Anxiety in Italian and British children: the role of maternal parenting behaviours

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A mia nonna con amore

Undirected by culture patterns organized systems of significant symbols - man's behaviour would be virtually ungovernable, a mere chaos of pointless acts and exploding emotions, his experience virtually shapeless. The culture, the totality of these models, is not an ornament of human existence, but - the main base for its specificity - an essential condition for it.

Clifford James Geertz
The Interpretation of Cultures, 1973

Abstract

Parents may influence children's externalizing and internalizing behaviours through controlling and responsive parenting. The first construct refers to the extent to which parents show control and intrusiveness, imposing their agenda, not granting autonomy and taking over tasks children do (or might do) independently. Responsiveness refers to the extent to which parents are warm, accepting and responsive towards their children. Despite the vast amount of research on parenting behaviour and children's internalizing behaviours and externalizing problems, several questions still remain. In particular the role of culture and national context in affecting the impact of parenting behaviour on children problems are not well understood, especially across different European countries. Thus the central purpose of the present study was to examine the associations between parenting behaviour, in particular intrusive and warm behaviours, on child anxiety and self regulation problems in a sample of British and Italian school aged children (49 and 60 children respectively). Children's anxiety and behavioural adjustment were measured, in school, using the Spence Anxiety Assessment Scale, SCAS (Spence, 1997) and the Strength and Difficulties Questionnaire SDQ (Goodman, 1997). Then a home visit was made where the mother and child were filmed in three different standard tasks (the etch-a-sketch task, the belt buckle task and the tidy up task). These videos were coded (blind to child and maternal anxiety) by three independent judges. The relationship between child anxiety (especially separation anxiety), maternal intrusiveness, warmth and country of origin was examined. Findings suggest that maternal child rearing practices are strong influenced by culture, with the strongest finding that Italian mothers are more intrusive and over-controlling compared with English mothers, both on self report and observational measures. No main effect of country of origin was found to affect child anxiety assessed with self report measures. Maternal intrusiveness was found to be specifically linked to separation anxiety and not with other kinds of anxiety disorders in children. Maternal warmth, a particular characteristic of the Italian mothers, was found to moderate the impact of maternal intrusiveness on child internalizing and externalizing symptoms (high maternal warmth reducing the negative impact of intrusiveness). The role of warmth in different cultures and its particular contribution in protecting the child from internalizing and externalizing problems are discussed. These findings suggest that, from the perspective of treatment for child anxiety symptoms, clinicians should focus not only on potential parental intrusiveness but also on the affective aspects of the mother-child relationship.

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Chapter 1. Introduction

Epidemiological data place anxiety disorders among the most widespread of childhood psychopathologies (Barrett, 1998; Cobham et al, 1998; Fonagy et al, 2002; Ginsburg and Schlossberg, 2002) with estimated prevalence in childhood ranging from 4% to 21% (e.g., Bernstein and Borchardt, 1991; Cobham, 1998; Flannery et al, 2000).

Anxiety is an affective quality that influences every child in everyday life, and is accompanied by significant functional impairment when it reaches clinical levels. However anxiety is a normal and necessary part of development and occurs in all children and adults.

This basic emotion has an adaptive function that serves to alert individuals to dangerous situations, allowing them to confront the situation or flee when necessary. Experiencing feelings of anxiety is a necessary part of development in that it allows for the transition from dependent infant who is relatively unaware of dangers, to autonomous adult who is able to detect and react to dangerous situations (Albano et al., 1996). When anxiety becomes intractable, pervasive, and interferes in daily activities, it is no longer beneficial and becomes a pathological and debilitating condition.

The concept of anxiety played a central role also in John Bowlby's work (Bowlby, 1969/1983; 1973; 1980). He discussed anxiety as an evolutionary predisposition that serves the purpose of ensuring proximity to caregivers for safety and survival of infants.

The difference between developmentally appropriate anxiety and pathological anxiety is still unclear (Albano et al., 1996). Every individual experiences anxiety and people with anxiety disorders experience individual variation in the development of the same disorders. Thus, to study the continuum of anxiety experiences in children, it is necessary to turn to community samples.

Looking at the symptoms, anxiety is associated with child functional impairment in many different domains. For example, children with clinical and sub-clinical symptoms of anxiety may have difficulty dealing with normal developmental challenges (Goodwin et al., 2004), relating to peers (Gazelle and Ladd, 2003), and succeeding in school (Martin and Marsh, 2003).

During the last twenty years research on anxiety have received a notable implementation, demonstrating that anxiety disorders are the most common disorders which affect children throughout childhood and adolescence and they can involve a marked impact on child's internal and external adjustment and development.

These disorders are strongly associated with risk of later developing mood disorders, other anxiety disorders, academic failure, and substance abuse problems (Ialongo et al., 1995; Pine et al, 1998; Woodward and Fergusson, 2001).

A variety of sub-categories of childhood anxiety exist and co-morbidity between these is high. Also there is significant variation in reported prevalence rates of anxiety disorders due to the use of differing diagnostic criteria for impairment. Overall, anxiety disorders occur in 2-18% of the general child population and more common in girls (Last et al., 1997).

