional factors in DBD. Initially the research into emotion deficits and callous-unemotional traits will be presented before considering other emotional factors that may play a role in DBD.

Callous- unemotional traits

The emotional profile captured by the descriptive label of callous-unemotional (C/U) traits is inextricably linked with the concept of adult psychopathy, alternatively known as anti-social personality disorder (Frick et al., 1994). Therefore it is felt to be important to include some outline of this literature prior to considering how these traits may be implicated in DBD in children.

Psychopathy has largely been defined as consisting of two separate factors; an affective-interpersonal factor (characterised by deceptiveness, arrogance, superficial charm, callousness and lack of guilt and empathy) and a behavioural factor (consisting of

irresponsible, impulsive and anti-social behaviour) (Frick et al., 1994). It is not a diagnosis included in DSM IV (APA, 1994), however clinically is considered more useful than the more heterogeneous group diagnosed with anti-social personality disorder (of whom 30 – 50 % meet criteria for psychopathy.) (Abramowitz et al., 2004). Anti-social personality disorder diagnostic criteria are largely based on behavioural descriptions and have been criticised for meaning that repetitive criminality fits a psychiatric diagnosis (Hinshaw & Lee, 2003). The concept of psychopathy is useful in that it includes emotional and interpersonal traits, as well as behaviour, which define a categorically different high-risk group of offenders who show severe and violent anti-social behaviour (Barry et al., 2000). In particular psychopathy in adulthood is associated with higher levels of aggression, greater recidivism (Frick et al., 2003a) a wider variety of anti-social behaviour and poorer response to treatment (Abramowitz et al., 2004).

Barry et al. (2000) argue for the usefulness of extending the construct down to children showing anti-social behaviour. Vitelli (1998) in a study of maximum-security inmates found that childhood conduct problems and AD/HD were significantly related to adult anti-social personality disorder, psychopathy and level of violence. He argued that given the adult consequences of childhood disruptive behaviour disorders more research is needed to understand their development and to create effective early interventions. Salekin et al. (2004) also write of the benefits of understanding more about psychopathy in children. It is stated that these traits predict severe and violent anti-social personality disorder, further the understanding of the developmental pathways of psychopathy and may help with the development of interventions and treatments for this disorder.

However, caution should be exercised against the use of the label psychopathy with children, in particular noting that the negative connotations of the label in adults, of it being an untreatable and stable personality characteristic, may prove to be unfounded in a children's population exhibiting similar traits (Frick & Ellis, 1999). Never the less the importance of identifying a sub-group of children that may be at particular risk of developing long-term and severe patterns of anti-social behaviour must be recognised. This is particularly true if risk factors specific to that group can be de-lineated and used to aid our understanding of their difficulties and hence develop specialist interventions from which they may benefit.

Frick, Bodin and Barry (2000) translate the factors of adult psychopathy into three traits identifiable in childhood; a) an interpersonal factor characterised by *narcissism* and a lack of concern for others, b) an affective factor characterised by the presence of *callous and unemotional* traits, and c) a behavioural factor characterised by *impulsivity*. These factors have been measured in children using the Antisocial Process Screening Device (APSD; Frick & Hare, 2001) and have been found to show significant relationships with disruptive behaviour. Piatigorsky and Hinshaw (2004) found that psychopathy measures in children correlated with ODD, CD and AD/HD and argued that this was due to overlap with the behavioural factor of psychopathy. They argue that C/U traits can only be implicated in DBD if the interpersonal and emotional factors in psychopathy are found to relate to disruptive behaviour once the behavioural factor has been controlled for.

Frick (2000) and Mitchell and Blair (2000) argue that it is the emotional and interpersonal factors, epitomised by C/U traits, that are central to the construct of psychopathy and that without these being present the diagnosis is invalid. Barry et al. (2000) found that of children with conduct problems and AD/HD symptoms it was only those that also scored high on callous and unemotional traits that later went on to meet criteria for psychopathy in adulthood. Christian, Frick, Hill, Tyler and Fraser (1997) studied two groups of children with disruptive behaviour disorders and found that whilst both groups showed impulsivity, the group which also scored high on C/U traits exhibited higher levels of conduct problems which were also more varied in nature. Frick et al. (2003a) found that children with CD and C/U traits had a greater number and variety of conduct problems, which is predictive of poorer long-term outcome. Therefore there is some evidence that C/U traits are linked to higher levels of DBD independently of the behavioural factors of psychopathy.

Children with callous-unemotional traits are more likely to show thrill-seeking behaviour, are less sensitive to punishment, less sensitive to others' distress (Blair, 1999; Eisenberg et al., 1996), have less verbal IQ deficits (Loney et al., 1998) and are less affected by variations in parenting styles than their peers exhibiting conduct problems but without the callous-unemotional traits (Wootton, Frick, Shelton & Silverton, 1997). This has led to Frick et al. (2003b) arguing for the usefulness of sub-typing childhood onset conduct disorder into those with and without C/U traits. The proposal being that it is the emotional vulnerability and interpersonal style captured by the C/U traits label that leaves these children at risk of developing severe DBD. This is important and unusual in

the field as it draws attention to factors intrinsic to the child, in particular in relation to emotional style, which may be implicated in DBD.

Frick and Ellis (1999) propose that the C/U group develops via a physiological or neurological deficit resulting in poor behavioural inhibition. This results in the thrill seeking behaviour, insensitivity to punishment, lower response to others' distress and impairs the development of guilt and empathy (Kochanska, 1993) – leading to the development of callous-unemotional traits and impulsive behaviour. Another sub-group of children, without C/U traits, still develops impulsive and disruptive behaviour but the causes are much more varied and include parenting practice, dysfunctional family backgrounds and verbal IQ deficits.

Whilst Frick and Ellis (1999) argue that the emotional deficit for children with C/U traits develops from a behavioural inhibition deficit Mitchell and Blair (2000) argue that the difficulties with emotion are the essence of psychopathy. As discussed earlier in this review Blair (1995) proposes that the callous-unemotional profile develops via a neurocognitive pathway and dysfunctional VIM, leading to a core emotional deficit with attributing guilt and empathy. He argues that it is this deficit which is captured by the callous-unemotional profile and which makes DBD more likely in these individuals. In support of this theory is that children and adults with callous-unemotional traits have difficulty attributing guilt and empathy (Blair, 1997; Christian et al., 1997) are insensitive to others' distress (Blair, 1999) and are unable to make distinctions between moral and conventional transgressions (Blair, 1997). However these studies do not prove causality and a similar pattern of deficits could be evident in a child where poor

behavioural inhibition has led to difficulties attributing guilt and empathy and an emotional style labeled as callous and unemotional.

In support of this is one study with children where there was found to be an interesting difference between child participants with conduct disorder and callous-unemotional traits and adults with psychopathic traits (Blair, 1997). Whilst both groups showed difficulties with making moral-conventional distinctions, as predicted by the VIM model, the children did not show less reference for others welfare, as found with the adults. Although this is attributed to participant factors in this study an alternative explanation could be that callous-unemotional traits develop as a result of childhood experience and DBD (as a result of poor behavioural inhibition), rather than being a pre-disposed characteristic causing DBD. Salekin et al. (2004) also raises the possibility that psychopathic traits may develop as a protective shield over a specific course of time as a result of experiencing adverse circumstances.

Frick et al. (2003b), in a study of children with and without callous-unemotional traits and with and without conduct disorder, found that children with this emotional style and without conduct disorder share the same level of low behavioural inhibition as those with callous-unemotional traits and conduct disorder. This suggests that poor behavioural control is linked with this emotional profile. However it also indicates that C/U traits alone do not necessarily lead to DBD, in some children with C/U traits there is a protective factor, or factors, at work that prevent them developing DBD. This has yet to be identified in the research.

The developmental pathway for callous-unemotional traits has yet to be defined, in terms of whether they precede and elevate the risk of DBD or whether they arise from DBD. The child literature appears to indicate that DBD and callous-unemotional traits share an underlying risk factor that is behavioural inhibition. The existence of children with these traits and without DBD (Frick et al., 2003b) suggests that there may be some independence in these factors rather than a direct causal pathway. The adult literature points towards the importance of this distinct emotional style in adult anti-social behaviour, suggesting that it is the emotional deficit that is at the core of the problem (Mitchell & Blair, 2000). However research in this area has not investigated whether adults may have these traits but not demonstrate anti-social behaviour. More research needs to be conducted on the presence of callous-unemotional traits in children and how this interacts with other factors to lead to them being at greater risk of developing the more extreme forms of DBD.

Other emotional factors and DBD

As already outlined, the role of emotional or affective factors in DBD was rejected in DSMIV (APA, 1994) in favour of more behavioural and developmental descriptions of the disorder. However recent research has focused once more on this area in a small subgroup of children who demonstrate a distinct affective style characterised by callous-unemotional traits. The presence of other emotional factors in DBD, particularly in the children that do not have these traits, has largely been neglected in the literature.

This group of children, with DBD and without C/U traits, has also been found to have a distinctive emotional style, notably in response to negative events. Loney, Frick, Clements, Ellis and Kerlin (2003) found that these children were highly reactive to emotional and threatening stimuli and they also respond more strongly to socially provocative situations than their peers without DBD (Pardini, Lochman & Frick, 2003). Melnick and Hinshaw (2000) found that children with disruptive behaviour demonstrated a higher emotional intensity and poorer emotional coping than their non-disruptive peers, offering further support to the idea that emotional factors may be implicated in the development and maintenance of DBD. Frick et al. (2003b) argue that for children with DBD and without C/U traits, a core difficulty is one of emotional regulation, which can lead to high levels of anger, impulsivity and reactive aggression. This links with the idea expressed earlier in this review that cognitive deficits may lead some children with DBD to become emotionally dysregulated (Hinshaw & Lee, 2003).

This next section will consider the sparse literature on affective factors, besides C/U traits, in DBD. This is an area that has been investigated more in adolescent DBD and so this literature will be examined. However it must be remembered that in many of these studies the sample will be mixed between early and late onset DBD. Therefore the generalisability to a population of “early-onset children” may be limited.

Anxiety has been linked with the occurrence of DBD in the adolescent literature. Anxiety has been hypothesised to both increase DBD and inhibit it, with research supporting both. This may be due to conceptual confusion between anxiety and fearfulness. Hinshaw and Lee (2003) differentiate between anxiety associated with fear,

inhibition and avoidance and anxiety associated with social withdrawal. They propose that the former acts as a protective factor against DBD, and is inversely related to impulsivity and levels of callous-unemotional traits, whilst the latter is a risk factor for more severe aggressive behaviour and poor prognosis in DBD children. This may be due to such anxiety interacting with other difficulties for example, impulsivity, callous-unemotional traits, or possibly due to it fueling a withdrawal from beneficial social and environmental experiences.

Depression has also been linked to the occurrence of DBD in adolescence. The prevalence rate of co-morbid depression and conduct disorder is higher than would be predicted if the two disorders were independent (Beyers & Loeber, 2003). Simic and Fombonne (2001) investigated the ICD-10 (WHO, 1996) diagnosis of depressive-conduct disorder with the aim of determining the validity of this differential diagnosis. Previous research had suggested that depressive symptoms were secondary to the conduct disorder and outcome was predicted by the conduct symptoms alone with the relationship between the two pathologies being attributed to shared underlying risk factors. Simic and Fombonne (2001) found that individuals classified as conduct disorder and depressive conduct disorder shared more similarities than with those classified as depressive. In particular the former had an earlier age of onset, more experience of psychosocial adversity and more educational needs. When comparing the depressed group and the depressive conduct disorder group the latter showed less severe depressive symptoms but higher levels of irritability and self-injurious behaviour. The study also found that there was a difference between individuals diagnosed with conduct disorder and those diagnosed with depressive conduct disorder, with the latter showing

less destructive and overt aggression and experiencing more abuse and loss in their lives. They argue that this differentiation supports the differential diagnosis of depressive conduct disorder. The evidence on this issue is not conclusive and emotional factors are still not included within a DSMIV (APA, 1994) diagnosis of conduct disorder.

Beyers and Loeber (2003) examined the co-occurrence of depression and conduct disorder in a longitudinal study, which aimed to control for common risk factors and examine the relationship between delinquent behaviour and mood across a time span, whilst accounting for the age of participants. Their comprehensive study revealed a complex relationship between mood and delinquent behaviour with no clear causal pathway in either direction. High delinquency predicts later depressed mood, which in turn predicts a failure to desist from delinquency. They argue that the data supports Patterson, Reid and Dishion's (1992) model explaining the relationship between conduct disorder and mood. In this model early childhood disruptive behaviour leads to rejection by peers and family, which puts the individual at risk of depressed mood, which in turn leads to more serious delinquent behaviour and so on. Beyers and Loeber (2003) conclude that there needs to be further research into the link between mood and conduct disorder. In particular they identify the self-focused nature of depression and liken this to another emotion, shame. They propose that shame may play a mediating role between low mood and conduct difficulties by inhibiting empathy and hence increasing the likelihood of disruptive behaviour. Hinshaw and Lee (2003) also question whether shame may be an area for further investigation in DBD. They note the high rate of suicide attempts in DBD adolescents and consider whether shame may be an emotional

factor in this behaviour. The role of shame will be examined in more detail in the following section.

Is there a role for shame in DBD?

As discussed above shame has been identified as a potential emotional factor involved in individuals exhibiting disruptive behaviour (Beyers & Loeber, 2003; Hinshaw & Lee, 2003). In this section shame and guilt will be differentiated, as the two emotions are often confused and guilt deficits have also been implicated as important in DBD. Evidence relating the concepts of shame and guilt to behavioural disturbance will then be reviewed. Lastly literature considering the relationship of shame and guilt to psychopathy will be considered. In this way shame will be linked with the literature on both sub-groups of childhood onset DBD identified; those with and without callous-unemotional traits.

Feelings of shame have been linked to many types of psychopathology, including alcoholism, depression and narcissism (Tangney & Dearing, 2002) however there has been limited research on the relationship between shame, psychopathy and anti-social behaviour (Morrison & Gilbert, 2001). Shame has been conceptualized in a number of ways. Historically shame has been thought of as a moral emotion – like guilt – with its function being to promote moral behaviour. Shame and guilt can be differentiated by the focus, phenomenology and motivation of the affective experience. Guilt is behaviourally specific, fosters the ability to empathise and promotes acts of reparation; whilst shame has a global focus on the person as a whole, is a painful and isolating experience and

promotes concealment and avoidance (Tangney & Dearing, 2002). Research shows that whilst guilt-proneness is correlated with moral behaviour, shame proneness is not (Tangney & Dearing, 2002). In fact shame proneness in a sample of children was found to predict later suspension, drug use and suicide attempts, whereas guilt proneness at age 8 was inversely related to arrest rate and level of aggression twenty years later (Huesmann, Eron, Lefkowitz & Walder, 1984). There is something about the shame experience, in contrast to that of guilt, which does not lead to the inhibition of disruptive behaviour but in fact increases the likelihood of psychopathology.

