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Understanding Parenting: The Relationship between  
Parent Attributions, Efficacy and Satisfaction

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## Abstract

**Objectives:** The aims of this study were to explore hypothesised relationships between parent attributions for child behaviour, and parent efficacy and satisfaction in the parenting role. Existing evidence supports the roles of parent attributions and efficacy in the understanding of parenting emotions and behaviour. This study aimed to augment an existing model of parenting responses by exploring this relationship and the extent to which efficacy, satisfaction and attributions predict parental emotional responses to child behaviour, as well as their perceptions of behaviour as problematic.

**Design:** A cross-sectional within subjects design was used with parents (N = 71) of children aged between 5 and 10 in the local community.

**Method:** Participants completed self-report measures of parent attributions for three types of child behaviour: inattentive-overactive, non-compliant and pro-social behaviour. Their emotional response to child behaviour, and their perception of the behaviour as problematic were also measured. Finally, participants completed measures of parenting efficacy and satisfaction.

**Results:** No significant relationships were found between parenting efficacy and attributions. However, parental satisfaction was predicted by parent attributions of globality and stability for inattentive-overactive behaviours, which suggested that parents who viewed the cause of this behaviour to be specific to certain situations, but a stable trait of the child, experienced lower levels of parental satisfaction.

**Conclusions:** Parent efficacy was not associated with parent attributions. This lack of finding is likely to be due to the type of measure used rather than there being a lack of relationship. Future studies should explore the relationship using efficacy measures which are specific to parenting tasks. Parent satisfaction may be a potent variable for further research. Implications for parenting programmes are discussed.

## 1.0 Introduction

### *1.1 Chapter Overview*

Positive outcomes for children are associated with good physical health, opportunities for learning and socialising, and a good enough experience of being parented (Belsky, 1984). Risk factors for child social, emotional and cognitive development include difficult temperament in early infancy, social disadvantage, disability and poor parenting.

Evidence suggests that good child outcomes are related to a parenting experience characterised by warmth, attunement, consistency and sensitivity (see section 1.2.1). Parent cognitive-emotional processes have been studied in an attempt to unpick the complex factors which contribute towards maladaptive parenting.

Sections 1.3.2 through 1.3.5 examine existing evidence which suggests that parental causal attributions and perceptions of efficacy both relate to parenting emotions and behaviour (e.g. Bugental & Cortez, 1988; Dix et al., 1986, 1989, 1990; Donovan & Leavitt, 1985; Teti & Gelfand, 1991). However, there is little evidence which increases our understanding of how attributions and efficacy relate to each other in the domain of parenting.

Efficacy theory stipulates that attributions are conveyors of efficacy information which relate to emotions, motivation and satisfaction in the parenting role (Bandura, 1997). The application of attribution theory to the understanding of parenting behaviour, currently incorporates the importance of emotional processes, but does not

outline a clear role for the contribution of other psychological processes, such as efficacy or relationship satisfaction.

The introduction chapter aims to summarise existing theory and literature on the contributions of parent attributions, efficacy and satisfaction to parent emotional and behavioural responses to children. Gaps in the literature pertaining to relationships between parent attributions, efficacy and satisfaction will be highlighted. Research questions and hypotheses will be presented at the end of the introduction.

## 1.2 Risk and Protective Factors for Poor Child Outcomes

### *1.2.1 Child Risk and Protective Factors*

Aspects of healthy child development, highly valued in our society include emotional security, behavioural independence, social competence and intellectual achievement (Belsky, 1984). Outcomes which can compromise healthy child development are internalising mental health problems, (e.g. Anxiety, Depression, Obsessive-compulsive Disorder) and externalising behaviour problems (e.g. Oppositional Defiant Disorder, Conduct Disorder and Attention-Deficit Hyperactivity Disorder). Risk factors for these problems include disability (Cadman, Boyle, Szatmari, & Offord, 1987; Emerson, 2003), child temperament (Essex et al., 2006), and socio-economic status (SES), (Bradley & Corwyn, 2002; Dodge, Pettit & Bates, 1994).

The importance of the role of parent factors contributing towards these risks cannot be underestimated. In some instances, parent factors have been found to mediate relationships between risk factors and child externalising behaviour problems. For example, Dodge, Pettit and Bates, (1994) found evidence to suggest that parent factors

(lack of maternal warmth, harsh discipline and lack of cognitive stimulation) mediated the relationship between teacher reports of child externalising behaviour problems and SES. For boys, growing up in an impoverished home has been found to be predictive of a greater likelihood of receiving harsh punishment, and girls have been found to be vulnerable to persistent harsh discipline and lack of maternal warmth (Smith & Brooks-Gunn, 1997). In this particular study, maternal harsh discipline together with low maternal warmth was associated with IQ scores for girls that were 12 points lower than the IQ scores of girls who received less punishment and more warmth. Parent factors will be considered in more depth in the next sections, but it is important to note that evidence suggests that child outcomes are related to a complex interplay of factors incorporating parent, child and contextual components.

Child factors such as temperament are thought to ‘undermine’ parental functioning and increase the risk of the development of child conduct problems (Bates, 1980; Snyder, Cramer, A Frank & Patterson, 2005). High levels of externalising behaviour problems (e.g. conduct problems; impulsivity and hyperactivity) in school-age children have been found to be predicted by difficult temperament in infancy, but only when exposed to maladaptive parenting behaviour (e.g. inconsistency, a laissez-faire approach, and harsh physical discipline) (Bates, Petit, Dodge & Ridge, 1998; Dodge, 2002; Patterson, DeGarmo & Knutson, 2000).

Other parent factors such as parent stress and maternal mental health, particularly depression have been found to be associated with increased risk for the child in the development of mental health difficulties, social difficulties, behavioural issues and impaired academic ability (Anthony et al., 2005; Downey & Coyne, 1990). Genetic predispositions for these developmental risks do not totally explain these difficulties. Maternal depression and anxiety have been found to predict anxiety and

depression in adolescence (Spence, Najman, Bor, O'Callaghan & Williams, 2002). Child anxiety has been found to be related to an over-controlling style of parenting, whilst childhood risk for depression has been related to a lack of parental sensitivity and warmth (Bogels & Brechman-Toussaint, 2006; Chorpita & Barlow, 1998; Wood, McLeod, Sigman, Hwang, & Chu, 2005).

The study of the relationship between parental behaviour and poor child outcomes has led to studies examining the risk factors associated with maladaptive parenting behaviour. The key themes pertaining to the risk and protective factors for poor parenting will be presented in subsequent sections.

### *1.2.2 Optimal Parenting Behaviour*

From the literature cited above, it appears that parenting behaviours related to better child outcomes seem to be those characterised by sensitive and consistent responding, warmth, and the absence of harsh, controlling, and punitive discipline practices. The early work of Baumrind (1967, 1971) suggests that in infancy, "*high levels of nurturance fosters the ability to engage peers and adults in a friendly and cooperative manner*" (In Belsky, 1984, pp85). As children develop, parent use of reasoning, consistent discipline, and warmth relate to child self-esteem, effective emotional regulation, pro-social behaviour and intellectual achievement (e.g. McCall, Appelbaum, & Hagarty, 1973). Threats to the provision of parenting characterised by sensitivity, attunement and consistency will now be discussed.

### *1.2.3 Poor Parenting: Risk and Protective Factors*

As mentioned above, child factors, such as temperament have been shown to contribute towards poor parenting behaviour (e.g. harsh discipline, inconsistency). However, the risk for maladaptive parenting behaviour has also been linked to parent factors, such as their mental health, and environmental factors such as SES and social support. Parent mental health and SES factors will be briefly reviewed next.

*1.2.3.1 Parent mental health.* Early studies suggest that depressed mothers perceive more difficulty in the parenting role and that they report diminished emotional involvement, disaffection, and increased hostility and resentment (Weissman & Paykel, 1974; Weissman, Paykel & Klerman, 1972). Observational studies have found that parenting difficulties include higher rates of negative interaction (Goodman & Brumley, 1990; Gordon et al., 1989; Lovejoy, 1991), impatient use of directives to children (Forehand, Lautenschlager, Faust, & Graziano, 1986), and less responsiveness and synchrony with the cues of the child (Cohn, Campbell, Matias & Hope, 1990; Field, Healy, Goldstein & Guthertz, 1990).

Parents with anxiety disorders have been found to exhibit high expressed emotion, and over controlling parenting styles, which have been associated with separation anxiety, and child internalising and externalising behaviour problems (Gruner, Muris, & Merckelbach, 1998; Hirshfeld, Biederman, Brody, Faraone, & Rosenbaum, 1997).

Parents with Obsessive-Compulsive Disorder (OCD) have also been found to exhibit higher levels of expressed emotion in addition to less warmth and a tendency to be less promoting of psychological autonomy in their parenting (Challacombe & Salkovskis, 2009). In the same study, parents with OCD also reported that they would

be more punitive than mothers without OCD if they perceived their child to be anxious or obsessional.

The study of parenting in mothers with psychotic illness has shown similar parenting deficits as mothers with depression. For Schizophrenia, unresponsiveness, lack of sensitivity and the presence of high levels of negative interaction with the child have been observed (Goodman & Brumley, 1990; Wan et al., 2007; Wan, Warren, Salmon, & Abel, 2008). Mothers with Bi-polar Disorder were found to be less attentive to their children's health needs, more overprotective, and more likely to report negative affect toward the child than normal controls (Davenport, Zahn-Waxler, Adland, & Mayfield, 1984).

Finally, parents with Borderline Personality Disorder have been observed to be less sensitive, less structuring in their interactions with their child, and intrusively insensitive (Crandell, Patrick & Hobson, 2003; Hobson, Patrick & Crandell, 2005; Newman, Stevenson, Bergman & Boyce, 2007).

*1.2.3.2 Contextual factors.* The effects of SES on parenting have been found to be mediated by child and parent characteristics, and external support systems (Bradley & Corwyn, 2002). Perceived lack of social support by parents in low income families has been found to be related to parents' reports of punitive behaviour (Hashima & Amato, 1994; McLoyd, Jayaratne, Ceballo, & Borquez, 1994; Simons, Beaman, Conger & Chao, 1993). Evidence suggests relationships between family stress in low SES families, and harsh parent discipline responses (Pinderhughes, Dodge, Bates, Pettit & Zelli, 2000). In addition, a correlation has been found between marital disharmony and parenting quality, particularly with the use of harsh discipline (see Krishnakumar &

Buehler, 2000 for a review). The complex interplay between risk factors for families with low SES makes it difficult to have a totally clear picture of the contextual risks for poor parenting. It seems as though an ecological model, which considers child (temperament, disability), parent (mental health and stress) and contextual factors (lack of social support, marital difficulties), should be considered in the understanding of the effects of SES on parenting behaviour.

### *1.3 Parent Cognitions, Emotions and Behaviour*

This chapter will firstly describe the literature searching process, followed by a section discussing attribution theory with reference to Weiner's Model of Helping Behaviour (1980), and a review of how attribution theory has been applied to the understanding of parent cognitions, emotions and behaviour. This will be followed by a section discussing self-efficacy theory, and how this has been applied to the understanding of parenting. Parenting satisfaction will also be discussed with reference to how it has been found to relate to both parent attributions and self-efficacy. Finally, studies providing evidence to support relationships between parent attributions and efficacy will be explored, followed by the specific research questions and hypotheses to be explored in this study.

#### *1.3.1 Search Strategy*

The aim of the literature review was to bring together papers which examined parent attributions, efficacy and subsequent behaviour/emotions in the context of parent/child situations. The following databases were search in June 2010: Academic

Search Elite; EBSCO; Ingentaconnect; Medline; PsychInfo; Science Direct; Springerlink Collection; Wiley Online Library. The search strategy consisted of using the following key words in various combinations in both title and keyword fields: parent cognitions; attributions; efficacy; child behaviour; satisfaction; behaviour/responding; competence. References of the papers which were found were also searched. Papers were included if they pertained to parent cognitive processes (specifically attributions and efficacy) in addition to emotional reactions/states and/or behavioural responses to children. Of the 852 papers returned, papers were excluded if they focused on child physical illness, parent training programmes, child cognitive processes and other topics which were not specifically pertinent to parent attributions and/or efficacy, and emotional or behavioural parent outcomes (e.g. satisfaction, behavioural competence, discipline reactions). Twenty-one papers remained once the exclusion criteria had been applied. Papers fell into three categories: 1) those which explored parent attributions and outcomes (e.g. emotional or behavioural parent responses (n = 13); 2) those which explored parent efficacy and outcomes (n = 4); and 3) those which explored parent attributions and efficacy or efficacy-related concepts together (n = 4).

### *1.3.2 Attribution Theory*

Attribution theory belongs to the cognitive approach to psychology that is based on the central premise that situations do not directly trigger reactions such as emotions and behaviours, but assume that cognitions mediate between stimuli and reactions (Forsterling, 2001). The focus of attributional research is in the exploration of thought processes and how people select, process, store, recall and evaluate information to

arrive at causal ascriptions. The relationships between these causal ascriptions and subsequent emotions and behaviour is the concern of much attributional research.

A central assumption of attribution theory is that humans are rational beings who search for meaning by building hypotheses, rather like in the process of research, and searching for evidence which supports or disputes these hypotheses. If evidence is absent, then individuals are thought to 'fill in the gaps' by drawing on a number of sources of information (e.g. past experience, and schematic information). It is proposed that the realistic understanding of the causes of events maximises the chances of goal attainment and pleasure.

Another assumption of attributional theory is that by ascribing cause for events happening in the world around us, the possibility of having some control and predictability in our lives is achieved (Forsyth, 1980). Being able to track the causes of events to stable causes such as a lack of effort on our part, or a lack of ability on someone else's part, helps to build predictability and provides a sense of security.

Weiner's (1985) attributional analysis of achievement behaviour describes a theory of the consequences of attributions, specifically the effects of attributions on emotions and motivated behaviour. The general assumption is that following success or failure, people search for causal meanings in order to be able to gain some control over future courses of action. Weiner (1985) proposed that when making an achievement attribution of self and other, that there are three main performance dimensions to consider: locus, the question of whether the outcome was achieved by the individual themselves (internal factors) or the situation (external factors); stability, was the cause a stable or unstable trait; controllability, to what extent is future task performance under the individual's control. These dimensions result in eight outcomes ranging from

‘typical effort’ (when internal, stable and controllable factors are attributed) to ‘luck’ (when external, unstable and uncontrollable factors are attributed). Empirical studies demonstrate that people who are viewed to fail as a result of a lack of effort (internal, unstable) are evaluated more negatively than those who are viewed to fail because of inability (internal, stable). In addition, people who were evaluated to be in control of the failure, were judged more harshly than those who were evaluated to be out-of-control (Weiner, 1995). A fourth attributional dimension added by Abramson, Seligman and Teasdale (1978) is globality, or in other words, the extent to which the outcome in question is specific to one situation, or global across many situations. Abramson et al. (1978) suggested that negative outcomes which were attributed to internal global causes, would be associated with higher degrees of helplessness and depression.

The emotions associated with the attributional process are theorised to be of great importance in the relationships between events, attributions and subsequent behaviour. Weiner (1980) applied attributional theory to the understanding of social relationships, specifically to explain why people choose to help others in certain situations. He hypothesised that in an interaction between people involving help giving, the attributions made and the emotions that are evoked in response to others’ behaviour are related to their helping behaviour in those situations. Weiner (1980) suggested that ascriptions to internal and controllable factors maximized negative affect (disgust and anger) and promoted avoidance behaviour, whilst attributions to external and uncontrollable factors were anticipated to generate positive affect (sympathy) and give rise to approach behaviour (helping). Weiner’s (1980) research indicated the existence of a sequential process of attribution-affect-action (see Figure 1) in which attributions guide feelings, but emotional reactions provide the motor and direction for behaviour.

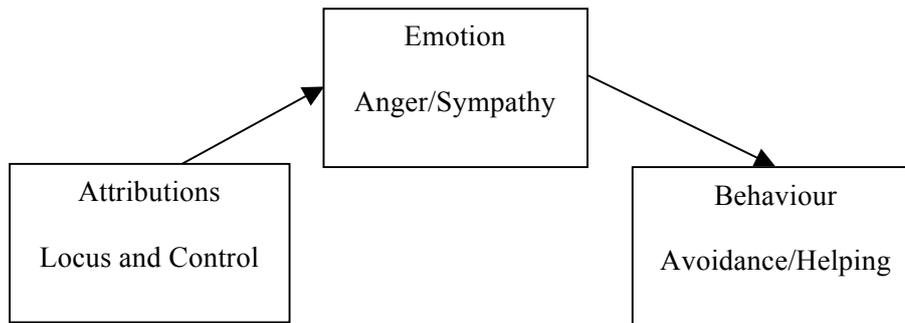


Figure 1. Weiner's (1980) attributional model of helping behaviour.

The model could be viewed as simplistic given the number of sources of information which could be operating when people search for meaning and understanding in social situations. Its limitations include that it does not take into account the psychological make-up of the individual (e.g. their belief systems or schema), the contribution of the other person in the interaction, or the attributor's perceptions of their confidence and self-esteem, which could have an impact on their attributions, emotions and behaviour. The application of attributional theories to close relationships has been reported to be problematic because of the narrowly defined dimensions and difficulties in measurement (Malle, 2004). However, Kelley (1979) proposed that causal attributions are amongst the most important determinants of how we feel and behave in close relationships. The attributions made by one person in a dyad will influence their emotions, behaviour, and the satisfaction they feel in the relationship (Forsterling, 2001).

### *1.3.3 Attribution Theory and Parenting*

Attribution theory has been applied to help in the understanding of parenting. Parental social cognitions are considered central to the understanding of parenting emotions and behaviour (Bugental and Johnston, 2000).

Parent attributions have been found to be related to poor child outcomes (e.g. Nix et al., 1999; Snyder, Cramer & A Frank, 2005; Wilson, Gardner, Burton, & Leung, 2006). These longitudinal studies provide evidence to suggest that parent “hostile” attributions (e.g. where parents endorsed causes of negative child behaviour which were within the child, intentional, and global) predicted later child conduct problems. Maternal harsh discipline practices were found to mediate this relationship in one study (Snyder et al., 2005), and interact with hostile attributions to predict poor child outcomes in another (Nix et al., 1999). Increased understanding of parent attributions and their relationship to parenting behaviour has been a topic of much interest both with community and clinical populations. The importance of parent attributions in families of a child with a behavioural disorder (e.g. Attention-deficit Hyperactivity Disorder, ADHD; Oppositional Defiant Disorder, ODD; Conduct Disorder, CD) has received considerable attention in the literature. Evidence suggests that as compared to parents of normal children, parents of a child diagnosed with ADHD have a tendency to attribute hypothetical negative child behaviours to be more internal, global and stable but less controllable by the child (e.g. Johnston & Freeman, 1997; Collett & Gimpel, 2004). Attributions made by parents of children with ODD have been found to be similar except on the dimension of controllability, where parents tend to attribute OD behaviour to be more controllable than behaviours associated with ADHD (Johnston & Patenaude, 1994). This pattern has also been found in parents of an adolescent with CD (Baden & Howe, 1992). The impact of such attributional styles on other cognitive-

emotional processes and behaviour has also been examined. Studies examining the relationships between parent attributions, emotions and behaviour have used various populations, including parents who are at risk for physical child abuse (e.g. Milner, 2000; Montes, de Paul, & Milner, 2001), or where the parent has a child with behavioural problems (e.g. Dix & Lochman, 1990).

*1.3.3.1 Parent attributions and satisfaction.* There is evidence to suggest that parent attributions are related to the satisfaction parents feel in the relationship between them and their child or in the role as parent in general. Joiner and Wagner (1996) meta-analysed 8 studies which pertained to relationships between parent child-centred attributions and outcomes such as satisfaction. Results suggested that parent child-centred attributions of negative child behaviour as global and stable bore the most relation to diminished parent satisfaction. In other words, the extent to which specified child behaviours were seen to be generalised across situations and likely to happen again was important in parent cognitive outcomes such as satisfaction. However, on closer inspection, only one study amongst the 8 actually used a measure of satisfaction (Fincham & Bradbury, 1987), whilst the other studies used outcomes such as: parental expectancies of the effectiveness of parenting technique (Baden & Howe, 1992); self-reported conflict with child (Grace, Kelly, & McCain, 1993); and degree of positive change in families undertaking family therapy (Munton & Antaki, 1988). A study which examined maternal relationship satisfaction, attributions and trait conceptions of children aged between 6 and 12 years found evidence to suggest that parent attributions and perceptions of the child's traits (e.g. tolerant-intolerant; likeable-unlikeable; not selfish-selfish) mediated the relationship between indications that the child had a mental disorder and satisfaction in the parent-child relationship (Sacco & Murray, 1997). In 2003, a study by the same authors including 86 mothers of a child diagnosed with

ADHD, found evidence to suggest that maternal relationship satisfaction was predicted by trait perceptions, disorder attributions and affective response to their child's negative behaviour (Sacco & Murray, 2003). The attributional dimensions found to be most important in the prediction of satisfaction were locus and globality of child behaviour. Johnston and Patenaude (1994) examined parent satisfaction and attributions in mothers and fathers of a child with ADHD (N = 43). Results suggested that negative reactions (e.g. degree of upset, problem perception and disapproval) to both inattentive-overactive and oppositional defiant hypothetical child behaviours were negatively correlated with parenting satisfaction (defined as the quality of affect associated with the parenting role). Reactions to oppositional-defiant behaviours were also negatively correlated with parenting efficacy. Relationships between parent satisfaction and attributions along the dimensions of locus, and globality, as reported by Sacco and Murray (2003) however were not found.

These studies demonstrate mixed evidence supporting relationships between parent child-centred attributions and satisfaction, both in the form of relationship satisfaction and general satisfaction in the parenting role. Relatively little attention has been given to the understanding of the contribution of satisfaction to parent cognitive-emotional outcomes. Existing studies have been confined by measuring only certain cognitions and in certain clinical populations. In order to gain a deeper understanding of the ways in which attributions relate to satisfaction, other cognitive-emotional processes known to be associated with satisfaction need also to be explored in a wider population, given that parenting interventions (e.g. parenting groups) are being offered in the UK as early intervention tools not just to parents with a child who has been diagnosed with a behavioural disorder. Research using community samples has been used historically initially to increase understanding of the relationships between parent

attributions, emotional reactions and behaviour, and this could be usefully extended to incorporate parent cognitive outcomes such as satisfaction and efficacy. The next section will review the literature supporting the role of parent attributions in understanding parenting behaviour.

*1.3.3.2 Attributional models and parenting.* In the search for a deeper understanding of the role of parent attributions, Weiner's (1980) attributional model of helping behaviour has been applied to the parenting relationship. Dix and colleagues (Dix & Lochman, 1990; Dix & Reinhold, 1991; Dix, Reinhold & Zambarano, 1990; Dix, Ruble, Grusec, & Nixon, 1986; Dix, Ruble & Zambarano, 1989) were amongst the first researchers to explore the application of Weiner's (1980) theory.

Descriptions of child 'misbehaviour' were used to elicit parent attributions about causation in two studies (Dix, Ruble, Grusec, & Nixon, 1986). Two types of child behaviour were used in the descriptions (1) violation of social norms, NV (e.g. stealing, lying or fighting); and (2) failure to be altruistic, FA (e.g. not helping, sharing or being sensitive to other children). Parents (N = 95 and 36) of children aged between 4 and 12 years were recruited from the local community and randomly assigned to read either FA or NV vignettes which included children matched by age and gender to one of their own children. After parents had read the vignettes, they were asked to rate how important they thought four types of causes were as determinants of the behaviour depicted using 7-point Likert scales. The determinants presented were (1) 'lack of self-control' (e.g. the ability to control impulses); (2) 'dispositional cause', (e.g. whether the cause was something about the child's personality); (3) 'behavioural knowledge' (e.g. a lack of understanding of how to behave in certain situations); (4) 'external causation' (e.g.

behaviour due to environmental causes). Parents then rated how upset they felt by the behaviour depicted, how important it was to respond, and finally whether they felt the behaviour was intentional.

The second study used the same methodology as the first study but omitted 'behavioural knowledge' and 'self-control' and added ratings of the causes of the behaviour along attributional dimensions of locus-of-control (internal – external), stability (temporary – stable), generality (extremely unlikely in other situations – extremely likely in other situations) and finally control (no control, could not help act that way – complete control over acting that way).

Results indicated that parents viewed children's misconduct as increasingly correspondent with age. In other words, child misbehaviour was increasingly viewed to be related to dispositional factors within the child as they got older. In study one, ratings of the importance of external factors, self-control and lack of behavioural knowledge did not change with child age. However, in study two, as children aged, parents increasingly attributed the child to be in control of their behaviour and saw external factors as less important.

In support of Weiner's (1980) model, results suggested positive correlations between parent negative affect and their ratings of dispositional cause, ( $r = .46, p < .001$ ), lack of self-control ( $r = .54, p < .001$ ) which suggests that the more parents rated failure to be altruistic and norm violation behaviours as out of the child's control and dispositional, the more upset they indicated they were. Furthermore, positive correlations were found between parent negative affect and stability of the child's behaviour ( $r = .48, p < .01$ ); and negative affect and controllability ( $r = .48, p < .01$ ) which suggests that the more parents attributed norm violations to be caused by a stable

trait of the child, and failure to be altruistic as caused by a controllable trait of the child, the more they indicated that they were upset by the behaviour.

The limitations of the applicability of this study include its focus on child social situations, which could limit the contribution of the results to theory seeking to understand parent-child interactions. Despite limitations, the results of these two studies provide evidence to support relationships between parent emotional response and attributions of disposition, stability, and control.

Augmenting these findings, 15 mothers of aggressive boys and 32 mothers of non-aggressive boys participated in a similarly designed study (Dix & Lochman, 1990), but viewed video clips of children behaving in negative ways. Results suggested that mothers of aggressive boys made more negative attributions and experienced stronger emotions in response to the stimuli than did mothers of non-aggressive boys. The hypothesised relationships between attributions, emotions and behaviour were present across the whole sample, and those parents who endorsed more forceful discipline responses were more likely to exhibit a negative attributional style and experience more negative responses to the video stimuli.

The main findings of these studies support Weiner's (1980) model as when parents attributed negative child social behaviour to be internal, intentional, and within their control, they indicated that they were more upset by the behaviour, and held the view that it was important to respond to it. In further support of Weiner (1980), the use of more power assertive discipline practices were endorsed by mothers from a community sample when they inferred that negative child behaviour was within the child's capability and that they were responsible for it (Dix et al., 1989). Attributions by parents that the child was able to behave in the correct way, and that they were

responsible for the behaviour, resulted in stronger emotional reactions in parents, and endorsement of more punitive discipline practices, especially for older children.