A system for classifying anxiety problems must take account of the developmental timing of their emergence, the classes of stimuli that elicit the

anxiety, the pervasiveness and topography of the anxiety response, and the role of clearly identifiable factors in the aetiology of the anxiety.

Some attempt is made within both the *Diagnostic and Statistical Manual of Mental Disorders*, DSM IV (APA, 2000) and ICD 10 (WHO, 1992, 1996) to take account of these various factors.

The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, (DSM-IV), divides anxiety disorders in twelve distinct conditions (see Carr, 2006), five of which are prevalent in children. The following are brief descriptions of the most common forms of childhood anxiety:

Separation Anxiety Disorder is characterized by a fear of being alone or separated. The disorder must be differentiated from the normal developmental stage of separation anxiety, which occurs in the first few years of life and is not associated with impairment in functioning.

Generalized Anxiety Disorder refers to a pattern of intense, recurrent worries about a wide range of circumstances; thus the person experiences a high ongoing level of anxiety. Such worries are associated with somatic symptoms and significant impairment, extending over a period of six months or longer.

Social Phobia refers to extreme fear of social or performance situations. In both children and adults, Social Phobia can present as a fear of a specific social situation or as a generalized fear of many social situations.

Panic Disorder is characterized by sudden attacks of fear and panic. It is a relatively common anxiety disorder among adults, is extremely rare before puberty and less common in adolescence than other anxiety disorders. However, Panic Disorder in adulthood is often preceded by childhood or adolescent anxiety disorders.

Post-Traumatic Stress Disorder (PTSD) is also considered an anxiety disorder, but it is specifically tied to environmental events, developing after a traumatic experience. There is evidence to suggest that PTSD and **Obsessive Compulsive Disorder**, another anxiety disorder, are distinct in terms of pathological physiology from other anxiety disorders.

The developmental nature of anxiety disorders suggests that young children showing significant symptoms of anxiety have an overall higher risk of develop later anxiety disorders.

For example, symptoms of separation anxiety disorder in children have been found to be a risk factor for anxiety syndromes in adulthood (Lipsitz et al., 1994). In addition, studying non-clinical samples could also lead to a better understanding of continuity and discontinuity in the development of anxiety disorders.

In a community study of anxiety, Kashani and Orvaschel (1990) discovered that patterns of non-anxious psychopathology and co-morbidity, such as depressive symptoms and conduct disorder, were qualitatively similar but quantitatively different in anxious and non-anxious children. Both groups experienced similar kinds of symptoms, but anxious children experienced higher levels of depressive and conduct disorder symptoms. It is therefore necessary to study non-clinical samples and the developmental course of anxiety.

Wide variety of anxiety symptoms has been found to be normal in children of all ages and both sexes (Bell et al., 1990). The number of anxiety symptoms is similar across age groups, but types of symptoms change with age, with worry and phobias being more common in younger children and social and interpersonal anxiety more common in adolescence (Kashani and Orvaschel., 1990).

Adolescents were found to be affected more severely than younger children, as they rated the symptoms as more severe and as having a broader impact.

These studies suggest that there is developmental progression of anxiety symptoms, yet no longitudinal studies were found that examine this developmental course of anxiety through adolescence or adulthood.

These six anxiety disorders share core elements but differ in the focus and manifestation of the child's anxiety (Albano et al., 1996). Each anxiety disorder is expressed through specific cognitive, physiological, emotional, and behavioural reactions. For example, in panic disorder, anxiety is primarily manifested in physiological symptoms such as elevated heart rate and heat flushes, while in obsessive-compulsive disorder, anxiety is more often revealed through very specific cognitive and behavioural reactions such as obsessive thoughts and dependency on rituals or avoidant behaviour.

However several studies have attested to high prevalence of anxiety disorders occurring prior to adulthood (Breton et al., 1999; Canino et al., 2004; Costello et al., 2003; Essau et al., 2000; Ford et al., 2003; Lewinsohn et al., 1993, 1997; Shaffer et al., 1996). Results vary owing to differences in methods, instruments, populations, interviewers, informants and ethnicity background (Albano et al., 1996).

There are some factors which may lead to an anxiety course in children: such as the early parent-child relationship, the environment, the genetic components, child temperament and vulnerability. Each of these possible risk factors conditions will receive specific attention in the following paragraphs.

1.1. Aetiology of anxiety disorders

Anxiety has a complex aetiology presenting a wide range of possible causes: genetic component, child temperament, shared environment, parenting practices, traumatic experiences and dysfunctional attachment style. Studies present with some limitations because this multiple aetiology makes the sample selection more difficult.

The transmission of anxiety disorders within families has gained more attention from researchers in the last twenty years. Although twin and adoption studies suggest that 30-40% of the variance of anxiety in children may be accounted for by genetic influences (e.g., Kendler et al., 1992; Thapar and McGuffin, 1995; Torgerson, 1983), a large portion of unexplained variance remains attributable to other aspects such as environmental factors.