As mentioned above the shame experience is a global one, it is not about what a person has *done* but about what the person *is*, as a whole. The focus of the affect is internally directed and negative in nature, in addition the assumption is that others view the self negatively also – leading to a sense of being exposed (Lewis, 1971) and the potential for interpersonal difficulties. This focus in on the self explains why shame can lead to an impairment in the ability to feel empathy for others, which would require the individual to focus on others distress, rather than their own. In contrast feelings of guilt are positively correlated with empathy. A focus on one's behaviour and actions means that one can still feel empathic for others, in particular for the consequences of one's actions on them (Tangney & Dearing, 2002). In addition, with guilt, the focus is on a behaviour, which can be altered or compensated for, whereas the stable and global focus on the self in shame is less amenable to change. This may explain why guilt appears to be the more adaptive moral emotion whereas shame appears to interfere with moral behaviour.

These differences have led other theorists to propose a different evolutionary model of shame, where it is not considered a moral emotion. Gilbert (1997) argues that shame serves as a signal to individuals that they risk some loss of attractiveness. This is based on the universal need for others to find one attractive and of high social rank in order to reproduce. If one suffers a threat or actual loss of attractiveness then the affect felt is shame and it encourages the individual to withdraw to avoid further shaming (or loss) experiences. Nathanson (1994) argues that there is more than just the traditionally espoused withdrawal reaction to shame. He proposes four options of defence. These are withdrawal, avoidance, attacking the self and attacking others. This fits with Gilbert's (1997) argument that rank and status can be achieved either by appearing attractive or by aggression (or a balance of the two) and is also reminiscent of the evolutionary programmed fight/ flight reaction to threat.

Shame and Anger

As argued above if shame cannot be avoided or withdrawn from then another defence is to fight. This is proposed by both those that see shame as an evolutionary programmed emotion relating to status and rank and by those who view it as a moral emotion. From the evolutionary perspective the fight is about re-establishing status and attractiveness (Gilbert, 1997). From the moral perspective the fighting out results from an initial internalised hostility and negative evaluation being experienced as too aversive and therefore being shifted out onto a hypothetical "disapproving other" figure (Lewis, 1971). This serves the function of preserving self- image and avoiding experiencing the self as bad and shameful.

Lewis (1987) argues that the shame experience forces one to hold a negative view of oneself and of others that is conducive to an angry and aggressive reaction. This is not a stance that fits in with a traditional frustration- aggression model of aggressive behaviour but could be accounted for by Berkowitz's (1993) aversively stimulated model of aggressive behaviour. He proposed that not only frustration led to aggression but also any emotional distress or state that was experienced by an individual as aversive. Baumeister (1997) proposed that threatened egotism leads to emotional distress, which in turn causes a breakdown in self-regulation processes. The immediate response is to end the ego threat without concern for long-term consequences, and one such way of ending that threat may be through aggressive behaviour. Although Baumeister does not talk about shaming experiences as ego threats, it is clear from both the evolutionary and moral standpoint that such experiences could very well affect Baumeister's definition of egotism (a favourable view of the self and the belief that others also hold that view).

Empirically several studies have shown a link between anger, aggression and feelings of shame. Wicker, Payne and Morgan (1983) showed that when describing shame experiences undergraduates were more likely to talk about wanting to hide or punish others than when they described guilt experiences. Tangney, Wagner, Burggraf, Gramzow and Fletcher (1991) studied school age children and found that shame proneness was positively correlated with both self-reports of anger and teacher reports of aggressive behaviour, whereas guilt was negatively correlated with anger. This may be particularly relevant to children with DBD who have a difficulty with attributing and

experiencing guilt and therefore will not benefit from its apparent inhibitory effect on anger and aggression. Tangney, Wagner, Fletcher and Gramzow (1992) also found that shame proneness was positively related to anger arousal and indirect hostility in a group of undergraduates. They found positive relationships between shame and suspiciousness, resentment, irritability and externalisation of blame. Guilt was negatively correlated with externalisation of blame and some measures of anger and hostility. Tangney, Wagner, Hill-Barlow, Marshcall and Gramzow (1996) investigated the constructive versus destructive expression of anger across the life span. They discovered that guilt proneness was related to constructive use of anger whereas shame prone individuals, of all ages, showed higher maladaptive and destructive responses to anger. The shame prone individuals in general experienced higher levels of anger and direct, indirect and displaced aggression as well as reporting more malevolent intentions to their behaviour. Tangney et al. (1996) conclude that

“a consideration of shame and guilt and the distinction may be helpful when intervening with individuals who present with aggressive or antisocial behaviour” (page 807)

Whilst they do not argue that all aggression is a result of shameful affect they do note that its contributory role may be overlooked in clinical and educational settings. This may be in part due to a focus on behaviours exhibited and behavioural interventions for dealing with them. It is interesting to consider whether shame may play a role in the aggressive behaviour of only some children with DBD or whether it is an emotional experience that may generalise across more than one sub-group of the disorder. It is also far from clear how shame may act to influence other anti-social behaviours beyond

aggression against people or property. It seems plausible that shame may lead directly to other disruptive behaviours. If the shaming experience is aversive and leads to a loss of status, or impression of disapproval from others, it is likely to not only lead to aggressive reactions but also to interpersonal hostility and oppositional behaviour, which characterise many of the DBD behaviours.

The focus on the self in shame leads to an inhibition of guilt and empathy, the development of which may already have been affected by poor behavioural inhibition (Kochanska, 1993). This lack of guilt and empathy means that consequences of the difficult behaviour for others are not felt and the child does not make any reparative action. The behaviour itself has therefore been negatively reinforced and the image of the child as “having no feelings and getting into trouble” has also been reinforced, making future shaming experiences more likely to occur.

This proposed maintenance cycle could apply for both children with and without C/U traits, who may have developed DBD and guilt and empathy deficits along alternative pathways. However whilst children without C/U traits are known to have intense reactions to negative emotions such as shame (Loney et al., 2003) those with C/U traits are proposed to have low emotional reactivity to negative events (Blair, 1999). The adult literature on psychopathy provides some understanding on how the concept of shame may relate to DBD in children with callous-unemotional traits. Morrison and Gilbert (2001) investigated the occurrence of shame in primary and secondary psychopaths. This is a differentiation made by Blackburn (1996) on the basis of emotional profiles and social skills. They argued that psychopaths respond to all conflict

as a threat to the self and may be unable to use subordinate defence mechanisms such as avoidance or acknowledgment of shame, rather they may attack the shamer to stop the perceived attack on themselves and reassert their own status. Morrison and Gilbert (2001) found that whilst both primary and secondary psychopaths were relatively high in terms of shame proneness, primary psychopaths perceived themselves to be of a higher social rank and lower in terms of shame, anger and self-blame. However in response to shaming situations or threats primary psychopaths were quick to respond in anger whereas secondary psychopaths were more likely to assume a subordinate defence to the situation. This research is supportive of the evolutionary model of shame and also suggests that an individual's perception of his social rank may be crucial in determining his response to a threatening or shaming experience. It indicates that shame may be an area where individuals with psychopathic characteristics, including C/U traits, may be highly reactive.

The group of children with callous-unemotional traits have already been identified as having difficulties with empathy and attributing guilt (Blair, 1997; Christian et al., 1997). This has been explained in terms of neurological deficits leading to either a behavioural inhibition deficit (Frick et al., 2003b) or emotional deficit (Blair, 1995), which prevent the development of moral emotions. If shame is considered to have evolved separately to moral emotions (Gilbert, 1997) then these children may be impaired in experiencing guilt but still experience shame as a result of their behaviour. It has been considered above how this emotional experience might serve to escalate and maintain disruptive behaviour.

Interface between emotional and cognitive factors

Whilst different studies have identified emotional and cognitive factors believed to play a role in DBD few have studied how these factors combine and interact (Sukhodolsky & Ruchkin 2004). The avoidance of responsibility research proposed a link with some of the emotion factors identified in disruptive behaviour. Powell, Rosen and Huff (1997) proposed that this cognitive style meant that an individual could avoid feeling guilt and remorse for his/her actions. However if children with DBD have a deficit in guilt and empathy attributions (Blair, 1997; Happé & Frith, 1996) then it is not clear why they should employ cognitive strategies to avoid them. It is possible that avoidance of responsibility strategies serve to help individuals avoid another negative emotional consequence of their behaviour, potentially shame.

In a model that linked emotional and cognitive factors Bandura, Barbaranelli, Caprara and Pastorelli (1996) argued that cognitive mechanisms were implicated in the development of moral emotions. They proposed a social cognitive model that acts as a self-regulation system in terms of self-monitoring, making judgments and being self-reactive. They argued that differences in this system, such as how blame is attributed, how victims are judged, where responsibility for actions is attributed and how consequences are judged can lead to a process they labeled as moral disengagement. That is an individual can show hostile thoughts, low guilt proneness and low empathy as a result of this social cognitive system. This can then manifest itself as antisocial and aggressive behaviour.

Whilst in this model the cognitions drive the emotions it seems equally plausible that cognitions could arise from particular emotional experiences. For example an individual with difficulties with attributing guilt or feeling empathy may have an increased risk of anti-social behaviour which in turn is experienced as an intolerable shame experience. This negative experience can then be avoided by the use of cognitive strategies such as external locus of control and avoidance of responsibility, which may be interpreted by others as callous- unemotional traits.

Hypothetical Model linking cognitive and emotional factors in the maintenance of DBD

The complex and multi pathways that lead to the development of DBD are discussed earlier in this literature review. The proposed hypothetical model, presented in figure 1.1, is an attempt to integrate the cognitive and emotional factors identified and consider how they may maintain disruptive behaviour once it has developed. It is conceivable that similar maintenance factors could be involved in DBD presentations regardless of the developmental pathway that led to the disorder. In this model it is proposed that children with higher levels of disruptive behaviour are predisposed to have lower levels of guilt, due to developmental models outlined earlier in this review. These children will experience high levels of shame, connected to their poor behaviour and unmediated by the normal mix with guilt, which serves to promote adaptive solutions. Shame is an interpersonal experience, in that it is proposed to either be an evolutionary programmed response to a threat to status or a threat to ego and the view of self in an individual's own and others' eyes. This interpersonal dimension is interesting to consider in the field

of DBD where behaviour is associated with poor peer relations (Coie & Dodge, 1998) and delinquent peer affiliation in adolescence (Keenan, Loeber, Zhang, Stouthamer-Loeber & van Kammen, 1995). Children with DBD appear to have difficulties with their interpersonal relationships, whether this is due to the presence of callous-unemotional traits or due to early developmental and socialisation experiences. However these difficulties may mean they are left very susceptible to experiencing a strong shame reaction, in terms of loss of status or ego threat, due to the lack of positive interpersonal experiences to balance out the negative shame experience. This in turn may mean that they react with extreme behaviour in the form of DBD.

The negative emotional shame experience is dealt with using the cognitive strategy of avoidance of responsibility. The focus on the self during a shame experience and the avoidance of responsibility via cognitive strategies serve to reduce the emotional impact of the behaviour and the experience of guilt, therefore increasing the likelihood of further disruptive behaviour by a negative reinforcement process.

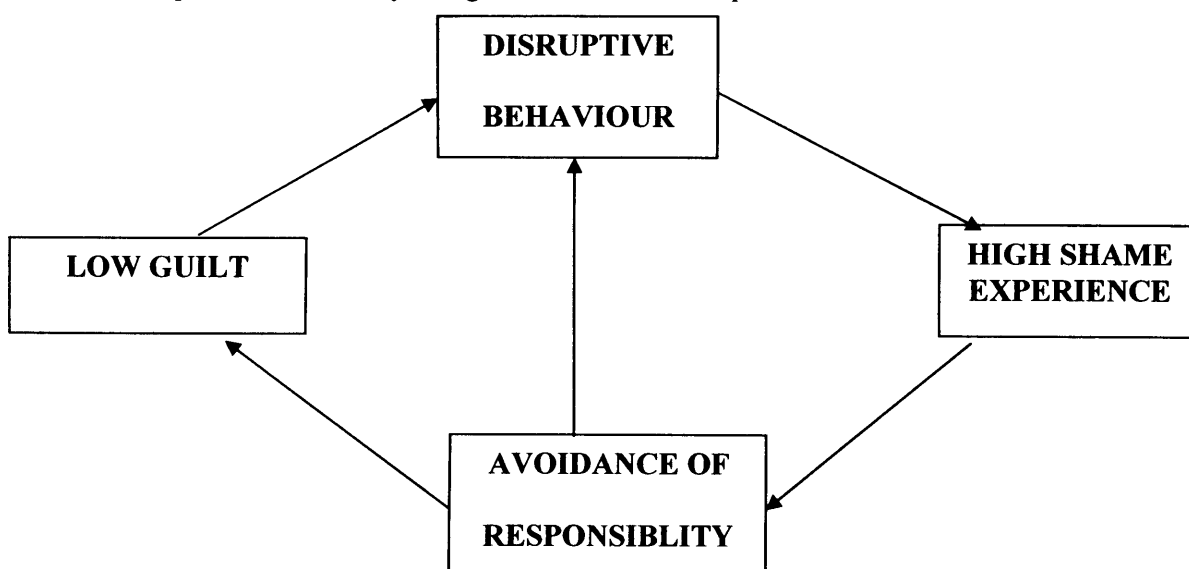


Figure 1.1: Hypothetical Model of the Maintenance of Childhood onset DBD

FUTURE DIRECTIONS

The interaction between emotional factors and cognitive factors is likely to be complex and transactional with environmental factors. The heterogeneity of disruptive behaviour disorders, and the evidence indicating that multiple developmental pathways are involved, means that it is unlikely that one model will adequately explain the maintenance of all DBD. Longitudinal studies starting at birth, or even pre-natally, would be required to test out the direction of any causal relationship between emotional and cognitive characteristics. However, as this review identifies there are some interesting areas of potential within the individual emotional and cognitive worlds of children with DBD, which have yet to be investigated. In particular the role of such factors has rarely been studied in children before they reach adolescence. Studies of a younger population may help determine whether emotional and cognitive styles arise from disruptive behaviour over time or whether they might be implicated in a causal process.

It is proposed that research looking at the relationship between DBD, emotional factors, such as guilt and shame and cognitive factors, such as locus of control and avoidance of responsibility, could provide important results about how emotional and cognitive factors interact in children with DBD. Whilst different sub-groups of DBD have been identified in terms of developmental pathway and behavioural type it would be interesting to study whether different or similar processes serve to maintain behaviour across these sub-groups. In particular it would be worth considering how the emotional

style characterised by callous-unemotional traits interacts with the hypothetical model of emotional and cognitive factors proposed.