In a more recent study, Weiner's (1980) model was applied to examine in more detail, how attributions and emotions relate to parent discipline responses to child behaviour (Smith & O'Leary, 1995). Harsh and lax discipline styles were investigated in 40 mothers of children ranging from 18 to 36 months recruited through local newspapers. Some advertisements requested participants interested in taking part in a research project, and some requested participants who may be having difficulties managing their toddler's behaviour. In this study, harsh parenting was defined as *'an overactive discipline style characterised by yelling, and having difficulty letting go of a discipline encounter once it is over'*; and lax parenting was defined as *'one where the parent is inconsistent or permissive in limit setting, frequently backs down from requests for compliance or gives in to the child's inappropriate demands, and does not follow through with threatened consequences'*. To measure harsh and lax parenting, The Parenting Scale (Arnold et al., 1993) was used, which is a 30-item scale assessing parenting responses to child misbehaviours. Emotional response to child behaviour was measured by showing participants a 16 minute video-clip of 8 child/parent interactions and asking them to continuously indicate their emotional arousal by moving a dial with 'very negative response', 'neutral response' and 'very positive response' indicated on it. The video clips varied in the amount of negative affect shown by the child, with half the scenes containing none, and half containing high rates of negative affect. Parents' attributions were measured after the video, by replaying the two clips which had elicited the strongest negative emotional reactions and asking the participant to write down what they thought the causes were for the behaviours shown. The responses were coded according to locus (e.g. whether the attribution was about self, other or situation), and

on 6-point scales for the following dimensions: trait/state; stability, globality, voluntariness, and intent. Each participant ended up with two attribution scores: one for mother-centred attributions and one for child-centred attributions. This was done by averaging the scores for each of the 5 dimensions to produce a 'dysfunctionality' score for each attribution. These were then averaged within each locus category (mother or child).

For child behaviours including negative affect, results indicated positive relationships between child-centred dysfunctional attributions and emotional arousal ( $r = .30, p < .05$ ), and dysfunctional attributions and harsh parenting ( $r = .40, p < .01$ ). Emotional arousal was found to mediate the relationship between dysfunctional attributions and harsh parenting. Lax parenting was not found to be related to attributions or emotional arousal, but was related positively to harsh parenting. Mothers' dysfunctional self-attributions were not significantly related to emotional arousal and harsh or lax parenting.

The limitations of this study include the lack of explanation for what high and low dysfunctional attributions scores meant, for example whether they meant increased trait, stable, global, and intentional attributions. By averaging the scores across all the different dimensions, it was difficult to understand the unique contribution of each attributional dimension to the relationships between emotion and discipline style. By analysing attributional dimensions separately, there may have been some associations with lax parenting styles which may have been masked by taking an average of the scores. Finally, the way in which emotional responses were measured has limitations in that the kind of emotions (e.g. upset, angry) were not explored and the method chosen to measure emotions was rather unorthodox. With the limitations in mind however, this

study supports Weiner's (1980) model and illustrates the link between parent attributions, emotional responses and behaviour.

A study which explored the association of socio-economic status and ethnicity to parent discipline also found that parent attributions and emotions were important in the prediction of parent discipline response (Pinderhughes et al., 2000). Parents of nursery aged children (N = 978) participating as part of a Child Development Project (e.g. Dodge, Pettit & Bates, 1994) took part. Hostile child-centred attributions (e.g. when parents indicated that the child acted with hostile intent or in a negative trait-like manner) were measured using a series of 5 vignettes depicting children in social situations (similar to those used in Dix et al., 1989 study) where children were described with their peers behaving in socially undesirable ways (e.g. picking on another child). The descriptions were followed by an interview where the participant was asked what they thought the cause of the child behaviour was. Responses were scored according to whether the parent indicated that the child had acted with hostile intent or in a negative trait-like manner, or whether the parent attributed blame to another cause. Emotional responses to the vignettes were assessed using experimenter questioning and coded as upset or not upset. Two additional cognitions were measured, firstly parents' worry about the child's future (e.g. that if the behaviour depicted in the vignette was pervasive as the child grew, how worried would the parent be); and secondly, the parents' sense of preventative strategies (e.g. what could they do as a parent to prevent the child behaving in that way in the first place). Worry about the child's future was measured by participants indicating how concerned they would be on a 5-point Likert scale (not at all – 1; very worried – 5). Availability of alternative discipline strategies was assessed by experimenters coding the parents' responses as 1 if the parent stated a strategy to prevent the behaviour, and 0 if they indicated that the behaviour could not be prevented.

Finally, harsh discipline response styles were assessed by use of a question after the vignettes had been read asking “what would you do if your child behaved in this way?”, and coded 1 if the response included physical punishment, and 0 if not. The responses were also separately coded as 1 if they included reasoning, explanations, discussion or proactive guidance and 0 if not, as a measure of the parent having an acceptable alternative to physical punishment.

Results suggested that cognitive-emotional processes accounted for a large amount of the variance in discipline response. Parents who attributed hostile intent to the child, who were highly upset by the behaviour, worried about the child’s future, and who had few alternative discipline strategies were more likely to endorse physical punishment and more severe punishment. Correlations between cognitions and emotions revealed an interesting relationship between how upset parents were in response to the behaviour, and their worry about the future for the child.

Limitations to interpretation of this study include the aggregation of cognitions and emotions into one construct. By considering cognitions and emotions as one concept, potentially important individual differences which may predict different discipline responses are missed, this is supported by the findings reported above (e.g. Dix et al., 1986; Smith & O’Leary, 1995). By coding open responses from parents, subjective bias is introduced, and in addition, scoring 1 or 0 for the presence or absence of hostile attribution is very simplistic and limiting in detecting individual differences. As the dimensions of attributions were not used in this study, no conclusions can be drawn about which attributional dimensions relate to emotions and discipline responses. However, the ‘worry about the future’ question included seems to be similar to the attributional dimension of stability (e.g. whether the behaviour is a one-off or likely to happen in the future) and a strong positive correlation between this and emotional

distress was found. The data collected was not completely independent as it was reported that the 978 participants were made up of 585 families of which both parents participated in 393 cases.

Bugental and Cortez (1988) lent more support to Weiner's (1980) model by exploring the degree to which attributions of 80 female undergraduates were related to their emotional arousal in response to a video of an interaction between a mother and a boy behaving either responsively or unresponsively to a mother. In a laboratory setting, the Parent Attributions Test (PAT, Bugental & Shennum, 1984) was used to elicit participant's attributions about self and about the child in the video. The PAT is designed to assess adults' beliefs concerning both their and the child's contributions to the success or failure of interactions. Respondents are asked to rate the importance of likely causes of care-giving outcomes (e.g. their own competence with children, luck, mood, help of others, strategy, child motivation and temperament) both to successful and unsuccessful situations. Reactions to the child in terms of participants' feelings about the behaviour and towards the child were measured by interview, as well as the type of discipline the respondent would endorse (e.g. reward, ignore behaviour, withhold object, reprimand or punish behaviour). Emotional arousal was measured across two time-points (whilst viewing video and during the interview period) by heart rate monitor, and by measuring skin temperature and conductance (i.e. a measure of electrical conductance of the skin which varies with moisture and changes in response to physiological arousal). Readings were taken after the participant had completed the PAT and were waiting for the video presentation, during the video and afterwards whilst the experimenter asked the participant questions regarding the child in the video. Participants were also told that they would be introduced to the child depicted in the video afterwards and that they would be asked to interact with him (this part of the

method was not actually planned to happen, but was included so that physiological arousal of the participants could be explored).

For physiological arousal, results from a series of analyses of covariance suggested interactional effects of child responsiveness and perceived controllability of care-giving failure at different time-points during the experiment. Two variables interact if a particular combination of variables leads to results that would not be anticipated on the basis of the main effects of those variables (Field, 2005). There were no main effects for attributions, just combined effects of attributions of perceived controllability and child responsiveness. For heart rate, the interaction effect of child responsiveness and perceived controllability attributions was significant for both time-points. Planned comparisons indicated that the highest heart rates were shown by low-control participants faced with unresponsive children. For skin conductance, a significant interaction effect was also found between child responsiveness, and perceived controllability of care-giving failure. Planned comparisons revealed that higher levels of skin conductance were shown by low-control participants faced with unresponsive children.

These results suggest that adults who attribute the causes of unresponsive child behaviour to be due to uncontrollable factors may be more likely to experience negative emotional responses as a result. The physiological arousal pattern demonstrated in this study was likened to that of an individual experiencing anxiety and fear. When women in the study who were classed as low-control (e.g. perceived themselves as having less control over the child-care situations) were interviewed about their reactions to the video clip, they continued to show an elevated heart rate level as well as higher skin conductance as compared to women in the high-control category. The authors proposed that this response pattern was consistent with an ineffective coping style where out of

control perceptions lead to fight or flight reactions, perhaps consistent with either harsh and punitive parenting or avoidant and inconsistent parenting, or a combination.

This study's findings are illuminating in terms of how attributions of one's perceived control in situations can impact on emotional arousal through the experience of physiological changes. The sample chosen to participate in this study does however pose the question of how generalisable the results are to the population of interest. No data was included in the article which gave information about whether any of the undergraduates were parents themselves. As the participants were described as *undergraduates*, it is fairly safe to assume that at least a large proportion of them would not have been parents, and this limits the study's external validity, together with the method (e.g. a laboratory setting using video). The physiological reaction may not be representative of the reaction actually experienced by parents who perceive themselves to have low control over care-giving outcomes with their child. These factors may make the interpretation of the results a little more difficult. In addition, the sample size was stated as 80 at the beginning of the article, and later on the results are reported of 71 participants without explanation for the drop in participants, which means that all the participants were not accounted for at the end of the study. Despite these limitations however, the findings are useful in the understanding of how control attributions may relate to emotional responses to child behaviour. Perceived efficacy (Bandura, 1997) to exercise control over potentially threatening events plays a central role in anxiety arousal, therefore, the finding that attributions of control are associated with fight or flight physiological response patterns in this study may suggest that attributions of low control contributed towards feelings of low self-efficacy.

The relationship between parent attributions and emotional reactions has further been examined and supported by the use of Expressed Emotion (EE) theory (Bolton et

al., 2003). EE encapsulates the emotional quality of a relationship between two people, including the presence of criticism, hostility, emotional over-involvement and lack of warmth. Weiner's (1985) attribution theory of emotion has been applied to the understanding of EE, and suggests that attributions that view the cause of difficult child behaviour to be internal to and controllable by the other person, lead to negative emotional responses, in the form of criticism and hostility. It is further suggested that these emotional responses mediate behavioural responses to the person in question (Brewin, 1988; Hooley, 1985). Research with people suffering from psychotic illness has found evidence to suggest that family relatives who had high EE (e.g. high criticism and hostility), as measured by the Camberwell Family Interview (Vaughn & Leff, 1976), were more likely to attribute the patient's behaviour and symptoms as internal and controllable (e.g. Hooley & Licht, 1997; Lopez, Nelson, Mintz, & Snyder, 1999). There have been fewer studies which examine the relationship between attributions and EE in parent/child dyads. However, Bolton et al., (2003) used the model in mothers of children referred to mental health services for behavioural problems, and found evidence to suggest that high EE in mothers was related to child blaming attributions for difficult behaviour (Bolton et al., 2003). Parental criticism was positively related to internal attributions (e.g. that the behaviour was due to personal factors within the child rather than more universal factors) and child control over the behaviour ( $r = .49, p < .01$ ;  $r = .41, p < .01$ ). The EE model has potential to add support to Weiner's (1980) model, but appears constrained by its narrowly defined categories of criticism and hostility, and because emotion and behaviour are defined as one concept (e.g. verbal criticism) the model is not as helpful when understanding the relationship between attributions, emotions and behaviour.

*1.3.3.3 Summary.* The findings of these studies support the application of Weiner's (1980) attributional model of helping behaviour to parent-child interactions. They demonstrate that parent attributions and emotions are important in the relationship between child and parent behaviour. The application of Weiner's model however, does not allow for exploration of the contributions of other cognitive-emotional processes known to be important in parenting emotional and behavioural responses, such as parent efficacy and satisfaction in the relationship. Earlier in the chapter, it was established that there is mixed evidence suggesting a relationship between parent satisfaction and attributions of child behaviour (section 1.3.3.1), the most consistent finding is that parent satisfaction may be related to perceptions of how global and stable parents' attributions of negative child behaviour are (Fincham & Bradbury, 1987), as well as emotional responses to child misbehaviour (Sacco & Murray, 1997; 2003).

Section 1.3.4 will introduce the concept of self-efficacy, and review how self-efficacy has been used to increase understanding of parenting. There will be a section bringing together evidence to suggest a relationship between parenting self-efficacy and satisfaction (1.3.5.2). This will be followed by a review of studies which provide a rationale for hypothesised relationships between parent attributions and efficacy.

#### *1.3.4 Self-Efficacy Theory*

Perceived self-efficacy refers to:

*“beliefs in one's capabilities to organise and execute the courses of action required to produce given outcomes” (Bandura, 1997).*

People's beliefs about their personal efficacy represents a major component of their self-knowledge. Bandura (1997) viewed self-efficacy as developing in several ways including: from personal accomplishments in the past (e.g. as a child growing up into adulthood), vicarious learning (e.g. observing the behaviours of others in particular situations), verbal persuasion from others (e.g. that one has the potential to be successful in a given situation), and finally through emotional arousal. This last factor in the development of self-efficacy is based on the theory that when failure is anticipated, people experience aversive physiological arousal which has been shown to lower efficacy expectations (Bandura, Cioffi, Taylor, & Brouillard, 1988). Therefore, lower levels of emotional arousal in certain situations, can be expected to be related to higher efficacy expectations.

The extent to which parent efficacy is related to attributional process is relatively underdeveloped, especially in the parenting domain. In contrast to attributional theory, socio-cognitive theory favours a dynamic integrative approach to the way in which people reach causal understanding and judgements and so would hypothesise that parent behaviour when interacting with their child is likely not just to be based on attributions and emotions, but on judgements of how likely the parent is to achieve the desired outcome. With this as a consideration, the exploration of the relationship between causal attributions and efficacy is warranted.

Efficacy theory postulates that successful performances in social situations depend on several factors, and not just causal attributions (Bandura, 1997). Bandura conceptualises attributions as "*conveyors of efficacy-relevant information that influence performance attainments mainly by altering their beliefs in their efficacy*" (Bandura, 1997, p125). Evidence suggests that highly efficacious individuals attribute failure to insufficient effort on their part, or to unfavourable circumstances. In contrast,

individuals who have low self-efficacy are thought to view the cause of their failures to be stemming from low ability (Bandura, 1997) and are prone to hopelessness (Abramson, Seligman & Teasdale, 1978).

In the parenting literature, there has been a lack of studies which explore how parent attributions contribute towards parent perceptions of efficacy in the parenting role. Attribution theory gives rise to the hypothesis that when parents perceive themselves to fail in child-care situations (e.g. by the child displaying negative behaviour), *self-serving attributional bias* (Miller & Ross, 1977) may occur which is where the parent is likely to attribute the cause of the failure to be within the child, in order to protect their self-esteem. Therefore, it can be hypothesised that a self-serving attributional bias is related to lower perceptions of parenting efficacy and satisfaction. More specifically, if attributional bias occurs in response to caregiving failures (e.g. an inability to manage child behaviour), it is likely that the parent could attribute the cause of this failure to be within the child, rather than to be within themselves.

The next sections will review how efficacy theory has been applied to help in the understanding of parenting. This will be followed by a section bringing together studies which support a rationale for examining the relationships between parent attributions and efficacy in the context of other cognitive-emotional processes such as parenting satisfaction perceptions.

### *1.3.5 Self-efficacy Theory and Parenting*

Parental self-efficacy research possesses great promise for resolving many ambiguities related to individual differences in parenting (Coleman & Karraker, 1997).

The expanding parental cognitions literature has revealed that self-efficacy beliefs, specific to the domain of parenting, represent a potent variable for explaining a significant portion of the variance observed in parental skills and satisfaction (Coleman & Karraker, 1997). Self-efficacy research pioneered by Albert Bandura (1977) is concerned with an individual's perception of their ability to succeed in a given task. For a parent to feel efficacious and to derive satisfaction and behave competently, the following are thought to be important: knowledge of appropriate child care responses; confidence in the ability to carry out such tasks; beliefs that the child will respond contingently and that others will be supportive of their approach (Coleman & Karraker, 1997).

Existing literature suggests that parenting efficacy has a potentially protective role in the relationships between parent, child and contextual factors which pose risks to optimal parenting. High parent self-efficacy has been found to predict parent responsiveness to infants' needs (Donovan & Leavitt, 1985), engagement in direct parenting interactions (Mash & Johnston, 1983), and fewer perceptions of child problems (Johnston & Mash, 1989). High self-efficacy in parenting has also been shown to protect against the effects of stress, poverty and social deprivation (Raikes & Thompson, 2005). Evidence suggests that in deprived communities, having internal resources in the form of a higher sense of personal competence can be protective against hardship, enabling parents to provide the environment necessary for social and emotional well-being (Elder, 1995).

Low parenting self-efficacy perceptions have been found to be associated with child behavioural difficulties such as ADHD (see Johnston & Mash, 2001 for a review). Lack of parental efficacy poses a risk for the child of experiencing a relationship characterised by insensitivity, incompetence, and unresponsiveness (Cummings &

Davies, 1994; Gelfand & Teti, 1992). Low parenting efficacy has been found to relate to parent depression (Gelfand & Teti, 1990), parent defensive and controlling behaviours in interactions with their child (Donovan et al., 1990) parent punitive disciplinary techniques (Bugental & Cortez, 1988), and impaired infant social and emotional development (Coleman & Karraker, 2003).

*1.3.5.1 Parental self-efficacy and parenting behaviour.* To illustrate the role of parent self-efficacy, Teti and Gelfand (1991) examined self-efficacy and behavioural competence in 86 mothers of infants. Self-efficacy, social support, perception of the infant as difficult and parent sense of competence were measured in 86 mothers (48 with depression and 38 without depression). Mothers completed the BDI (Beck, 1972); the infant ‘fussy-difficult’ scale from the Infant Characteristics Questionnaire (Bates, Freeland & Lounsbury, 1979); the sense of competence scale from the Parenting Stress Index (PSI; Abidin, 1986); an adaption of the Interview Schedule for Social Interaction (Henderson, Byrne, & Duncan-Jones, 1981) and a Maternal Self-Efficacy Scale developed by the authors. The 10 item self-efficacy scale was designed to be specific to efficacy in child-care tasks specific to infants and included items which measured mothers’ perceived efficacy in ‘soothing the baby’ and ‘understanding what the baby wants’. One item assessed mothers’ global feelings of efficacy in the parenting role. Two 10-minute observations of mother-infant interactions in both a feeding and a free-play situation served as a measure of mothers’ behavioural competence in parenting. Observations were coded using the dimensions of: *maternal sensitivity, warmth, flatness of affect in mother, disengagement* and *anger*. Each of these was scored on a 5-point Likert Scale. For analysis the five dimensions were collapsed for each observation and referred to as ‘maternal behavioural competence’.

Results indicated significant positive correlations between self-efficacy and maternal behavioural competence ( $r = .47, p < .001$ ), and significant negative correlations with maternal depression ( $r = -.39, p < .001$ ) and perceptions of infant difficulty ( $r = -.30, p < .01$ ). Maternal self-efficacy remained significantly correlated with maternal behavioural competence even when the other predictor variables were controlled. In addition, when maternal self-efficacy was controlled, depression was not significantly related to maternal behavioural competence. This suggests that the effects of depression on maternal behavioural competence were mediated by maternal self-efficacy.

The limitations to the interpretation of this study include the fact that the scales used to measure parent behavioural competence (e.g. sensitivity, warmth, disengagement, and anger) were not analysed separately to enable understanding of the relationships between self-efficacy and different types of responding. For example it would be interesting to explore whether low self-efficacy is related more to lack of sensitivity or more to angry responses, as these distinctions would be valuable for clinical formulation and further research. In addition, observations of a mother-infant dyad for a total of 20 minutes may not accurately represent a mother's parenting, and the coding system used was not a standardised measure of the parent-infant relationship.

Another study supporting the mediating affects of parenting efficacy explored parenting behaviour, emotional distress, and parent perspective taking of 95 mothers of adolescents (Gondoli & Silverberg, 1997). Mothers' parenting efficacy was found to mediate the relationship between mothers' responsiveness, defined as the *'degree to which a mother demonstrated acceptance of her adolescent and promoted her adolescent's psychological autonomy'*, and mother's level of emotional distress. To measure psychological distress, participants completed the BDI; items from the Costello

and Comrey (1967) Anxiety subscale with additional items added by the authors; a Self-efficacy Subscale from a self-esteem scale (Gecas & Schwalbes, 1986), and questions designed by the authors to measure overwhelmed feelings in daily life. Parenting efficacy was measured by a scale designed to measure parents' perceptions of capability in comparison to other parents (Wells-Parker, Miller, & Topping, 1990). Parent perspective taking was measured by adapting an established measure intended to measure perspective taking in other relationships (e.g. marital). The Self Dyadic Perspective-taking Scale (SDPTS) intends to measure the cognitive features of empathy such as understanding of the other, and actively taking part in perspective taking. Finally, mother responsiveness to their adolescent was measured by mothers' and adolescents' responses to the Child's Report of Parental Behaviour Inventory (Schludermann & Schludermann, 1970). Participants completed this scale (which was originally designed for child/adolescent completion), whose items make up two subscales; acceptance/rejection and psychological autonomy/psychological control. The acceptance subscale contains 10 items which assess the degree to which the parent indicates the presence of warm, nurturing involvement with the child (e.g. "*my mother always listen to my ideas and opinions*"). The psychological autonomy subscale also contains 10 items which assess the degree to which the parent uses democratic methods of control versus covert methods of control by inappropriately restricting the adolescent's autonomy through intrusiveness and guilt and anxiety induction (e.g. "*my mother will not talk to me when I displease her*"). Maternal acceptance and psychological autonomy were also measured by raters on a 6-point scale during observation of mothers' behaviour during a mother-adolescent discussion.

Results indicated significant negative correlations between parenting efficacy and maternal depression ( $r = -.44, p < .001$ ) and anxiety ( $r = -.41, p < .001$ ) suggesting

that mothers with high levels of emotional distress had lower levels of parenting efficacy. Parent perspective taking was significantly negatively related to anxiety, and significantly positively related to parenting efficacy ( $r = .29, p < .01$ ), suggesting that parents who were less able to empathise with their adolescent were more likely to have higher anxiety, and lower parenting efficacy. Mother reported responsiveness was negatively correlated with emotional distress and parenting efficacy. When parenting efficacy and maternal distress variables were regressed onto parent reported responsiveness, the previously reported significant relationship between maternal distress and responsiveness was reduced to insignificance, whilst the relationship between parenting efficacy and responsiveness remained significant.

Limitations of this study include the number of measures altered for use in this design, which could limit the results. The measure used to analyse mother responsiveness was the Child's Report of Parental Behaviour Inventory, which is not designed for parent completion and is self-report. These factors weaken the validity and reliability of the results.

The two studies reviewed here both find evidence to suggest that parent self-efficacy acts as a mediator between parent risk factors (e.g. parent depression) and parenting behaviours (e.g. responsiveness, and the presence of negative behaviours such as intrusiveness and controlling behaviour). Parenting efficacy therefore appears to be an important factor to consider in models of parenting behavioural competence. For mothers, perception of the child as difficult was important in the relationship between efficacy and behavioural competence. This may indicate that parent perceptions of child behaviour as problematic is an important cognition to consider.

The studies' participants were parents of infants in one study and adolescents in the other, which leaves a gap in the literature for studies investigating parent efficacy in

relation to other cognitive-emotional variables in parents of children aged between 5 and 10 years. There is convincing evidence that self-efficacy is related to maternal emotional distress, however possible relationships between efficacy and the immediate emotional responses to child behaviour appears to have received less attention in the literature. This leads to an opportunity to examine relationships between parental self-efficacy and emotional reactions to child negative behaviour.

*1.3.5.2 Parent self-efficacy and satisfaction.* Competency in parenting and satisfaction derived from parenting are thought to be highly intertwined constructs (Bohlin & Hagekull, 1987). Social cognitive theory states that personal satisfaction in given activities (e.g. parenting tasks) is connected to self-efficacy (Bandura, 1997). It is thought that people feel fulfilled and become personally invested in activities where they experience efficacy and satisfaction. Despite the theoretical link, there is limited evidence supporting the theorised relationship between efficacy and satisfaction in the parenting domain. However, one study provides evidence for the relationship between parent efficacy and satisfaction. Coleman & Karraker (2000) measured parent efficacy and satisfaction in 145 mothers of children aged between 5 and 12 years. Results suggested that parent satisfaction (measured with the Parent Sense of Competence Scale (Johnston & Mash, 1989) was significantly positively correlated with both domain-general ( $r = .64, p < .001$ ) and domain-specific ( $r = .52, p < .001$ ) measures of parent efficacy.

### *1.3.6 Parent Self-efficacy and Attributions*

So far, the application of attribution theory and self-efficacy theory to the understanding of parenting has been reviewed. It has been established that both theories

contribute towards the understanding of the complex interplay of cognitive, emotional processes and behaviour which occur in response to child behaviour.

Theory suggests that attributions and efficacy judgements are related, however, evidence supporting such relationships in the parenting literature is scarce at present. This section aims to review existing evidence supporting a relationship between parent attributions, and efficacy. A justification for the current study will be included at the end of the section.

#### *1.3.6.1 Parent's perceived control and attributions.* Donovan and Leavitt (1989)

explored relationships between efficacy (defined as “illusion of control”), physiological arousal, and self-attributions in 48 mothers of 5 year old children.

Illusion of control is a concept describing the process by which people with high efficacy expect outcomes to be controllable, even when outcomes are not contingent on personal skill or effort (Bandura, 1997). Donovan and Leavitt (1989) attempted to measure illusion of control as an indication of mothers' efficacy in the parenting role by using a simulated child-care task. Participants listened to a tape of an infant crying and were instructed that their goal was to stop the crying by either pressing a button or not pressing a button. Participant response was followed half the time by cry termination at 5 seconds (success) and the other half of the time by cry termination at 20 seconds (failure). At the end of the experiment, participants were asked to estimate how much control they had over the termination of the crying from 0 (no control) through 50 (intermediate control) to 100 (complete control). Perceived control represented their illusion of control given that there was no contingent relationship between mothers' responses and the termination of crying on the task. Parent attributions were assessed using the Infant Attribution Scale, a modified version of the Attributional Style

Questionnaire (Peterson et al., 1982), which measures the individual's tendency to make internal/external, stable/unstable, and global/specific self-attributions for positive and negative outcomes.

Results indicated that mothers with high illusion of control (e.g. those who reported they felt more in control of the termination of the infant cry) were more likely to attribute positive outcomes to be due to unstable causes rather than to stable factors within themselves. Mothers in the high and medium illusion of control groups who indicated that their infant was 'difficult' were more likely to attribute positive caregiving outcomes to external and specific causes. This attributional style was described as a 'depressive-prone attributional style', rather than a 'self-serving attributional style' associated with highly efficacious people (e.g. attributing positive outcomes to internal, global and stable causes, and negative outcomes to external, specific and unstable causes).

The tendency of mothers who demonstrated a depression-prone attributional style to perceive themselves as more in control of the simulated child-care task in this study was understood by the authors as a *defensive response*, where people experience elevated blood pressure and cardiac acceleration in reaction to aversive stimuli. Bandura (1982) reported that in anticipation of an aversive event, increased heart rate and blood pressure are correlated with low self-efficacy and that ascribing one's failures to internal and stable traits within ourselves, and successes to unstable and external causes reflects a profound sense of inefficacy (Bandura, 1997). The use of the 'illusion of control' paradigm in this study may indicate when defensive processes are at work, rather than capturing high parent self-efficacy. This study had a relatively small sample size, (N = 48), which in addition to the use of a laboratory setting could limit the validity and reliability of the findings.

However, the findings are important in the development of the understanding of the interplay between parent attributional processes and self-efficacy. From this study, it could be hypothesised that parent attributions in child-care situations are related to low feelings of efficacy in the parenting role, through demonstrating high control over outcomes which are in fact not controllable, in order to mask difficult thoughts and feelings.