There are a number of theories regarding the aetiology of anxiety disorders in childhood.

Temperament, attachment and cognitive bias have all been implicated in the development of childhood anxiety. Also a number of familial theories exist, implicating both genetic and environmental factors, including the role of parental rearing practices and responses.

Specifically, interest has turned to the mechanisms of effect of parenting factors on child anxiety, leading to a clearer understanding of family influence and more specific intervention designs (Fauber and Long., 1991).

Research has consistently indicated that anxiety disorders tend to run in families as demonstrated by both “top-down” and “bottom-up” studies.

Several studies have documented that children of parents with anxiety disorders are at increased risk of developing anxiety disorders compared to children of normal control parents or children of parents with other psychiatric disorders (Beidel and Turner, 1997; Biederman et al., 2001; McClure et al., 2001; Merikangas, et al, 1998; Merikangas et al., 1999).

In support, behavioural genetic studies conducted in the past decade have suggested that the 'shared environment,' possibly including childrearing experiences, accounts for a significant amount of the variance in childhood anxiety symptoms and disorders (see Eley, 2001).

The strong evidence for the familiarity of anxiety disorders in adults has also been found in intergenerational studies of family aggregation. Thus, "top down" studies have shown that children of adults with anxiety disorders themselves exhibit an increase of anxiety disorders over the base rate (Weissman et al., 1984; Turner et al., 1987; Biederman et al., 1991; Warner et al., 1995).

The extent of this elevation of risk is uncertain and may differ for different anxiety disorders. "Bottom up" studies have, similarly, shown that the parents of children with anxiety disorders have a raised rate of anxiety disorders compared to controls (Last et al, 1987, 1991; Cooper et al., 2006).

This elevation of risk concerns more mothers than fathers, thus, in one study of the parents of a clinic sample of children presenting with a range of anxiety disorders the mothers were almost three times more likely to be diagnosed with a current anxiety disorder than the mothers of non-anxious control children (Cooper et al., 2006). The same pattern was not found with the fathers.

Study of diagnostic specificity in intergenerational association has been complicated by the high degree of co morbidity in child anxiety. Although this

limitation, well designed, controlled and specific studies need to be conducted to better understand the specific intergenerational association between parent diagnosis and child anxiety disorder.

1.2. Genetic component

Reviews of twin, sibling, and adoption studies have revealed that a genetic component explains approximately one-third of the aetiological variance associated with childhood anxiety disorders, indicating that heritability appears to play a substantial role in the aetiology of anxiety disorders (Eley, 2001, Jang, 2005).

Hettema et al (2001) conducted a large meta-analytical study investigating the genetic component of panic, generalized anxiety, phobias and OCD in clinic referred twin families. They provided very strong evidence that these kinds of disorders tend to aggregate in families, especially panic disorder, and the major source of familial risk is genetic.

Estimated heritability across the disorders varies on this hypothetical range, 30%–40%. This leaves the largest proportion of the variance to be mostly explained by individual environmental factors.

This value, however, might represent an underestimation of true heritability. This is owing to measurement error (including diagnostic measures).

Panic is the anxiety syndrome that have been shown to have the strongest degree of familial aggregation, with an average risk of approximately 9.4% (Weissman, 1993) as well as the highest heritability (Kendler et al., 1993, Skre et al., 1993).

Some controlled studies of other anxiety subtypes demonstrated that social phobia, generalized anxiety disorder and agoraphobia have also been shown to be familial (Stein at al., 1998).

Moreover twin studies revealed a small but significant degree of heritability for several of these anxiety subtypes.

Some research has reported genetic effects on anxiety symptoms, such as behavioural inhibition. These studies consistently reveal a genetic influence of moderate magnitude (Gregory and Eley, 2007), though one that varies depending on child gender (Eaves et al., 1997; Feigon et al., 2001), and, possibly, child age (Feigon et al., 2001).

The effect size is also influenced by whether the anxiety is child or parent rated: genetic influences emerge as more significant and shared environment as less so where the child anxiety is parent rated, and the reverse is the case where self- rated (Eaves et al., 1997; Thapar et al., 1995).

The extent to which these studies have implicated shared and non-shared environmental factors has also varied as a function of the form of anxiety, although findings are not consistent. For example, while some studies have implicated shared factors in the aetiology of symptoms of separation anxiety disorder (Eley et al., 2003; Feigon et al., 2001; Silove et al., 1995), others have not (Ehringer et al, 2006); and while some implicate such factors in the aetiology of symptoms of generalised anxiety disorder (Ehringer et al., 2006), others have not found support for this (Eaves et al., 1997; Legrand et al., 1999).

Several aetiological models of anxiety have recognized the bidirectional effect of parent overprotective or over-involved style and child genetic vulnerability.

For example, Rapee (2001) proposed a model of anxiety development in which children with a genetic vulnerability to anxiety exhibit high levels of emotionality, and consenquently, a parent responds to their sensitiveness with increased involvement and protection in order to reduce and prevent the child's distress.

The model assumes that parents of anxious children are also more likely to be anxious themselves: a factor that may further conduct to an over-involved parenting style.