Investigating the internal world of the child would be a shift in focus from current research, which has looked at behavioural profiles and external risk factors. A move towards considering the individual emotional, cognitive and interpersonal worlds of children with DBD may prove beneficial when considering how best to intervene with these children. In particular knowing more about these intrinsic factors may help clinicians develop ideas about early intervention and socialisation processes to promote the development of positive interpersonal experiences and guilt and empathy, whilst limiting the hypothesised more damaging shame experiences. In addition this information could be used in the development of individualised treatment programmes for these children, which at the moment have poor efficacy unless combined with more systemic approaches, often necessitating parental involvement (McMahon & Kotler, 2004). Knowing more about the emotional world of children with DBD and how this may interact with their interpersonal experiences, in the form of shaming experiences, might prove fruitful in terms of helping these children develop positive interpersonal relationships which may act as protection against future DBD. It may also be possible to develop individualised cognitive behavioural interventions that target the cognitive strategies and shame experiences hypothesised to maintain DBD.

Whilst proposing the importance of further investigation of individual emotional and cognitive factors involved in DBD this review does not negate the influence of the wide range of environmental and social factors which have also been implicated as risk

factors in DBD. Hinshaw and Lee (2003) caution against the narrowing of focus onto intrinsic factors and ignoring the wider cultural and social forces which may be involved. There is a danger by concentrating on individual traits that many children exhibiting DBD are diagnosed with a mental health label when their behaviour is a manifestation of a problem in the wider context. Similarly recognising difficulties on the individual level may mean that the subgroup most at risk and most in need of diagnosis becomes less specific and therefore interventions become less effective. However, whilst bearing this caution in mind, children showing DBD are still in need of help, whether their behaviour reaches diagnostic levels or not and whether it can be attributed to environmental, social, cultural, genetic or temperamental factors. The proposal to investigate intrinsic factors further emerges from a neglect of emotional factors in the research to date and also from a belief that it is this information that may prove most useful when planning how to intervene with individual cases in a clinical or educational setting.

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Part 2

Empirical Paper

PART 2: EMPIRICAL PAPER

ABSTRACT

This study examined the relationship between disruptive behaviour disorder (DBD) symptoms, avoidance of responsibility and shame. Evidence from previous studies indicates that avoidance of responsibility is a cognitive strategy associated with disruptive behaviour in adolescents. In an attempt to extend this finding earlier in development the association between disruptive behaviour and avoidance of responsibility was tested in a sample of pre- adolescents (mean age=9.55; sd=1.02) in mainstream schools in north London. In addition shame proneness was examined to see whether this was related to avoidance of responsibility and disruptive behavior disorders with a view to extending cognitive maintenance models of DBD to include emotional factors. Age and levels of callous-unemotional traits independently predicted DBD symptoms. Avoidance of responsibility was linked to increased levels of DBD, but this relationship was not independent of age and gender effects. There was found to be no relationship between levels of DBD and measures of shame.

INTRODUCTION

Disruptive behaviour disorders (DBD) constitute the majority of all referrals to child mental health services (Herbert, 1995; Loeber, Burke, Lahey, Winters & Zera, 2000). As such they have been the subject of extensive investigation into their etiology, associated risk factors and developmental pathways (see Burke, Loeber & Birmaher, 2002; Hill, 2003; Loeber, 1990, Loeber, Burke et al., 2000, for a review). This research has seen a shift in focus away from individual intrinsic factors associated with DBD and a move towards identifying sub-groups of DBD and differentiating between developmental pathways specific to these sub-groups. This has important implications for clinicians diagnosing and intervening with the disorder, as the wide heterogeneity in the presentation of children within this category has been identified as one reason for the failure to establish an evidence base of best practice in this field (Frick & Ellis, 1999).

However the research focus on de-lineating sub-groups does have its limitations. Some of the groups identified seem largely based on behavioural descriptors and as such may not add a great deal to a clinician's understanding of how to work with an individual child. In addition many of the risk factors identified in the research are external to the child and not easily modifiable in terms of intervention (Lahey, Loeber, Burke & Rathouz, 2002). Whilst not denying the importance of these external factors in the development and exhibition of DBD, this study aimed to investigate internal or intrinsic factors to the child in the form of cognitions and emotions, which may be implicated in the development and maintenance of DBD. It is argued that it is these intrinsic factors which may prove more useful when considering intervention with an individual child.

This study aimed to consider the role of two intrinsic factors hypothesised to play a role in the maintenance of DBD. One is the cognitive factor of avoidance of responsibility (AOR), which has been investigated in the literature in relation to DBD in adolescence. The second is the emotional factor of shame, which has not been investigated in relation to DBD.

Avoidance of Responsibility

Avoidance of responsibility (AOR) is the use of cognitive strategies to avoid taking responsibility for a behaviour and therefore avoid any negative consequences associated with that behaviour, hence negatively reinforcing it (Powell & Rosen, 1999). Powell and Rosen (1999) argue that other cognitive factors, which have been found to be linked with DBD can fall under the heading of AOR. These include hostile attributional biases, (Dodge, Price Bachorowski & Newman, 1990), legitimisation of aggression (Sukhodolsky & Ruchkin, 2004) and external locus of control, (Nunn & Parish, 1992). Powell and Rosen (1999) argue that all of these cognitive strategies serve to provide some external justification for behaviour and therefore are a means of an individual avoiding responsibility. Powell, Rosen and Huff (1997) investigated AOR in a student sample and found a strong relationship between the construct and DBD symptoms. The construct has also been investigated in adolescents (Powell & Rosen, 1999) and 11- 13 year olds (Sutton, Reeves & Keogh, 2000) and in both instances a relationship between this cognitive style and DBD symptoms was found.

Whilst this construct has been found to be linked to disruptive behaviour no causal predictions have been made about its role, presently it is proposed to serve as a maintaining factor for the behaviour (Powell et al., 1997). It is not clear whether it is a cognitive style that arises from experience of disruptive behaviour or whether it predisposes an individual to develop the behaviour. The direction of causality is particularly difficult to determine given that studies have only been conducted within adolescent and adult samples, when any disruptive behaviour is likely to have been well established. These samples may also be heterogeneous including individuals with both childhood onset and adolescent onset DBD where research has indicated different developmental pathways may be implicated in each subgroup (Moffitt, 1993). This study aims to investigate whether the construct of AOR is linked to DBD symptoms in a younger sample of pre-adolescents. Whilst this will not be sufficient to establish causality it will determine whether the construct is applicable to childhood onset DBD or whether it develops as children become older, more sophisticated cognitively and have more experience of the negative consequences of disruptive behaviour. In addition, studies to date have investigated AOR in relation to self-reports of DBD. It is possible therefore that only a sub-group of individuals have been identified (those that avoid responsibility and are therefore happy to endorse DBD symptoms). This study will investigate whether the relationship between AOR and levels of DBD is applicable when teachers rate DBD.

Shame

There is some evidence that children with DBD exhibit difficulties with regulating their emotional experiences either related to cognitive capacity (Hinshaw & Lee, 2003), poor coping skills (Melnick & Hinshaw, 2000) or perhaps the way that they process and respond to cues around them (Crick & Dodge, 1994; Pardini, Lochman & Frick, 2003). Research in this area has considered emotional development or deficits as implicated in the development of DBD. Frick et al. (2003) consider that there are two groups of children with DBD distinguishable by emotional difficulties linked to development. They argue that one group of children have a core deficit in behavioural inhibition, which impairs the development of guilt and empathy (Kochanska, 1993), leads to an insensitivity to punishment (Fisher & Blair, 1998) and other's distress (Blair, 1999) and means children are more likely to show thrill seeking behaviour (Frick, Lilienfeld, Ellis, Loney & Silverthorn, 1999). This poor behavioural inhibition and associated difficulties mean that the child is less affected by normal socialisation processes designed to show the negative consequences of DBD and instead becomes focused on the rewarding aspects of such behaviour. It leads to the development of an emotional style characterised by low reactivity to aversive stimuli and low fearfulness to threatening situations. This style has been labeled in the literature as callous-unemotional traits (C/U traits). The presence of these traits is linked to higher levels and a greater variety of conduct problems (Christian, Frick, Hill, Tyler & Fraser, 1997; Frick, Cornell, Barry, Bodin & Dane, 2003) and to meeting the criteria for psychopathy in adulthood (Barry et al., 2000).

The second group, proposed by Frick et al. (2003), is those children with DBD but without C/U traits. This group of children is characterised by being highly reactive to emotional and threatening stimuli, leading to impulsive behaviour (Loney, Frick, Clements, Ellis & Kerlin, 2003). The DBD of children in this second group has been more strongly linked with parenting practice (Wootton, Frick, Shelton & Silverthorn, 1997) and poor verbal IQ (Loney et al., 1998) and it is argued that these children are more susceptible to socialisation processes than the C/U group.

Whilst the presence or absence of C/U traits has been argued as a useful way for sub-typing childhood onset DBD, it has its limitations. Frick et al. (2003) in their study of a non-clinical sample of children found that both C/U and non-C/U groups showed high levels of behavioural dysregulation. This indicates that it is the developmental pathway rather than the manifestation of a deficit that might differentiate the groups. They also found no evidence of the hypothesised low emotional reactivity to negative events in the C/U sample, except for in the youngest children. Frick et al. (2003) attribute this to the older sample being more heterogeneous, however it may also be that as children experience more DBD their affective reaction to that behaviour becomes more prominent. They argue that whilst a child with C/U may have an emotional style characterised by poor empathy, lack of concern for others and fearlessness of the consequences of their behaviour it does not prevent them feeling and showing emotional distress linked to their behaviour. It is this affective reaction to DBD that this study investigated and considered whether it played a role in the maintenance of problem behaviour.

This study investigated whether one potential emotional consequence of DBD might be shame, and if it might serve to maintain the disorder through an interaction with AOR. Feelings of shame have been linked to many types of psychopathology (Tangney & Dearing, 2002), but the literature relating the emotion to anti-social behaviour is limited (Morrison & Gilbert, 2001).

Tangney, Wagner, Hill-Barlow, Marshcall & Gramzow (1996), in a study of expression of anger across the life-span, found that guilt proneness was related to constructive use of anger whereas shame proneness led to maladaptive and destructive responses to anger across all ages. Shame prone individuals experienced higher levels of anger and reported more malevolent intentions to their behaviour. Tangney et al. (1996) argued for the usefulness of considering the emotions of shame and guilt in anti-social behaviour. It is important to make a distinction between the emotions of shame and guilt as they may both be implicated in DBD but in distinct ways.

Historically both guilt and shame have been thought of as moral emotions, the function of which is to promote moral behaviour. However evidence suggests that the two emotions are quite distinct and may serve distinct functions. Huesmann, Eron, Lefkowitz and Walder (1984) looked at the guilt-proneness and shame proneness of children at age 8. They found that whilst guilt proneness was inversely related to arrest rate and measures of aggression twenty years later, shame proneness predicted suspension from school, drug use and suicide attempts. Tangney and Dearing (2002) argue that the two emotions are distinct in terms of their focus, phenomenology and motivation. They argue that the focus of guilt is on specific behaviours and that it fosters empathy and

therefore motivates acts of reparation, whereas the focus of shame is global (on the person as a whole) and is experienced as painful, which motivates avoidance or withdrawal. In addition the focus on the self in shame serves to inhibit feelings of guilt and empathy for others (Tangney et al., 1991). Gilbert (1997) argues that shame, rather than being a higher level moral emotion, is an innate evolutionary programmed emotion that signals to the individual a loss of attractiveness or status. The emotion therefore promotes behaviour to redress this loss (fight out) or to avoid further loss (concealment or withdrawal).

Shame, in comparison to guilt, has been linked to feelings of anger and aggression in several studies (Tangney, Wagner, Burggraf, Gramzow & Fletcher, 1991; Tangney, Wagner, Fletcher & Gramzow, 1992; Tangney et al., 1996; Wicker, Payne & Morgan, 1983). Whilst not all anger and aggression is the result of shame experiences it is possible that as an emotion shame has been overlooked in the research on DBD. Interestingly shame has been correlated not only with aggression but also with higher levels of hostility, irritability (Tangney et al., 1992), malevolent intentions (Tangney et al., 1996) and desire to punish others (Wicker et al., 1983). Therefore this may provide an argument for shame being implicated not only in the aggressive behaviour demonstrated by children with DBD but also in their non-aggressive anti-social acts.

Linking Avoidance of Responsibility and Shame

The emotional factors of guilt and shame proneness can theoretically be linked back to the cognitive concept of avoidance of responsibility. Powell et al. (1997) argue that avoidance of responsibility strategies serve to reduce feelings of guilt and empathy and therefore negatively reinforce DBD. Tangney et al. (1992) found a positive relationship between levels of shame and externalisation of blame for behaviour, whilst Tangney et al. (1991) found that guilt proneness was associated with a tendency to accept responsibility for behaviour. It is possibly that DBD leads to shame experiences, which are coped with by the use of avoidance of responsibility strategies, which only serve to reinforce the behaviour and make future shaming experiences more likely. The theoretical model in figure 2.1 represents this hypothesised link.

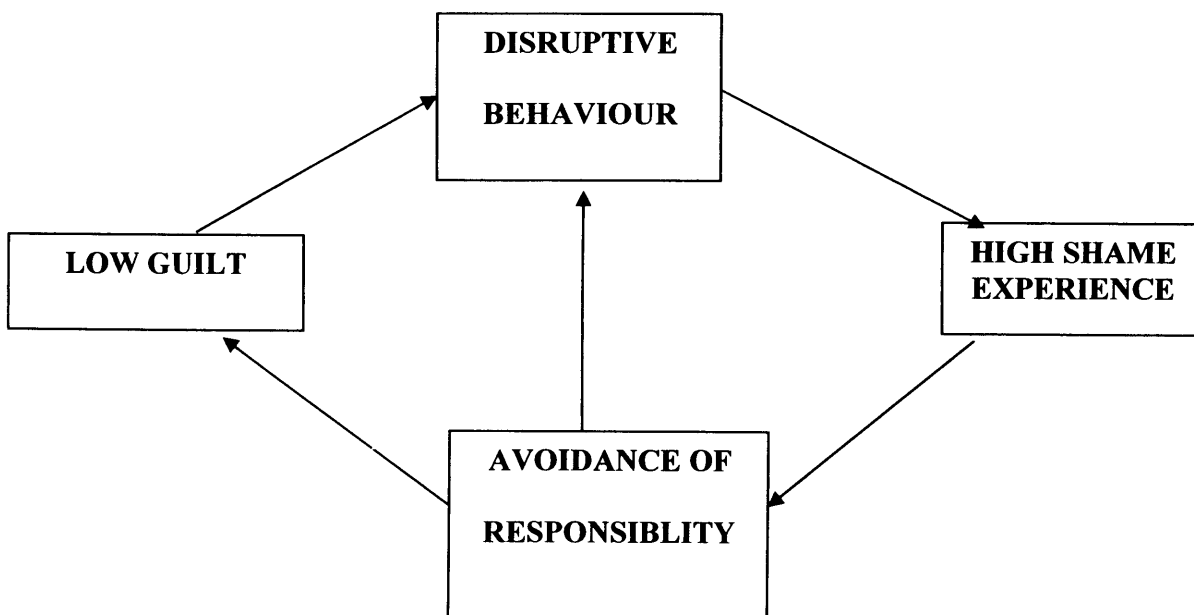


Figure 2.1: Hypothetical Model of the Maintenance of Childhood onset DBD

This proposed model is designed to explain how DBD might be maintained once it has developed. The developmental pathways to the disorder are many and complex however it is feasible that one model of maintenance may apply across the disorder regardless of how it developed.