A study which measured parent attributions of negative parent-child interactions, found that low perceived control in parents was related to directive and controlling parent behaviour in play interactions in a study by Guzella & Vernon-Feagans, (2004). Mothers and fathers (N = 66) of one-year old infants who attributed control of failed situations to be within the child rather than themselves, were more likely to rate their child as more difficult and display more directive behaviour with their child in a free-play situation. The PAT (Parent Attribution Test, Bugental et al., 1998) was used to elicit causal attributions regarding failed child-care situations. The Infant Behaviour Questionnaire (IBQ; Rothbart, 1981), was used to measure parents' perceptions of their infant as difficult, and a video of a 20 minute free-play session between parents and child was used to assess directedness of parent behaviour. As previously stated, the PAT is designed to assess adults' beliefs concerning their influence relative to their child's influence over the success or failure of care-giving outcomes. Respondents are asked to rate the importance of likely causes of care-giving outcomes (e.g. their own competence with children, luck, mood, help of others, strategy, child motivation and temperament) both to successful and unsuccessful situations. The items included some explanations that were controllable by adults and some that were controllable by children, as well as explanations that were uncontrollable by adults and uncontrollable by children. Participants were categorised as high or low control. High

control denoted high scores on items pertaining to parent control over outcomes and low scores on items pertaining to child control over outcomes. Low control denoted high scores on items regarding child control over outcomes, and low scores on items regarding parent control over outcomes.

Directive behaviour with infants was referred to as “*any behaviour that conveys the expectation that the infant do, say, or attend to something*”, and sensitive behaviours were referred to as those including “*physical affection, positive statements and tone of voice; frequency of parents’ smiling and laughing during interactions, reinforcing the child’s behaviours through clapping, cheering, supporting, and extending the infant’s play with comments or facilitative questioning*”. Mother and father interactions with their infant were videoed and coded separately in relation to the presence or absence of sensitive and directive behaviour (0 = no instances of the behaviour; to 3 = more extreme or many instances of the behaviour).

Results from regression analyses indicated main effects of low perceived control on directive behaviour for both fathers and mothers accounting for 15% and 12% of the models respectively. For mothers only, there was a significant interaction effect between infant difficulty and low perceived control for directive behaviour during play, which accounted for 20% of the variance. This is a larger effect than main effects of infant difficulty ratings or perceived control alone. This could suggest that when mothers perceive themselves to have less control and the infant to have more control, and when they perceived their infant as difficult, they behave in a more directive fashion.

A limitation of this study is that the responses of the parents were not totally independent as mothers and fathers of the same infant participated. Emotional responses and parent mood were not assessed in this study, which limits its assimilation

into existing models of parenting behaviour (e.g. Weiner, 1980). Overall however, these findings suggest that parents who make attributions that they have little control over care-giving situations and outcomes, are likely to exhibit a more directive approach to interacting with their infant, and that for mothers this is likely to be associated with perceptions of the infant as difficult.

*1.3.6.2 Efficacy and attributions in parent-child conflict situations.* Two studies have examined attributions and efficacy-related processes in relation to parent-child conflict, and have found various relationships between the two cognitive processes. Baden and Howe (1992) explored the association between parents' expectancies of effectiveness using various discipline responses, and their attributions for hypothetical child misbehaviours in 80 mothers of adolescents between the ages of 11 and 18, forty of which had Conduct Disorder (CD). Using a measure developed for the study by the authors (The Personal Parental Expectancies Interview), parents were asked whether their child exhibited certain misbehaviours (e.g. "does your child swear?"), and then asked to rate their effectiveness on a 7-point Likert scale along the different discipline subscales (verbal/physical punishment, withdrawal of positive reinforcement, contingent reinforcement of alternative behaviour, and ignoring child misconduct).

A modified version of the Parent Attributional Questionnaire (Walker, 1985) measured mothers' beliefs regarding the causes and intentionality of child behaviour. Parents chose 4 behaviours from a list which typified the behaviour of their own child and were asked to respond to questions pertaining to internal or external causal locus, stability, child control, parent control, and globality as well as child intent.

Results suggested that when parents attributed cause of child misconduct to be due to stable and global causes within the child, they rated the effectiveness of

punishment, withdrawal and contingent reinforcement of alternative behaviour as low, with effect sizes ranging from small ( $r = -.20, p < .05$ ) to large ( $r = -.52, p < .001$ ). When parents attributed the behaviours to be more within their control, they rated the effectiveness of the same discipline strategies as higher, with effect sizes ranging from medium ( $r = .31, p < .01$ ) to high ( $r = .59, p < .001$ ). These results suggest three things: 1) that parent perceived control is related to perceptions of effectiveness in response to child behaviour; 2) when parents rated themselves as more out of control of the child behaviour, they were less likely to endorse the effectiveness of the specified discipline strategies; 3) when parents perceived the causes of child misbehaviour to be due to global and stable causes within the child, they rated their effectiveness as lower. The extent to which this attributional style is related to parenting efficacy in general however is unexplored. In addition, this study was carried out with parents of adolescents half of which had CD, and so the generalisability of the results to mothers of children of other ages and without CD is unknown.

Fincham and Bradbury (1987) explored an attribution-efficacy model to examine conflict in the relationship between 56 mothers and their adolescent children aged between 12 and 16 years. Items measuring attributions for the causes of conflict and efficacy expectations were compiled according to a model of cognitive processes in family conflict (Doherty, 1978). One item measured efficacy ("I am able to do the things necessary to settle our conflicts"), with participants stating their level of agreement with the statement on a 5-point Likert scale. Participants also responded to items assessing the perceived object of change needed to resolve the conflict (either self, child, relationship or external circumstances). Results suggested that when mothers had high efficacy expectations (e.g. those who scored above the median), causal locus correlated with the object of change efforts for self, relationship and external

circumstances, but not for child. This suggests that higher efficacy was related to attributions which were non child blaming, and may suggest that parents with high efficacy felt more in control of the resolution of conflict situations and saw themselves as the object of change in parent-child conflicts. This supports the findings of the previous study as higher expectations of effectiveness were related to attributions which did not place cause to internal, global and stable factors within the child. This study's findings are limited given the simplistic way that efficacy was measured. It is also limited to the understanding of conflict situations. However, it also provides an opportunity to enhance the understanding of a hypothesised relationship between parenting efficacy and attributions.

*1.3.6.3 Summary.* Parent cognitive-emotional processes have been found to be important factors for consideration in the conceptualisation of poor parenting and child outcomes (see section 1.3.2). Parent cognitive-emotional processes such as attributions and self-efficacy have been found to mediate the effects of child, parent and contextual risk factors on poor parenting, and so are therefore worthy of continued study (e.g. Dix & Lochman, 1990; Smith & O'Leary, 1995; Teti & Gelfand, 1991).

The theory and evidence pertaining to the relationships between parent attributions, emotions and behaviour has been fairly well established and encapsulated in models such as Weiner's Attributional Model of Helping Behaviour (1980). However, there is less of an established research base which considers the relationships between parent attributions and other cognitive processes known to be important in the prediction of parent behaviour, such as parent self-efficacy.

Studies which have measured parents' attributions of control over parenting activities and outcomes, have found that low perceptions of control and high illusion of

control relate to a depression-prone attributional style and hostile child-centred attributions (Donovan & Leavitt, 1989; Guzell & Vernon-Feagans, 2004). Since perceived control is one source of information thought to be important in efficacy judgements, it follows that parent self-efficacy may be related to attributions for negative child behaviour. In addition, high illusion of control, (which is thought to mask inefficacy) has been found to relate to a depression-prone attributional style, learned helplessness and physiological reactions akin to aversion and inattentive parenting.

Parent attributions and efficacy have been linked separately to how satisfied parents feel in their relationship with their child, which is known to be related to personal investment in the parent/child relationship (Coleman & Karraker, 2000). However, very little attention has been given to how parent attributions, efficacy and satisfaction relate to each other.

The relationship between parent attributions and sense of efficacy in the parenting role has been suggested by studies which examine: 1) expectations of success and efficacy in solving parent-child conflict; 2) parent perceived control over caregiving outcomes and, 3) attributional styles indicative of learned helplessness. However, these studies have suffered from measurement and conceptual issues, and have not sought to examine the relationship between the concepts directly. This provides justification for pursuing the study of parent attributions and efficacy. There is also a lack of studies which examine parenting efficacy and related concepts (e.g. satisfaction and emotional reaction to child behaviour) in parents who have children aged between 5 and 10 years. The relationship found between attributions of control and emotional arousal, (Bugental & Cortez, 1988) suggest that efficacy judgements may

be contributing to emotional and therefore behavioural outcomes, based on the premise that efficacy theory is a theory of how people exercise control over their lives.

By examining parenting attributions, efficacy and satisfaction together, it will be possible to clarify which relationships exist in order to contribute to existing models of parenting. Increased understanding of these relationships could be potentially valuable in the conceptualising and planning of parenting interventions designed to intervene early in order to promote healthy child development.

Thus the focus of the current study will be examining the relationships between parent child-centred attributions, and their feelings of efficacy and satisfaction in the parenting role. Parents' perceptions of child behaviour as difficult will also be examined as well as their emotional response to negative child behaviour. A community sample of parents will be chosen to answer the study's research questions and hypotheses with a view to gaining an initial understanding of the interplay of these cognitions and emotions.

#### *1.4 Research Questions and Hypotheses*

##### *1.4.1 Research question 1*

How do parent attributions, efficacy and satisfaction, relate to their emotional responses to negative child behaviours?

*Hypothesis 1: Increased parent distress in response to negative child behaviour will be predicted by a more child-blaming attributional style.*

*Hypothesis 2: Increased parent distress in response to negative child behaviour will be predicted by lower perceptions of parenting efficacy and satisfaction.*

#### *1.4.2 Research question 2*

How do parent attributions in response to negative and positive child behaviour relate to parent perceptions of satisfaction and efficacy in the parenting role?

*Hypothesis 3: Lower efficacy and satisfaction will be predicted by a more child-blaming attributional style in response to negative child behaviour.*

*Hypothesis 4: Lower parenting efficacy and satisfaction will be predicted by a more negative attributional style in response to positive child behaviour.*

#### *1.4.3 Research question 3*

How do parent perceptions of child behaviour as difficult relate to their causal attributions and perceptions of efficacy and satisfaction?

*Hypothesis 5: Increasing ratings of negative child behaviour as difficult will be predicted by an increasingly child-blaming attributional style and lower perceptions of efficacy and satisfaction.*

## 2.0 Method

### *2.1 Chapter Overview*

This chapter will present a description of the methodology used to test the research questions and hypotheses. A cross-sectional within subjects design was used and parents from the local community (N = 71) took part. To measure the variables selected, data from the Written Analogue Questionnaire (Johnston & Freeman, 1997) and the Parenting Sense of Competence Scale (Johnston & Mash, 1989) was used. To analyse the data regression calculations were selected.

### *2.2 Design*

This study was originally designed to address different research questions and hypotheses pertaining to parents' views about treatment for child Attention-Deficit Hyperactivity Disorder (ADHD). In this original study, 71 parents from the local community completed questionnaires regarding their views and opinions regarding the treatment of ADHD, as well as questionnaires designed to measure parent attributions, efficacy and satisfaction. The aim of the original study was to consider the contribution of different parent cognitions to their preferences for different types of treatment options for ADHD. The design of the original study and a proportion of the data collected were considered appropriate to answer the current study's research questions and hypotheses. The limitations of the design and the sample recruited will be acknowledged in the discussion (see section 4.3) and in other parts of the method section.

The original study used a cross-sectional within subjects design. Parents of school-age children between the ages of 5 and 10 were recruited and asked to complete a battery of questionnaires. Included in the original questionnaires was a measure designed to elicit parental attributions in response to two types of negative child behaviour and one type of positive behaviour. All participants were asked to provide attributional ratings in response to these three different types of behaviours presented within six vignettes (two for each behaviour type), forming a repeated measures factor. Participants also completed measures of parenting efficacy and satisfaction. Measures of parental distress and problem perception in response to the three types of behaviour were also completed.

### *2.3 Procedure*

Participants were recruited from county run primary schools which were selected from a government database (Edubase, 2000). It was calculated that if a maximum of 5% of parents opted into the study, (a conservative estimate of response rate of community samples), then to achieve the numbers of participants required for power for the original study, a minimum of 10 schools should be targeted. This was based on the observation that most schools tended to have approximately 100 to 200 pupils within the required age range. A total of 11 schools agreed to participate out of the 31 contacted (35.5%). Reasons for declining the invitation were mostly due to teachers not having enough time to engage in the process, or that they were already participating in other research.

In the first instance, the head teachers of the schools were asked for their agreement (Appendix A) for the researcher to contact parents of children who attended

their school by letter. Invitation letters were followed by phone calls to head teachers to enquire whether they wished to take part. If schools were in agreement, invitation letters (Appendix B), information packs (Appendix C) and consent forms (Appendix D) were delivered to the schools, who then distributed them to children between the ages of five and ten with instructions to give them to their parents after school. Drop-off boxes were placed in the reception area of each participating school for parents to return completed consent forms. The researcher provided the schools with the questionnaires to give to parents consenting to take part. The questionnaires consisted of the Written Analogue Questionnaire (Appendix E), the Parenting Sense of Competence Scale (Appendix F), a covering letter and demographics sheet (Appendix G), and a stamped addressed envelope for convenient return of the completed questionnaires straight to the researcher. Participants were provided with contact details (telephone number, email address) of the researcher in case of any issues or questions.

#### *2.4 Participants*

This section will describe firstly the study population by outlining inclusion and exclusion criteria. The inclusion and exclusion criteria pertained to recruitment of participants for the original study. Details of the sample recruited and included in the study will then be presented. A total of 1520 participant invitations were sent out through primary schools in Norfolk. Of these, 88 participants consented to take part in the study, giving a response rate of 5.8%. Of these 88 participants, 71 completed and returned their questionnaires (80.7%).

#### *2.4.1 Inclusion and Exclusion Criteria.*

*2.4.1.1 Inclusion criteria.* The following inclusion criteria applied: 1) Participants needed to be parents who had at least one child between the age range of 5 and 10 years who were attending local schools. Parents of school-age children were originally selected to address research hypotheses pertaining to the treatment of ADHD. However, the inclusion criteria lends itself to the specific hypotheses of the current thesis exploring multiple cognitive-emotional processes in parents who have primary school-age children. 2) Mothers and fathers were included.

*2.4.1.2 Exclusion criteria.* The following exclusion criteria applied: 1) Parents were not included if their spouse or partner had already consented to take part in the study. This was because of the risk of parents completing questionnaires together and altering true responses to questions, and the fact that the data would not be entirely independent. 2) Participants were only permitted to complete one set of questionnaires, even if they had more than one child in the age range.

#### *2.4.2 Sample Size*

The sample size for the current study was calculated using the formula suggested by Tabachnick and Fidell (2001, p. 117) for multiple regression,  $N > 50 + 8m$  (where  $m$  = number of independent variables). Out of the study's hypotheses, the largest number of independent variables was 6, therefore for a medium effect,  $N > 98$ . A medium effect size was chosen because many of the relationships between attributions and other cognitive-emotional processes found to date have been of small to medium

effect sizes. Since the sample size of this study was 71, the limitations of the under powering of this study will be included in the discussion.

#### *2.4.3 Demographic Characteristics*

Demographic information can be found in Table 1. The majority of the sample were mothers (90.1%). Thirty-five percent of parents had at least degree level qualifications, and 81.7% had at least A-Level qualifications. This indicates that the sample was relatively well educated suggesting higher levels of social networks and lower levels of financial difficulties. Therefore, it is important to note that the sample may not be representative of a heterogeneous group of parents. The mean age of the participant's children was 7.4 years (SD = 1.7 years), with a gender split of 40 males (56.3%) and 30 females (42.3%), with one child's gender unspecified.

Table 1

*Sample Demographics*

Demographic	Frequency	%
Relationship to child		
Mother	64	90.1
Father	5	7.0
Unspecified	2	2.8
Gender of child		
Male	40	56.3
Female	30	42.3
Unspecified	1	1.4
Parent highest educational attainment		
Post-graduate	11	15.5
Degree	14	19.7
A-Level	31	46.5
GCSE Level	4	5.6
No qualification	2	2.8
Unknown	7	9.8

*2.5 Measures*

This section will present the measures selected for use in this study including a description of each measure and their psychometric properties.

*2.5.1 Parental Child-blaming Attributions*

To measure parental child-blaming attributions, data from the Written Analogue Questionnaire, (WAQ; Johnston & Freeman, 1997) was used. The WAQ (Appendix E) consists of set descriptions of five types of child behaviour in the context of the parent-child relationship. Following each description are 10-point Likert rating scales

pertaining to causal attributions. The WAQ has been developed and used in several studies in order to examine attributions of parents in response to different child behaviours (e.g. Johnston & Freeman, 1997; and Johnston, Chen, & Ohan, 2006). The current study sought to examine child-blaming attributions by parents. A parent with a child-blaming attribution style has a tendency to ascribe causes of undesirable child behaviour to internal, global, stable and controllable causes within the child. As the current study also aims to examine the attributions of parents for positive child behaviour in relation to satisfaction and efficacy, the term ‘negative attributional style’ will be used when describing the extent to which parents view the causes of positive behaviour to be external to the child, unstable, uncontrollable and specific to certain situations.

The WAQ measures parent attributions in response to five different examples of child behaviour (inattentive/overactive, oppositional-defiant, non-compliant, pro-social and compliant). Parents completed ratings for all five behaviour types. However for the purposes of the current study, only attributions for inattentive/overactive, non-compliant and pro-social behaviour were used to test the study’s hypotheses. Descriptions are equal in length with the same amount of situational information. Each description is a parent-child interaction. The descriptions use both genders of child and also gender-neutral descriptions (e.g. using the word ‘child’ rather than ‘boy’ or ‘girl’). Two different descriptions of each behaviour were presented to respondents for reasons of internal validity, (Johnston & Freeman, 1997). Therefore, six ratings of attributions in response to three types of behaviours were used. An example of one of the descriptions of child non-compliant behaviours was as follows:

*“A mother walks into the house after shopping for groceries. She sees that her child’s shoes and school books are lying in the middle of the hallway.*

*She walks into the kitchen where her child is and tells her to pick up their stuff. She does not do it” (WAQ, Johnston & Freeman).*

Participants were first presented with an introductory paragraph called ‘Thinking about child behaviour’. The purpose of this paragraph was to give an explanation of the causal dimensions and an example of their use. Following this paragraph, respondents read each scenario, and rated the likely causes of the behaviour along the following attributional dimensions: causal locus (1 = something about the child to 10 = something about other people/the situation), globality of the cause (1 = happens in many situations to 10 = specific to this situation), stability of the cause (1 = a one time thing to 10 = will happen again in the future), and the child’s control over the behaviour (1 = completely within child control to 10 = not at all in child’s control). The WAQ also includes ratings of parent perceptions of the behaviour as problematic, the degree to which parents feel responsible for the behaviour depicted, and finally, their emotional distress in response to the behaviour. For the purposes of the current study, parent responsibility attributions was not included in the analysis, as the focus was on child-centred attributions rather than parent self-attributions. Parent perceptions of behaviour as problematic and parental distress will be discussed further in section 2.4.2.

#### *2.5.1.1 Rationale for choice of measure and behavioural descriptions.*

Scenarios which depicted child behaviours, some of which could be associated with ADHD were required for the original research study to explore whether differences in parent attributional styles bore any relationship to treatment choices for ADHD. For the current study, regarding parent attributions and their relationship to other cognitive-

emotional processes, the data collected using the WAQ was deemed suitable to address the hypotheses. The following describes why the data originally collected was deemed suitable to use in the current study.

Past research has used descriptions of child behaviour in different situations (e.g. in social situations with peers, or in specific child-care situations). The current study was concerned with attributions which are made in the context of the parent-child relationship. Descriptions included parents and children in everyday situations at home which could represent behaviours associated with school-age children (e.g. 5 to 10 years). This WAQ was chosen for its behavioural descriptions which were synonymous with those of school-age children, which increases the ecological validity of the study. The use of inattentive/overactive behaviour is based on clinical experience of parents complaining that their children at times do not appear to listen, have short attention spans, and can be overly active. Non-compliant behaviour was used as a more general negative child behaviour (e.g. when a child refuses to carry out a request). Finally pro-social behaviour (e.g. a child acting in an altruistic manner) was chosen to represent a positive child behaviour. The WAQ included these three behaviours, with standardised descriptions, and therefore was a good choice of measure.

*2.5.1.2 Psychometric properties of the WAQ.* The WAQ has been shown to have acceptable levels of internal consistency with alphas ranging from .80 to .82 (Johnston et al., 2005). The controllability and stability ratings in the WAQ have been shown to have acceptable levels of agreement with other methods of assessing attributions such as memory-dependent elicited attributional interviews with

coefficients ranging from small ( $r = .23$ ,  $p < .05$ ) to large effect sizes ( $r = .52$ ,  $p < .001$ ) (Johnston and Freeman, 1997).

### *2.5.2 Parent Problem Perception and Parental Distress*

To measure problem perception, an item was included in the WAQ asking “*how much of a problem did you feel the behaviour was?*” (Johnston, Reynolds, Freeman & Geller, 1998) on a 10-point Likert Scale ranging from 1 (not at all) to 10 (very much). Similarly, to measure parental distress in response to each behaviour, an item was included (again as part of the original measure) which asked “*to what extent would the parent be pleased or upset by the child’s behaviour?*”, with a 10-point Likert Scale ranging from 1 (upset) to 10 (pleased). From this point forward, perceptions of behaviour as problematic will be referred to as ‘problem perception’, and parent emotional distress in response to child behaviour will be referred to as ‘parental distress’.

### *2.5.3 Parenting Efficacy and Satisfaction*

To measure participants’ perception of their efficacy and satisfaction in the role of parent, the Parenting Sense of Competence Scale was used (PSOC; Johnston & Mash, 1989). The PSOC (Appendix F) is a 16-item self-report questionnaire designed to measure parental self-esteem by assessing both efficacy and satisfaction in the parenting role. Efficacy is defined as “the degree to which a parent feels competent and confident in handling child problems” and satisfaction as “the quality of affect associated with parenting” (Johnston & Mash, 1989). The efficacy sub-scale consists of 7 items and is a domain-general measure of parenting efficacy, which means that it considers self-efficacy in the domain of parenting to be distinct from general self-

efficacy. Domain-general measures of efficacy assess efficacy through global competency expectations that are not necessarily linked to specific parenting tasks. In contrast to domain-general measures, task-specific measures of parenting efficacy focus on parents' perceptions of their own competency at specified tasks within the parenting domain (e.g. identifying physical illness in their child). An example of an item from the efficacy sub-scale is:

*“If anyone can find the answer to what is troubling my child, I am the one”*

The parent satisfaction sub-scale consists of 9 items and measures the degree of anxiety, frustration and motivation associated with the parenting role. An example of an item from the satisfaction sub-scale is:

*“I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot”.*

All items are rated on a 6-point Likert scale ranging from (6) *“Strongly disagree”* to (1) *“strongly agree”*. The seven items on the efficacy sub-scale are forward scored and the nine items on the satisfaction sub-scale are reverse scored, to ensure that high scores represent high parenting satisfaction and efficacy.

*2.5.3.1 Rational for the choice of the PSOC.* The PSOC was chosen to measure satisfaction and efficacy for a study exploring how parent cognitions relate to preferences parents have for different types of treatment for the behavioural disorder ADHD. Limitations of using the data in the current study will be addressed in the discussion. The current study required measures of parenting efficacy and satisfaction which were standardised with robust psychometric properties. The literature review

highlighted the issue that existing studies measuring parental efficacy use a variety of different measures, which makes replication of these studies more challenging. It also poses a difficulty in integration of research findings and gaining a clear picture of the role of parenting efficacy. The PSOC however, is a tool which has been used more widely and has good levels of reliability and validity.

*2.5.3.2 Psychometric properties of the PSOC.* The PSOC has been shown to have good internal consistency (Johnston & Mash, 1989), with alpha coefficients of .75 for satisfaction factor and .76 for efficacy factor. The satisfaction subscale has also been shown to have good concurrent validity (Gibaud-Wallston & Wandersman, 1978; Mash and Johnston, 1983; Rogers and Matthews, 2004) with measures of parent and child functioning (e.g. the Eyberg Child Behaviour Inventory (ECBI), Eyberg & Pincus, 1999; The Parenting Scale, Arnold, O’Leary, Wolff, & Acker, 1993). Validity coefficients between the PSOC satisfaction subscale and the ECBI intensity and problem subscales have been found to be of medium effect size ( $r = -.41, p < .01$ ;  $r = -.40, p < .01$ ). Finally, the PSOC has demonstrated its usefulness in measuring efficacy and satisfaction in a range of different samples (e.g. normal population, with infants and older children and with clinical populations), (Johnston & Mash, 1989).

#### *2.5.4 Demographic Information*

A demographic sheet (Appendix G) was included with the previous measures sent out to each participant. Respondents were asked to provide information pertaining to their relationship with the child in question (e.g. mother, father, foster parent) as well as the age and gender of their child. Parents were asked to indicate their highest level of educational attainment. This was included for the purposes of considering parents’

backgrounds, and indirectly their socio-economic status (SES), in light of research indicating the importance of the role of SES in parenting. Finally, participants were required to state whether their child had any behavioural difficulties, and to provide further details if so (see Appendix H).

## *2.6 Ethical Considerations*

This section will review the main ethical concerns in relation to the implementation of the original study from which the data was extracted for the current study. In the design and implementation of this study, the Ethical Principles for conducting research with human participants (BPS, 2000) were considered and adhered to closely.

### *2.6.1 Ethical Approval*

Following a detailed proposal of the study, ethical approval for the original study was granted by the Faculty of Health Ethics Committee at the University of East Anglia, UK (Appendix I).

### *2.6.2 Consent and Coercion*

Parents were given full written information about the study as well as the opportunity to contact the researcher if they had any questions or concerns either by telephone or email. The information sheet included details of the nature and purpose of the research, the reasons why the potential participant had been contacted, and clear

information pertaining to the voluntary nature of taking part as well as opting out. The sheet also made it clear what people were being asked to do, that it would be done at their convenience, and an approximation of how long it would take them to complete. Interested participants provided written consent to take part in the research.

### *2.6.3 Confidentiality*

Participants were told that their names would be kept separate from their questionnaire responses and that they would be assigned a unique numerical code immediately after they had consented to take part in the research, and that the findings would be written in such a way as to conceal identifying information. They were also informed that documentation with their names on would only be seen by the researcher and that they would be kept at the University of East Anglia in a locked filing cabinet. It was also made clear that questionnaire data would be kept securely, separate from the consent forms which included their identifying details and in accordance with data protection policies.

### *2.6.4 Distress and Risk Issues*

Participants were provided with contact details for the researcher and advised that if they became distressed as a consequence of participating in the study they should contact the researcher who would be able to answer any questions or arrange a debriefing appointment. Participants were informed that should information become known regarding participant or child safety, the researcher would be bound to inform the appropriate agency.

On one occasion, a parent expressed a concern to the Special Educational Needs Co-ordinator (SENCO) at one of the participating schools. The nature of the concern was a worry that they had been invited to take part because their child had a behavioural disorder. On this occasion, the SENCO was able to reassure the parent, without feeling a need to contact the researcher. Otherwise, no distress or risk issues were made known to the researcher.