Rapee suggests that this maladaptive pattern of parental involvement reinforces the child's vulnerability to anxiety by increasing the child's perception of threat, reducing the child's perceived control over threat and ultimately increasing the child's avoidance of threat.

That is, a parent who protects his/her child from stressful experiences or who takes control in stressful situations may teach his/her child that the world is a dangerous place, from which they need protection and over which they have no control.

To summarize research has indicated that greater than 80% of parents of children with anxiety disorders exhibit significant anxiety symptoms themselves (Ginsburg and Schlossberg, 2002, Last, 1987). These elevated prevalence rates suggest that anxiety may be somehow "transmitted" within the family. While it is most often presumed that the transmission process would be from parent-to-child, child-to-parent or bi-directional influences are also quite possible.

Regarding the relationship between maternal anxiety and child anxiety, it is important to better address these questions: Are children of anxious parents more affected by anxiety symptoms compared to children of non-anxious parents, or do

anxious parents elicit more anxiety in their children than non-anxious parent usually do? Or are both of these sentences true?

Since evidence from top-down and bottom-up studies cannot determine the extent to which child anxiety is attributable to heritability and/or the environment (Eley, 2001, Ginsburg and Schlossberg, 2002), behavioural genetic research needs to be improved.

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1.3. Child temperament

One the vulnerability factor that increases risk of anxiety disorders development is child temperament. Believed to be partially heritable and a biological trait (e.g. Buss and Plomin, 1975; 1984), researchers have suggested that temperamental styles, in particular behavioural inhibition (BI), might be linked to the development of anxiety disorders (e.g. Rosenbaum et al., 1991).

The term “behavioural inhibition” (BI) has been used by Kagan and others to refer to a child temperamental pattern of responding characterised by fearfulness, reticence, or restraint when faced with unfamiliar people or situations (Kagan, 1989).

The continuity of BI has been investigated in several longitudinal cohorts of children who, early in life, have been classified as either inhibited or not inhibited. Around half have been found to maintain their early classification into later childhood (Kagan, 1994; Kagan et al., 1988; Turner et al., 1996), and up to adolescence (Kagan et al., 2007).

Those classified as inhibited in infancy tend to show greater continuity than those classified as uninhibited, although many do move from being classified as inhibited to a classification of uninhibited (Murray et al., 2009).

The relationship between BI and anxiety disorders has been examined in several ways. Using family history methodology (i.e. obtaining information from the patient or a relative concerning all family members), strong associations have been found between BI in children and anxiety disorders in parents (e.g. Rosenbaum et al., 1991; Rickman and Davidson, 1994), and between anxiety disorders in parents and BI in children (e.g., Rosenbaum et al., 1988, 2000; Biederman et al., 2001).

There is strong consistency in finding a positive association (Turner et al., 1996), especially in relation to the development of social anxiety (Biederman et al., 2001; Schwartz et al. 1999; Hayward et al., 1998). Nevertheless, only a proportion of those who are inhibited do go on to develop an anxiety disorder, and it is important to consider what factors might account for continuities and discontinuities.

Significantly, research documents that child BI can determine parenting behaviour (e.g. eliciting overprotection and over-control), which in turn may promote the development of child social anxiety itself (e.g. Rubin et al., 1999; Rubin et al., 2002). Rubin et al. (1999) found that parent' perceptions of child social wariness and shyness at age two predicted their preference for socialisation strategies considered as obstructing children from developing independence at age four. In addition, Rubin et al. (2002) found that infant inhibition highly and significantly predicted reticence at age 4 only if the mothers displayed high intrusive or overprotective behaviour.

This effect disappeared in the presence of low maternal intrusiveness or overprotection. These studies illustrate that child BI could interact with maternal parenting behaviour to influence later child social wariness and with maternal diagnostic status to predict parenting behaviour.

1.4. Information biases

With regard to biased information processing, patterns of attentional biases in relation to threat, and biases in interpretation of ambiguous material have been suggested to play an important role in the vulnerability to the development of anxiety (Rapee, 2001; Hudson and Rapee, 2004; Rapee and Spence, 2004).

Attentional biases have certainly been identified in older anxious children (see review by Hadwin et al., 2006), though in younger children the evidence is less consistent (Martin and Jones, 1995; Kindt et al., 1997).

However, these studies have been cross-sectional, thus they cannot clarify whether these biases represent vulnerability (Murray et al., 2009).

One recent study of socially anxious mothers did find evidence for sensitivity to fearful faces, consistent with the possibility of a fundamental cognitive vulnerability (Creswell et al., 2008).

“Specifically infants of mothers with social phobia appear to show avoidance of high-intensity fearful faces” (Murray et. al, 2009, p.1414); however, further prospective studies are required to establish the reliability of this finding and its longer term clinical significance.

The evidence for interpretation biases in child anxiety is strong and consistent (Hadwin et al., 2006).