Based on the literature this study was designed to provide a preliminary investigation into the relationship between DBD symptoms, avoidance of responsibility and shame and guilt and investigate whether these emotional and cognitive factors might serve some role in maintaining disruptive behaviour. It attempted to advance previous research by examining whether the relationship between avoidance of responsibility cognitions and DBD, previously found in adolescents and adults, is applicable to a younger, pre-adolescent sample and where DBD symptoms were not by self-report. It also included the theoretical addition of emotional factors to a model of maintenance of DBD and tested whether there was any evidence for considering shame and guilt as significant variables. Given the proposed importance of C/U traits in differentiating childhood-onset sub-groups of DBD these traits were also considered to examine whether the proposed model applied to children with and without these traits.

The study investigated these factors in a non-clinical sample of children aged 8-11 at mainstream schools. This age group was selected as individual differences in shame and guilt proneness become stable from age 8 and show no change through to adulthood (Tangney & Dearing, 2002). The children are therefore old enough to make measures of shame and guilt valid but still pre-adolescent and therefore a younger sample than used previously in avoidance of responsibility studies (Sutton et al., 2000). A non-clinical

sample was selected to eliminate potential referral bias and to ensure a wide spread of levels of behaviour was obtained. The following hypotheses were tested by the study

Hypotheses

- 1) Children with higher levels of DBD symptoms will show greater avoidance of responsibility.
- 2) Children with higher levels of DBD symptoms will show less guilt and higher shame scores.
- 3) Shame will be associated with higher levels of avoidance of responsibility. The independent effects of guilt, shame and avoidance of responsibility on DBD symptoms will be examined.
- 4) The relationship of C/U traits with guilt, shame and avoidance of responsibility will be explored.

METHOD

Participants

The participants in this study were 99 children (44 male, 55 female) attending primary schools in London and the South East of England, aged between 8 and 11 years old (mean age = 9.55 years; SD = 1.02). Demographic data were collected from parents for 72% of the sample, all those that consented to this information being requested. This information is summarised in table 2.1.

Inclusion criteria for the study were that participants were aged between 8 and 11 years old and had parental consent to participate in the study. Exclusion criteria included the presence of significant learning disabilities or where knowledge of English was insufficient to complete the questionnaires.

Data were collected from all 99 participants in the sample, resulting in 98 complete data sets (1 was incomplete due to illness). Teacher data were collected for 81 participants in the sample. All data that was collected was included in analyses.

Table 2.1: Summary of demographic data of participants

Demographic Variable	Non-clinical sample (n=71/99)
Family	
Single parent	25%
Mother & Father	61%
Reconstituted	10%
Other	4%
Only child at home	24%
Lives with siblings	76%
Ethnicity	
White UK	59%
White European	7%
Asian	7%
Black Caribbean	3%
Black African	3%
Mixed	20%
Other	1%
Main carer employment	
Professional	28%
White collar	21%
Skilled manual	8%
Semi-skilled manual	13%
Homemaker	17%
Unemployed	13%
Parental Education	
Degree	31%
Up to 18 years	7%
Up to 16 years	30%
None	11%
Other	21%
AD/HD Diagnosis	
Yes	3%
No	94%
Don't Know	3%

Measures

Child Self-report Measures

Powell Avoidance of Responsibility Scale (PARS; Powell & Rosen, 1999)

This is a 23- item questionnaire designed to measure frequency of avoidance of responsibility strategies (see appendix H). When completing the scale participants were asked about the last few times they had been in trouble and to decide whether the statements read to them were “more true or more false” of them at these times. Participants were asked to circle the answer that best described them from a true-false dichotomy. Answers to the 23 items were scored so that higher scores reflected higher avoidance of responsibility. In an adolescent population the PARS was shown to have fair internal reliability (alpha reliability = 0.74) and good construct validity (Powell & Rosen, 1999). The previous study failed to identify any reliable within scale factors and so only the total avoidance of responsibility score was examined. In this study the PARS was administered to a younger-aged sample. Initial analysis of the responses in this study indicate that the internal reliability of the scale remains fair with a Cronbach alpha co-efficient of 0.75 (n=99).

Test of Self-Conscious Affect – Children’s version (TOSCA-C; Tangney & Dearing, 2002)

The TOSCA-C is a 15- item self-report questionnaire designed for use with children aged between 8 and 12 years old (see appendix I). It is composed of 10 negative and 5 positive scenarios and provides measures of shame-proneness (15 items), guilt-proneness (15 items), externalisation (15 items), detachment (10 items), alpha pride (pride in self) and beta pride (pride in behaviour) (5 items each). Each item asks the participant to imagine a scenario and then read a set of statements in relation to it. The participant is asked to respond to “how likely the statement is to be true for you in that situation”. The participant is asked to put a mark in the box below a description of likelihood, responses were then scored from 5 (very likely) to 1 (not at all likely). For example one item asks “You were talking in class and your friend got the blame. You go to the teacher and tell him the truth. How likely are you to think/ feel... a) the teacher should have got the facts straight before he blamed my friend b) I would feel like I always get people in trouble c) I did a very good thing by telling the truth c) I’d be proud of myself that I’m able to tell the teacher something like that d) I’m the one that should get in trouble. I shouldn’t have been talking.”

Previous studies using the scale, reported by Tangney and Dearing (2002), show a fair internal consistency for shame and guilt sub-scales (alpha reliability = 0.78 – 0.83), with lower reliability for the other sub-scales (externalisation = 0.64-0.66, detachment = 0.53-0.55, alpha pride = 0.47-0.58, beta pride = 0.34-0.47). These are comparable with the reliability co-efficients calculated for the sample in this study (see table 2.2). The

correlation between alpha and beta pride items was such ($r=0.724$, $p<0.01$) that these factor scores were combined into one measure of pride proneness, by taking the average score across both subscales. In analysis overall pride proneness had a better internal reliability than either the alpha or beta scales in isolation.

State Shame and Guilt Scale (SSGS; Tangney & Dearing, 2002)

The SSGS is a self-rating 15- item scale providing measures of state shame (5 items), state guilt (5 items) and state pride (5 items) (see appendix J). The scale asks participants to rate how they feel “right now” using a five-point Likert Scale to respond to a series of statements. The scale has been previously validated on adult participants and shows good construct validity in that it is able to detect participants who have undergone mood manipulation procedures. It also has a good internal reliability ($\alpha > 0.82$ for all three sub-scales) as reported by Tangney and Dearing (2002). In this study’s sample of younger participants internal consistency of the scale was found to be fair (see table 2.3).

Measures of proneness and state emotions

By using both the TOSCA-C and SSGS a measure of guilt, shame and pride proneness and state was obtained for each participant. It was felt important to obtain both a state and proneness measure for each of these emotions due to conceptual and theoretical differences between them. Shame has been conceptualized as an evolutionary reaction to threat and therefore may be more likely to be accurately captured by a state measure whereas guilt is more closely linked to cognitive processes and arguably may be more

accurately measured by proneness measures. Due to the use of standardized questionnaires it was not possible to select only the state or proneness measures for the respective emotions without affecting the reliability of the measures.

Table 2.2: Internal Reliability of TOSCA-C Scale in this study

TOSCA-C Sub-Scale	Cronbach's Alpha (n=98)
Guilt-Proneness	0.80
Shame-Proneness	0.71
Externalisation	0.65
Detachment	0.53
Alpha Pride	0.65
Beta Pride	0.49
Pride- Proneness	0.77

Table 2.3: Internal Reliability of SSGS Scale in this study

SSGS Sub-Scale	Cronbach's Alpha (n=99)
State Guilt	0.81
State Shame	0.78
State Pride	0.69

Table 2.4: Internal Reliability of DBD scale

Disruptive Behaviour Factor	Cronbach's alpha Analysis (n=81)
Attention Deficit Factor	0.91
Hyperactivity Factor	0.84
Oppositional Defiant Factor	0.91
Conduct Factor	0.38
Total DBD	0.93

Teacher Report Measures

Teachers were asked to complete the following scales to obtain a measure of DBD for each participant. In all cases teachers had to have known the child for at least six weeks. Hart, Lahey, Loeber and Hanson (1994) argue that teacher ratings show a stronger association with levels of impairment than either self-report or parent report.

Disruptive Behaviour Checklist (Barkley, 1987)

This is a checklist of the DSM IV (APA, 1994) diagnostic criteria for Attention Deficit/Hyperactivity Disorder, Oppositional Defiant Disorder and Conduct Disorder (see appendix K for the combined teacher scale). For AD/HD and ODD items respondents were asked to rate the frequency of the behaviour from 0 (never) to 3 (very often). For CD items the response required was in the form of yes or no as to whether the participant had performed the target behaviour in the previous 6 months, this was scored as 0 for no and 1 for yes. For each participant four scores, for attention deficit symptoms, hyperactivity symptoms, oppositional symptoms and conduct disorder symptoms, were obtained. The internal reliability of these factor scores and overall DBD score is shown in table 2.4. The correlation between the separate symptom clusters was found to be adequate ($p > 0.49$) and due to the low levels of disruptive behaviour disorder in a non-clinical sample the four factor scores were added together for an overall measure of level of DBD.

Anti-social Process Screening Device (ASPD; Frick & Hare, 2001)

The ASPD is a 20- item behaviour rating scale with established discriminant validity and internal reliability (Frick & Hare, 2001) (see appendix K for the combined teacher scale). A teacher that had known the child for a minimum of six weeks completed this for each participant. The scale has 3 internal factors a) Narcissism (7 items) b) Impulsivity (5 factors) and c) Callous-unemotional (6 items) and was designed to assess levels of these factors in pre-adolescent children. The scoring of the scale was adjusted to fit with the other items included on the teacher's questionnaire. Symptoms were scored from 0 (never) to 3 (very often), scoring on 5 items is reversed so that overall a higher score signifies a higher level of symptomatology. The internal consistency of the scale for this sample is shown in table 2.5. This reliability is broadly in line with that found in previous research (Frick & Hare, 2001) where it should be noted teachers were the most consistent raters, in comparison to self and parent ratings.

Table 2.5: Internal Reliability of ASPD scale

ASPD Factor	Cronbach's Alpha (n=81)
Narcissism	0.83
Callous-unemotional traits	0.60
Impulsivity	0.79
Total ASPD scale	0.86

Power Analysis

In Powell and Rosen's (1999) study of conduct disorder and avoidance of responsibility a correlation of 0.57 ($p < 0.001$) was found between CD symptoms and AOR. Considering this and that 0.3 is accepted as a medium effect size in correlational studies (Cohen, 1992), the power analysis for this study was calculated using this value. For an effect size of 0.3, with an alpha of 0.05 and 0.8 power the sample size required is 84 participants. The study collected data from 99 participants in total and teacher ratings for 81 of those participants, meaning that the power should be sufficient to detect relationships between the variables.

Procedure

Ethical clearance for the study was sought from NHS Camden & Islington Community Local Research Ethics Committee (see appendix A). Following approval being granted all primary schools in Islington, a borough of North London, were contacted and invited to take part in the research. Five schools expressed an interest in participating and met with the researcher to discuss the project further. One school dropped out at this stage and was replaced by a school in south-east England. The researcher went into the schools and introduced the research project to the children with a five-minute presentation to classes in years 4, 5 and 6 (children aged 8 to 11 years old). The children were then given an information sheet about the study (appendix B), an information sheet for their parents (appendix C), a letter from school explaining the study (appendix D) and a consent form to return to school if they wished to participate (appendix E). All

children who returned their forms, whether their parents gave consent or not, were entered into a raffle to win twenty pounds worth of book vouchers, in order to encourage the return of the forms.

Of approximately 580 information sheets and consent forms sent out 103 were returned, of these only 4 refused consent for their child to participate in the study. Once consent was obtained the researcher met with children in small groups (5-8 children at a time) at school, in order to administer the questionnaire measures. The order in which the questionnaires were administered was counterbalanced across all groups. All children received an introduction to the questionnaires (see appendix G). Items were read aloud to the participants who then responded on their own questionnaires. Participants were reminded that this was not a test and that their answers would be kept confidential and anonymous. Participants were encouraged not to share their responses but to answer as honestly as possible. Lastly they were encouraged to ask any questions about words that they did not understand. The study was piloted on a group of eight six year old children initially to try to eliminate potential comprehension difficulties, alterations made were from use of the word “mad” to “angry” and adding “or sad” to “feeling depressed”.

For each child participant that completed the study his or her teacher was also asked to complete a questionnaire evaluating levels of disruptive behaviour. The teachers completed these unsupervised and then posted them back to the researcher. Lastly, if parents had consented, they were contacted, via telephone, to obtain background information about the family, ethnic and socio-economic status of the participants (see appendix F for demographic form).

Once the data for both samples were collected the teacher and participant questionnaires were matched and anonymised. Questionnaire responses were entered into a database and analysed to examine the relationship between variables proposed in the model (see figure 2.1). All data were analysed so when comparing participant ratings the data set was 99 and when examining variables in comparison to teacher ratings the set was 81, due to lower return rate of teacher questionnaires.

RESULTS

This section of the paper deals with the analysis of the data collected. Initially preliminary analysis of the data is presented and then consideration is given to the demographic variables and whether they may interact to have a confounding effect on any results. The main analysis of the data consists of four main sections. Firstly the relationship between DBD and AOR is examined. Secondly the relationship between DBD and emotional factors is analysed, then the relationship between AOR and emotional variables is explored, and lastly how these factors interact together with DBD is analysed.

Preliminary Analyses

Table 2.6 shows the distributions of the main variables in the study. These were checked for normality, which was found to be within acceptable limits for all variables except state shame ($z=3.67$), guilt proneness ($z=-2.05$) and DBD ($z=6.87$). State shame and DBD were transformed using a square root transformation to bring the skew into acceptable limits ($z=1.96$ and $z=1.92$ respectively). Guilt proneness was transformed using an inverse square root transformation ($z=1.51$). Although pride as a variable was not discussed in the previous literature it was included in analyses as a measure of positive feelings towards self and behaviour. This is almost the opposite of guilt (negative feelings towards behaviour) and shame (negative feelings towards self) and therefore it was included as a potential third confounding variable that might explain any variations in the other emotional variables being considered.