### *2.6.5 Feedback*

The information sheet detailed that this study was being undertaken as part of the requirements for the Doctorate in Clinical Psychology at the University of East Anglia. Participants were also told that individual feedback could be obtained on request.

## *2.7 Data Analysis Strategy*

Initially, in order to investigate whether the data were normally distributed, histograms of the questionnaire data were examined (Appendix J) and z-scores for skewness and kurtosis were calculated (Appendix K).

The efficacy subscale of the PSOC was not normally distributed. Z-scores of skewness and kurtosis indicated that attributions for PRO behaviour from the WAQ were not normally distributed. Kolmogorov-Smirnov tests indicated that the PRO data was significantly different from a normal distribution. Given that the analysis plan utilised multiple regressions, which are more robust to the assumptions of normality, it was decided that the data would not be transformed but that when analyses were

performed with WAQ data as predictors, the residuals would be examined closely to check for normally distributed errors (Cohen, 2005). All predictor variables were entered into the first block of each regression analysis. The Durbin-Watson statistic, variance inflation factor in addition to histograms and scatterplots were examined to check that the assumptions of the model were met. All of the assumptions were met for each of the regression analyses undertaken. The specific statistical analysis associated with each hypothesis is outlined below.

*Research question 1.* How do parent attributions, efficacy and satisfaction, relate to their emotional responses to negative child behaviours?

*Hypothesis 1: Increased parent distress in response to negative child behaviour will be predicted by a more child-blaming attributional style.*

*Hypothesis 2: Increased parental distress in response to negative child behaviour will be predicted by lower perceptions of parenting competence (i.e. satisfaction and efficacy).*

Hypothesis 1 was tested by using two multiple regression analyses where the first included parental distress as the dependent variable, with attributions of inattentive/overactive (IO) behaviours as the four predictor variables (e.g. locus, globality, stability and controllability). The second regression included parental distress as the dependent variable again with attributions for non-compliant behaviour (NON) as the four predictors. Hypothesis 2 was tested with the use of two further multiple

regressions, the first including parental distress in response to IO behaviours as the dependent variable, with parenting satisfaction and efficacy as the predictor variables, and the second using the same predictors but with parental distress for NON behaviours as the dependent variable.

*Research question 2.* How do parent attributions in response to negative and positive child behaviour relate to parent perceptions of satisfaction and efficacy in the parenting role?

*Hypothesis 3: Lower efficacy and satisfaction will be predicted by a more child-blaming attributional style in response to negative child behaviour.*

*Hypothesis 4: Lower parenting efficacy and satisfaction will be predicted by a more negative attributional style in response to positive child behaviour.*

Hypothesis 3 was tested by the use of four multiple regression analyses. The first included parent efficacy as the dependent variable, and parent attributions for inattentive/overactive behaviour as the predictor variables. The second was the same but the predictor variables were attributions for non-compliant child behaviour. The next two regressions included parent satisfaction as the dependent variable, one with attributions for inattentive/overactive behaviour as the predictors, and the other with attributions for non-compliant behaviour as the predictors. Hypothesis 4 was tested by using two multiple regression analyses. The first with parent efficacy as the dependent variable and the second with parent satisfaction as the dependent variable, whilst attributions were entered as predictors.

*Research question 3.* How do parent perceptions of child behaviour as difficult relate to their causal attributions and perceptions of efficacy and satisfaction?

*Hypothesis 5: Increasing ratings of negative child behaviour as difficult will be predicted by an increasingly child-blaming attributional style and lower perceptions of efficacy and satisfaction.*

Hypothesis 5 was tested by use of two multiple regressions, the first with problem perceptions of IO behaviours as dependent variable, and the second with problem perception of NON behaviours as the dependent variable. Predictor variables were attributions for inattentive/overactive behaviours and parenting competence (parental satisfaction and efficacy) for the first regression and attributions for non-compliant behaviours and parenting competence (parental satisfaction and efficacy) for the second.

## 3.0 Results

### *3.1 Chapter Overview*

In this chapter, a brief summary of the descriptive statistics of the sample is presented. Initial exploration of the WAQ data will be reported in order to examine the attributional style of the participants in response to negative and positive child behaviour. This will include examining any differences in the way participants attributed cause to different types of behaviour. Inter-correlations between all the variables will be calculated followed by multiple regression analyses to test the research hypotheses.

### *3.2 Descriptive Statistics*

#### *3.2.1 Participant Reports of Child Behaviour Difficulty*

In addition to the descriptive information reported in section 2.3.5 of the method section, 17 (23.9%) parents reported that they perceived their child to have a behavioural difficulty. On closer examination of the qualitative responses (Appendix H), both internalising and externalising behaviour problems were described. These were: attention and concentration problems; depression/moods, oppositional and defiant behaviour, over-excitement/hyperactivity, impulsivity, social problems and anger/aggression. No parent reported that their child was diagnosed with any disorder however.

### 3.2.2 Measures

Within this section, firstly, procedures used to prepare the attributional data for analysis will be described, and secondly, the mean scores and standard deviations of all the measures will be presented, followed by an examination of the distribution of the variables to check for deviations from normality.

*3.2.2.1 Preparation of the Written Analogue Questionnaire Data.* The attributions, problem perceptions and degree of parent distress in response to the two examples of each of the three behaviour types (inattentive/overactive, IO; non-compliant, NON; and pro-social, PRO) were examined to assess their level of agreement. In total there were 6 ratings in response to each scenario, which included attributions of locus-of-control, globality, stability, controllability, problem perception and emotional distress.

Spearman's rank correlations for all 6 ratings between both descriptions of each of the three types of behaviour indicated that they were all significantly positively correlated with the exception of locus-of-control for IO behaviours. Apart from this exception, all correlations were of a medium to high effect size (see Appendix L). Significance levels were adjusted to account for the 18 comparisons carried out by applying the Bonferroni Correction using the formula,  $\alpha = .05/\text{number of comparisons}$ . This resulted in an adjusted significance level of  $p = .003$ . The most likely cause of the lack of relationship between locus-of-control for IO behaviours across the two scenarios, is that the gender of the child in scenario A was unspecified, whereas in scenario B, a boy was depicted. Despite this, the two examples of each behaviour were collapsed and used for subsequent analysis.

3.2.2.2 *Descriptive statistics of the WAQ.* Means and standard deviations for the Written Analogue Questionnaire are presented in Table 2.

Table 2

*Written Analogue Questionnaire Responses: Means and (Standard Deviations) for Attribution Ratings along the 4 dimensions, Problem Perception and Parent Distress.*

Attributional Dimension	Behaviour Type		
	Inattentive-Overactive	Pro-social	Non-Compliant
Locus	4.78 (1.67)	3.87 (2.51)	4.01 (1.61)
Control	4.17 (2.03)	1.88 (1.21)	3.11 (1.62)
Globality	3.32 (1.79)	3.96 (2.68)	3.63 (1.80)
Stability	7.73 (1.72)	7.92 (1.94)	7.77 (1.52)
Problem Perception	4.89 (1.76)	1.19 (0.56)	6.43 (2.10)
Parent Distress	3.63 (1.26)	9.23 (1.29)	3.35 (1.28)

*Note:* Scores can range from 1 to 10. Higher scores indicate more external locus-of-control, less child control, more specificity and stability, higher problem perception, and less parent distress. N = 71.

In order to explore for significant differences in the way participants attributed cause, and had emotional reactions to the different behaviours, Friedman's ANOVAs were calculated across the three different types of behaviour depicted. Differences in attributions between behaviours are important to explore because it is of interest whether IO behaviour elicits significantly different attributions and reactions from NON behaviour (a more general negative child behaviour). Results from the ANOVAs as well as subsequent analyses will be presented in two sections, the first examining the four attributional dimensions, and the second examining problem perception and parent distress.

3.2.2.3 *Variation in attributions across different behaviours.* Results from the ANOVAs suggested significant variation across the three behaviour types on attributional dimensions of locus-of-control ( $\chi^2(2) = 12.83, p < .01$ ), controllability ( $\chi^2(2) = 84.56, p < .001$ ), and stability ( $\chi^2(2) = 6.62, p < .05$ ), but not for globality ( $\chi^2(2) = 2.36, p = .307$ ).

Post hoc analyses were undertaken using Wilcoxon's Signed Rank Test to examine differences on the dimensions of locus-of-control, controllability and stability. Initially, the first examined differences between IO and NON attributions; the second examined differences between IO and PRO attributions, and the third between PRO and NON attributions. In order to control for the likelihood of type I error, the Bonferroni Correction was applied to the significance level using the formula,  $\alpha = .05/\text{number of comparisons}$ . As 12 comparisons were calculated, this means that  $\alpha = .004$ .

Using the adjusted significance level, results from the Wilcoxon signed Ranks showed that parents' attributions of the positive and negative behaviours along the dimensions of locus-of-control and stability were not significantly different.

For the dimension of child controllability, parents attributed IO behaviours to be significantly less controllable by the child than NON behaviours, ( $z = -4.54, p < .001, r = -.38$ ). They also attributed IO behaviours to be significantly less controllable than PRO behaviours, ( $z = -6.55, p < .001, r = -.55$ ). Finally, parents attributed NON behaviours to be significantly less controllable than PRO behaviours, ( $z = -5.50, p < .001, r = -.46$ ). This indicates that parents attributed the least child control to IO behaviours followed by NON and then PRO behaviours (see Table 2).

For stability attributions, Wilcoxon's Signed Rank Tests indicated no significant differences between the stability of NON and IO behaviours ( $z = -1.13$ ,  $p = .900$ ,  $r = -.10$ ); IO and PRO behaviours ( $z = -1.06$ ,  $p = .288$ ,  $r = -.10$ ); or NON and PRO behaviours ( $z = -1.37$ ,  $p = .170$ ,  $r = -.11$ ). With reference to Table 2, these results suggest that parents viewed all three behaviour types to be relatively stable traits of the children depicted.

*3.2.2.4 Variation in parent distress and problem perception.* For parents' problem perception, Friedman's ANOVAs revealed significant differences between the three behaviour types ( $\chi^2(2) = 113.20$ ,  $p < .001$ ). Post hoc Wilcoxon Signed Rank Tests indicated significant differences in parent problem perception between IO and PRO behaviours ( $z = -7.28$ ,  $p < .001$ ,  $r = -.61$ ); IO and NON behaviours, ( $z = -5.51$ ,  $p < .001$ ,  $r = -.46$ ); and NON and PRO behaviours, ( $z = -7.17$ ,  $p < .001$ ,  $r = -.60$ ). With reference to Table 2, these results suggest that parents viewed NON behaviours as the most problematic, followed by IO behaviours, then PRO behaviours.

For parent distress, again Friedman's ANOVA revealed significant differences between the three behaviours ( $\chi^2(2) = 114.20$ ,  $p < .001$ ). Wilcoxon Signed Rank Tests indicated significant differences in parent distress between responses to IO and PRO behaviours, ( $z = -7.28$ ,  $p < .001$ ,  $r = -.61$ ); PRO and NON behaviours, ( $z = -7.23$ ,  $p < .001$ ,  $r = -.61$ ); but no significant differences in parent distress between IO and NON behaviours ( $z = -1.61$ ,  $p = .108$ ,  $r = -.14$ ). With reference to Table 2, this suggests that parents were significantly more distressed in response to IO and NON behaviours than they were to PRO behaviour.

*3.2.2.5 Summary.* Results from exploring the responses to the Written Analogue Questionnaire initially showed that there was some variation between the ways in which

the participants responded to the different descriptions of behaviour in the WAQ for three out of the four attributional dimensions. Further analysis however, revealed no significant differences between attributions of stability (e.g. whether the behaviour was a one off, or whether it was likely to happen again in the future), and attributions of locus-of-control (the extent to which the parent viewed behaviour to be caused by something internal or external to the child), and parents indicated that all three types of behaviour were stable traits of the child.

For attributions along the dimension of locus-of-control (e.g. whether the parent saw the cause of the behaviour to be internal to the child, or about something external), and controllability (e.g. whether or not the child had control over the behaviour) parents attributed IO behaviour to be less internal and less controllable than non-compliant behaviours and pro-social behaviours. Non-compliant behaviours were also seen as less controllable than pro-social behaviours, but more controllable than inattentive/overactive behaviours. Parents perceived NON behaviour to be the most problematic, followed by IO and then PRO behaviour. Finally, parents were more distressed by the two negative behaviours than the positive behaviour.

The descriptive statistics of the two sub-scales of the PSOC (parenting efficacy and parenting satisfaction) are reported separately and will be analysed separately.

*3.2.2.6 Parenting efficacy and satisfaction.* Means and standard deviations for the efficacy and satisfaction sub-scales of the PSOC can be found in Table 3. The satisfaction mean score is slightly lower than that found in a sample used to norm the PSOC (Mean = 38.9), and the efficacy mean score is slightly higher than that found in the same study (Mean = 25.33) (Johnston & Mash, 1989).

Table 3

*Means, Standard Deviations and Range for Questionnaire Data from the Parenting Sense of Competence Scale*

Measure	Mean	SD	Range	Min	Max
<b>Parenting Sense of Competence Scale</b>					
Satisfaction	36.85	8.69	36	18	54
Efficacy	28.29	5.07	25	17	42

*Note. Higher scores on the Parenting Sense of Competence Scales represent higher perceptions of parent satisfaction and efficacy. The range of scores possible for satisfaction is 9-54, the range of scores for efficacy is 7-42.*

*3.2.2.7 Effects of demographic data on responses to questionnaires.* Given relationships between contextual (SES), parent (gender), and child (gender), attributions and efficacy found in the literature, preliminary analyses were run to explore any effects in the current study. Spearman's correlations were calculated to examine potential relationships between the age of the children of the participants, educational attainments and responses to questionnaire data. No significant relationships were found. Mann Whitney Test was used to examine gender effects of parents and children on response to questionnaire data. Again, no significant differences were found. Finally, a Mann Whitney Test suggested that parents who indicated that they considered their child to have a behavioural difficulty experienced significantly less parental satisfaction than those who did not ( $U = 177.5, p < .001, r = -.43$ ).

### *3.3 Normality of the Questionnaire Data*

In order to establish whether parametric analyses can be used on the data, histograms of the questionnaire data were examined (Appendix J) and z-scores for skewness and kurtosis were calculated (Appendix K).

The efficacy subscale of the PSOC was slightly skewed, and Kolmogorov-Smirnov tests confirmed that it was significantly different from a normal distribution. For the WAQ, z-scores of skewness and kurtosis indicated that much of the WAQ data was not normally distributed, particularly PRO data. Kolmogorov-Smirnov tests indicated that the PRO data was significantly different from a normal distribution (Appendix K, Table K2). Given that the analysis plan utilised multiple regressions, which are known to be more robust to the assumptions of normality, it was decided that the data would not be transformed but that when significant results were found using the WAQ data as predictors, the residuals plots would be examined closely to check for normally distributed errors (Cohen, 2005) (see Appendix M).

### 3.4 Results by Hypothesis

#### 3.4.1 Hypothesis 1.

*Increased parental distress in response to negative child behaviour will be predicted by a more child-blaming attributional style.*

Multiple regression analysis indicated that for IO behaviours, hypothesis 1 was not supported, (Multiple R = .08; Adjusted R<sup>2</sup> = .02; F(4, 66) = 1.36, p = .26), see Table 4. None of the four attributional dimensions neared significance.

Table 4

*Regression Analysis indicating the Prediction of Parental Distress by Parent Attributions for Inattentive-overactive Behaviour.*

Regression	B	SEB	$\beta$	p
Constant	2.92	1.18		.016
Locus of Control	.12	.09	.16	.204
Child Control	.07	.08	.11	.357
Globality	.06	.11	.09	.563
Stability	-.05	.11	-.06	.669

Results from the second regression did indicate however that hypothesis 1 was supported for NON child behaviours, (Multiple R = .46; Adjusted R<sup>2</sup> = .43; F(4, 66) = 14.16, p < .001) (see Appendix M for residual plots). Table 5 gives a summary of the model where it can be seen that the attributional dimensions of locus-of-control (p =

.034) and child control ( $p < .001$ ) predicted parental distress in response to NON behaviour. This finding suggests that when the parent attributed the behaviour to be caused by factors internal to the child and within the child's control they felt more distressed.

Table 5

*Regression Analysis indicating the Prediction of Parental Distress by Parent Attribution for Non-compliant child Behaviour.*

Regression	B	SEB	$\beta$	$p$
Constant	.88	.97		
Locus of Control	.17	.08	.21	.034
Child Control	.47	.08	.59	.001
Globality	-.01	.08	-.01	.918
Stability	.05	.09	.06	.609

*3.4.2 Hypothesis 2. Increased parental distress in response to negative child behaviour will be predicted by lower perceptions of parenting efficacy and satisfaction.*

Results from multiple regressions did not support this hypothesis for the prediction of parent distress for IO child behaviour (Multiple  $R = .00$ ; Adjusted  $R^2 = -.03$ ;  $F(2, 68) = .08$ ,  $p = .92$ ) or for NON child behaviour (Multiple  $R = .00$ ; Adjusted  $R^2 = -.03$ ;  $F(2, 68) = .04$ ,  $p = .96$ ). This indicates that parent emotional distress in response to both the negative child behaviours was not predicted by parenting efficacy or satisfaction. See Tables 6 and 7 for summaries of the models.

Table 6

*Regression analysis indicating the prediction of parental distress in response to inattentive/overactive child behaviour by parent satisfaction and efficacy.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	3.38	.94		.001
Satisfaction	-.00	.02	-.02	-.167
Efficacy	.01	.03	.05	.407

Table 7

*Regression analysis indicating the prediction of parental distress in response to non-compliant child behaviour by parent satisfaction and efficacy.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	3.17	.92		.001
Satisfaction	.01	.02	.03	.798
Efficacy	.00	.03	.00	1.000

*3.4.3 Hypothesis 3. Lower efficacy and satisfaction will be predicted by a more child-blaming attributional style in response to negative child behaviour.*

In predicting parent satisfaction, parent attributions for IO behaviour yielded a significant model (see Table 8), (Multiple  $R = .24$ ; Adjusted  $R^2 = .20$ ;  $F(4, 66) = 5.29$ ,  $p = .001$ ) (see Appendix M for residual plots). Global and stable attributions were significant predictors of parent satisfaction suggesting that when parents attributed IO

behaviour to be specific to certain situations, but a stable trait of the child, they experienced lower levels of satisfaction.

Regressions analysis revealed that parent satisfaction was not predicted by attributions for NON behaviour (Multiple R = .05; Adjusted R<sup>2</sup> = -.01; F(4, 66) = .77, p = .55). See Table 9 for a summary of the model.

Table 8

*Regression Analysis Indicating the Prediction of Parent Satisfaction by Parent Child-blaming Attributions for Inattentive/overactive Behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	66.90	7.37		
Locus of Control	-.58	.58	-.11	.317
Child Control	-.53	.48	-.12	.266
Globality	-2.49	.67	-.51	.000
Stability	-2.17	.67	-.43	.002

In predicting parent efficacy, neither child-blaming attributions for IO behaviour (Multiple R = .05; Adjusted R<sup>2</sup> = -.01; F(4, 66) = .78, p = .54), nor child-blaming attributions for NON behaviour (Multiple R = .09; Adjusted R<sup>2</sup> = .04; F(4, 66) = 1.64, p = .18) were significant predictors. See Tables 10 and 11.

Table 9

*Regression Analysis Indicating the Prediction of Parent Satisfaction by Parent Child-blaming Attributions for Non-compliant behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	38.57	8.76		.000
Locus of Control	.19	.71	.04	.787
Child Control	-.15	.73	-.03	.843
Globality	-.93	.69	-.19	.182
Stability	.17	.82	.03	.837

To summarise, support was found for hypothesis 3, in that for IO behaviour, parents' attributions of the behaviour as stable predicted lower parenting satisfaction. However, contrary to the hypothesis, parents' attributions of IO behaviours as specific to the situation and not global, predicted lower parenting satisfaction. No evidence was found to support hypothesis 3 for non-compliant behaviours.

Table 10

*Regression Analysis indicating the Prediction of Parent Efficacy by Parent Child-blaming Attributions for Inattentive/overactive Behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	32.55	4.83		.000
Locus of Control	-.35	.38	-.11	.360
Child Control	-.13	.31	-.05	.677
Globality	-.43	.44	-.15	.333
Stability	-.08	.44	-.03	.853

Table 11

*Regression Analysis indicating the Prediction of Parent Efficacy by Parent Child-Blaming Attributions for Non-compliant Behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	25.74	4.99		.000
Locus of Control	-.52	.41	-.16	.209
Child Control	.25	.42	.08	.546
Globality	-.26	.39	-.09	.504
Stability	.62	.47	.19	.195

*3.4.4 Hypothesis 4: Lower parenting efficacy and satisfaction will be predicted by a more negative attributional style in response to positive child behaviour.*

Results from multiple regressions did not support hypothesis 4. Parent attributions for PRO child behaviour were not found to significantly predict parent satisfaction (Multiple R = .10; Adjusted R<sup>2</sup> = .05; F(4, 66) = 1.95, p = .11). or efficacy (Multiple R = .03; Adjusted R<sup>2</sup> = -.03; F(4, 66) = .54, p = .71). See Tables 12 and 13 for a summary of the regression models.

Table 12

*Regression Analysis indicating the Prediction of Parent Satisfaction by Parent Negative Attributions for Pro-social Behaviour.*

Regression	B	SEB	$\beta$	p
Constant	33.86	6.38		.000
Locus of Control	.08	.41	.02	.857
Child Control	.96	.86	.13	.269
Globality	-.78	.43	-.24	.078
Stability	.50	.60	.11	.410

Table 13

*Regression Analysis indicating the Prediction of Parent Efficacy by Parent Negative Attributions for Pro-social Behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	25.38	3.88		.000
Locus of Control	-.02	.25	-.01	.947
Child Control	-.45	.52	-.11	.398
Globality	.25	.26	.13	.341
Stability	.36	.37	.14	.337

*3.4.5 Hypothesis 5. Increasing ratings of negative child behaviour as problematic will be predicted by an increasingly child-blaming attributional style and lower perceptions of parenting satisfaction and efficacy.*

The first regression tested this hypothesis for IO child behaviour and the second for NON behaviour (Tables 14 and 15 respectively). When attributions, parenting satisfaction and efficacy were regressed onto parent ratings of problem perception for IO behaviours, a significant model was indicated (Multiple  $R = .19$ ; Adjusted  $R^2 = .12$ ;  $F(6, 64) = 2.5$ ,  $p = .03$ ). Similarly, when attributions, parent efficacy and satisfaction were regressed onto problem perception for NON behaviours, a significant model was found (Multiple  $R = .18$ ; Adjusted  $R^2 = .11$ ;  $F(6, 64) = 2.41$ ,  $p = .04$ ) (see Appendix M for residual plots).

Table 14

*Regression Analysis indicating the Prediction of Problem Perception by Parent Satisfaction, Efficacy and Attributions for Inattentive/overactive Behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	7.52	2.48		.003
Satisfaction	-.08	.03	-.40	.004
Efficacy	.04	.04	.11	.367
Locus of Control	-.18	.12	-.17	.148
Child Control	.09	.10	.11	.374
Globality	.06	.16	.06	.697
Stability	-.06	.15	-.06	.717

Table 15

*Regression Analysis indicating the Prediction of Problem Perception by Parent Satisfaction, Efficacy and Attributions for Non-compliant Behaviour.*

Regression	B	SEB	$\beta$	<i>p</i>
Constant	10.59	2.46		.000
Satisfaction	-.08	.03	-.33	.008
Efficacy	-.04	.05	.10	.431
Locus of Control	-1.60	.16	-.13	.320
Child Control	-1.80	.17	-.14	.288
Globality	.06	.16	.05	.697
Stability	.12	.19	-.09	.518

The results of the two regression analyses suggest that parent satisfaction was a significant predictor of parents' problem perception of IO and NON child behaviour. Satisfaction was found to be a negative predictor of parent problem perception, which supports the hypothesis that low parenting satisfaction is associated with perceptions that inattentive-overactive and noncompliant child behaviour is problematic.

### *3.5 Summary of Results*

Regression analyses suggested that parental distress in response to non-compliant behaviour was predicted by parent child-centred attributions, therefore supporting hypothesis 1. This supports the hypothesis that parents who experience high levels of distress in response to non-compliant behaviour attribute the behaviour to be internal to the child and controllable by the child. Hypothesis 1 was not supported for the prediction of parental distress in response to inattentive-overactive behaviour.

Hypothesis 2, that parental distress in response to IO and NON behaviour would be predicted by parenting efficacy and satisfaction was not supported.

Regression analyses suggested that parent satisfaction was predicted by parent attributions for IO behaviours, and therefore supported hypothesis 3. Parents who indicated that they experienced lower levels of parent satisfaction attributed IO behaviours to be specific to certain situations, but a stable trait of the child. Parent efficacy was not predicted by parent attributions for IO or NON behaviours. Furthermore, parent satisfaction was not predicted by parent attributions for NON behaviour.

When attributions for PRO behaviour were regressed on to parent efficacy and satisfaction, no significant models were indicated, suggesting that parent attributions for positive child behaviour were unrelated to parent satisfaction or efficacy.

Finally, regression analyses suggested that parent perceptions of IO and NON behaviour as problematic was predicted by a model which included parenting competence variables and attributions. However, on closer examination, the only significant predictor of problem perception was parent satisfaction, which suggested that ratings of both negative behaviours as problematic, were predicted by parent satisfaction.

## 4.0 Discussion

### *4.1 Chapter Overview*

The discussion chapter will firstly summarise the study's main aims, and then present an account of the study's strengths and weaknesses. This section will be followed by an overview of the results and how they relate to the study's research questions and hypotheses. Next, the results from the study will be compared and integrated into existing theory and literature to examine the unique contribution the findings offer. Suggestions of how this research could be improved and developed will be presented followed finally by the clinical implications of this study's findings and a conclusion.

### *4.2 Summary of the Aims of this Study*

This study aimed to contribute to the understanding of how parent attributions for child behaviour relate to perceptions of efficacy and satisfaction in the parenting role. Efficacy theory states that people's behaviour in task-orientated situations is in fact dependent on their sense of efficacy, which is in turn influenced by biased attributional processes, and a wide range of other enactive efficacy information (e.g. satisfaction, emotional state, and problem perception), amongst other variables (Bandura, 1997). The current study aimed to explore in more depth how efficacy and attributions are related, in the context of parent problem perception, emotions and satisfaction, specific to the domain of parenting. Parent attributions and efficacy have been explored separately in studies which seek to understand how they relate to parenting factors such as emotions and behaviour. Parent attributions have been found

to predict parent endorsement of discipline techniques through the emotional reactions they experience to child behaviour. Parent efficacy has been found to mediate the relationships between contextual factors such as SES, parent factors such as depression, and parenting behavioural competence.

To date, the relationship between parent attributions and efficacy has not been studied, although theory and existing evidence suggest that they may be related.

The current study aimed to explore the relationship between parent attributions efficacy and satisfaction in order to contribute to the growing understanding of the role of parent cognitive-emotional processes in parenting. An increase in understanding of these processes could be used to inform clinical formulation and practice in services aiming to address poor child outcomes through focusing on parenting.

### *4.3 Strengths and Weaknesses of the Study*

This section will discuss the strengths and weaknesses of the design and methodology used in the study to highlight the limitations of generalising the results to the wider population.