Two prospective studies do, however, provide some indication that interpretation biases may pre-date anxiety: Warren and colleagues found preschool aged children's negative story endings predicted anxiety one year later, controlling for earlier anxiety (Warren et al., 2000). Similarly, Creswell (2004) found children's negative interpretations of ambiguous stimuli predicted increased anxiety symptoms following transition to secondary school.

Furthermore, a recent twin study estimated heritability for interpretation of ambiguity to be 0.3 (Eley et al., 2003).

In summary, identifying children who may be at risk to develop anxiety due to a presence of cognitive bias is another issue in the understanding the complexity of this phenomenon.

1.5. Environmental Influences

Negative life events are regarded as contributing to the development of vulnerability to anxiety (e.g. Beck, 1986; Barlow, 1988; Ollendick, 1979), or as leading to the development of a disorder in the context of a pre-existing vulnerability (e.g. Rapee, 2001; Muris et al., 2002), as part of a complex, long term learning process.

With regard to more general life-event influences, some prospective studies provide evidence for the causal role of such events, and others show reciprocal influences. The study of Goodyer and colleagues (1988) found that, compared to non-anxious children, those with anxiety had experienced more negative events in

the 12 months period preceding the onset of the disorder. The study of Swearingen and Cohen (1985), instead, found no evidence for negative events predicting change in child anxiety over the next five months, but did find that child distress (anxiety or depression) predicted occurrence of subsequent adverse events.

It is not clear whether children with anxiety disorders are more, or less, likely to experience negative events than children with other disorders.

"The processes whereby the experience of negative life events increases risk for disorder are likely to be multifaceted" (Murray et al., 2009, p.1415). For example, early exposure to adversity may affect the child's developing physiological system (Phillips et al., 2005); it may affect the development of child cognitions (Chorpita and Barlow, 1998); and the association between adversity and child anxiety may be mediated by parental perceptions of child vulnerability and consequent alterations in parenting practice (Creswell et al., in press).

It is also the case that increased incidence of negative life events may reflect the influence of a third variable, for example, parental psychopathology.

In addition to the role of traumatic events, learning accounts have emphasized two further routes for the development of anxiety and fears: modeling or a vicarious acquisition process, and informational acquisition. In the course of naturally occurring social interactions, these two processes are likely to overlap. Research in this area draws heavily from Bandura's social learning theory, which suggests that children may learn anxiety or avoidance from their parents in a vicarious way (Bandura, 1986).

The importance of modeling and information transfer in the transmission of social anxiety has recently been highlighted (Fisak and Grills-Taquechel, 2007). Modeling refers to the child's acquisition of social anxiety from the parent through

observational learning (Bandura, 1986); while information transfer operates through parental communication of an unrealistic and heightened level of danger to their children, which is hypothesized to be a probable parent attempt to protect their children (Fisak and Grills-Taquechel, 2007).

More recently, researchers have conducted direct observations of the effect of parental modeling on child responses (Murray et al., 2009).

The findings are consistent with the previous literature. Between 9 and 12 months of age infants become increasingly aware of the agency of other individuals with respect to referents (i.e. objects, persons and events; Carpenter et al., 1998), and they modify their responses to the referent on the basis of another person's emotional response to it, a process known as *social referencing* (Feinman et al., 1992).

Murray and colleagues (Murray et al., 2005) have argued that the process of social referencing may be particularly important in relation to the development of social anxiety, since the development of social referencing coincides with the onset of 'stranger fear' (Sroufe, 1977).

In considering the transmission of anxiety, it is notable within the social referencing literature that negative emotional messages relating to objects (i.e. fear and disgust) appear to have a stronger impact on infant behavioural responses than positive ones (Hornik et al., 1987; Moses et al., 2001), and that infants are particularly likely to use others' responses to guide their own behaviour when they encounter ambiguity or experience feelings of uncertainty toward the object (Gunnar and Stone, 1984; Sorce et al., 1985).

The question of whether clinically anxious mothers would initiate these fearful responses naturally requires examination in a clinical sample of socially phobic mothers.

The same process was recently examined longitudinally at 10 and 14 months in an anxious population: mothers with DSM-IV social phobia, and non-anxious control group mothers, conversed with a stranger in the presence of their infant, and the infant's response to the stranger was rated. Maternal expressed anxiety at 10 months, which was, as expected, more prominent in the social phobia group, predicted increased infant avoidance of the stranger over time (Murray et al., 2008).

Evidence for the role of information transfer in children's acquisition of social fear has also been cited. There were consistent findings of the impact of negative information on all outcomes (i.e. fear beliefs, behavioural avoidance and implicit fear), and also evidence for the persistence of the effects over several months. Moreover, the "nature of delivery, the source of the information and previous experience all influenced the information impact, suggesting that relatively complex processes are involved, including prior exposure and the perceived relevance of the information to the individual" (Murray et al., 2009. p.1416).

Although Field et al.'s (2003) did not consider the parental influence, parents are the major source in the transmission of anxious statements (Hadwin et al., 2006). Indeed, a large body of research with normal populations has shown how, through tuition and spontaneous conversations, parents both consciously and unconsciously transmit evaluative cognitions to their child (Fivush, 1991; Nelson, 1993; Denham et al., 1994).