Table 2.6: Distribution of variables

Variable	M	SD	Range
Age	9.64	1.02	8-11
DBD*	8.02	10.19	0-48
C/U Traits	5.54	3.15	0-14
Avoidance of Responsibility	8.53	3.74	1-18
Shame Proneness	43.80	8.66	28-65
Pride Proneness	17.77	3.53	8.5-25
Guilt Proneness	58.56	8.89	30-75
State Shame	10.05	4.80	5-25
State Pride	17.30	4.03	8-25
State Guilt	14.07	6.12	5-25

*Separate DBD diagnoses of ODD, CD, AD/HD were combined in one category. All symptom clusters showed significant correlation with each other of $r > 0.49$.

Table 2.7: Relationship of demographic variables to levels of DBD and AOR

Variable	In relation to AOR	In relation to DBD	In relation to C/U traits
Family Status	F(2,68)=2.113	F(2,54)=0.258	F(2,54)=0.206
Ethnicity	F(2,68)=1.420	F(2,54)=0.805	F(2,54)=2.874
Parental education	F(1,62)=1.156	F(1,50)=0.280	F(1,50)=0.492
Parental employment	F(1,69)=0.009	F(1,55)=0.987	F(1,55)=0.053
Participant gender	F(1,97)=13.292**	F(1,79)=8.390**	F(1,79)=8.580*
Participant age	$r=0.315^{**}$	$r=0.278^*$	$r=0.062$

**significant at $p < 0.01$ *significant at $p < 0.05$

Demographic Factors

A series of analyses were conducted to examine whether any of the demographic variables might have a significant influence on DBD symptoms, C/U traits or avoidance of responsibility scores (see table 2.7). For most demographic variables a one-way ANOVA was used, however for age a correlation was carried out. It is recognised that conducting several analyses sequentially can raise the type I error rate. However it was thought important, in this instance, to determine whether there may be the possibility of any of these variables being related to levels of DBD and therefore needing to be considered as potential confounding variables in later analyses.

As can be seen in table 2.7, there was found to be a significant relationship between levels of DBD and both age and gender. Age showed a significant positive correlation with levels of DBD, suggesting that older participants had higher levels of symptoms. The association between gender and DBD indicated that male participants were assessed as having higher levels of DBD symptoms ($m= 11.50$, $sd=12.52$) than females ($m= 5.24$, $sd=6.81$). This is in line with current findings on the prevalence of DBD (Maughan, Rowe, Messer, Goodman & Meltzer, 2004).

Avoidance of responsibility scores also showed significant relationships with both age and gender, with higher avoidance of responsibility being associated with older participants and males endorsing more AOR items than females (male mean= 10.27 , $sd=4.39$; female mean= 7.29 , $sd=3.75$). C/U traits showed a significant relationship with gender, with teachers reporting higher levels of the traits in males ($m=6.64$, $sd=2.98$)

than in females ($m=4.67$, $sd=3.04$). This is in line with previous research (Frick & Hare, 2001).

There were found to be no significant relationships between levels of DBD, AOR or C/U traits and family status, ethnicity, parental level of education or parental occupation.

Avoidance of Responsibility and Disruptive Behaviour Disorders

Hypothesis 1: Children with higher levels of DBD symptoms will show greater avoidance of responsibility

The relationship between the cognitive factor of avoidance of responsibility and the level of DBD symptoms was tested with a correlation. There was found to be a significant relationship ($r=0.227$, $p<0.05$) with higher levels of avoidance of responsibility, as reported by participants, linked to higher levels of DBD symptoms, as reported by teachers.

A multiple regression analysis* was conducted to determine whether any relationship between avoidance of responsibility and DBD was independent of effects of age and gender, both shown to relate to AOR in preliminary analysis. The analysis revealed that together these variables significantly predicted levels of DBD ($F(3,77) = 6.09$, $p<0.01$) and that they could account for 19.2% of the variance in levels of DBD. In addition the analysis revealed that both age and gender independently predicted levels of DBD (age: $\beta=0.280$, $t=2.70$, $p<0.01$; gender: $\beta=-0.258$, $t=-2.4$, $p<0.05$). However AOR did not

independently predict levels of DBD once age and gender were controlled for ($\beta=0.10$, $t=-0.811$, $p>0.05$).

Emotional Factors and Disruptive Behaviour Disorders

Hypothesis 2: Children with higher levels of DBD symptoms will show less guilt and higher shame scores

Hypothesis 4: The relationship of other variables and C/U traits will be explored

Emotional factors are divided into measures of proneness and state emotion and the degree of callous-unemotional traits exhibited by participants. The study included measures of state guilt, pride and shame and proneness to shame, guilt and pride in addition to the teacher report of callous-unemotional traits. The relationships between these factors and DBD are summarised in table 2.8.

As can be seen from the results of the correlations, only one emotional factor is significantly related to levels of DBD. Levels of C/U traits are associated with DBD symptoms ($r=0.435$, $p<0.01$), that is the higher the level of C/U traits the higher the DBD symptoms. As both C/U traits and DBD have been linked with gender in preliminary analysis a multiple regression was conducted to examine the independent effects of gender and C/U traits on DBD. The analysis revealed that together they significantly predicted levels of DBD ($F(2,78)=10.011$, $p<0.01$) and that C/U traits significantly independently predicted DBD, when gender was controlled for ($\beta=0.346$,

* For all multiple regressions conducted assumptions of normal distribution of residuals, homogeneity of variance of arrays and consideration of outliers were met.

$t=3.258, p<0.01$). However, gender did not significantly independently predict DBD once C/U traits were controlled for ($\beta=-0.201, t=-1.894, p>0.05$).

The relationships between the emotional factors are interesting to consider. Firstly of note is that C/U traits are not associated significantly with any other emotional factors, suggesting they are a distinct emotional profile unrelated to the constructs of shame, guilt and pride. There are consistent positive correlations between both the state and proneness measures of shame and pride, that is participants more prone to these emotions were more likely to endorse feeling that way at the time of assessment. However this relationship was not evident for state guilt and guilt proneness. In addition shame proneness was correlated with guilt proneness and state guilt was correlated with state shame, suggesting that participants that endorse shame items are also more likely to endorse guilt items in both measures of the emotions.

However, there is an interesting difference between guilt and shame scores and their relationship with pride, which indicates that they may be measuring separate, but related, factors. Both guilt proneness and state guilt are significantly related to pride proneness and state pride, indicating that higher levels of guilt are associated with higher levels of pride. In contrast there are no significant associations between measures of shame and pride.

Emotional and Cognitive Factors

Hypothesis 3: Shame will be associated with higher levels of avoidance of responsibility

Hypothesis 4: The relationship between other variables and C/U traits will be explored

Table 2.8 illustrates the relationships between emotional factors considered in the study and AOR. As can be seen from the correlations AOR is significantly associated with C/U traits ($r=0.223$, $p<0.05$) with higher levels of traits, as rated by teachers, being linked to more avoidance of responsibility, as rated by children. AOR is significantly related to state shame ($r=0.368$, $p<0.01$), that is the more shame items endorsed at the time of the study the higher the avoidance of responsibility score. AOR is also significantly related to guilt proneness ($r=-0.362$, $p<0.01$), in that higher guilt proneness scores indicate participants score lower on avoidance of responsibility.

A multiple regression was carried out to examine the independent effects of emotional variables on predicting levels of AOR. Gender and age were included in the analysis as were shown to be related to AOR in preliminary tests. C/U traits, state shame, guilt proneness, age and gender together significantly predicted levels of AOR ($F(5,75)=6.92$, $p<0.01$) and explained 31.6% of the variance in AOR. When examined independently only guilt proneness was found to significantly predict levels of AOR ($\beta=0.394$, $t=3.969$, $p<0.01$), with state shame approaching significance ($\beta=0.173$, $t=1.763$, $p=0.08$) (see table 2.9). This indicates that AOR is not significantly independently related to age or gender once other emotional variables are controlled for but that low levels of guilt proneness are linked to high levels of avoidance of responsibility.

Emotional and Cognitive Factors in relation to DBD

Hypothesis 3: The independent effects of guilt, shame and avoidance of responsibility on DBD will be examined

Hypothesis 4: The relationship between other variables and C/U traits will be explored

A multiple regression was carried out to test the independent effects of the variables predicted to be related to DBD in the model (see figure 2.1). Guilt and shame were not included in the analysis as they were found to have no significant relationship with DBD. C/U traits and avoidance of responsibility were entered into the analysis. Gender and age were also entered as they were shown to be significantly related to AOR, DBD levels and C/U traits in earlier analyses.

The multiple regression revealed that these variables together significantly predicted levels of DBD symptoms ($F(4,76)=7.602$, $p<0.01$) and that they could account for 28.6% of the variance in levels of symptoms. When the independent effects of the variables are considered (see table 2.10) it can be seen that levels of C/U traits and age significantly independently predict DBD when the other variables are controlled for. Gender and AOR are not independently related to DBD.

Summary

In summary the main findings of the study are that C/U traits and age are the most robust independent predictors of levels of DBD. Avoidance of responsibility was significantly related to levels of DBD but not once age and gender were controlled for. Avoidance of responsibility was found to be related to a number of emotional factors, as predicted by the model, including low guilt proneness, high state shame and high levels of C/U traits, as well as age and gender. Only guilt proneness was found to independently predict levels of AOR, once these other variables were controlled for.

Table 2.8: Correlations between factors measured in the study

	DBD	AOR	State Pride	Pride Proneness	State Shame	Shame Proneness	State Guilt	Guilt Proneness
1) DBD								
2) AOR	0.227*							
3) State Pride	-0.162	-0.117						
4) Pride Prone.	0.213	-0.059	-0.261**					
5) State Shame	0.105	0.368**	-0.109	0.044				
6) Shame Prone.	0.012	0.089	-0.006	0.027	0.199*			
7) State Guilt	0.006	0.069	0.366**	0.312**	0.483**	0.030		
8) Guilt Prone.¹	0.184	-0.362**	0.362**	0.280**	0.109	0.380**	0.197	
9) C/U	0.409**	0.223*	-0.040	0.096	0.112	0.105	0.143	-0.144

**significant at p<0.01 *significant at p<0.05

¹Directions of correlation reversed due to inverse transformation of variable

Table 2.9: Multiple regression; Independent effects of variables on AOR scores

Variable	β	T
State shame	0.173	1.763
Guilt Proneness	0.394	3.969**
C/U traits	0.091	0.902
Age	0.087	0.897
Gender	-0.162	-1.573

Table 2.10: Multiple regression; independent effects of variables on DBD

Variables	β	T
Avoidance of Responsibility	0.058	0.557
C/U traits	0.326	3.165**
Gender	-0.171	-1.615
Age	0.273	2.781**

**significant at $p < 0.01$ *significant at $p < 0.05$

Table 2.11: C/U items from teachers' questionnaires

Questionnaire Item	Item Wording
28	Is concerned about how well he/ she does at school*
32	Is good at keeping promises*
37	Feels bad/ guilty when he/she has done something wrong*
43	Is concerned about the feelings of others*
44	Does not show feelings or emotions
45	Keeps the same friends*

*All reversed marked so that a higher score indicates higher levels of C/U traits

DISCUSSION

This study investigated a hypothetical model of maintenance for disruptive behaviour disorders in pre-adolescence. The study examined both cognitive and emotional factors and how they may interact within this model in a non-clinical sample of children aged 8-11 years old. The study found, in line with previous research, that the most robust predictors of higher levels of DBD are the presence of higher levels of C/U traits (Salekin, Leistico, Neumann, DiCicco & Duros, 2004; Frick & Ellis, 1999) and the age of the participant, with older participants demonstrating more DBD (Maughan, Rowe, Messer, Goodman & Meltzer, 2004). Whilst teachers reported C/U traits and DBD symptoms more frequently in male participants than females, when the levels of traits were controlled for there was no link between gender and level of DBD indicating that it is the reported level of C/U traits which is the more influential factor.

C/U traits have been linked to DBD in several previous studies but it is worth considering whether they measure something different to DBD or whether they are simply another means of capturing difficult behaviour. Consideration of the C/U items, as listed in table 2.11, indicates that they are measuring something in addition to behavioural markers, for example interpersonal style, suggesting that the relationship between these two variables is not due to the fact they are overlapping constructs. This is supported by research that has found children with C/U traits and without DBD and children with DBD and without C/U traits (Frick et al., 2003). In this study both C/U traits and DBD were rated by teachers and therefore one explanation of the relationship between the two variables is that children with DBD are more likely to be labeled as

having these traits. That is the behaviour leads to the children being labeled as C/U rather than the traits leading to the behaviour as theoretically predicted. Further research, ideally longitudinally, is required to determine whether the traits predispose the development of DBD or whether they emerge over time as a result of interpersonal stress caused by DBD.

The study predicted that avoidance of responsibility strategies would be linked to higher levels of DBD, as had been found in previous studies in adults and adolescent samples (Sutton et al., 2000; Powell & Rosen, 1999; Powell et al., 1997). This study found a significant relationship between levels of AOR and DBD but differed to previous studies by finding this relationship between levels of DBD symptoms, as reported by teachers, and avoidance of responsibility, as self-reported by participants. This correlation across informants adds weight to the relationship between these variables. It is also the first study, to our knowledge, to examine these constructs in a pre-adolescent sample and the results suggest that the relationship found in older samples between DBD and AOR is generalisable to this younger age group.

However, the relationship between AOR and DBD was found not to be independent from age and gender effects. Male participants and older participants used more avoidance of responsibility strategies and this explained the link with DBD symptoms. The finding that this relationship can be accounted for by overlap with both age and gender suggests that avoidance of responsibility may be a learned strategy for coping with the consequences of DBD, rather than directly causal. DBD is more prevalent in males than females (Maughan et al., 2004) and it is possible that the male participants in

the study with higher levels of DBD have learned to use avoidance of responsibility to prevent themselves experiencing the negative consequences of their actions (Powell et al., 1997). This is supported by the fact that AOR rates increase with age, as do DBD rates, indicating that this is a cognitive style that may develop as a result of DBD experience, rather than a static cognitive style that predisposes the development of DBD. In addition it is a factor which appears to have some independence from levels of C/U traits and therefore may prove a cognitive style linked to sub-groups of children with DBD, regardless of the presence or absence of those traits. Once again longitudinal studies would be beneficial to determine the nature of the development of the relationship between AOR and DBD. The age group in this study, whilst younger than in previous studies, was relatively narrow. It would be interesting to study AOR in an even younger sample of children, although the current measure may have its limitations for a less cognitively mature population.

The study also predicted that higher levels of DBD would be linked to lower levels of guilt and higher levels of shame. There was found to be no relationship between guilt and shame and levels of DBD. Therefore there was no support for the hypothesised model that low guilt led to high levels of DBD, in turn leading to high levels of shame. This finding is surprising given the research that links low guilt with DBD (Blair, 1997; Christian et al., 1997) and does not provide support for theories that propose a core emotional deficit in guilt causes DBD, particularly in those children with C/U traits (Blair, 1997).