#### *4.3.1 Design*

The cross-sectional design used for this study was appropriate to test the research hypotheses as the chosen variables could be explored in a fairly large, disparate sample of participants. However the main limitations to the use of this design are that 1) the study was originally designed to address very different hypotheses; 2) it is difficult to rule out rival hypotheses for the results found; and 3) cause and effect between the variables cannot be established. The impact of point 1 will be discussed in

subsequent sections regarding the sampling and measures used. The cross-sectional design made it difficult to control for extraneous variables which may have had an impact on the findings of this study. For example, where a longitudinal design could take account of the effects of a life events on the cognitions and emotions measured, a cross-sectional design cannot. In spite of this, the cross-sectional design used here allowed the researcher to generate useful hypotheses for further research projects which may employ other designs in order to extend the research field.

#### *4.3.2 Sample*

As a result of the sampling techniques used to recruit the participants (e.g. invitations and information sheets), pertaining to a study about views and opinions of ADHD, the participants actually recruited may not have been representative of the population being generalised about in the current study. A proportion of the participants recruited are likely to have responded because they had a specialist interest in ADHD, or that they may have felt their child had features of the disorder. It is also possible that the participants had come across ADHD, perhaps one of their children had been diagnosed with it, or they knew a friend who had a child diagnosed with ADHD. The responses participants gave to the WAQ, their emotional reactions, as well as their sense of satisfaction and efficacy may have been different from a sample responding to a study about parent attributions, satisfaction and efficacy only. This means that the generalisability of this study's findings to the general population is threatened and therefore the results must be considered with caution.

The existing literature in the area of parent cognitive-emotional processes and parenting behaviour, highlighted the need for studies using parents of school-aged children as the existing evidence had focused quite heavily on the cognitive-emotional

processes of mothers of infants, with the exception of a few that used parents of adolescents. A strength of the current study is that it used data from parents of children aged between 5 and 10 years and therefore represented a school-age sample.

The sample size in the current study was below that estimated by the power calculation, and so the non-significant results found by the study should be interpreted and generalised with a degree of caution. The lack of significant relationships between parent attributions, efficacy and satisfaction could be accounted for by the underpowered study, which may warrant future research to pursue the potential relationships between these variables. In contrast, the relationships found between parent cognitions and emotions can be interpreted with more confidence.

A high percentage of the participants had at least A-Level educational attainments (81.7%), which suggests that the degree to which the results of this study are comparable to a more general population may be questionable. Socio-economic status has been a contextual factor which has been viewed as a risk factor for poor parenting and ultimately child development. Therefore, the findings of the current study may or may not extend our knowledge of how parent cognitive-emotional processes relate to each other in the context of a normally distributed population.

By using data from a community sample, the results cannot be generalised to various clinical populations (e.g. those parents who have a child with a recognised behavioural disorder), however, the results provide opportunities for future research which may extend the current findings by replicating the study with clinical populations. The aim of the current study was to investigate relationships between parent cognitions in the first instance in order to develop understanding and theory of

the relationships between important cognitions, known to be associated with individual differences in parenting.

#### *4.3.3 Measures*

The measures chosen for use in the study were selected on account of their suitability to address research questions and hypotheses which were different from the current study's hypotheses. Therefore, there will be acknowledgement of the limitations this may have lead to in subsequent sections. The measures' ease of use and psychometric properties, however, remain advantageous to address the current research hypotheses.

*4.3.3.1 The written analogue questionnaire (WAQ).* The WAQ was chosen mainly because of its previous use to elicit parent attributions, meaning that there was published evidence of its concurrent validity with other methods of measuring parent attributions which may have been more externally valid and involved actual interactions between the participant and their child (Johnston & Freeman, 1997). There is a recognised trade-off between reliability and validity when using methodology which includes vignettes. Whilst reliability is increased by experimenter control over the stimulus materials, validity of the data collected may suffer and not represent actual attributional processes as closely to methodology which may use methods which are more externally valid. The WAQ's use of Likert scales also increases experimenter control as participants' responses are more quantitative and easier to analyse, however, Likert scales offer only a few limited options for response, which may affect validity.

A limitation of the analysis plan using the WAQ data in the current study is that directions of responses to attributional dimensions were used to represent the degree to which parents exhibited child-blaming attributions rather than actual levels or categories

of responses (e.g. child-blaming causes versus external causes) or whether the parent attributed the depicted behaviour to be internal to the child or external to the child.

The ability of the WAQ to measure participants' attributions in the current study is worthy of some thought. Although using ambiguous scenarios of parent/child interactions is thought to elicit attributions which are similar to real life (Bugental et al., 1998), the scenarios used in the current study were not particularly ambiguous in nature. In addition, unlike some previous studies which have used the WAQ, the current study design did not request the respondent to read the description and imagine that it were them and their child in the scenario. This threatens the validity of the measure and also the generalisability of the results found mainly because the WAQ was used alongside the PSOC, which examined the participants' own feelings or efficacy and satisfaction. The extent to which attributions elicited from hypothetical scenarios and measures of parent satisfaction and efficacy are comparable is questionable, and therefore necessitates caution in interpreting the results of this study.

The limitations discussed regarding the WAQ raise another limitation in terms of the validity of the emotional responses to the scenarios and how comparable they are to actual emotional responses to actual child behaviour. Child-blaming attributional biases (Pinderhughes et al., 2000) are thought to be elicited when threat is perceived (e.g. when a parent is faced with non-compliant behaviour), and the extent to which the vignettes in the WAQ induced these cognitive-emotional processes is questionable, especially in regards to their emotional reaction to the scenario. This again threatens the validity of the measure and so therefore the generalisability of the results.

In defence of the use of the WAQ, descriptions of child behaviour in the context of the parent-child relationship have a particular advantage in that they 'conjure up a

vivid image' of the event in question (Bugental et al., 1998). In addition, careful examination of the parent responses on the WAQ indicated that they did experience different emotional reactions to positive and negative behaviours.

*4.3.3.2 The parenting sense of competence scale (PSOC).* The PSOC was used to elicit participants' perceptions of their competence in the parenting role by measuring perceived efficacy and satisfaction. This measure was chosen for its robust psychometric properties and suitability to test the research hypotheses. As with any choice of measure, there are strengths and limitations to the use of the PSOC in the current study, and these will be discussed below.

The PSOC has been described as a self-reported domain-general measure of parenting efficacy and satisfaction, as such, the items on the efficacy sub-scale are focused broadly on the extent to which parents feel competent in the parenting role, rather than in specific tasks associated with parenting. The strengths associated with the use of the PSOC centre not only around its favourable psychometric properties, but by the fact that it has been found to be free from biases introduced by relatedness to parent education or income (Coleman & Karraker, 2000). It also contained the satisfaction sub-scale, which was appropriate for the research questions of this study.

Bandurian followers would criticise the PSOC for not being task specific (e.g. not including items pertaining to specific child-care tasks like feeding, bedtimes, putting in behavioural boundaries etc). This is because Bandura (1997) holds that self-efficacy beliefs are highly specific to the requirements and context of different situations, rather than being a stable, global trait of the personality. However, it is also acknowledged that self-efficacy can operate in a more global manner in certain circumstances, particularly where similar skills and knowledge are required to perform certain tasks

(e.g. in the domain of parenting). Findings by Coleman and Karraker (2000) suggested moderate levels of association between the efficacy sub-scale of the PSOC and a domain-specific measure, which assessed more specific tasks associated with parenting. Both types of scales also correlated significantly with parent satisfaction, which adds support to the use of the PSOC efficacy sub-scale here.

Limitations are associated with the self-report nature of the PSOC. Participants who complete self-report questionnaires have less opportunity to clarify uncertainties than those taking part in experimentally-designed studies. It is also possible that participants complete questionnaires using socially desirable responses. In the case of the PSOC, indicating that one feels out of control of parenting, could be a difficult thing to admit to, and it is possible that ‘defensive responding’ occurred (e.g. the experience of symptoms of anxiety in response to aversive stimuli, which may lead to a masking of perceived inefficacy). The findings of Donovan and Leavitt (1989) that parents who displayed depression-prone attributional styles rated themselves as more in control of a simulated child-care task, supports the idea that parents with low levels of efficacy and satisfaction may respond defensively and rate themselves to be more in control of parenting activities than they actually feel. This may limit the validity and reliability of the PSOC data. However, the PSOC’s psychometric data supports its ability to represent parent views of their satisfaction and efficacy to an acceptable extent.

The fact that the hypothesised relationships between parent efficacy, attributions and emotions were not found in the current study warrants further exploration in the context of existing research and theory in addition to the limitations of the choice of measure. This lack of findings however, could be due in part to the limitations of the use of the WAQ (see section 4.3.3.1).

*4.3.3.3 The measurement of parental distress.* Parental distress was measured with one item included in the WAQ which asked participants to indicate on a 10-point scale whether they felt upset or pleased by the behaviour depicted. The limitations of using this methodology are mainly that it represents a very simplistic measure of parent emotional distress and with the limitations acknowledged previously when using hypothetical scenarios, true emotional reactions may not have been captured. This method was chosen because it was the emotion in response to the child behaviour described in each vignette in the WAQ, which was of interest rather than a more global measure of parent mood. As with measuring the participants' attributions, a Likert scale method limits participant response and therefore increases the reliability of the methodology, but at the same time, it may decrease the external validity of the measure. Using emotional terms such as "upset" or "pleased" does not account for the diverse emotions which participants could experience (e.g. anger, or sympathy). However, in order to address the research hypotheses, this measure was deemed sufficient.

*4.3.3.4 The measurement of problem perception.* As with the measurement of parental distress, parents' problem perception of child behaviour was assessed with the inclusion of an item into the WAQ. The limitations of using this item to measure problem perception include that again, it is a narrow way to assess whether behaviour is problematic and does not allow the respondent to elaborate on their reasons for their rating in addition to limitations when using hypothetical scenarios. However, reliability is maintained by using this type of scale.

By asking parents to rate problem perception in response to a hypothetical vignettes, the external validity of the measure comes into question because the parents' responses may not represent their real-life views of child behaviour. However, as mentioned previously, the strength of using vignettes was that by not providing stimulus

cues in the descriptions, respondents were forced to use their own stable knowledge structures, derived from previous experience.

#### *4.4 Overview of Results*

This section will discuss the results by hypothesis in relation to the study's research questions.

##### *4.4.1 Research Question 1*

The first research question asked how parents' efficacy, satisfaction and attributions of negative child behaviour related to their emotional response to that behaviour. Two hypotheses were posed, with the first suggesting that parental distress would be predicted by a more child-blaming attributional style (e.g. one characterised by child-centred internal, global, stable and controllable attributions); and the second suggesting that parental distress would be predicted by lower parenting satisfaction and efficacy. Inattentive/overactive (IO) behaviour and non-compliant (NON) behaviour represented two child negative behaviours. Analyses revealed support for hypothesis 1 in relation to NON behaviour. Specifically, a more child-blaming attributional style predicted a higher degree of parent distress in response to descriptions of non-compliant behaviour. The model accounted for 43% of the variance in parental distress. On closer examination of the model, the attributional dimensions of locus-of-control and controllability were stronger predictors than attributions of globality and stability. This may suggest that internal attributions for IO behaviour are associated with high levels of distress in response to the behaviour. Parental distress in response to IO behaviours was not predicted by parent attributions, which suggests that IO behaviours may have

evoked different emotional reactions and attributions to those of NON behaviours. Initial analyses of the WAQ data showed that parents attributed IO behaviours to be less controllable than either of the other two behaviours, which may suggest that they viewed IO behaviour from a disease perspective.

Hypothesis 2 concerned the prediction of parental distress by lower parent efficacy and satisfaction. No evidence was found to support this hypothesis, which suggests that the extent to which parents perceive themselves to be competent in the parenting role as well as the level of positive affect and motivation they derive from parenting are unrelated to their immediate emotional responses to child negative behaviour.

#### *4.4.2 Research Question 2*

The second research question concerned the question of how parent attributions of child behaviour related to parent efficacy and satisfaction. Two hypotheses were posed with the first suggesting that lower parenting satisfaction and efficacy would be predicted by a child-blaming attributional style in response to negative behaviour, and the second suggesting that lower parenting satisfaction and efficacy would be predicted by a negative attributional style in response to positive behaviour (e.g. characterised by external locus-of-control, specificity to certain situations, an unstable trait and out of the child's control). Inattentive/overactive (IO) behaviour and non-compliant (NON) behaviour represented two child negative behaviours, and pro-social behaviour (PRO) represented a positive child behaviour. For hypothesis 3, analyses indicated that for IO behaviour, parent satisfaction was predicted by parent attributions, accounting for 20% of the variance in parent satisfaction. On closer inspection, the strongest predictors in

the model were global and stable attributions. This suggested that when parents attributed IO behaviour to be specific to certain situations, but a stable trait of the child, they experienced less satisfaction in the parenting role. This result suggests that although parents viewed the behaviour to be specific only to certain situations, they attributed it to be a stable and enduring trait of the child.

The prediction of satisfaction by attributions for NON behaviours was not significant, which is interesting given the relationship found above. Perhaps however, NON behaviour is viewed as more contingent with the child's developmental stage and therefore, although viewed as problematic, does not relate to parent efficacy perception or the satisfaction derived from parenting.

The prediction of parent efficacy by attributions for IO and NON behaviours did not yield any significant models, which suggests that domain-general efficacy perceptions are unrelated to the attributional style of the parents in response to IO and NON behaviours.

For hypothesis 4, where attributions for PRO behaviour were regressed onto parent efficacy and satisfaction, no significant models were indicated, suggesting that parent attributions for positive child behaviour did not account for any variance in satisfaction of efficacy.

#### *4.4.3 Research Question 3*

This research question concerned how parents' ratings of behaviour as problematic related to their attributions, satisfaction and efficacy. Two hypotheses were generated, the first posing that problem perception for IO behaviour would be predicted

by parent satisfaction, efficacy and attributions; and the second predicting problem perception for NON behaviour by satisfaction, efficacy and attributions. Both regressions yielded significant models accounting for 12% and 11% of the variance respectively. However, on closer inspection, parent satisfaction was the only significant predictor of problem perception for both IO and NON behaviour.

#### *4.5 Integration of the Results into Existing Theory and Literature*

Results from hypothesis 1 supported Weiner's (1980) Model of Helping Behaviour in that parent child-centred attributions for non-compliant behaviour predicted their emotional response, the model accounting for 43% of the variance. This finding is consistent with evidence of the relationship between parent child-blaming attributions and emotional distress in response to negative behaviour of children in peer situations (Dix et al., 1986; Pinderhughes et al., 2000). The current finding is also consistent to some degree with that of Smith and O'Leary (1995) who found that dysfunctional child-blaming attributions by mothers of toddlers were associated with indications of increased emotional distress. The contribution this finding makes is mainly that parents of school-age children who attribute NON behaviour to be more internal and controllable by the child, experience elevated levels of distress. This finding also provides support for the first part of Weiner's (1980) Model of Helping Behaviour, specifically in the context of the parent-child relationship, which enhances previous findings focusing on peer relationships (e.g. Dix et al., 1986).

The finding that attributions for inattentive/overactive behaviour were not associated with parental distress is surprising, and suggests that parent attributions and

emotions in response to this type of child behaviour are different to that of NON behaviours. Preliminary analyses of the data revealed that parents rated IO behaviours as less problematic than NON behaviours, which may account for differing attributions and emotions. Child-centred attributions of control have been found to be related to parental distress in response to non-compliant behaviour in the current study, and failures to be altruistic, and violating social norms in the Dix et al., (1986) study. Findings of the current study suggest that parents attributed the least control to IO behaviours, suggesting that they viewed the causes of this type of behaviour differently to that of NON behaviour. The clinical literature indicates that parents of a child with ADHD where there is a high presence of IO behaviour also attribute less control to the child than when the child exhibits oppositional behaviour (Johnston & Patenaude, 1994). On examination of the qualitative responses to the request to describe their child's behaviour difficulties, much of the responses indicate the presence of concentration difficulties, which could indicate a high presence of inattention in a proportion of the study's participants. This may account partially for the attributional style shown by the participants. In addition, at a societal level, parents are very aware of behavioural disorders such as ADHD, and therefore they may have demonstrated an attributional style consistent with an illness perspective, where the IO behaviour was seen to be internal to the child, but not within their control.

No relationships were found between parental distress, parent efficacy and satisfaction (hypothesis 2). Theory suggests that when confronted with challenging situations, people with low efficacy tend to give up easily, internalise failure and may experience pronounced emotional distress, as well as diminished role satisfaction (Bandura, 1982). The current findings when compared to existing evidence may indicate that it is the more enduring emotional distress factors (e.g. depression and

anxiety) which may be associated with parenting efficacy, rather than their initial reactions to child negative behaviours (Teti & Gelfand, 1991; Gondoli & Silverberg, 1997). However with the methodological constraints in mind, it is likely that domain-general parent efficacy is unrelated to emotional distress in response to child behaviour, but it is possible that efficacy related to specific child rearing tasks, such as being consistent, is related to emotional distress following negative child behaviour. This has not been explored in the current literature, and could be an interesting avenue for further study.

Child-blaming attributions are hypothesised to protect the parents' self-esteem (Miller & Ross, 1977) in response to negative child behaviours, thereby supporting a prediction that lower levels of efficacy and satisfaction are experienced by parents. The results of hypothesis 3, did not support the prediction of efficacy by attributions, but did support the prediction of satisfaction by attributions. In the context of methodological limitations, the results suggested that domain-general parenting efficacy cognitions did not relate to child-centred attributions. The study by Donovan and Leavitt (1989) suggested that negative parent attributions directed at self were related to 'defensive responding' in response to a simulated child-care task. Parents exhibited high illusion of control which was thought to mask inefficacy. This finding was supported by a subsequent study (Donovan, Leavitt, & Walsh, 1990), who found that high illusion of control was related to learned helplessness, a correlate of low efficacy. Informed by this research, the current study hypothesised that child-blaming attributions by parents, would relate to perceived inefficacy, however, there are three possible reasons why this relationship was not found: 1) the relationship does not exist; 2) the measurement of efficacy was too general; or 3) parents' self-attributions are more important than child-centred attributions in the prediction of parenting efficacy.

Parent satisfaction predicted child-centred attributions for inattentive/overactive behaviour. Global and stable attributional ratings were found to be negative predictors of satisfaction, with the model accounting for 20% of the variance, which may suggest that when parents viewed IO behaviour to be specific to certain situations and a stable trait of the child, they experienced low levels of satisfaction. Viewing the cause of inattentive and overactive behaviour to be a stable trait and feeling dissatisfied as a parent appears to make sense. However, viewing IO behaviour as specific to only certain situations and feeling dissatisfied is a little more challenging to interpret. Put another way, those parents with higher satisfaction, rated IO behaviour to be caused by unstable but global factors within the child, which suggests that they viewed the behaviour as occurring across many situations.

Theory may go some way to understanding this outcome however, as although efficacy was not found to be related to attributions (possibly due to measurement issues), it was related positively to satisfaction (consistent with the findings of Coleman & Karraker, 2000), which suggests that participants who had higher satisfaction, had higher efficacy. Bandura (1997) states that people derive fulfilment from and become personally invested in activities which they feel efficacious in and are able to achieve satisfaction by pursuing. Behaviours which the individual associates with high efficacy, have the ability to activate self-satisfying reactions, even though the situations themselves may not be enjoyable. As a result, parents with high satisfaction and efficacy, are likely to welcome the diverse and challenging tasks and situations associated with parenting, and approach and attribute child behaviours differently to those with low satisfaction and efficacy. This may help explain the finding that satisfaction was predicted by global attributions for IO behaviour, because IO behaviour may evoke self-satisfying feelings within the parent who has high parenting efficacy.

Hypothesis 4, that parents with low satisfaction and efficacy would attribute the causes of positive child behaviour to more external, specific, uncontrollable and unstable causes was not supported. This hypothesis was partly derived from the findings of Donovan and Leavitt (1989) who found that mothers who exhibited high illusion of control, which was thought to be linked to defensive responding (e.g. masking perceived inefficacy), displayed a biased hostile attribution style in response to child positive behaviour. Self-efficacy theory may explain the lack of findings for this hypothesis, as according to Miller and Ross (1977), the self-serving attributional bias predicts that in the context of positive outcomes or successes (e.g. pro-social child behaviour), individuals are happy to take the credit, and may not place so much weight on attributions of cause in the other person. As self-attributions were not the focus of this study, this conclusion cannot be drawn, however, future research could explore both self and child-centred attributions to explore this process further.

The final hypothesis concerned parents' problem perception of NON and IO behaviour, and whether their ratings were predicted by their efficacy, satisfaction, and attributions. Efficacy judgements are thought to be drawn from a variety of cognitive, emotive and past experiential processes. Attributional processes including perceptions of task difficulty have been found to contribute to efficacy judgements. For example, if an individual discovers a very difficult aspect to a task, they lower their perceived efficacy despite a previous successful performance (Bandura, 1982). In the current study it was hypothesised that as well as being predicted by efficacy and satisfaction, increased problem perception would be related to more child-blaming attributions. Limited support was found to support this last hypothesis. Parent attributions did not predict problem perception for IO or NON behaviours. The only significant predictor of problem perception for both IO and NON behaviour was satisfaction (the models

accounting for 12 and 11 % of the variance respectively), which suggests that parent satisfaction is one factor important in parent perceptions of child behaviour as problematic. This finding is consistent with that of Johnston and Patenaude (1994), although they used parents of a child with a behavioural disorder. This finding could suggest that when parents experience low fulfilment in their role as parent, they are likely to perceive child negative behaviour as problematic.

#### *4.5.1 Summary*

Parent emotional distress was predicted by child-blaming attributions for IO behaviours, which supplemented existing findings. The lack of findings between parent attributions and efficacy is contrary to existing studies which suggest this relationship. However, since studies which have measured related concepts such as illusory control and perceived control, have focused on parent self-directed attributions, it is possible that attributions of self are more important when predicting parent self-efficacy. It is also likely that the measurement of efficacy in the current study was not specific enough to give a good indication of the presence or absence of this relationship.

Parenting satisfaction was found to be predicted by global and stable parent attributions for IO behaviour, which is consistent with research examining this relationship in clinical populations (Sacco & Murraray, 2003), and populations including clinical and non-clinical participants (Sacco & Murray, 1997). Satisfaction also predicted parent problem perception for both negative child behaviours.

#### *4.6 Future Research*

This study was concerned with child-blaming attributions, and the extent to which they predicted parent distress, efficacy and satisfaction. The lack of relationship found between attributions and efficacy in the context of the study's limitations, provides an opportunity for future research which measures parent efficacy in a more specific way in order for this hypothesised relationship to be explored more comprehensively. Since the behaviours depicted by the WAQ were specific to parent-child interactions, and likely to evoke efficacy perceptions of whether the parent had the knowledge, confidence and expectations that they would be able to manage the behaviour effectively, an efficacy measure which was specific to those situations may be more appropriate than the PSOC efficacy sub-scale which measured a more generalised concept of parent efficacy.

In addition, since parent attributions, emotions and behaviour occur in response to child behaviour, emotions and attributions in a transactional way, (Bugental & Shennum, 1984) it would follow that to develop this research further, studies measuring both self and child-centred attributions and efficacy would help to shed light on the relationships between efficacy and attributions. The current study's results suggested that parenting efficacy was not associated with child-centred attributions, therefore by adjusting measurements of attributions to measure both self and child-centred causal ascriptions, a deeper understanding could be worked toward.

The way in which child-centred attributions were measured could also be adjusted in future research. Attributions regarding the behaviour of a parent's own child may elicit more precise causal explanations than hypothetical descriptions. Although the method used in the current study has been found to have good concurrent

validity with other experimental designs, the four causal dimensions may be limiting the more complex processes which could be gleaned from interviewing and using videos of parents and children interacting.

The relationship found between parenting satisfaction and problem perception, could be extended to a study examining how these cognitions relate to learned helplessness in clinical populations, or where the parent is having parenting difficulties.

Research exploring the role of parent distress in attributional processes and efficacy judgements would usefully be developed by measuring a wider range of emotional outcomes. Likert scale items could be viewed as over simplifying the emotional reactions of a parent in response to behaviour, which are likely to be varied and difficult to quantify.

Finally, future research could refine the sampling methodology used here by recruiting parents who state that they are struggling with their child's behaviour. Parents of children who are at risk of child abuse would be an important population to study in order to be able to plan more effective parenting interventions which include a focus on parent cognitions and emotions, rather than a more simplistic behavioural focus.

#### *4.7 Clinical Implications*

The inclusion of parent cognitive outcomes such as satisfaction as well as emotional and behavioural outcomes in models of parenting is suggested by the results of this study. Models such as Weiner's (1980) Model of Helping Behaviour are limited to consideration of only attributions and emotions in the understanding of parent

behaviour. The current research supports the consideration of the inclusion of parent satisfaction, and prompts further research on the role of parenting satisfaction in parenting cognitive-emotional processes and child outcomes. The indication of low parenting satisfaction could suggest the presence of unhelpful child-blaming attributions, which could present a target for assessment, formulation and intervention. Parenting programmes such as Triple P (Sanders, 1999), focus on increasing parental competence and relationship satisfaction in order to intervene early to reduce risks associated with poor parent and poor child outcomes. Increased knowledge of the relationship between satisfaction, efficacy and attributions could help to refine parenting programmes like Triple-P by including components which explore parent child-blaming attributions, since there is a direct link with their experience of satisfaction in the parenting role.

The Solihull Parenting Programme, developed from the Solihull Approach (Douglas, 2002) and recommended by the National Institute of Health and Clinical Excellence (NICE,) is a ten week parenting group which aims to help parents increase their understanding of their child's developmental stage in order to be able to shift dysfunctional attributions (e.g. *"the way he behaves and talks to me? there must be something wrong with him!"*). By helping parents become attuned to their child's development and to help parents to reflect and see their child's viewpoint, unhelpful expectations of their child's behaviour can be reduced. Although causal relationships cannot be concluded from this study, the findings support the idea that less child-blaming attributions could be associated with less emotional distress in response to negative behaviour and more feelings of satisfaction. However, numerous parent and child variables which may impact on cognitive-emotional processes (e.g. parent mental

health, SES, child temperament) must be acknowledged and included in formulations around parenting difficulties (as illustrated in the introduction).

In individualised child and family interventions, assessment which aims to identify some of these variables is indicated. For example, parents' own history of being parented and therefore their internalised model of relating, if identified can help to build hypotheses regarding unhelpful child-centred attributions. Enabling parents to discover and self-reflect can potentially be the focus for clinical interventions where the shifting of dysfunctional attributions and the increasing of parent satisfaction is the aim.

#### *4.8 Conclusion*

This research contributes to the understanding of the cognitive and emotional processes known to be associated with parental behavioural competence. Parenting efficacy was not associated with parent attributions. However, this discrepant finding may be due to the specificity of the attribution measure versus the general nature of the efficacy measure.

The prediction of parent satisfaction by parent attributions for IO behaviour, extends previous research which has studied clinical samples (Sacco & Murray, 1997; 2003) and supports its inclusion in models used in clinical work with families in the community. The prediction of parents' perceptions of IO and NON behaviour as problematic by parent satisfaction suggests again the potency of satisfaction both as a focus of future research, and as an important variable to consider in assessment, formulation and intervention.

Overall, this study contributes towards the understanding of complex parent cognitions and emotions and their importance in order to be able to work towards designing interventions for at risk parents or those who are currently experiencing difficulty with parenting.