Systematic associations have been found between the nature of parental discourse and children's own cognitive and socio-emotional functioning (Dunn et al., 1991; Fivush and Vasudeva, 2002). Finally, consistent with these findings, Creswell and colleagues demonstrated that mothers' anxious interpretations and cognitions were significantly associated with those of their children (Creswell et al., 2005; Creswell and O'Connor, 2006; Creswell et al., 2006).

Parental practices and child rearing are examples of external and environmental factors. More attention will be given to this topic in the following section.

2 Chapter. Parenting practices

2.1. Parenting dimensions

There have been numerous studies examining the role of family environment and parental responses in the development of anxiety disorders in children.

However, many have significant methodological flaws including inadequate procedures for child diagnosis.

Early studies have linked parental responses to child anxiety, in particular maternal over protectiveness and over control, so typical maternal behaviours have included hostility, over protectiveness, promotion of dependence and inhibition of autonomy.

Rapee (1997) concluded that parental rejection and control are the two most important parental variables, following the idea that control is linked to anxiety and rejection to depression, whilst Wood et al (2003) point out that control, acceptance and modeling of anxious behaviours may be all relevant in the development of childhood anxiety.

In general, parental displays of warmth and autonomy granting are crucial to quality of later social and emotional adjustment in children. Lack of parental warmth may lead to the child believing that the environment is fundamentally hostile and threatening; this could provoke a sense of incompetene in order to cope with a widest range of situations and could lead to a low self-esteem (Parker, 1983; Bögels and Tarrier, 2004).

With regard to the role of parental over-control (i.e. patterns of parental overprotection and excessive regulation of children's activities and routines), and

discouragement of independence, both are likely to promote a limited sense of mastery and competence, and may serve to reinforce child avoidance of challenge (Parker, 1983; Chorpita and Barlow, 1998) and, in turn, develop social anxiety (Barret et al., 1996).

In literature, researchers have found that the role of lack of warmth in affecting is not relevant in the development of child anxiety, whilst parent control seems to be a crucial factor (Wood et al., 2003; DiBartolo and Helt, 2007; McLeod et al., 2007). Those of Wood and colleagues, and DiBartolo and Helt were descriptive reviews; however that by McLeod and colleagues (2007) was a quantitative meta-analysis of 47 studies of the association between these parenting dimensions and chid anxiety. This meta-analysis "has examined the role of methodological factors (e.g. informant, assessment method), whether child anxiety diagnoses or anxious symptoms were assessed, and sub-dimensions of the two parenting constructs" (Murray et al., 2009, p.1416). The latter is particularly important, as these core parenting constructs have been used by researchers to encompass rather differing parenting dimensions. Lack of warmth, for example, may be taken to refer to withdrawal or a lack of positive affection, but also to actively aversive parenting. In the same way, control may be used to refer to over-protective/ over-involved parenting (i.e. in situations where the child does not need nurturance or support) or to intrusive control (i.e. where the parent take over or strongly directs the child's activity) (Murray et al., 2009 p. 1417).

Research interest in parenting outlined above has largely focused on closely observed parent-child interactions, but it is important to note that wider parenting practices are also likely to be implicated in the development of child anxiety (Murray et al., 2009). Parents' decisions concerning, for example, the use of day

care, family socialization and recreational activities, stand to enhance or limit child exposure to potential challenges beyond the home, and so the opportunity to develop coping skills (see reviews by Bögels and Brechman-Toussaint, 2006; Chorpita and Barlow, 1998).

In considering associations between parenting styles and child anxiety, the question arises as to whether these are i) A function of the parents who are themselves frequently anxious, or ii) Generated as a response to having an anxious child, or else iii) result from some interaction between parent and child characteristics. This question can be addressed only in studies that include assessment of both parent and child.

The direction of effects and the specificity of effects are consequently two further issues regarding parenting quality.

Parker (1983) demonstrated that mothers of anxious children were more controlling and less warm toward their children, regardless of their own anxiety status. They found that child, not maternal, anxiety status predicted low maternal warmth. Thus, anxious children elicited less warm behaviour from their mothers, regardless of whether the mother was anxious or not. In addition, even non-anxious mothers were overprotective of their anxious child. These findings support a transactional understanding of the mutual influences of each person within the parent-child dyads in influencing the other.

“The influence on parenting of long-term experience regarding the child is evident from the study of Dumas and La Freniere (1993), who found that mothers of anxious children interacted more negatively than mothers of other groups of children (e.g. competent, aggressive) with their own child, but more positively with another anxious child” (Murray et al., 2009, p. 1417).

These results suggest that the mother's capacity to behave positively was compromised by the history of the relationship with their own child, but it was kept intact when they interacted with another anxious child.

With regard to the specificity of effects, it could be that particular parenting characteristics are uniquely associated with child anxiety disorders, rather than with more general child psychopathology, or there could be parenting characteristics specifically related to subtypes of both parent and child anxiety disorder.

Recently, McLeod (2007) pointed out that the strength of association between parental variables and child anxiety is extremely related with the nature of the measure, and in fact this association is maximal when observational measures are used.