It is possible that the failure to find any relationship may be due to methodological issues. Firstly the non-clinical nature of the sample meant that levels of DBD symptoms were low and deficits in guilt may be a qualitative difference between children with clinical levels of DBD and a non-clinical sample. Alternatively the low levels of DBD symptoms evident in the non-clinical sample may be as a result of the sample on the whole showing high levels of guilt proneness, that is there may be more of a quantitative difference in guilt between clinical and non-clinical samples. In addition DBD was rated by teachers, whilst measurements of shame and guilt were self-rated by children themselves. It is possible that shame and guilt may correlate better with self-ratings of DBD, as they are measuring a subjective state that may influence judgments about behaviour. There is also some overlap between the concepts of guilt and low C/U traits. Therefore low guilt proneness may be detected by teachers and scored as high levels of callous-unemotional traits, for example one C/U scale item reads "*feels guilty or bad when has done something wrong*". Given the previous research linking DBD symptoms and low guilt it appears likely that the failure to find a relationship between these factors in this instance may be due to sampling and measurement issues.

The study finally predicted a link between cognitive and emotional processes in that higher levels of shame would be linked to higher avoidance of responsibility. Evidence was found that higher state shame was related to more avoidance of responsibility and that low guilt proneness was also linked to the construct. This fits with the proposed model that high shame experiences lead to avoidance of responsibility strategies, which in turn minimise the amount of guilt experienced. When the relationships were examined independently only guilt proneness was found to significantly predict levels of AOR,

when other variables were controlled for. This links with previous literature, which found that AOR is linked to low guilt (Sutton et al., 2000). It is argued that AOR causes these low levels of guilt by distancing an individual from the consequences of his or her actions (Powell et al., 1997). However the study did not find evidence that these low levels of guilt were linked to an increase in DBD levels as predicted in the maintenance model. Nonetheless the replication of previous findings linking emotional and cognitive factors within DBD lends support to the premise that this is an area worthy of more investigation. Construction of an empirically valid model incorporating emotional and cognitive constructs would prove valuable when designing CBT interventions for individuals with DBD.

An interesting finding to emerge from this study was the differential relationships between shame and guilt and pride, with measures of guilt being positively correlated with pride and there being no relationship between shame and pride. Pride had not been considered previously in the literature but was included in the analysis as a potential third confounding variable of both shame and guilt. Pride was a measure of positive feelings towards self and behaviour in comparison to the negative feelings captured by shame and guilt respectively. The link between guilt and pride may be indicative of high guilt proneness not acting alone to protect against increased use of AOR strategies and hence possibly an increase in DBD symptoms. The protective nature of pride (i.e. the child feeling good about himself and his behaviour) and how it may interact with AOR and DBD is worthy of further investigation.

A further difference between guilt and shame is evident from their individual relationships with AOR. In shame the link is with the state emotion whereas with guilt it is with a measure of proneness to the emotion. This is reflective of the theoretical distinction between the emotions where guilt is conceived of as a moral emotion and shame an evolutionary emotion. Moral emotions tend to be thought of as higher level emotions that require a degree of sophisticated cognitive development and ability to reflect; it is possible that this type of emotion is best measured by proneness. The guilt proneness scale includes items such as *“I would think I’m the one who should get in trouble. I shouldn’t have been talking”* which appear to capture the reflective nature of the emotion better than state guilt items such as *“I feel like apologising”*. In contrast shame, as a more basic evolutionary emotion, is driven by threat or loss of status and therefore state scale measures, such as *“I want to sink into the floor and disappear”* seem to capture the essence of this automatic affective reaction more readily than shame proneness items, such as *“I would think that everyone is watching me and laughing”*.

The conceptualisation of shame as an automatic affective state, in response to an external threat, may mean that it is particularly difficult to capture via questionnaire methods. When participants were assessed for state shame the assessment situation was made as unthreatening as possible and this may have affected their ratings of shame and therefore any links with AOR or DBD. It may be that the only valid way of capturing an accurate measure of shame is in vivo, when this emotion is triggered. For children with DBD this is likely to be at the point where their transgressions are discovered or punished. It would be interesting, but ethically difficult, to obtain measures of shame in

these situations and analyse whether the emotion at the time it is triggered is related to AOR or levels of DBD.

Clinically it is the finding that avoidance of responsibility appears to develop alongside DBD that provides most interest. Whilst DBD may be predicted most robustly by C/U traits and age these factors are stable and not particularly informative for developing interventions, although they may be useful for targeting interventions to those most at risk. However AOR as a cognitive strategy may be amenable to change and cognitive interventions focusing on reducing avoidance of responsibility may serve to reduce levels of DBD in turn. In addition further research into the link between AOR and DBD and how these factors co-vary may help to determine the nature of the emotional experience for children exhibiting DBD, which continues to remain somewhat elusive.

Whilst the study did not find evidence of the predicted relationships between shame, guilt and DBD there was some evidence to support the proposal that avoidance of responsibility strategies develop in conjunction with DBD and theoretically may serve to maintain the behaviours. In addition AOR was found to be linked with low guilt proneness and to a lesser degree high state shame, suggesting that these factors may interact with the presence of DBD symptoms to make the use of AOR strategies more likely. However, levels of DBD were best predicted by levels of C/U traits and age of participants and other factors were not found to be independently related to DBD once these factors were controlled for. It must be remembered that the sample in this study was a non-clinical sample with relatively low levels of DBD symptoms and C/U traits. In addition the age of participants being considered meant that levels of CD symptoms,

in particular, were extremely low. It is possible that in a clinical, older sample the proposed relationships may be more established as a result of higher levels of DBD and therefore easier to detect. Future research would be to investigate the proposed model in both younger populations, to try and understand the development of AOR strategies, and also in a clinical sample of participants where DBD and C/U traits are likely to be much higher. A clearer differentiation between categories of C/U children and non-C/U children may then be possible. This would allow further investigation of the interaction between emotional and cognitive variables and a consideration of whether this differed according to the presence or absence of clinically significant levels of DBD and C/U traits.

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Part 3

Critical Appraisal

PART 3: CRITICAL APPRAISAL

In this section I will consider in more detail the research process that I went through in order to complete this study. I will start by describing how I became interested in the topic area, before discussing some of the methodological limitations of the study. Lastly I will look at the implications of the study on future investigations and describe what I learned from the process.

Selecting a Research Area

“Naughty boys” have always been a topic in which I have had a particular interest, by this I mean the children that present to Psychology services with non-specific behavioural difficulties at home or at school, and who for the greater part are male. A child’s behaviour is often the way in which emotional or environmental distress might be communicated and I have enjoyed working with such presentations and attempting to formulate what may be going on for individual cases. However, in the two years that I have worked in Tier 3 Child and Family Consultation Services I have felt that there is a real lack of theoretical understanding of what may lead to disruptive behaviour and in turn how clinicians can best intervene. In particular I was frustrated by literature which identifies a large range of background and environmental risk factors that may increase the likelihood of DBD but that actually are difficult to modify or intervene with when an individual presents for treatment (Lahey, Loeber, Burke & Rathouz, 2002). In the services where I have worked interventions have focused on parenting of toddlers with difficult behaviour (e.g. Webster-Stratton, 1992; Mellow Parenting; Mills & Puckering,

1995) and to a lesser extent offering social skills groups to adolescents. Very rarely children were seen alone in an attempt to understand their disruptive behaviour and interventions were largely based on behavioural principles and contingencies. Whilst these interventions have some established effectiveness in younger children (the population for which they are designed), I felt that there was something missing from the formulation of DBD in purely behavioural terms. It did not feel that the child as a whole was considered.

My research questions were born out of a desire to try and understand intrinsic factors that may serve to increase the likelihood of developing and maintaining DBD. The avoidance of responsibility literature, upon reading it, appeared to have a lot of face validity with the clients that I had encountered with difficult behaviour and became something that I felt would be clinically worth investigating, particularly with a view to informing future interventions. However I still felt frustrated that the literature appeared to neglect entirely any consideration of the internal emotional world of children with DBD, in favour of describing in detail their destructive actions. As I began to explore the area in more detail I started to read about the children categorised as showing callous/unemotional traits. These children are emotively described in the literature as “fledgling psychopaths” (Lynam, 1996). Whilst others caution against taking a deterministic view of children exhibiting DBD and these traits (Frick & Ellis, 1999), the fledgling psychopath description appeared to fit with the view of services within which I had worked. These services appeared to adopt an ever decreasing cut-off age at which they believed intervention could be successful for children with extreme DBD. This was not a stance that sat easy alongside my own philosophy, which is one of every individual

having potential and being able to change. I felt that the C/U label did not fully capture the emotional experience of children with DBD and started to consider other emotions that may play a role.

This led me to look at the literature on shame. My own experience of working with DBD children is that they react strongly to any perceived threat to their status and are hostile to attempts to engage in any work considering their behaviour. They appear to be superficially proud of their role as “the naughty one” and their behaviour distances others from a more vulnerable internalised emotional world. Many of these features appeared to fit with the literature on shame and its links with psychopathology. In addition previous research has found shame to be linked with externalising and avoiding responsibility for behaviour (Tangney, Wagner, Fletcher & Gramzow, 1992). Therefore it was possible to formulate a theoretical model of how shame, AOR and guilt might interact with DBD.

My aim was to try and test this model, as well as try and extend the construct of avoidance of responsibility to a younger age group. I hoped that by investigating cognitive and emotional factors, within a hypothesised model, the research could inform future interventions for DBD, namely of a cognitive-behavioural nature.

Methodological Issues

The next stage in the process was to design a study to investigate the proposed model. This required getting measures of avoidance of responsibility, shame, guilt and disruptive behaviour. It was also felt important to include a measure of C/U traits as this has been found to be such an influential variable in the literature. No predictions were made about how C/U traits would interact with other variables and it was decided to make this part of the study exploratory.

Participant Issues

Initially I planned to conduct this study with both non-clinical participants and clinical participants (children who had been referred to specialist services for behavioural difficulties). This would have allowed me to match on background factors children from these two distinct populations and then make a direct comparison of the proposed roles of avoidance or responsibility and shame in DBD. Unfortunately I had great difficulty obtaining a clinical sample. I did collect data from nine clinical cases but the numbers were not sufficient to include in the analysis. Therefore one of the limitations of this study is that it only includes children in a non-clinical sample, and who therefore exhibit low levels of DBD. It is possible that different mechanisms act in children where the level of DBD is sufficient to warrant clinical intervention. Future research considering the role of avoidance of responsibility and shame in a clinical sample of children with DBD would be worth considering. From a purely subjective perspective of the clinical children that I did collect data from I think any relationship between shame, AOR and

DBD may be easier to detect within this population. The children appeared to endorse many AOR items and in some instances could not even tolerate being asked the shame questions. With two of the nine children I spoke to shame items led to the child showing quite extreme externalising behaviour, leading to the premature termination of the questionnaires.

The difficulty obtaining a clinical sample for this study is perhaps indicative of the area being investigated, it is possible that children with higher levels of DBD have more disturbed environmental backgrounds and parents may be unwilling to consent to taking part in the research. I do not feel that this was necessarily the case in this study; parents whom I contacted within the clinical sample were, on the whole, willing to consent. However services that I was working alongside referred very few participants through to the study. This may be due to a lack of research ethos within these services and also possibly due to the fact that I was not involved in any other capacity, besides research, with these services. These are both important factors to consider for future research.

Within the non-clinical sample that I obtained there are also some limitations that may affect the applicability of the findings. Firstly it is worth considering which schools agreed to be involved in the research. It was my impression that schools where behaviour was not a major issue and which benefited from strong leadership and good special needs support were more likely to agree to take part. These schools appeared to have strong policies for managing difficult behaviour and it is possible that these principles were instilled in the children sampled from these schools. Secondly it is also worth considering the samples that were selected from these schools. Consent forms

were given out across year groups but it is possible that there was some selection bias as to which children returned their consent forms. It seems intuitively likely that children from the most chaotic backgrounds or with higher levels of DBD were less likely to return their forms. Anecdotally, this fitted with the perception of teachers in the schools. This means that the levels of DBD within the sample may not be fully representative of levels of DBD within non-clinical school settings and this may have affected the findings in relation to other variables. Future research could be conducted from within a school setting to sample all children in a year cohort to try and get a clear picture of DBD prevalence.

In terms of demographics the study seemed to capture a range of children from different backgrounds, however once again the selection bias inherent in which parents returned consent forms must be considered. For example in one school 66% of the school population was Somali or Turkish but only one consent form was returned from these parents, despite translation of all the information into the appropriate language. Therefore the sample may not be fully representative of the population and generalisability of the findings to children from different ethnic groups should be made with caution. This is particularly true given that shame and guilt are emotions that have different cultural connotations and variations (Lindisfarne, 1998)

Measurement Issues

There are a number of measurement issues raised by this study, which are worth consideration.

Firstly there is the administration of the measurements. Children in the study were supervised in completing the questionnaires and encouraged to ask about comprehension difficulties. None of the participants appeared to find the questionnaires difficult and the fact that they were supervised in small groups ensured that neighbouring participants did not simply copy answers. However, the group completion may have led to higher answers reflecting social desirability, even though participants were encouraged not to share their answers. If future studies are conducted in group settings than a social desirability scale may prove a valuable addition to the measures. Teachers were not supervised in the completion of their questionnaires and it is possible that, in instances where teachers had to complete five or six questionnaires for participants, they did not consider fully the items on the forms for individual children. This may be particularly true for this sample group where so few behavioural items were endorsed teachers may not have paid so much attention to individually worded items.

Teachers were selected to rate children's behaviour and levels of C/U traits as previous research has identified them as reliable informants (Hart, Kahey, Loeber & Hanson, 1994). It would have been interesting to also obtain parent ratings of DBD and C/U traits to check for inter-rater reliability. In addition, had children rated these two variables themselves this may have provided an interesting insight into their self-perception. A

difficulty with teachers rating both DBD and C/U traits is that it might become difficult to separate the constructs. Children who are viewed by teachers as callous-unemotional are also judged to have higher levels of DBD. This is not an objective measurement and raises the question of the labeling of children within schools. Do these children have higher levels of DBD as a result of their C/U traits or are they attributed with C/U traits as a result of their lack of emotional reactivity to their behaviour? Does DBD and AOR lead to negative interpersonal reactions in the long-term and therefore make these children more likely to be seen as, and possibly to act as if, they are callous and unemotional?

In future research it would be interesting to obtain teacher ratings of shame and guilt in children and see whether these differentiate between the children they view as callous-unemotional and those they do not. Whilst the C/U items seem to differ from measuring behavioural markers of DBD this potential confounding of constructs is a limitation of using single-informants. Teacher ratings were based on subjective knowledge of the child; therefore to find any relationship between teacher rated variables (DBD) and child rated variables (AOR) suggests the relationship is fairly robust. If future research is conducted in this area it might be worth including a more objective measure of behaviour, for example number of detentions or fixed term exclusions in the past year. This is unfortunately less possible for C/U traits, which are a measure of interpersonal style and therefore rely on a degree of subjectivity.