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# Appendix

## Appendix A: Letter to Schools



**University of East Anglia**

Norwich  
NR4 7TJ

Telephone  
01603 593310

Email  
[b.wallis@uea.ac.uk](mailto:b.wallis@uea.ac.uk)

Dear Head Teacher,

**Re: Invitation to take part in a study about views regarding the treatment of children with Attention-Deficit Hyperactivity Disorder (ADHD).**

My name is Bryony Wallis. I am a Trainee Clinical Psychologist studying at the University of East Anglia. As part of my training, I am required to carry out a piece of research. I have decided to conduct my research in the area of ADHD.

Existing research suggests that certain parent factors can have an impact on the treatments parents find acceptable for childhood ADHD. Thought processes like the amount of knowledge parents have about ADHD have been found to effect whether parents find medical treatment or behaviour management interventions more acceptable. However, the extent to which these and other thought processes work together to result in these decisions regarding treatment is still unknown. This is why I would like to investigate this for my research.

Research in this area has used both parents who have a child with ADHD, and parents who do not have a child with ADHD. These studies have found similar thought processes in both types of samples. I would like to invite parents who do **not** have a child with ADHD to participate in my research to explore these processes further.

I am writing to seek your agreement to approach parents whose children attend your school to invite them to participate in my research. Your agreement would not oblige parents to take part in my research. If you were to agree for me to approach parents, there are a few ways that this could be done, which could be discussed with you (e.g. giving pupils packs with the relevant information to give to their parents, or by attending a parents evening). Participation by parents is completely voluntary and their individual consent will be sought. The details of what parents would be asked to do as well as the precise purpose of the study would be explained to them in an information sheet to help in their decision about taking part.

If you would like to know more about the study before making a decision, I would be pleased to visit you at your school to discuss my research with you further. My contact details are printed at the top of this letter. Many thanks for taking the time to read my letter.

Best Wishes

Yours Sincerely,

Bryony Wallis  
Trainee Clinical Psychologist

## Appendix B: Invitation to Participants



University of East Anglia  
Norwich  
NR4 7TJ

Telephone  
01603 593310

Email  
[b.wallis@uea.ac.uk](mailto:b.wallis@uea.ac.uk)

Dear Parent/Carer,

**Re: Invitation to take part in a study about views regarding the treatment of children with Attention-Deficit Hyperactivity Disorder.**

My name is Bryony Wallis. I am a Trainee Clinical Psychologist studying at the University of East Anglia. As part of my training, I am required to carry out a piece of research. I would like to invite you to take part in my research.

This study is about parents' views and knowledge about children with Attention-Deficit Hyperactivity Disorder (ADHD), as well as opinions regarding different types of treatments for ADHD. I am interested in the ways in which parents think about ADHD and how this affects which treatments they would choose for a child with ADHD.

To take part in this study, you do **NOT** have to have a child with ADHD. It is entirely up to you whether you would like to take part in this study. If you feel you would like to know more about the study please read the attached information sheet. If after reading the sheet you feel you need to know more before you make a decision about participating, I can be contacted by the email address or telephone number at the top of this letter.

If you decide you would like to participate, please complete the attached consent form and post it through the marked posting box in reception of your school. I would very much appreciate a response within 7 days. Many thanks for taking the time to read this letter.

Best Wishes

Yours Sincerely,

Bryony Wallis  
Trainee Clinical Psychologist

## **Information Sheet for Parents**

### **The Relationship Between Parent Thought Processes and the Types of Treatments Parents find Acceptable for Childhood Attention-Deficit Hyperactivity Disorder (ADHD).**

#### **Invitation**

You are being invited to take part in a research study. Before you say yes or no, I would like you to understand the purpose of the research. Please feel free to contact me if there is anything that is unclear or if you would like more information in order to make your decision. Take time to decide whether or not you wish to take part.

Thank you for taking the time to read this information sheet.

#### **Purpose of the study:**

Research has shown that certain beliefs and opinions of parents about children with ADHD can have an effect upon the treatments they would choose for a child with ADHD. Knowledge and opinions about the causes and treatments for ADHD, as well as feelings about parenting a child with ADHD have been found to effect choices and opinions about treatments. For example, the effect knowledge and opinions about the causes of ADHD have on opinions about medication as a treatment for ADHD.

What is still unclear however, is how these beliefs, knowledge and feelings about being a parent work together to result in different opinions about treatments. This is what I would like to find out.

#### **Why you have been chosen to take part:**

You are being asked to take part because you have a child between the ages of 5 and 10. Although your child may not have ADHD, your opinions regarding ADHD and parenting a child with ADHD are important to answer the research questions.

#### **Taking part in this study.**

It is up to you to decide whether to take part or not. If you decide to take part, you can still change your mind at any time without giving a reason.

### What will happen if you decide to take part:

You will be asked to sign a consent form and fill in four questionnaires at your home and at your leisure about your views regarding childhood ADHD. This is expected to take you 45 minutes.

Your personal details will only be known to me, and they will be kept in a locked filing cabinet at the UEA.

Your answers to the questions will be confidential and kept separate from your identity.

### Results of the study.

This study is being conducted over approximately one year. The results will be written up as a thesis and form part of my doctorate qualification. You will not be identifiable in any way through the write-up of the results. The results may also be written up and sent to a scientific journal for publication at a later date. If you would like to know about the results of the study, they will be available to you when it is completed at request.

### Safety of this study.

The Faculty of Health Ethics Committee at the UEA have deemed this study to be safe.

### Possible benefits of taking part in this study.

Although there are no direct benefits to you or your child of participating in this study, the results will allow us to better understand the relationship between parent factors and the treatments they choose for their child with ADHD. We do not expect anyone to be harmed in any way by their participation in this study.

### Contact Details

If you would like to ask any questions about this study, Bryony Wallis and Dr Charlotte Wilson are happy to be contacted at the University of East Anglia:

Address: Doctoral Programme in Clinical Psychology  
Postgraduate Office, Faculty of Health  
Elizabeth Fry Building  
University of East Anglia  
Norwich  
NR4 7TJ

Telephone: 01603 593310

Email: [b.wallis@uea.ac.uk](mailto:b.wallis@uea.ac.uk)

[charlotte.wilson@uea.ac.uk](mailto:charlotte.wilson@uea.ac.uk)

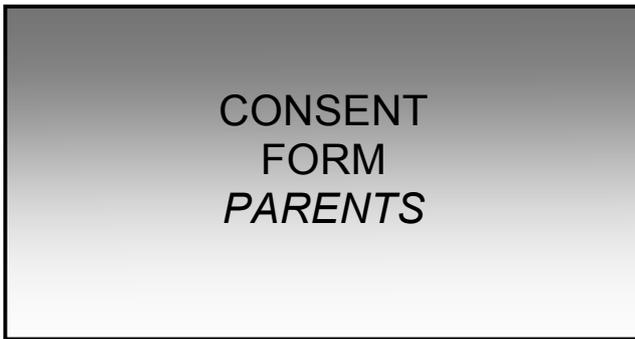
Appendix D: Consent Form



University of East Anglia  
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Study Title: The relationship between knowledge, opinions, and parenting of a child with ADHD and treatment choices.

Names of Investigators: Bryony Wallis, Dr Charlotte Wilson

Please Initial

- 1. I confirm that I have read and understand the information sheet for the above study and have had the opportunity to ask questions.
- 2. I understand that my participation is voluntary and that I can withdraw at any time without giving a reason.
- 3. I understand that I am agreeing to fill in some questionnaires.
- 4. I agree to take part in the above study.

NAME OF PARTICIPANT: .....

NAME OF CHILD: .....

SIGNATURE: ..... DATE: .....

NAME OF RESEARCHER: BRYONY WALLIS

SIGNATURE: .....DATE.....

## Appendix E: Written Analogue Questionnaire (WAQ)

### **Thinking about Child Behaviour**

I would like you to read a series of situations describing child behaviours and answer questions about each of them. Before you begin, however, please read the following information.

Several of the questions are about judgements we sometimes make when looking for answers for why a child behaved as they did. For example, suppose you are walking down the street one day and see a child fall down. In such a situation, you would probably wonder why this child fell down. Did he or she fall because of feeling faint or dizzy (something about the child), or was it because of something about the situation, perhaps there was a crack in the pavement. You might also wonder whether the child could help falling, for example did he or she fall because they were being silly walking backwards (the cause was within the child's control), or was the action caused by something beyond the child's control. You could judge whether the cause of falling was something that happened in only this situation, for example, the child had just stepped in water that made their shoes slippery, or whether the cause would occur in many situations, for example the child has a physical disability. You could also make judgements about whether the fall was a one time thing or something that will happen again in the future.

I realise that there can be many things which influence behaviour at the same time, and know that it can be difficult to make these types of judgements. Remember, there are no right or wrong answers, and if you have difficulty judging, just go with your first impression.

Please remember to read each scenario as if it were a new behaviour on a new day and try to imagine a parent and their child in the scenario.

(A) A child enters the kitchen just as their mother has finished sweeping the floor and getting the dirt in a pile to pick up. The child doesn't wait for their mother to finish and heads straight for the fridge. As the child rushes through the kitchen, the pile of dirt scatters across the floor.

1. How much of a problem did you feel the behaviour was?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Very much

2. To what extent was the child's behaviour caused by something about him or her versus something about other people or the situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Something about the child Something about other people/the situation

3. To what extent was the child's behaviour caused by something within their control?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Completely within their control Not at all within their control

4. To what extent is the reason the child behaved as they did something that happens in many situations versus something that is specific to this situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Happens in many situations Specific to this situation

5. To what extent is the reason the child behaved as he or she did something that is a one time thing or something that is likely to happen again in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
A one time thing will happen again in the future

6. To what extent was the parent responsible for the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Responsible Very much Responsible

7. To what extent would the parent be upset or pleased by the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Upset Pleased

**Please turn over...**

(B) A boy is going through the hall cupboard looking for his football. When he can't find it, he runs to where his mother is busy talking on the telephone. He keeps tapping her on the shoulder and interrupting to ask her to help him find his football.

1. How much of a problem did you feel the behaviour was?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Very much

2. To what extent was the child's behaviour caused by something about him or her versus something about other people or the situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Something about the child Something about other people/the situation

3. To what extent was the child's behaviour caused by something within their control?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Completely within their control Not at all within their control

4. To what extent is the reason the child behaved as they did something that happens in many situations versus something that is specific to this situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Happens in many situations Specific to this situation

5. To what extent is the reason the child behaved as he or she did something that is a one time thing or something that is likely to happen again in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
A one time thing will happen again in the future

6. To what extent was the parent responsible for the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Responsible Very much Responsible

7. To what extent would the parent be upset or pleased by the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Upset Pleased

**Please turn over...**

(C) A mother and son are watching television one evening. The TV guide falls off the arm of the sofa to the floor in between the sofa and the wall. The boy gets down on the floor and reaches to get the guide for you without being asked.

1. How much of a problem did you feel the behaviour was?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Very much

2. To what extent was the child's behaviour caused by something about him or her versus something about other people or the situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Something about the child Something about other people/the situation

3. To what extent was the child's behaviour caused by something within their control?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Completely within their control Not at all within their control

4. To what extent is the reason the child behaved as they did something that happens in many situations versus something that is specific to this situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Happens in many situations Specific to this situation

5. To what extent is the reason the child behaved as he or she did something that is a one time thing or something that is likely to happen again in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
A one time thing will happen again in the future

6. To what extent was the parent responsible for the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Responsible Very much Responsible

7. To what extent would the parent be upset or pleased by the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Upset Pleased

**Please turn over...**

(D) A girl and her family are getting ready to sit down for dinner one evening. The mother is bringing the food out to the table. The girl comes in through the kitchen, and without being asked, picks up the salt and pepper and brings them to the table.

1. How much of a problem did you feel the behaviour was?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Very much

2. To what extent was the child's behaviour caused by something about him or her versus something about other people or the situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Something about the child Something about other people/the situation

3. To what extent was the child's behaviour caused by something within their control?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Completely within their control Not at all within their control

4. To what extent is the reason the child behaved as they did something that happens in many situations versus something that is specific to this situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Happens in many situations Specific to this situation

5. To what extent is the reason the child behaved as he or she did something that is a one time thing or something that is likely to happen again in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
A one time thing will happen again in the future

6. To what extent was the parent responsible for the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Responsible Very much Responsible

7. To what extent would the parent be upset or pleased by the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Upset Pleased

**Please turn over...**

(E) A mother walks into the house after shopping for groceries. She sees that her child's shoes and school books are lying in the middle of the hallway. She walks into the kitchen where her child is and tells her to pick up their stuff. She does not do it.

1. How much of a problem did you feel the behaviour was?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Very much

2. To what extent was the child's behaviour caused by something about him or her versus something about other people or the situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Something about the child Something about other people/the situation

3. To what extent was the child's behaviour caused by something within their control?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Completely within their control Not at all within their control

4. To what extent is the reason the child behaved as they did something that happens in many situations versus something that is specific to this situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Happens in many situations Specific to this situation

5. To what extent is the reason the child behaved as he or she did something that is a one time thing or something that is likely to happen again in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
A one time thing will happen again in the future

6. To what extent was the parent responsible for the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Responsible Very much Responsible

7. To what extent would the parent be upset or pleased by the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Upset Pleased

**Please turn over...**

(F) The kitchen table is set with plates and cutlery for lunch. The empty glasses for water are still on the side. The mother tells her child, who is sitting at the table to put the glasses on the table. He does not get up from the table.

1. How much of a problem did you feel the behaviour was?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Very much

2. To what extent was the child's behaviour caused by something about him or her versus something about other people or the situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Something about the child Something about other people/the situation

3. To what extent was the child's behaviour caused by something within their control?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Completely within their control Not at all within their control

4. To what extent is the reason the child behaved as they did something that happens in many situations versus something that is specific to this situation?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Happens in many situations Specific to this situation

5. To what extent is the reason the child behaved as he or she did something that is a one time thing or something that is likely to happen again in the future?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
A one time thing will happen again in the future

6. To what extent was the parent responsible for the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Not at all Responsible Very much Responsible

7. To what extent would the parent be upset or pleased by the child's behaviour?

1-----2-----3-----4-----5-----6-----7-----8-----9-----10  
Upset Pleased

## Appendix F: Parenting Sense of Competence Scale (PSOC)

## Parenting Questionnaire

This Questionnaire is about your attitudes and feelings that relate to parenting. Please circle the answer that most closely resembles how you feel. **There are no right and wrong answers.**

**Code:** 1 = Strongly Disagree  
2 = Disagree  
3 = Slightly Disagree

4 = Slightly Agree  
5 = Agree  
6 = Strongly Agree

	<b>Strongly Disagree</b>			<b>Strongly Agree</b>		
	1	2	3	4	5	6
1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5	6
2. Even though being a parent could be rewarding, I am frustrated now while my child is at this age.	1	2	3	4	5	6
3. I go to bed the same way I woke up in the morning -feeling I have not accomplished a whole lot.	1	2	3	4	5	6
4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	1	2	3	4	5	6
5. My parents were better prepared to be a good parent than I am.	1	2	3	4	5	6
6. I would make a good model for a new parent to follow in order to learn what they would need to know to be a good parent.	1	2	3	4	5	6
7. Being a parent is manageable, and any problems are easily solved.	1	2	3	4	5	6
8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	1	2	3	4	5	6
9. Sometimes I feel like I'm not getting anything done.	1	2	3	4	5	6
10. I meet my own personal expectations for expertise in caring for my child.	1	2	3	4	5	6
11. If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5	6
12. My talents and interests are in other areas, not in being a parent.	1	2	3	4	5	6

**Parenting Questionnaire continued...**

Code: 1 = Strongly Disagree  
 2 = Disagree  
 3 = Slightly Disagree

4 = Slightly Agree  
 5 = Agree  
 6 = Strongly Agree

	<b>Strongly Disagree</b>			<b>Strongly Agree</b>		
	1	2	3	4	5	6
13. Considering how long I have been a parent, I feel thoroughly familiar with the role.						
14. If being the parent of a child were only more interesting, I would be more motivated to do a better job as a parent.						
15. I honestly believe I have the skills necessary to be a good parent to my child.						
16. Being a parent makes me tense and anxious.						

## Appendix G: Covering Letter and Demographics Sheet

*G1: Questionnaire Pack Covering Letter*

University of East Anglia  
Norwich  
NR4 7TJ

Telephone  
01603 593310

Email  
[b.wallis@uea.ac.uk](mailto:b.wallis@uea.ac.uk)

Parent's Views and Opinions regarding the Treatment of  
Attention-Deficit Hyperactivity Disorder

*Questionnaire Pack*

Dear Parent,

Many thanks for giving your consent to take part in this research, your participation is greatly appreciated. Please find enclosed the questionnaires to complete. Once you have completed them, please return them to me in the stamped addressed envelopes provided.

If you have **more than one** child between the ages of 5 and 10, please can I ask you to think about only **one** of them when you are completing the questionnaires. The choice of which of your children you consider I will leave up to you.

Please note that some questionnaires are printed on both the front and the back of the A4 pages. If whilst filling them in you have any questions or comments please do not hesitate to contact me using the contact details above.

Once again, many thanks for agreeing to take part.

Yours Sincerely,

Bryony Wallis  
Trainee Clinical Psychologist

G2: Demographic Sheet

## Demographic Sheet

Participant Code: .... / ....

Relationship to Child: .....

Age of Child: .....

Sex of Child (please circle) M F

Your highest educational attainment (e.g. finished school, O-Levels etc)

.....  
...

Does your child have any behavioural difficulties? (Please circle)

Y N

If yes, please describe.

.....  
.....  
.....  
.....  
.....  
.....  
.....

## Appendix H: Parents' Behavioural Descriptions

- *"? Attention span on mental tasks. ?avoids tasks at home and school. Ignores, blanks out, throws tantrums? Tendency to depression"*.
- *"Difficulty concentrating, following instructions, organising herself, completing tasks. Is not disruptive in class as far as I'm aware but is behind in reading and writing"*.
- *"Disruptive, demanding, wants everything his own way, gets bored quickly, gets over-excited and can't come down, very rough with others, gets to such a point that doesn't know what to do with himself, gets bored easily. In a rush to do everything"*.
- *"He is hyperactive and has poor attention span, however, he does not have ADHD as his behaviour is not severe, he's just a bit unruly"*.
- *"Very angry/aggressive. Although told no doesn't seem to listen or understand. Has trouble sitting still, awakes early so gets very tired"*.
- *"Lack of respect for authoritative figures when in a difficult mood. Short attention span when learning (except when engrossed with computers or computer games). Refuses to use toilet appropriately"*.
- *"My son has slight vocal tics which means he makes sounds, noises for no reason, he has no fear of things and gets into trouble because will do and try anything. He hardly needs to sleep and is on the go all the time"*.
- *"Difficulties with concentration; easily distracted finds it very hard to socialise with peer group"*.
- *"Concentration can be difficult, finds it difficult when situations change unexpectedly"*.

- *“Attention, recognising colours, numbers, words”.*
- *“Very limited concentration span, but is improving, motor driven even when reading a book, bags will be swinging, takes a long time to settle down to do homework, lost pencil, needs a drink, needs toilet, anything to try and not do it - lots of distraction behaviour”.*
- *“Attention seeking, low concentration, short-term memory difficulties”.*
- *“Poor concentration span. Easily distracted. Gets bored very easily”.*
- *“Being assessment at present, definitely short-term memory skills - recently been assessed by educational psychologist and ADHD nurse, awaiting report from ADHD nurse”.*
- *“Concentration/distraction”*
- *“Needs a lot of attention, lacks concentration, gets frustrated”.*

## Appendix I: Ethical Approval

10 January 2008

Dear Bryony

**Parental Cognitions and Treatment Acceptability in Childhood Attention-Deficit  
Hyperactivity Disorder (ADHD) - 200748**

Thank you for your email with the amendments which the Committee had asked you to consider.

The Chair has accepted your amendments and therefore you may go ahead with your research.

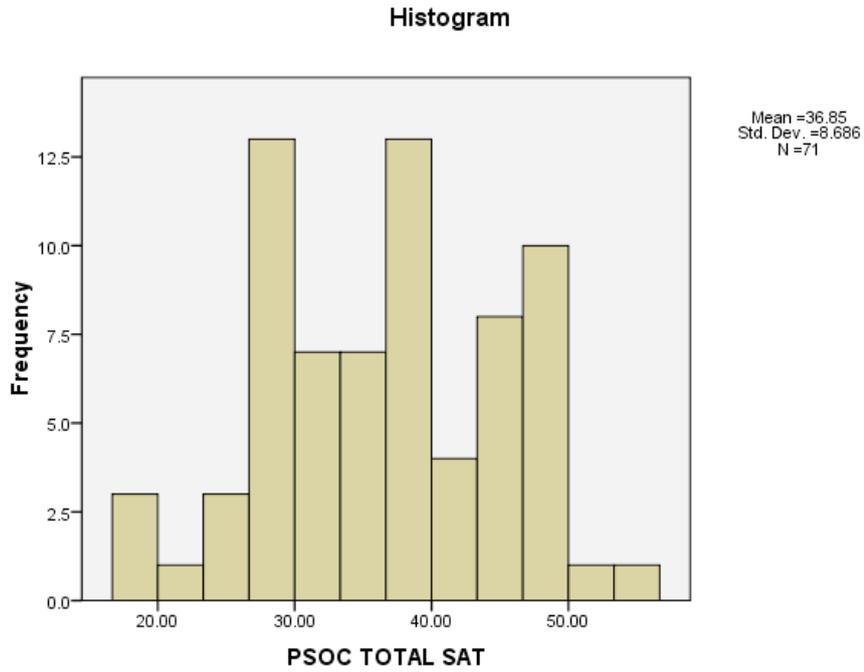
Yours sincerely



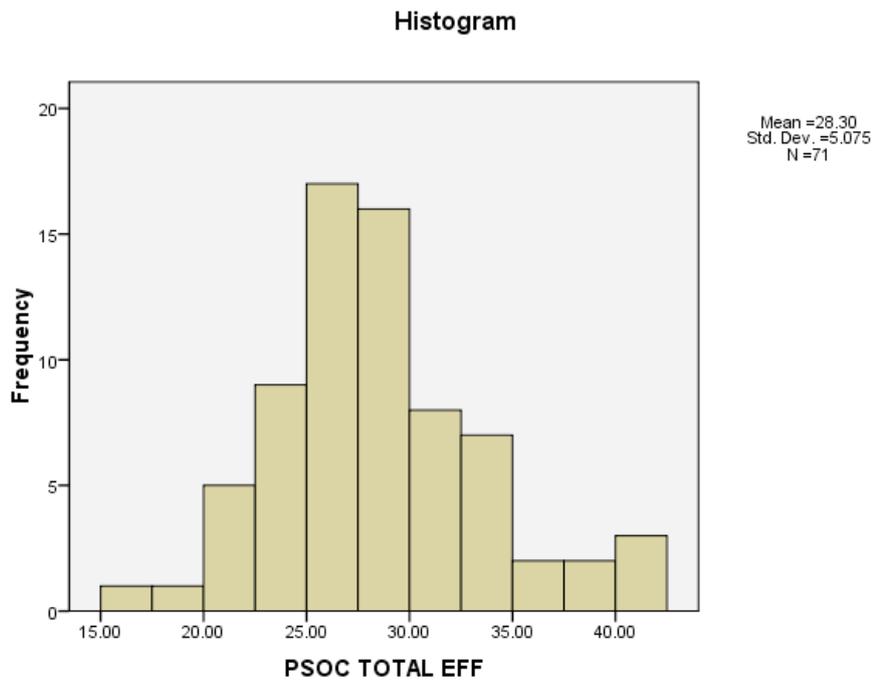
Debbie Graver  
Notetaker  
Faculty of Health Ethics Committee  
Tel: 01603 591023  
Email: Deborah.Graver@uea.ac.uk

Appendix J : Histograms of Questionnaire Data

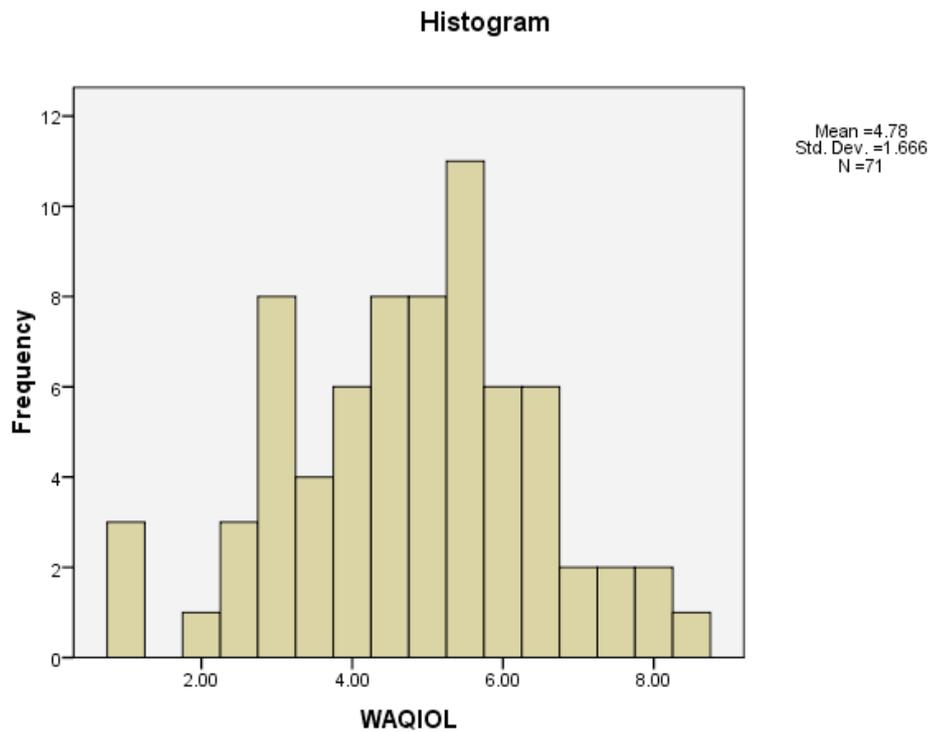
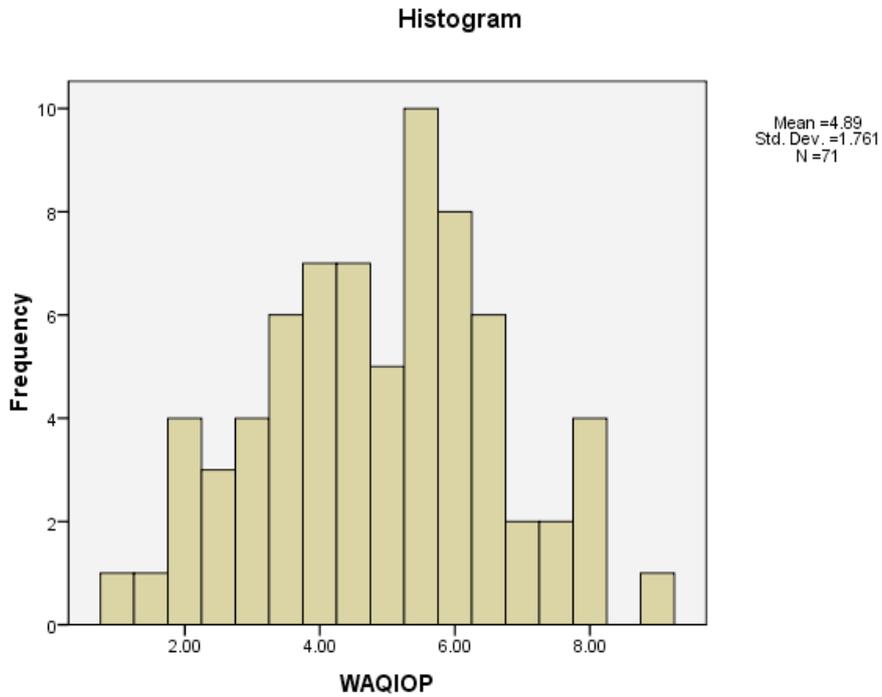
*J1 : PSOC Satisfaction Subscale*