Theory and empirical findings suggest that parenting practices are linked with child anxiety development and maintenance in different ways: for example lack of autonomy granting (explains 18% of the variance, McLeod, 2007, Chorpita and Barlow, 1998; Moore, Whaley, and Sigman, 2004), intrusiveness/over control (explains 6% of the variance, McLeod, 2007 Wood et al., 2003; Wood, 2006), and rejection (explains 4% of the variance, McLeod, 2007).

Now research is focusing on finding specific patterns of parenting related to specific anxiety disorders in children.

Historically, parenting research uses a typological approach, in which many parenting behaviours are organized into parenting types.

Little evidence is available concerning specificity in the effects of parenting between the anxiety disorders. Indeed, research into parenting effects have generally grouped together different anxiety disorders in both child and parent

populations; and also the sample sizes are often small. Furthermore, the conditions for assessing parent-child relationships have often been non-specific, consequently parental and child difficulties that might be elucidated only in disorder-relevant contexts have been unclear. Further investigations are required to better address whether specific parental styles are related to specific child anxiety symptoms.

2.2. Studies using self report measures

Much of the literature on anxiety utilises self reporting measures by adults in retrospective studies, in particular questionnaires asking adults to report on the style of parenting they received as children. Major limitations have plagued the methodology of the research in this area.

This retrospective research measures ‘perceived parenting’ rather than ‘actual’ parenting and is subject to memory bias, thus limiting the conclusions that can be drawn.

In addition, the research primarily compares samples of anxious individuals with non-clinical samples, failing to make comparisons with other clinical groups.

Thus, it would seem that although controlling parenting may be important in the development of anxiety disorders, it may also be a feature associated with other disorders. It is possible that these parenting styles operate in different ways to develop or maintain psychopathology across the different disorders.

Rapee (1997) suggests that studies examining anxiety and parenting need to include appropriate comparison groups in order to tease apart the specificity or generality of potential parenting influences.

Although the research on perceived parenting styles has focused primarily on the reports of anxious adults, some research has measured childrearing from the perspective of anxious children and their parents.

A number of studies have been conducted that rely on current child report of perceived parental rearing style and these have all found some association between child anxiety and parenting style.

Stark and colleagues (1990) found that in comparison to non-clinical children, anxious children described their families as more enmeshed and less supportive.

Messer and Beidel (1994) found that children with an anxiety disorder reported their family environmental as promoting less independence in contrast to children with no anxiety disorder or with control participants.

Muris et al. (2000) recruited 220 adolescents and found that their level of worry was significantly associated with both maternal and paternal anxious rearing and overprotection. Wolfradt et al (2003) used a battery of standardised parenting and anxiety questionnaires to assess the relationship between anxiety in 276, 14-17 years olds and parental behaviour. Perceived control and pressure predicted adolescent anxiety, in addition to a low level of warmth.

Several studies have also examined children from non-clinical populations and have shown that self-rated anxiety symptoms were positively associated with inconsistent parenting (Kohlmanm et al., 1988), as well as rejecting and controlling parenting (Grüner et al., 1999). Consistent with these data, Messer and Beidel (1994) examined children with an average age of 10 years, finding that anxiety disordered children showed a tendency to describe their families as less promoting of independence than non-clinical children.

When parents themselves are asked to report on their childrearing styles, support for an association between parental control and childhood anxiety has been found in some studies (Berg and McGuire, 1974; Chorpita et al., 1998; Nilzon and Palmerus, 1997) but not by all (Muris et al, 1996).

Considered together, these results provide further support for the association between anxiety and perceived parental control. However, they have still measured perceived rather than actual parenting styles.

Limited conclusions can be drawn from studies using self report measures due to a possible link between their own pathology and their perception of parenting. Observational studies are, therefore, necessary to help clarify the relationship between parental responses and childhood anxiety.

2.3. Studies using observational measures

A handful of studies have observed interactions between children and their parents and have shown effects consistent with the research on perceived parenting described above (Dumas et al., 1995; Hermans et al., 1972; Krohne and Hock, 1991; Mills and Rubin, 1998; Perry and Millimet, 1977).

Hermans et al (1972) observed the parent child interactions of 40 dyads completing several complex motor tasks. Parents of high anxious children responded more negatively and showed some signs of rejecting their children (Rapee, 1997). A later observational study using similar tasks also found parents of anxious children to be more negative than the parents of aggressive and non-distressed children (Dumas et al., 1995).

Three important studies have investigated the parental behaviours of anxious children and all have found a link between child anxiety and parental control. For example Siqueland et al (1996) recruited 17 anxious children and 27 control children to examine level of warmth and control in mother child interactions. Both concepts were coded using a five point likert scale. Granting of autonomy was rated on the evidence for a number of maternal behaviours (soliciting the child's own opinion; tolerating differences of opinion; avoiding judgmental reaction to the child's view; encouraging the child to think independently) making a global rating. A similar method was using to measure warmth, taking account of a variety of maternal behaviours (expressed affection, positive regard for the child, mutual expression, smiling, touching, physical orientation towards the child). They found no differences between the two groups with regard to maternal warmth but found mothers of anxious children to be significantly less granting of autonomy.