Measurement of variables within the study was a further issue. Questionnaires, as far as possible, were selected that had been designed and validated to use with child

populations, however this was not possible for all measures used. The Test of Self-Conscious Affect for Children (TOSCA-C; Tangney & Dearing, 2002) was designed specifically for the age group in this study and provided a measure of shame and guilt proneness, in the form of how likely children thought they would react in a certain way. Whilst this seems an effective way to measure guilt, which entails a degree of reflection on behaviour and consideration of its impact on others it may not prove an ecologically valid way to capture shame. Shame is proposed to be a much more evolutionary basic emotion than guilt, in response to threat (Gilbert, 1997) and is an immediate affective arousal rather than emerging after consideration and reflection. I argue that it is therefore much more difficult to capture an accurate measure of shame proneness via a questionnaire. The very nature of the emotion may be felt as shameful and after deliberation children may not endorse shame items as likely, whereas if they were in that situation and shame was induced they may be likely to react according to the questionnaire. The State Shame and Guilt Scale (SSGS; Tangney & Dearing, 2002) is an attempt to overcome this difficulty and is designed to give a measure of state shame and guilt in the present. However shame is aroused in response to threat and the situation in which children completed the questionnaire was made to be as unthreatening as possible, hence the likelihood of children feeling shamed was low and may have affected ratings. It would be interesting in future research to put children in potentially shaming situations and try and capture the affect in vivo, and observe how it interacts with cognitive strategies such as avoidance of responsibility and with disruptive behaviour. Of course the ethics of conducting shame-inducing experiments with children would be problematic and therefore perhaps an alternative such as studying the shaming experiences of children within a school setting might be a more viable option.

Whilst the measures used are not without their limitations they were considered to capture the essence of what was required. The TOSCA-C and SSGS both made conceptual distinctions of shame and guilt, which are supported by the literature in this area and the findings of this study which found the to emotions differentially related to other variables. The Powell Avoidance of Responsibility Scale (PARS; Powell & Rosen, 1999) is easy to complete and has a good internal reliability and face validity. Several of the teachers that inspected the measures used in the study commented on the PARS and felt that it captured well the attitude of some children with DBD.

Applicability of the Findings

The sample size in this study was fair and the findings could be generalised to pre-adolescent mainstream school populations, bearing in mind the limitations of the sample as already discussed. In particular the finding that avoidance of responsibility is a construct applicable to this age group, increasingly so with age, may prove useful when designing interventions or considering educational programmes around behaviour. Schools that adopt schemes such as mentoring, playground diplomats or positions of responsibility are intuitively applying this finding already in trying to increase the responsibility that children have for their behaviour. However, I feel it is necessary to advise some caution about how this finding is applied. Forcing children to take responsibility or trying to engender guilt, found to relate to AOR, is likely to be counter-productive and lead to further hostility and displacement of blame. This is particularly likely if AOR strategies are employed, as hypothesised, to avoid some painful emotional

experience linked to behaviour. This conceptualisation of AOR as a defensive strategy may prove the most useful as it will encourage these children to be seen as vulnerable and requiring support, rather than as devious and expert at shifting the blame.

How children might be best encouraged to take responsibility for their behaviour remains to be seen. I feel that it is likely that some interaction with parental responsibility is important. As in cognitive models of other childhood disorders (e.g. anxiety) children's cognitions are often inextricably bound with those of the parents. This is an area which may prove interesting for further investigation, that is how do parents avoid responsibility for their own behaviour, support children to avoid it for theirs and how does this relate to DBD.

Whilst it is not possible to generalise the findings of this study to clinical populations without further research it is interesting to consider what the impact of the findings may be on clinicians. As supposedly neutral parties intervening with children with DBD we may prove to be ideally placed to foster a sense of responsibility in such cases, avoiding the pitfalls of recrimination and blame. On the reverse it is also possible that our unique positions may serve to reinforce avoidance of responsibility if we do not bear the construct in mind when working with DBD individuals. In our willingness to form therapeutic alliances, be empathic and offer support to these difficult to engage and troubled children we must be careful not to reinforce their stance that everything in the world, apart from themselves, is to blame for their current problems.

The lack of any evidence for a role for shame in DBD is, if I am honest, disappointing but there was support for guilt playing a protective factor. Given the limitations with the measurement of shame, as already discussed, I feel reluctant to abandon the proposed model completely but feel that future investigations are needed before we get near to identifying the emotional factors at play in DBD. The nature of the disorder is that it is behaviourally defined and it is the behaviour that becomes the focus of intervention. This makes assessing the emotional factors problematic and new advances in methodology are required.

Future Directions

Whilst I embarked on this project as a crusade against the concept of C/U traits and the “fledgling psychopath”, I have to grudgingly admit that there does seem to be a robust link between this interpersonal style and DBD, even within a non-clinical population. However I am still not fully convinced of the underlying theory that low behavioural inhibition leads to the development of these traits and therefore DBD. I feel that for some children with DBD these traits are adopted as a means of coping with what is perceived to be a hostile and threatening environment. In order to study fully how C/U traits develop in conjunction with DBD then longitudinal and prospective studies are required. It is likely that such research would reveal sub-groups of children with these traits, perhaps with some having them as a pre-disposition to DBD and others developing them over time.

To further advance this study I have made several suggestions throughout this review. Namely that the study should be conducted with a clinical population of children to test how the factors in the proposed model interact when there are clinically significant levels of DBD. The relationship between avoidance of responsibility and DBD could also be studied in a younger population to test my hypothesis that it is a cognitive style that emerges as a consequence and as a means of coping with DBD, rather than as a precursor. I have also suggested that the avoidance or responsibility construct be investigated in parents to test how this may relate to children's DBD. Lastly I have suggested that alternative ways of measuring shame need to be identified before the model can be validated or rejected.

Conclusion

The research process has been long and exhausting and certainly a steep learning curve, but in retrospect has also been nearly enjoyable! I feel lucky to have been able to investigate an area in which I have such personal interest and which even after two years I still feel passionately about. The field of research within DBD is ever expanding, it is an area where so many factors have been implicated that models are becoming ever more complex and difficult to apply. I am anxious that we should not lose sight of the goal of developing effective interventions for these individuals, who in my experience are often viewed as hopeless cases or untreatable. Hinshaw and Lee (2003) caution against the narrowing of focus onto intrinsic factors at the expense of considering the wider cultural and social forces involved. I believe that we need a balance between these areas so that we do not neglect context when considering DBD but that we also consider

intrinsic factors, which may provide the best opportunity to implement change. This study found some evidence to support cognitive factors involved with DBD but the emotional world of these children is so difficult to define and determine. I believe this is an area worthy of further investigation in the future and one which could prove fruitful in terms of improving our own understanding and how we intervene to best help these individuals.

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APPENDICES

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Appendix A

Ethical Approval



07 July 2004

Ms Sarah Gregory
Trainee Clinical Psychologist
Sub-department of Clinical health
Psychology, UCL

Dear Ms Gregory,

Full title of study: A study examining the relationship between shame, guilt, avoidance of responsibility and disruptive behaviour disorders in pre-adolescent children
REC reference number: 04/Q051/i/17
Protocol number: 1

Thank you for your letter of 23 June 2004, responding to the Committee's request for further information on the above research.

The further information has been considered on behalf of the Committee by the Chair and

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation.

The favourable opinion applies to the following research site:

Site: Northern Health Centre - Child and Family Service – Camden and Islington Mental Health and Social Care Trust

Principal Investigator: Ms Sarah Gregory

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Version: 1
Dated: 14/04/2004
Date Received: 14/04/2004

Document Type: Investigator CV
Version: 1
Dated: 14/04/2004
Date Received: 14/04/2004

Document Type: Protocol
Version: 1
Dated: 14/04/2004
Date Received: 14/04/2004

Document Type: Peer Review
Version: 1
Dated: 17/11/2003
Date Received: 14/04/2004

Document Type: Copy of Questionnaire
Version: 1
Dated: 14/04/2004
Date Received: 14/04/2004

Document Type: Participant Information Sheet
Version: 2
Dated: 05/07/2004
Date Received: 23/06/2004

Document Type: Response to Request for Further Information
Version:
Dated: 23/06/2004
Date Received: 23/06/2004

Document Type: Other
Version: 1
Dated: 14/04/2004
Date Received: 14/04/2004

Management approval

The study may not commence until final management approval has been confirmed by the organisation hosting the research.

All researchers and research collaborators who will be participating in the research must obtain management approval from the relevant host organisation before commencing any research procedures. Where a substantive contract is not held with the host organisation, it may be necessary for an honorary contract to be issued before approval for the research can be given.

Notification of other bodies

We shall notify the North Central London Research Consortium that the study has a favourable ethical opinion.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

REC reference number: 04/Q0511/17 Please quote this number on all correspondence

Yours sincerely,

Chair

Enclosures Standard approval conditions

Appendix B

Children's Information Sheet

Camden and Islington

Mental Health and Social Care Trust

Children's Information Form

You are being invited to take part in a study looking at the way children think and feel about how they behave. All children in your class have been asked to take part.

The study will mean filling in some questions about your thoughts and feelings. Some questions ask you to choose between true and false and some ask you to rate how much you think or feel a certain way. Some of the questions might seem hard so there will be someone there to help you. Also some of the questions might be about things that are difficult to think about. It is important to know that there are no right or wrong answers and that this is *not* a test.

In order to fill in the questions you will have to miss a lesson in school. Sarah Gregory will come into school and take you to a quiet area to complete the questions.

You do not have to take part in this study and even if you start you can stop if you want to.

Talk about this with the person who cares for you and if you want to take part then let them know. You will be asked again on the day that Sarah comes to school so it does not matter if you change your mind.

If you have any questions then you could ask your class teacher about the study.

Appendix C

Parents' Information Sheet

Camden and Islington

Mental Health and Social Care Trust

Parental Information Form

An Investigation into how children, aged 8 – 11 years old, think and feel about their behaviour

Your child is being invited to take part in a research study that is taking place in schools in Islington. Before you decide whether you would like your child to take part it is important for you to understand why the research is being done and what it will involve.

What is the purpose of the study?

Behaviour that is difficult to manage is very common in children and can put a lot of demands on parents and teachers. This study aims to look at the way younger children think and feel about their behaviour.

Why have I been chosen?

In order to look at the way children think and feel about their behaviour a whole range of children need to be considered. It was thought that the most effective way to obtain a range of children would be to ask a whole school to join the study. Therefore your child is being invited as part of his/ her year. All children in his/her class have been invited to participate in this study. This should in no way be taken as a reflection on your child's behaviour.

What will it involve?

The study will involve your child completing a set of three questionnaires with the researcher, Miss Sarah Gregory, at school. She has two years experience of working with children. The questionnaires should take a maximum of forty minutes and ask about the child's thoughts and feelings when they behave in certain ways. In addition your child's teacher will complete a questionnaire about his or her behaviour. In addition, if you are happy for her to so Sarah will contact you by phone to ask a few background information questions. This information is so that children with similar families can be compared. The information is confidential and you do not have to complete these questions if you do not wish to.

Do I have to take part?

The study is entirely voluntary. Your child will be reminded of this before starting to fill in the questionnaire and should at any point they want to stop taking part this is perfectly ok.

What will happen to the questionnaires?

The information on the questionnaires will be kept confidential. The questionnaires will be coded so that children cannot be identified by their names. They will be marked and compared to the questionnaires completed by the teachers. Parents and children will be provided with a summary of the findings of the study.

What are the disadvantages of taking part?

The main disadvantage is that your child will miss forty minutes of school to take part. However the school feels that this research is relevant and the researcher will liaise with teachers to ensure work is not missed. A possible disadvantage is that your child may not want to complete the questionnaires on the day – this is not a problem and as explained above your child is free to withdraw from the study at any time.

Who is organising the research?

Miss Sarah Gregory, Trainee Clinical Psychologist at University College London, is the chief investigator in the study. She is doing the research as part of a post graduate degree in clinical psychology. The study is supervised by Dr Stephen Butler and [redacted], both Clinical Psychologists working at a Child and Family Consultation Service in Islington.

Having read this information if you do wish your child to take part in this study then please fill in and return the form enclosed to school. Thank you.

Appendix D

Sample letter from School

Insert school address

Date

Dear Parent

We are writing to you to inform you about a research project, which will be taking part in school over the next few months. Miss Sarah Gregory is a trainee Clinical Psychologist studying at University College London, her research involves looking at the way children think and feel about their behaviour.

Miss Gregory is looking at the thoughts and feelings of children aged between 8 and 11 years old. All children in your child's class have been approached about this study and being invited to participate is not linked to your child's behaviour.

We have included information sheets about the research for both you and your child along with a consent form. The research is entirely voluntary and it is up to you whether you wish your child to participate. Miss Gregory would be grateful if you could read the information sheets. If you are happy for your child to take part then please complete the form and return it to school as soon as possible.

Yours sincerely

School

Appendix E

Consent Form

Consent Form

An Investigation into how children aged 8 – 11 think and feel about their behaviour

Chief Investigator – Miss Sarah Gregory

I confirm that I have read and understood the information sheet about this study
(Please tick box)

I understand that my child is a volunteer and is free to withdraw at any time

I give my consent for my child to take part in the above study

Name of Child _____

Name of Parent/Guardian _____

Relationship to child _____

Signature of Parent/ Guardian _____

Date _____

In addition I would be happy for Miss Sarah Gregory to contact me at home to ask a few background information questions

Please fill in contact number if you are happy for Sarah to do this:

Appendix F

Demographic Sheet

Please complete the following information – this section is voluntary but will help the study in looking at differences among the children that are taking part.

ALL INFORMATION IS KEPT STRICTLY CONFIDENTIAL

1) Please circle who lives in your household (in relation to this child)

•Mother •Stepmother •Father •Stepfather •Grandmother

•Grandfather •Other adults (list) _____

•Other children (list ages) _____

• Do not wish to say

2) Please indicate the ethnicity of your child by circling:

White •UK •Other (describe) _____

Black or Black British •Caribbean •African •Other (describe) _____

Asian or Asian British •Indian •Pakistani •Bangladeshi

•Other (describe) _____

•Chinese

•Mixed (describe) _____

•Other (describe) _____

• Do not wish to say

3) As parent/ guardian please circle which of the list below most closely describes your occupation:

•Professional post (eg. teacher, doctor, accountant, solicitor) •Skilled manual worker (eg. Plumber electrician, HGV/ train driver)

•White collar worker (eg. police constable, bank clerk, administration, computer programmer) •Semi-skilled or unskilled manual worker (eg porter, van driver, packer)

•Without income – •Homemaker
•Unemployed (for how long?) _____

•State benefits (for how long?) _____

•Other please describe) _____

If employed please write the full title of your job _____

- Do not wish to say

4) Which of these qualifications do you have? Please circle all that apply to you, or the nearest equivalent.