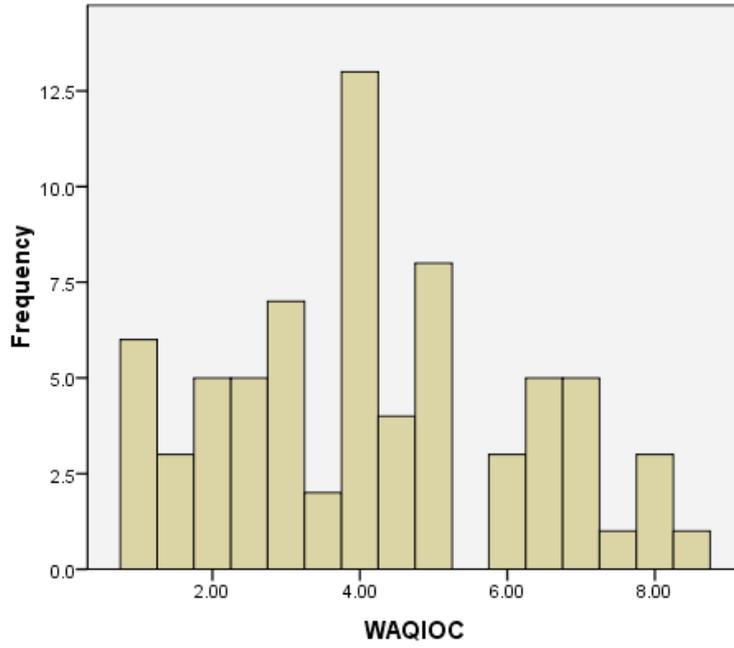
*J2: PSOC Efficacy Subscale*



*J3: WAQ Attributions for Inattentive-Overactive Behaviour (Problem perception, Locus of control, Controllability, Globality, Stability and Affective Response).*

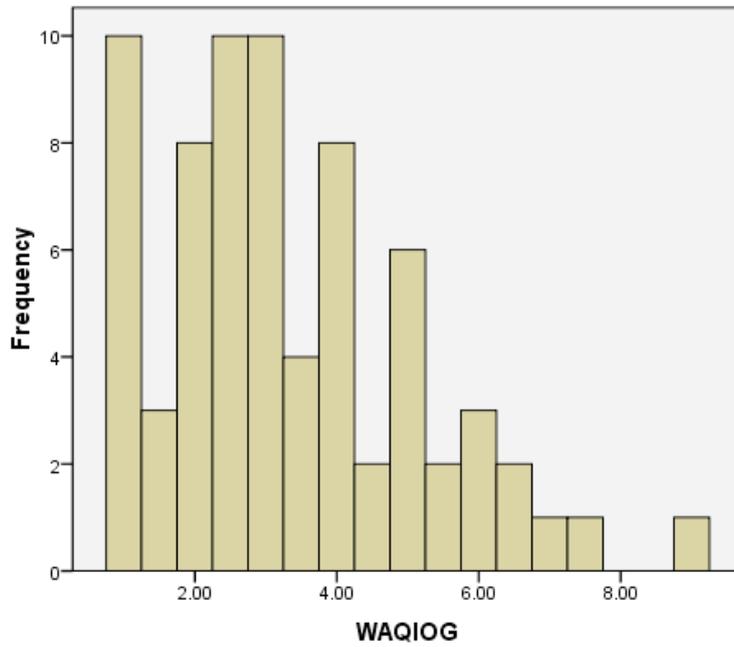


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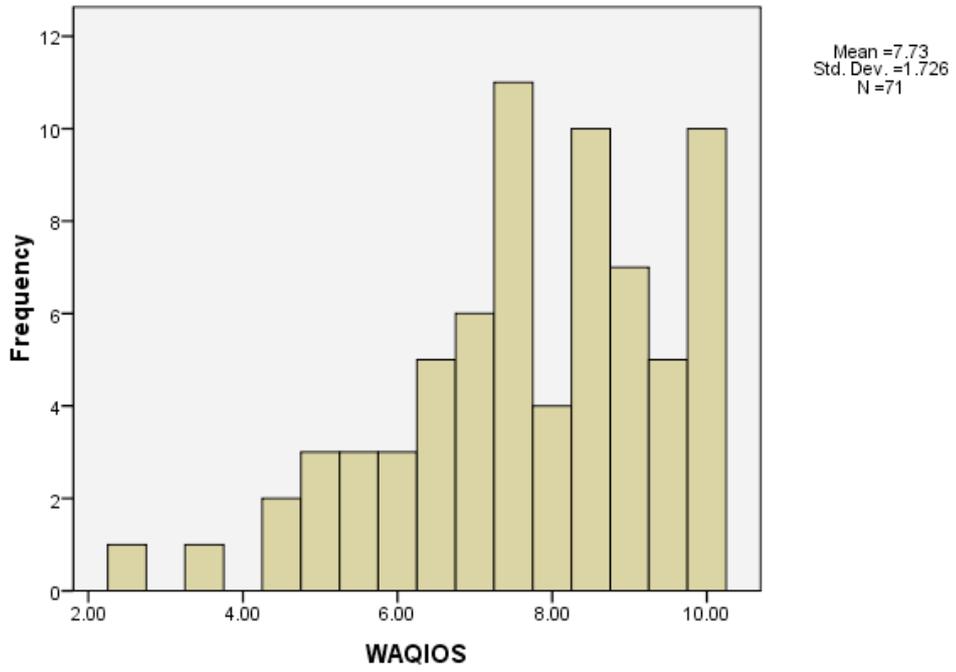
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Std. Dev. =2.025  
N =71

Histogram

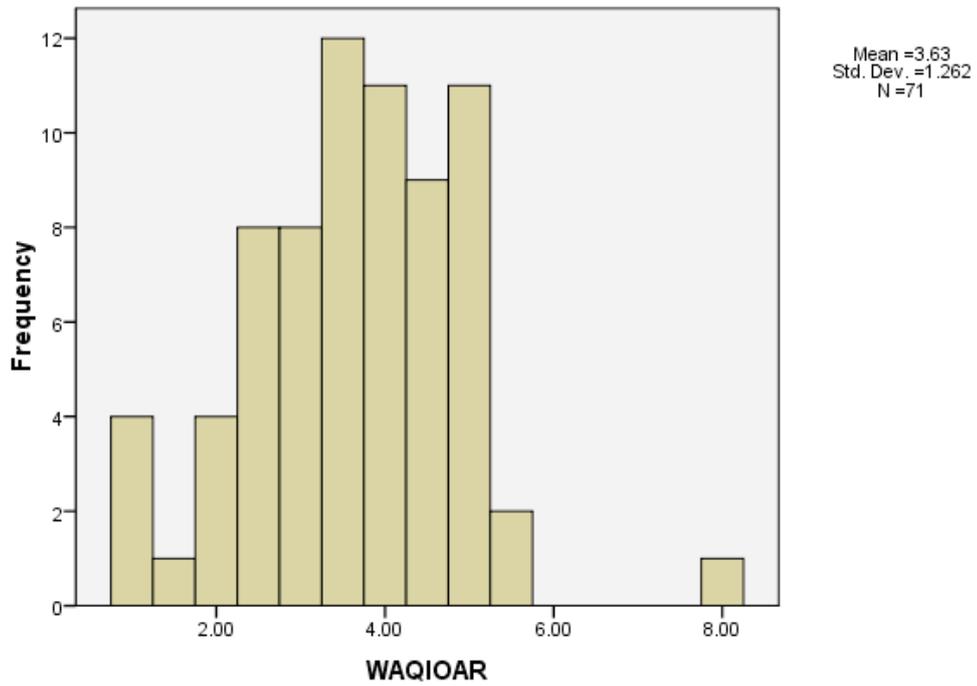


Mean =3.32  
Std. Dev. =1.787  
N =71

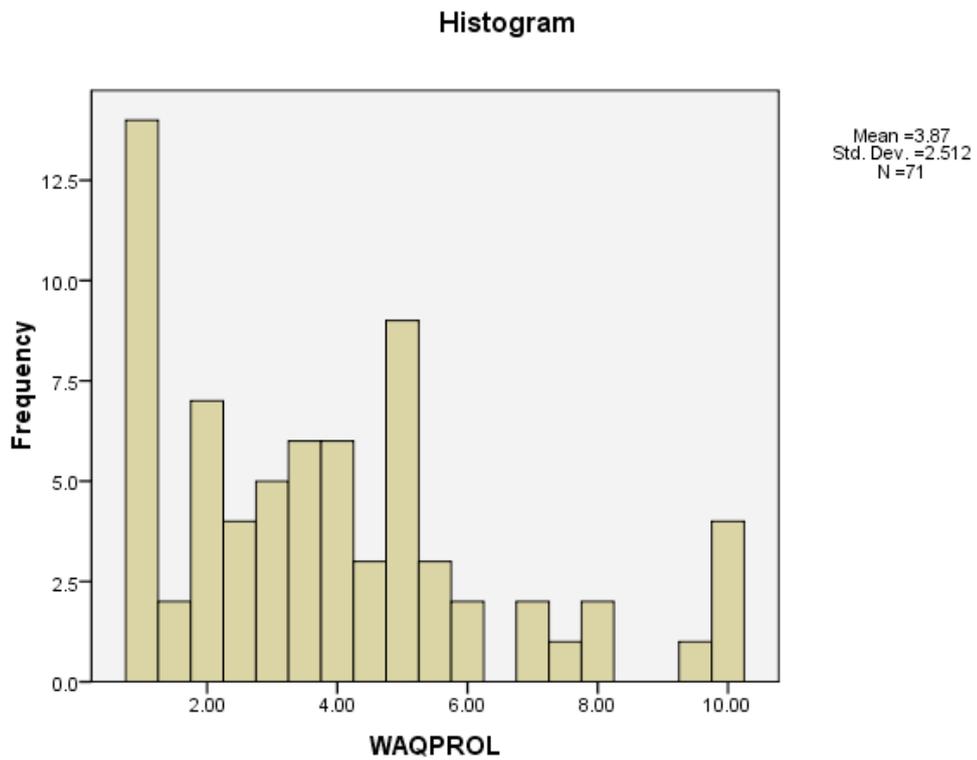
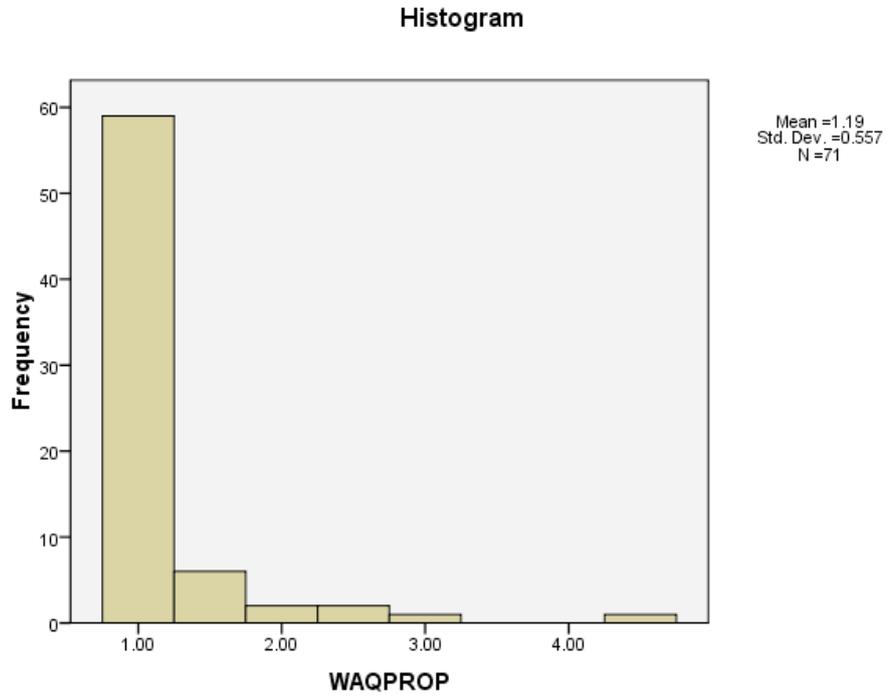
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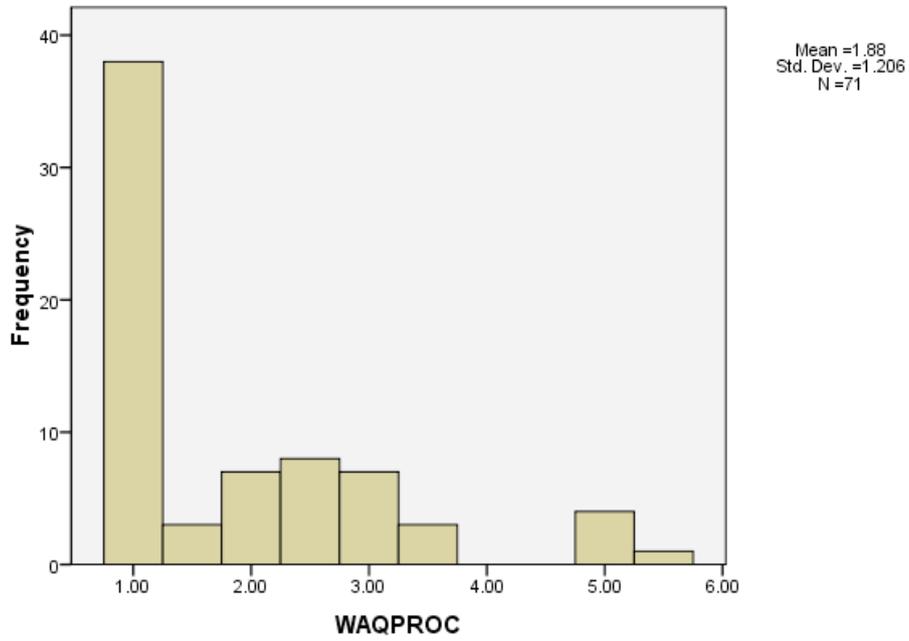
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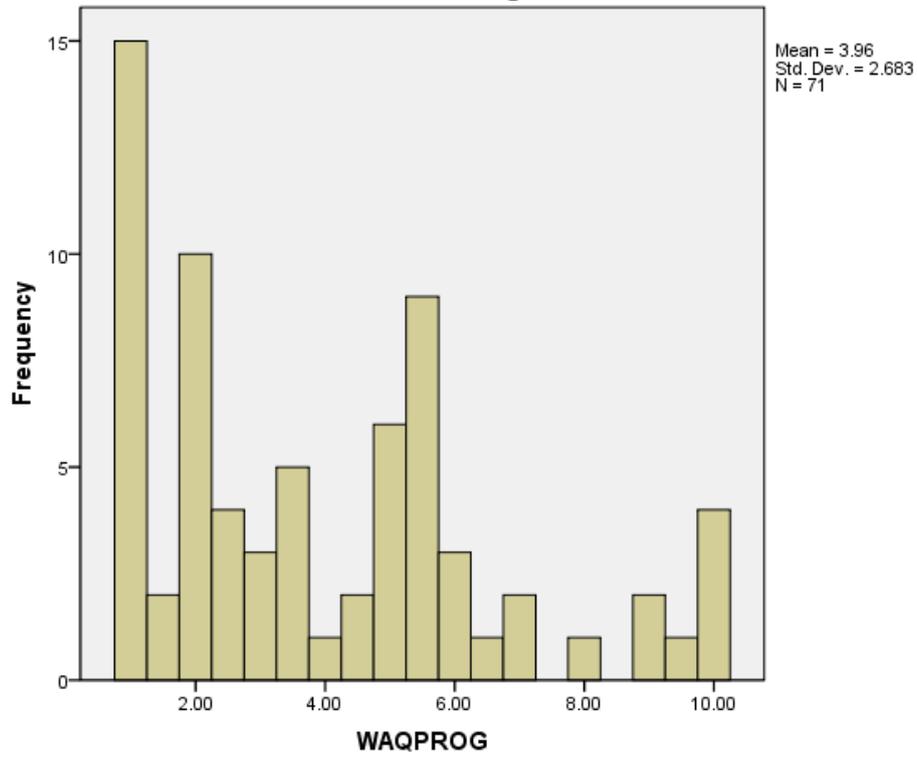
*J3: WAQ Attributions for Pro-social Behaviour (Problem perception, Locus of control, Controllability, Globality, Stability and Affective Response).*



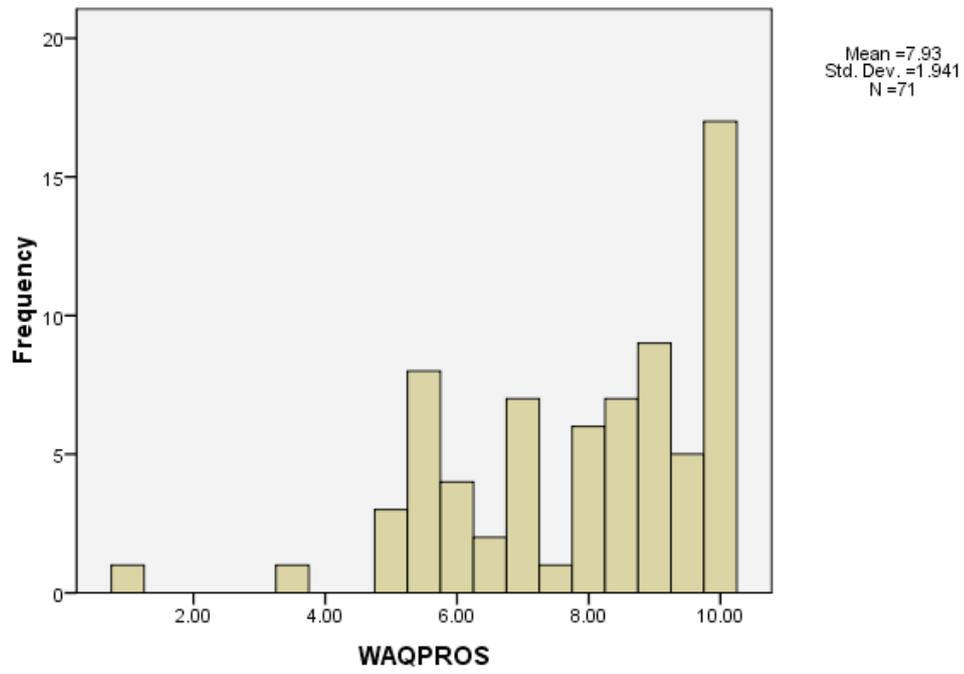
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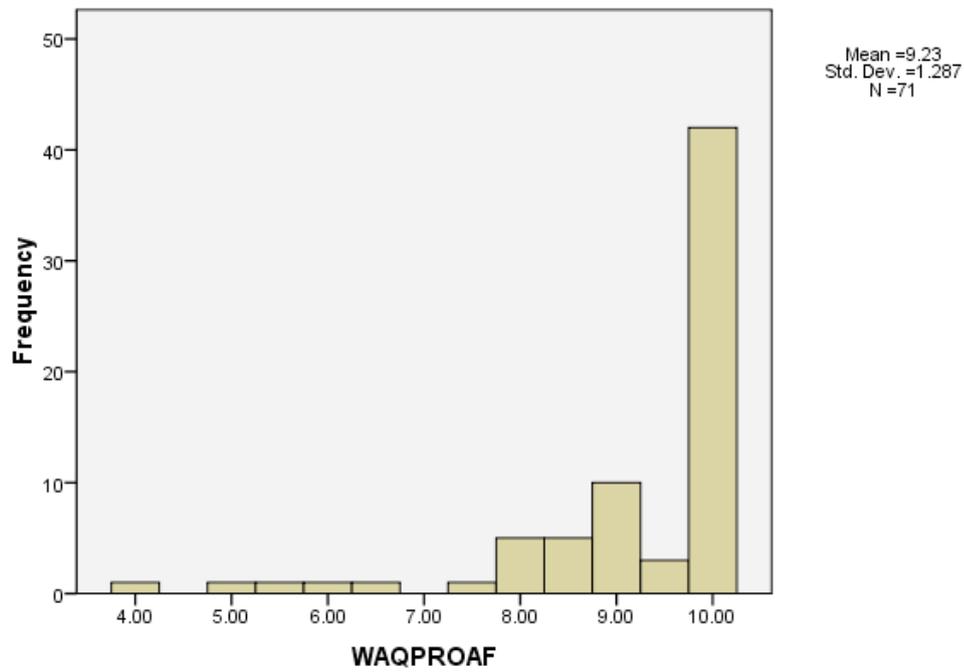
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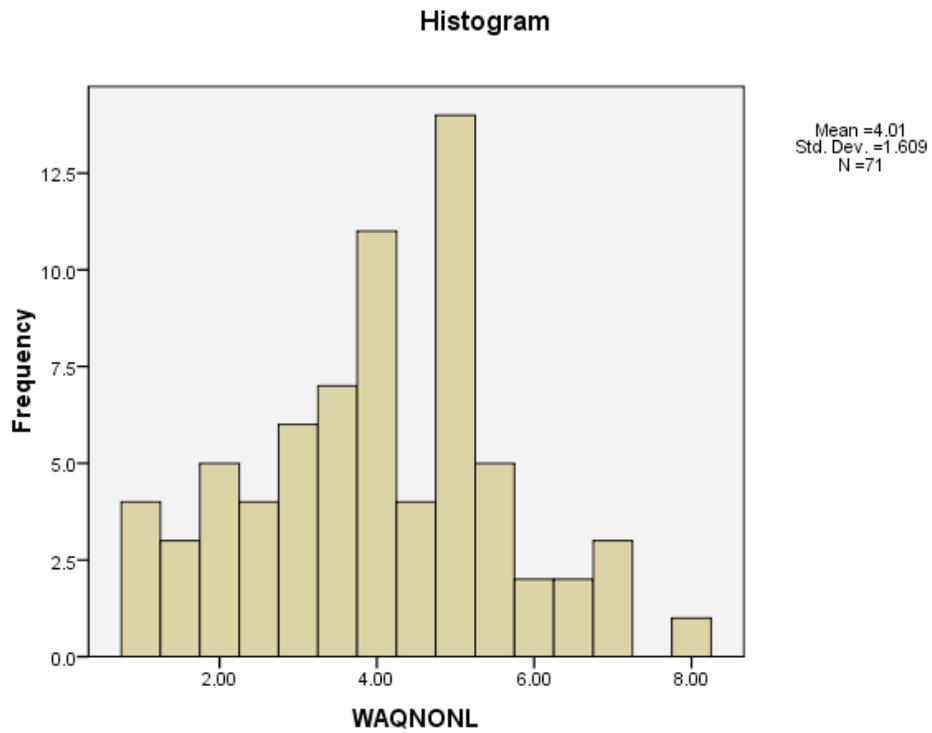
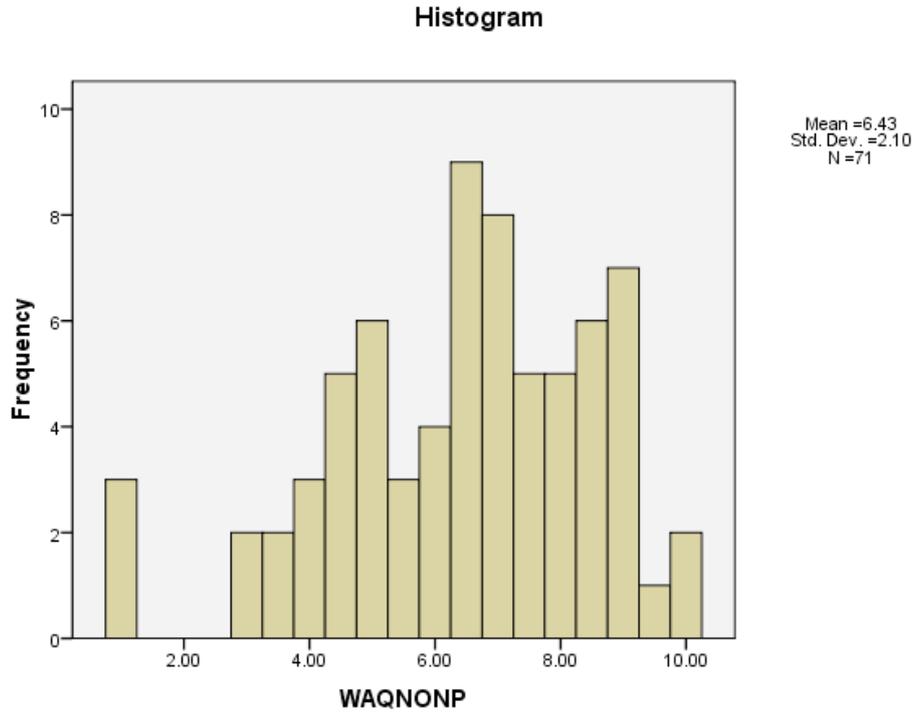
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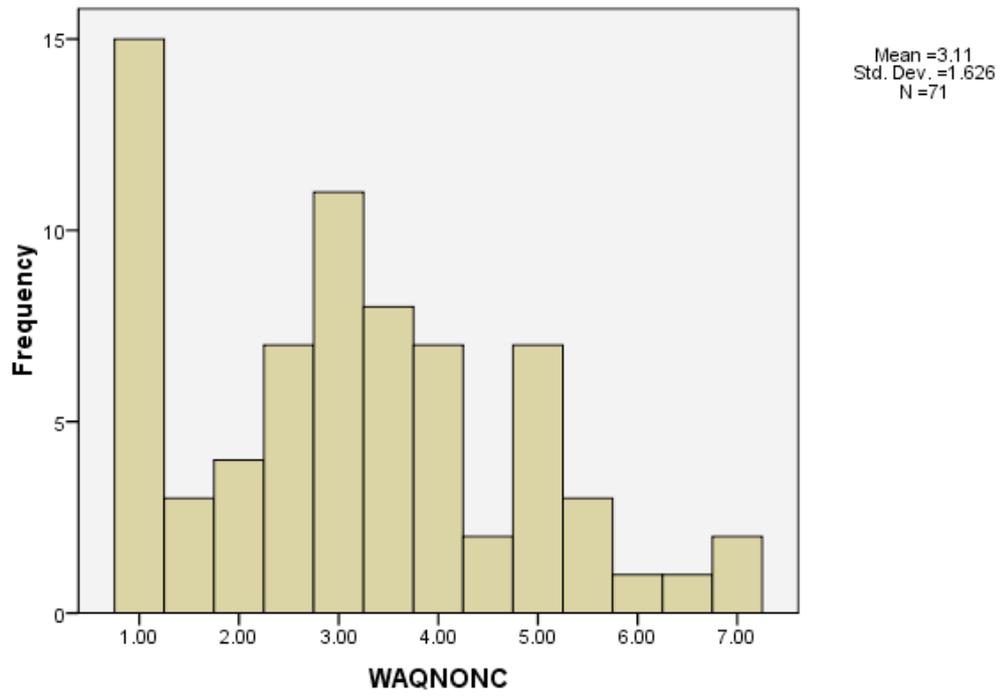
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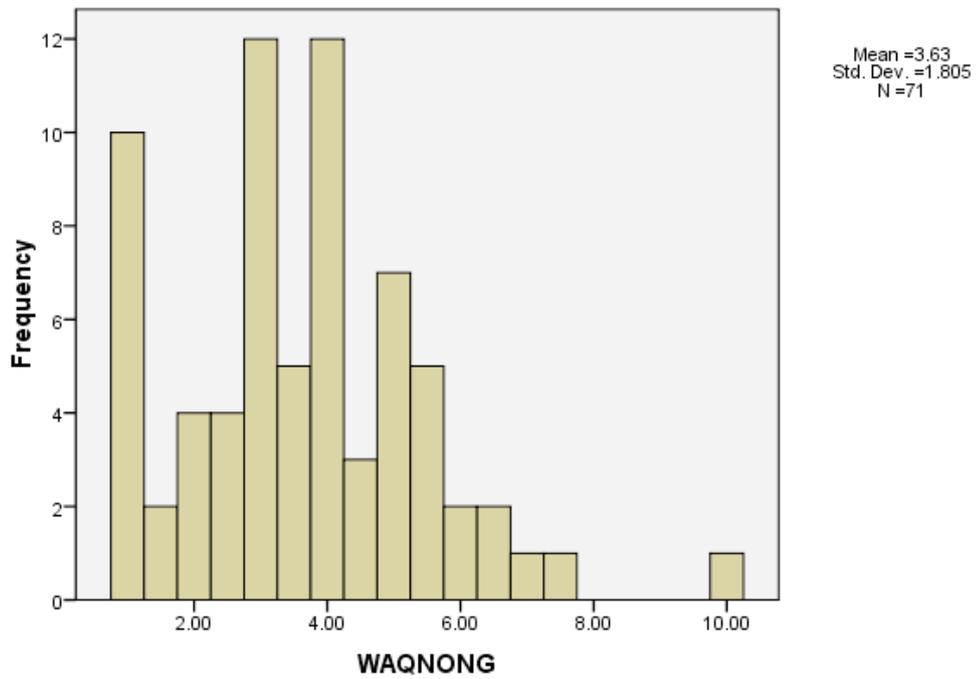
*J3: WAQ Attributions for Non-compliant Behaviour (Problem perception, Locus of control, Controllability, Globality, Stability and Affective Response).*



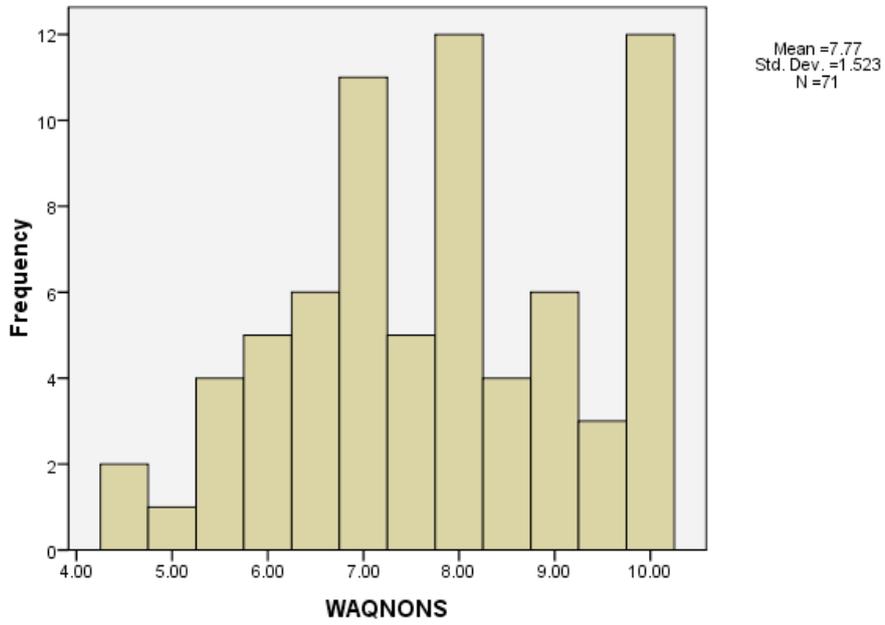
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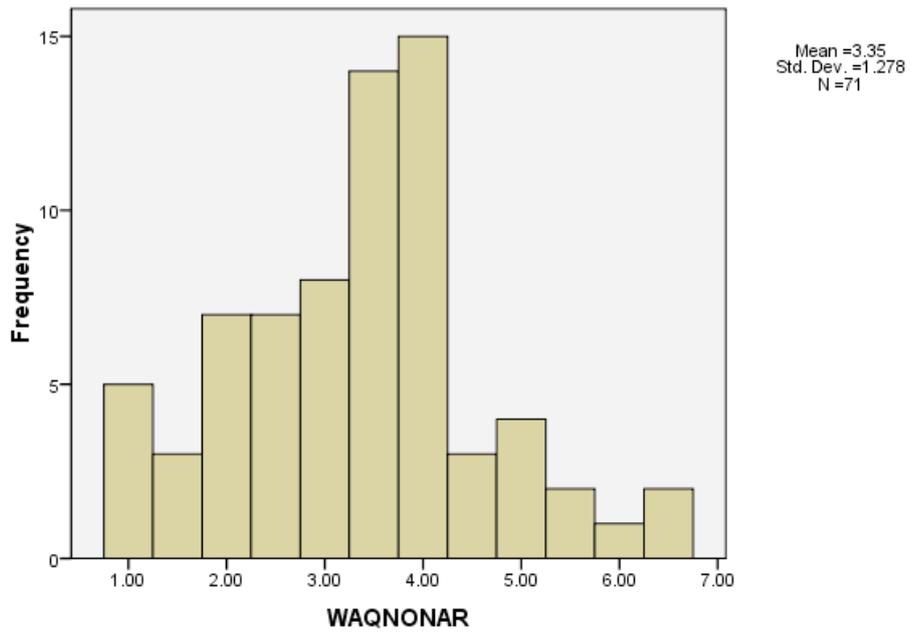
Histogram



Histogram



Histogram



## Appendix K: Normality Tests

Table K1

*Skewness, Kurtosis and Kolmogorov-Smirnov Tests of Normality for the Parenting Sense of Competence Scale (PSOC)*

Questionnaire	Skewness Z-Score	Kurtosis Z-Score	K-M Statistic
<b>PSOC Sub-scales</b>			
Satisfaction	-0.19	-1.29	.08
Efficacy	2.09*	1.34	.14**

\*Significantly different from a normal distribution at  $p < .05$

\*\*Significantly different from a normal distribution at  $p < .01$

Table K2

*Skewness, Kurtosis and Kolmogorov-Smirnov Tests of Normality for the Written Analogue Questionnaire (WAQ)*

Questionnaire	Skewness Z	Kurtosis Z	K-M Test
<b>WAQ Sub-Scales</b>			
<b>Inattentive/Overactive Behaviour</b>			
Problem Perception	-0.04	-0.78	.09
Locus-of-control	-0.56	-0.26	.09
Controllability	0.91	-1.38	.11*
Globality	2.38*	0.76	.15***
Stability	-2.47*	0.38	.12**
Affective Response	0.43	1.93	.11*
<b>Pro-social Behaviour</b>			
Problem Perception	14.21***	34.09***	.47***
Locus-of-control	3.17**	0.52	.13*
Controllability	4.93***	2.37*	.30***
Globality	2.68*	-0.47	.15**
Stability	-3.29***	1.47	.15***
Affective Response	-7.81***	9.21	.32***
<b>Non-compliant Behaviour</b>			
Problem Perception	-2.18*	0.26	.12*
Locus-of-control	0.06	-0.63	.11*
Controllability	1.41	-0.89	.11*
Globality	2.21*	1.83	.11*
Stability	-0.35	-1.45	.10
Affective Response	0.59	0.05	.13**

\* p&lt; .05

\*\* p&lt; .01

\*\*\* p&lt; .001

Appendix L: Correlations between the Two Written Analogue Questionnaire Scenarios for Inattentive-Overactive, Pro-social and Noncompliant Behaviour

	Behaviour Types		
	IO	PRO	NON
1. Problem Perception	.40*	.56*	.79*
2. Locus-of-control	.17	.61*	.61*
3. Controllability	.58*	.68*	.82*
4. Globality	.65*	.73*	.60*
5. Stability	.47*	.79*	.79*
6. Parent Distress	.45*	.80*	.76*

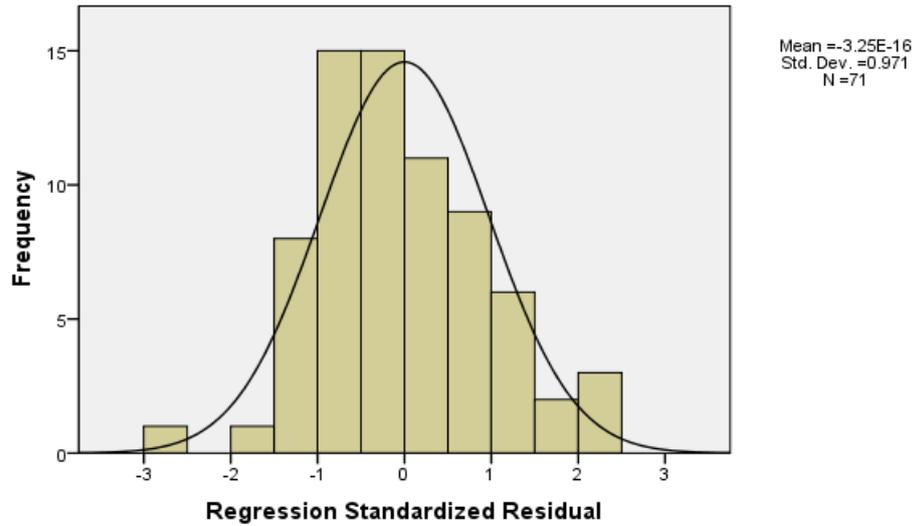
\*  $p < .001$

Appendix M: Residual Histograms and Plots

*M1: Histograms, Normal P-P plots and \*ZRESID against \*ZPRED Scatterplots for Hypothesis 1.*

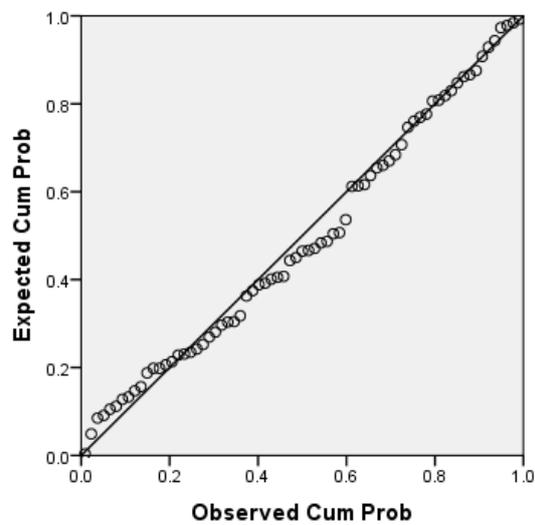
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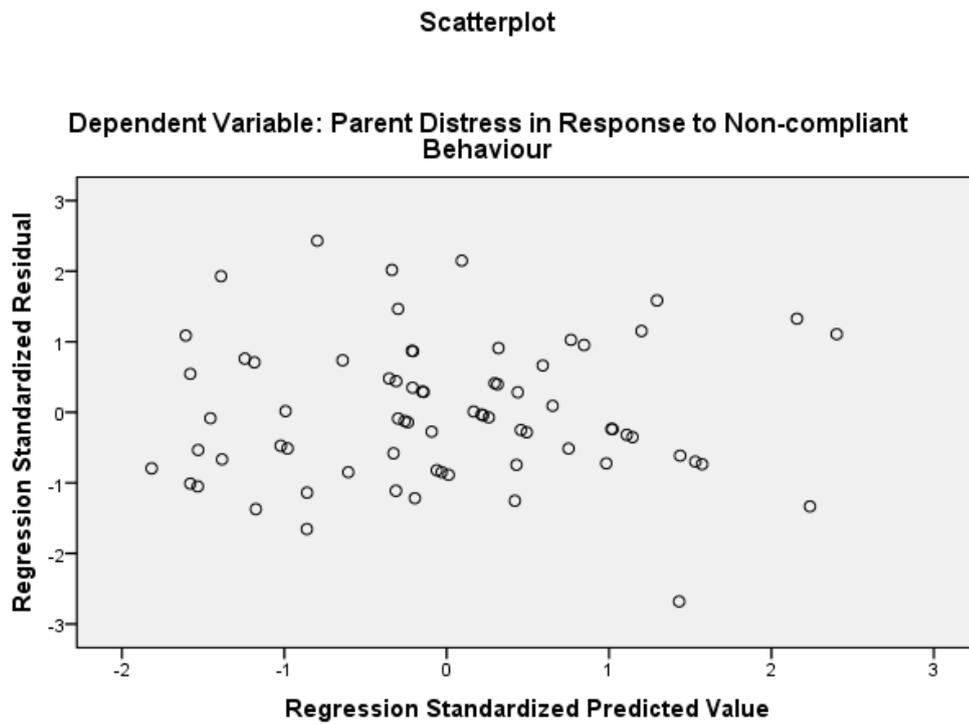
**Dependent Variable: Parent Distress in response to Non-compliant Behaviour**



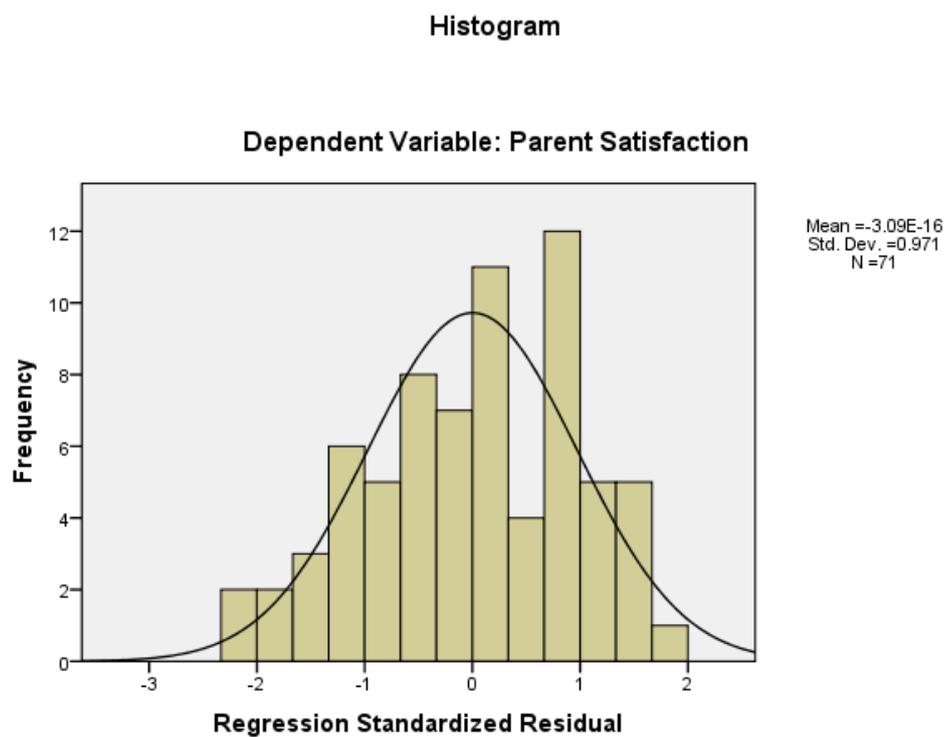
**Normal P-P Plot of Regression Standardized Residual**

**Dependent Variable: Parent Distress in response to Non-compliant Behaviour**

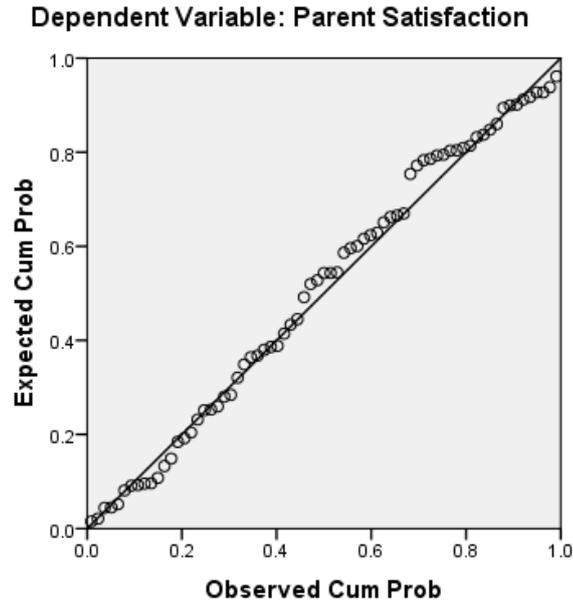




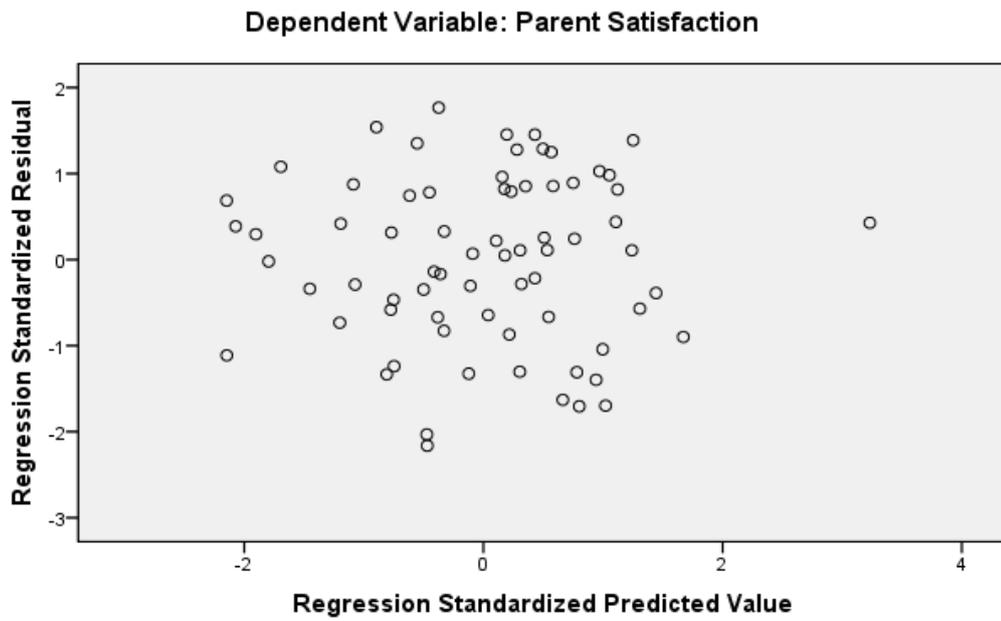
*M2: Histograms, Normal P-P plots and \*ZRESID against \*ZPRED Scatterplots for Hypothesis 3.*



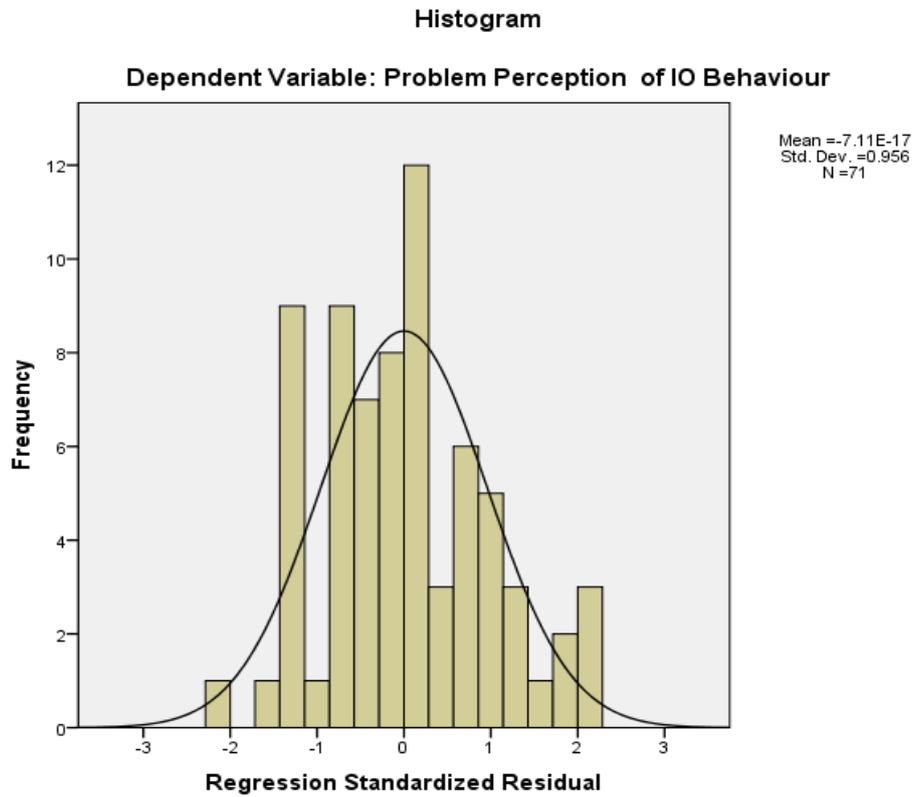
Normal P-P Plot of Regression Standardized Residual



Scatterplot

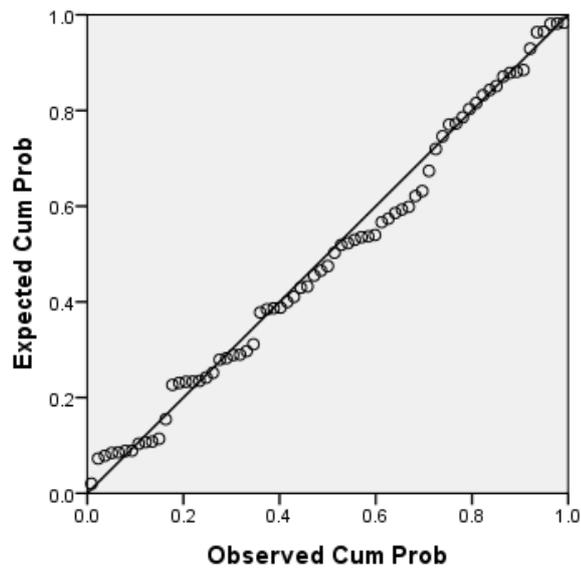


M3: Histograms, Normal P-P plots and \*ZRESID against \*ZPRED Scatterplots for Hypothesis 5.



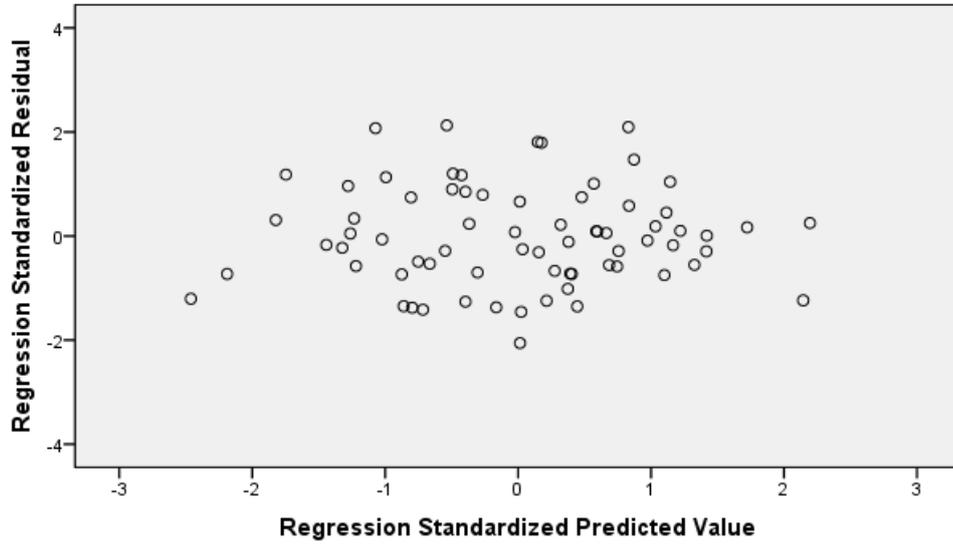
**Normal P-P Plot of Regression Standardized Residual**

**Dependent Variable: Problem Perception of IO Behaviour**



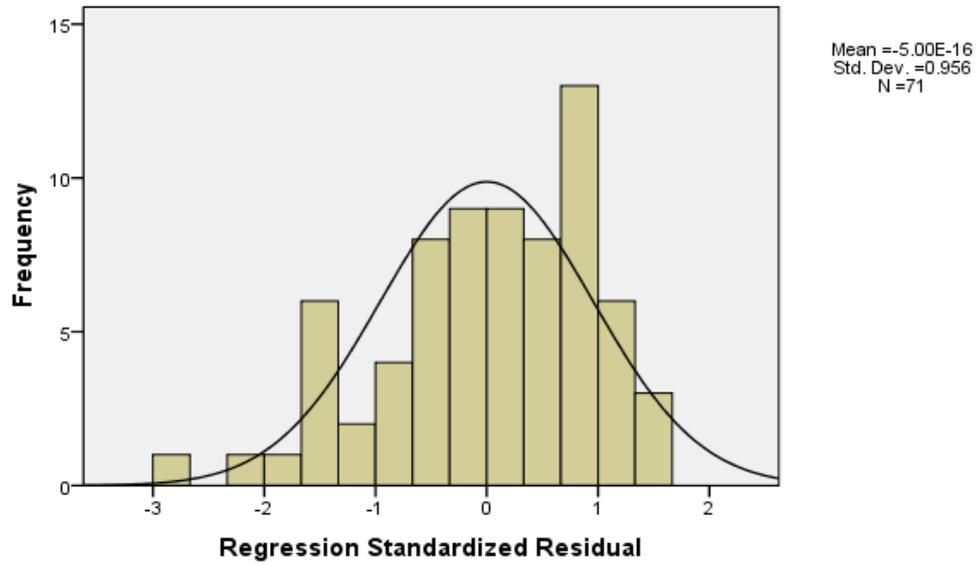
### Scatterplot

Dependent Variable: Problem Perception of IO Behaviour



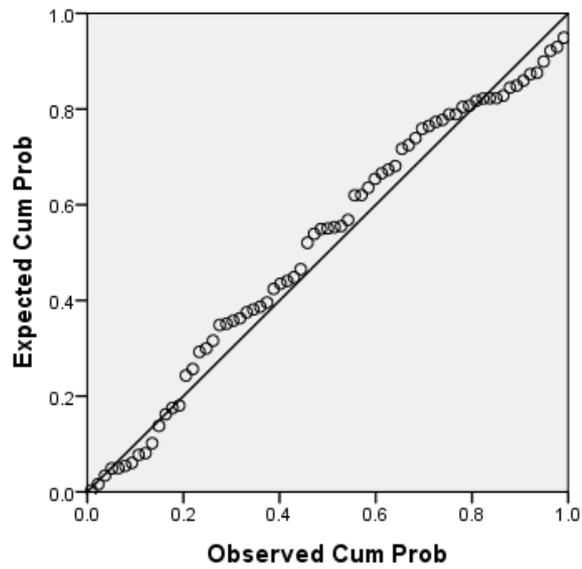
### Histogram

Dependent Variable: Problem Perception for NON Behaviour



### Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Problem Perception for NON Behaviour



### Scatterplot

Dependent Variable: Problem Perception for NON Behaviour