- 1+ O levels/ CSEs/ GCSEs (any grades)
- 5+ O levels/ 5+CSEs (grade 1)/ 5+ GCSEs (grades A-C)/ School certificate
- 1+ A Levels/ AS levels
- 2+ A levels/ 4+ AS levels/ Higher school certificate
- First Degree (eg BA/ BSc)
- Higher Degree (eg MA/ PhD/ PGCE/ Post-graduate certificates/ diplomas)
- Do not wish to say
- NVQ Level 1/ Foundation GNVQ
- NVQ Level 2/ Intermediate GNVQ
- NVQ Level 3/ Advanced GNVQ
- NVQ Levels 4-5/ HNC/ HND
- Other qualifications (City&Guilds, RSA/ BTEC)
- No qualifications: What year did you leave secondary education? _____

5) Does your child have a diagnosis of attention deficit hyperactivity disorder (ADHD)? (please circle)

YES

NO

DON'T KNOW

Thank you for taking the time to fill in these forms – once the study has been completed you will be provided with feedback about the findings.

Appendix G

Children's Introduction to Questionnaires

Hello,

You have been invited to take part in a study looking at the way children think and feel about how they behave.

The study will mean filling in some questions about your thoughts and feelings. Some questions ask you to choose between true and false and some ask you to rate how much you think or feel a certain way. Some of the questions might seem hard so there will be someone there to help you. Also some of the questions might be about things that are difficult to think about. It is important to know that there are no right or wrong answers and that this is *not* a test.

You do not have to take part in this study and even if you start you can stop if you want to.

Please fill in the gaps below:

Name _____

Age _____

Year/ Class _____

Teacher _____

Circle:

MALE

FEMALE

Appendix H

PARS Scale

(Avoidance of Responsibility Measure)

Think about the last few times you have gotten in trouble. Read each statement and decide whether it is true about you or false about you. Please circle the answer that best describes you

- | | | |
|---|------|-------|
| 1. When I get in trouble it is because I am angry | TRUE | FALSE |
| 2. When people are upset with me I do not know why | TRUE | FALSE |
| 3. When I get in trouble it is because I am depressed or miserable | TRUE | FALSE |
| 4. People are always making me mad | TRUE | FALSE |
| 5. When I get in trouble people make "too big a deal" Out of it | TRUE | FALSE |
| 6. When I get in trouble it is someone else's fault | TRUE | FALSE |
| 7. People treat me unfairly | TRUE | FALSE |
| 8. When I get in trouble I know why people are upset With me | TRUE | FALSE |
| 9. When I get in trouble I deserve it | TRUE | FALSE |
| 10. I have good reasons for my behaviours when I get In trouble | TRUE | FALSE |
| 11. People "pick on me" a lot | TRUE | FALSE |
| 12. I am fully responsible for my actions when I get in Trouble | TRUE | FALSE |
| 13. People don't understand the reasons for my actions | TRUE | FALSE |
| 14. When I get in trouble I think to myself "I did <i>not</i> do it | TRUE | FALSE |
| 15. When I get in trouble it is because of bad things That have happened to me | TRUE | FALSE |
| 16. When I get in trouble it is because I am sad | TRUE | FALSE |
| 17. When I get in trouble it is because I am lonely | TRUE | FALSE |
| 18. If I could turn back time after getting in trouble I Would do everything exactly the same | TRUE | FALSE |
| 19. My tough life is why I get in trouble | TRUE | FALSE |
| 20. If my actions hurt someone they deserve it | TRUE | FALSE |
| 21. When I get in trouble it is my fault | TRUE | FALSE |
| 22. I think I am a bad person | TRUE | FALSE |
| 23. I do <i>not</i> care about other people's feelings | TRUE | FALSE |
| 24. I feel bad about my actions when I get in trouble | TRUE | FALSE |
| 25. I think people in authority like teachers, police and Parents are too strict and uptight | TRUE | FALSE |
| 26. I feel bad about my wrong behaviours | TRUE | FALSE |
| 27. I lie when I get into trouble | TRUE | FALSE |
| 28. I will do something wrong I if I know I won't get Caught | TRUE | FALSE |

Appendix I

Test of Self-Conscious Affect –

Children's Scale

(TOSCA-C)

Here are some situations which might happen to you once in a while. And here are some different ways that people might think or feel.

Really imagine that you are in the situation now and imagine how you might think or feel. Then read each statement. *Put an X in the box to describe how likely the statement would be true for you.*

Let's practice

You wake up very early one morning on a school day....

	Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very. Likely
I would eat breakfast right away					
I would check over my homework Before I left for school					
I would not feel like getting out of bed					

Remember that everyone has good days and bad days. Everyone sometimes does things that they wouldn't normally do. *There are no right or wrong answers*

1) You are on playground duty and you tell the teacher on three children...

	Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely
I'd worry about what would Happen to them					
I'd think "they deserved it"					
I'd think I'm a tell-tale					
I would feel good about myself					
I would feel I did a good job					

2) Your aunt is giving a big party. You are carrying drinks to people and you spill one on the floor...

	Not at all Likely	Un- likely	Maybe Half & Half	Likely	Very Likely
I should have been more careful					
My aunt wouldn't mind that much					
I would run upstairs to be away From everybody					
The tray was too heavy					

3) You get a test back in school and didn't do well...

	Not at all Likely	Un- likely	Maybe Half & Half	Likely	Very Likely
I'd feel that I should have done Better I should have studied more					
I'd feel stupid					
It's only one test					
The teacher must have marked It wrong					

4) You stop playing all the time with one friend to play with someone who does not have any friends...

	Not at all Likely	Un- likely	Maybe Half & Half	Likely	Very Likely
I'd feel bad because it's not fair to forget about one friend when you make another					
I did something good					
That new kid had lots of fun Games that I wanted to play					
My other friends might think I'm Weird playing with somebody who doesn't have any friends					
I'm a really nice person to play with someone who didn't have any friends					

5) You wake up one morning and remember it's your mother's birthday.

You forgot to get her something

...

It's not the gift that matters. All
That really matters is that I care

After everything she's done for
me, how could I forget her birthday?

I would feel irresponsible and
thoughtless

Someone should have reminded me

Not at all Likely	Un- likely	Maybe Half & Half	Likely	Very Likely

6) You trip in the cafeteria and spill your friend's drink...

I'd be thinking that everyone is
Watching me and laughing

I would feel sorry, very sorry I should
Have watched where I was going

I wouldn't feel bad because his
drink did not cost that much

I couldn't help it. The floor was
slippery

Not at all Likely	Un- likely	Maybe Half & Half	Likely	Very Likely

7) You were talking in class and your friend got the blame. You go to the teacher and tell him or her the truth...

The teacher should have got the facts
Straight before he blamed my friend

I would feel like I always get people
In trouble

I did a very good thing by telling the
Truth

I'd be proud of myself that I'm able
To tell the teacher something like that

I'm the one who should get in trouble,
I shouldn't have been talking.

Not at all Likely	Un- likely	Maybe Half & Half	Likely	Very Likely

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8) You accidentally break your aunt's vase. Your aunt tells off your little cousin instead of you...

If I didn't tell the truth something inside would bother me

No-one is going to like me if my cousin tells on me

She only told off my cousin. It's no big deal

She should find out what happened Before she starts yelling

Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely

9) Your report is not as good as you wanted. You show it to your Mum when you get home...

Everyone gets a bad report once in A while

I really didn't deserve a bad report, It's not my fault

Now I got a bad report I'm worthless

I should listen to everything the Teachers say and work harder

Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely

10) You and your best friend get into an argument at school..

It was my friend's fault

We do it all the time and we always make up

I would feel sorry and feel like I shouldn't have done it

I'd probably feel really bad about myself

Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely

11) Your teacher writes your name on the board for talking in class...

	Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely
I'd think that my teacher was unfair to write my name on the board					
I'd slide down my chair, embarrassed					
If I was talking it would serve me Right because it's a rule					
I wouldn't mind, people talk all the Time in class					

12) You get an award at the end of term and tell your best friend about it. You find out your friend did not get an award...

	Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely
It's my friends fault for not getting an award					
I'd feel bad because I was bragging about it and made my friend feel bad					
I'd feel good about myself for being such a good pupil					
I'd be proud of my award					
My friend might think I'm a show off					

13) You and your friend are talking in class and get in trouble...

	Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely
I'd think that I shouldn't have talked and I deserve to get in trouble					
We were only whispering					
The teacher is mean and unfair					
I'd feel like everyone in the class was looking at me and about to laugh					

14) You invite a friend to sleep over but when you ask your Mum she says no...

Since I'd already asked my friend I feel a bit embarrassed

My Mum's not fair

I'd feel sorry that I asked my friend before I asked my Mum. Now my friend will be disappointed

My friend can always sleep over another time

Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely

15) Your teacher picks one student to do something special. She picks you...

I'd be wondering how the others felt – the ones that didn't get picked

My friends will think I'm a teacher's pet

I must have done a good job to get picked

I'd feel good about myself – like I Was special

The teacher must really like me

Not at all Likely	Un-likely	Maybe Half & Half	Likely	Very Likely

Appendix J

State Shame & Guilt Scale

(SSGS)

Camden and Islington

Mental Health and Social Care Trust

Children's Questionnaire

Name _____

Age _____

Gender M F

The following are some statements which may or may not describe how you are feeling right now. Please rate each statement using the five point scale below. Remember to rate it on how you are feeling **right now**.

	Not at all		Feeling this Way a bit		Feeling this way a lot
	1	2	3	4	5
I feel good about myself	1	2	3	4	5
I want to sink into the floor and Disappear	1	2	3	4	5
I feel regret or sad for what I have done	1	2	3	4	5
I feel worthwhile or valuable	1	2	3	4	5
I feel small	1	2	3	4	5
I feel stress about something I have Done	1	2	3	4	5
I feel capable or useful	1	2	3	4	5
I feel like I am a bad person	1	2	3	4	5
I cannot stop thinking about Something bad I have done	1	2	3	4	5
I feel proud	1	2	3	4	5
I feel humiliated or disgraced	1	2	3	4	5
I feel like apologising or owning up	1	2	3	4	5
I feel pleased about something I have Done	1	2	3	4	5
I feel worthless or powerless	1	2	3	4	5
I feel bad about something I have done	1	2	3	4	5

Appendix K

Teacher Rating Scale

Teacher Questionnaire

Child's Name: _____
 Child's Age: _____

Gender: M F
 Date: _____

	Never /Rarely	Sometimes	Often	Very Often
1. Fails to give close attention to details or makes Careless mistakes in schoolwork	0	1	2	3
2. Has difficulty sustaining attention in tasks or play Activities	0	1	2	3
3. Does not seem to listen when spoken to directly	0	1	2	3
4. Does not follow through on instructions and fails To finish work	0	1	2	3
5. Has difficulty organising tasks and activities	0	1	2	3
6. Avoids tasks (school/ homework) that require Mental effort	0	1	2	3
7. Loses things necessary for tasks or activities	0	1	2	3
8. Is easily distracted	0	1	2	3
9. Is forgetful in daily activities	0	1	2	3
10. Fidgets with hands or feet or squirms in seat	0	1	2	3
11. Leaves seat in classroom or in other situations In which remaining seated is expected	0	1	2	3
12. Runs about or climbs excessively in situations In which it is inappropriate	0	1	2	3
13. Has difficulty playing/ engaging in leisure activities Quietly	0	1	2	3
14. Is "on the go" or acts as if "driven by a motor"	0	1	2	3
15. Talks excessively	0	1	2	3
16. Blurts out answers before questions have been Completed	0	1	2	3
17. Has difficulty awaiting turn	0	1	2	3
18. Interrupts or intrudes on others	0	1	2	3
19. Loses temper	0	1	2	3
20. Argues with adults	0	1	2	3
21. Actively defies or refuses to comply with adults' Requests or rules	0	1	2	3
22. Deliberately annoys people	0	1	2	3
23. Blames others for his/ her mistakes or misbehaviour	0	1	2	3
24. Is touchy or easily annoyed by others	0	1	2	3
25. Is angry and resentful	0	1	2	3
26. Is spiteful or vindictive	0	1	2	3
27. Engages in illegal activities	0	1	2	3
28. Is concerned about how well he/she does at school	0	1	2	3
29. Acts without thinking of consequences	0	1	2	3
30. His/ her emotions seem shallow and not genuine	0	1	2	3
31. Lies easily and skillfully	0	1	2	3
32. Is good at keeping promises	0	1	2	3
33. Brags excessively about his/ her abilities Accomplishments or possessions	0	1	2	3
34. Gets bored easily	0	1	2	3
35. Uses or cons other people to get what he/she	0	1	2	3
36. Teases, makes fun of other peoples	0	1	2	3
37. Feels bad/ guilty when he/ she has done Something wrong	0	1	2	3

38. Engages In risky or dangerous activities	0	1	2	3
39. Can be charming at times but in a way which Appears insincere or superficial	0	1	2	3
40. Becomes angry when corrected or punished	0	1	2	3
41. Seems to think he/she is better than other people	0	1	2	3
42. Does not plan ahead or leaves things until the last Minute	0	1	2	3
43. Is concerned about the feelings of others	0	1	2	3
44. Does not show feelings or emotions	0	1	2	3
45. Keeps the same friends	0	1	2	3

In the past twelve months has this child...

Often bullied, threatened or intimidated others	No	Yes
Often initiated physical fights	No	Yes
Used a weapon that can cause serious physical harm To others (e.g. bat/ brick, broken bottle, knife, gun)	No	Yes
Has been physically cruel to people	No	Yes
Has been physically cruel to animals	No	Yes
Has stolen while confronting a victim (e.g.mugging, Extortion, purse snatching, armed robbery)	No	Yes
Has forced someone into sexual activity	No	Yes
Has deliberately engaged in fire setting with the intention Of causing serious damage	No	Yes
Has deliberately destroyed others' property (other than by Fire setting)	No	Yes
Has broken into someone else's house, building or car	No	Yes
Often lies to obtain goods, favours or to avoid obligations (i.e. cons others)	No	Yes
Has stolen items of nontrivial value without confronting a Victim (e.g. shoplifting, forgery)	No	Yes
Often stays out at night despite parental prohibition If so at what age did this begin	No	Yes
Has run away from home overnight at least twice If so how many times	No	Yes
Is often truant from school If so at what age did this begin	No	Yes

Appendix L

List of Acronyms

ACRONYM	TERM
DBD	Disruptive Behaviour Disorder
CD	Conduct Disorder
ODD	Oppositional Defiant Disorder
AD/HD	Attention Deficit/ Hyperactivity Disorder
C/U	Callous/ Unemotional
VIM	Violence Inhibition Mechanism
AOR	Avoidance of Responsibility
PARS	Powell Avoidance of Responsibility Scale
TOSCA-C	Test of Self-Conscious Affect – Children’s version
SSGS	State Shame and Guilt Scale
ASPD	Anti-social Process Screening Device