Hudson and Rapee (2001) recruited 95 children and their mothers between 7 and 15 years with anxiety, ODD or no clinical diagnosis. The children were asked to complete two tasks: a tangram and a scrabble task. The first task was designed to be too difficult to complete in the expected time. Interactions were rated with regard to maternal involvement and negativity. A variety of standardised questionnaire measures were also completed. It was found that mothers of anxious children were more involved and intrusive than their non- anxious counterparts, in a stressful and difficult situation (the tangram task). The mothers were also more negative during both interactions. Interestingly, the mother's own self reported level of anxiety and depression were not correlated with either their level of negativity or intrusion in the observational tasks.

A further study was conducted to explore the link between child anxiety and parenting behaviours, in particular, parental responses towards both anxious children and non-anxious siblings (Hudson and Rapee, 2002). They observed 37 anxious and 20 control children with their siblings. Various standardised measures were used to assess child and parental anxiety and depression. Each child was asked to complete a series of complex puzzles, one in the presence of each parent. Results showed that mothers and fathers were equally involved in the task with both the anxious child and their siblings. Mothers of anxious children were significantly more over-involved with both their anxious child and their siblings than mothers of non-anxious children. This suggests that over-involvement may be linked to a particular parenting style, rather than to a child temperament trait or anxious vulnerability. This study also concluded that maternal over involvement is more important in the development and maintenance of childhood anxiety than paternal parenting style.

Krohne and Hock (1991) observed mother–child interactions while the child (aged 10–13 years) completed a difficult cognitive task. The results showed that mothers of girls with high levels of anxiety were more controlling than mothers of girls with low levels of anxiety. This result was not found in mothers of male children. In another observational study of 7- and 8-year-old children, Gordon, Nowicki, and Wichern (1981) found that during a puzzle task that was too difficult for the child to complete, mothers of children with a self-reported external locus of control gave more help, interfered more, and gave more directions than mothers of children with an internal locus of control. This result is consistent with the notion that an over involved parenting style is associated with the child's decreased perception of control over events.

Only a few studies to date have examined parenting in children diagnosed with anxiety disorders (Barrett et al., 1996; Chorpita et al., 1996; Hirshfeld et al., 1997; Siqueland et al., 1996; Stubbe et al., 1993). Studies examining expressed emotion have provided support for the link between over involvement and the anxiety disorders (Hirshfeld et al., 1997; Stubbe et al., 1993).

Interestingly, in these studies, maternal criticism was associated with the disruptive disorders and not the anxiety disorders**.**

Barrett et al. (1996) demonstrated further support for a parental influence on anxiety in an observational study of anxiety disordered children and their parents. The results showed that anxious children aged 7 to 14 years increased the likelihood of reporting avoidant coping responses to a hypothetical situation of ambiguous threat following a discussion of the situation with their parents. In contrast, oppositional defiant and non-clinical children showed a decrease in avoidant responding following the family discussion. Further investigations revealed that parents of anxious children encouraged avoidant responding (Dadds et al., 1996).

Following Rapee's suggestion (2001), these results suggest that parents of anxious children are more likely to encourage their child to avoid situations that may cause the child distress.

Summarizing, both observational and questionnaire research provide strong support for the link between anxiety and parental control**,** with less support for a link with parental rejection. These results support the aetiological models of anxiety that promote the importance of parental control or over-involvement in the anxious child's environment (Chorpita and Barlow, 1998; Krohne, 1990; Manassis and Bradley, 1994; Rapee, 2001; Rubin and Mills, 1991).

However, recently McLeod (2007) conducted a meta-analytic study highlighting that self-report measures could only explain a small proportion of the association between children anxiety and parenting behaviour compared with observational measures. He took into consideration 47 studies and found that parenting practises are good predictor of child anxiety, with an overall effect size of .25 but this was significantly moderated by the source of the information (observational versus self report measures) (Creswell et al., 2009).

Hence, some research is limited by the lack of observational methodology to directly examine parental style during interactions between parents and children. A further limitation of the research is the use of narrow age bands of children, making comparisons across developmental levels difficult. This has led to a limited understanding of the importance of these parenting styles across developmental phases.

The current study examined the relationship between parenting style and child anxiety using observational and questionnaire measures. The relationship between parenting and mothers' symptoms of anxiety and depression were also examined.

2.4. Parental style of control: a literature review

Control is defined as a pattern of excessive regulation of children's activities and routines, autocratic parental decision making, overprotection, or instruction to children on how to think or feel (Barber, 1996; Steinberg et al., 1989).

The different manifestations of parental control each involve encouragement of children's dependence on parents, which is hypothesized to affect children's perceptions of mastery over the environment. Lack of mastery is posited to contribute to high trait anxiety by creating a cognitive bias characterized by perceiving events as out of one's control (Chorpita and Barlow, 1998).

Parental granting of autonomy is viewed as the opposite of excessive parental control (e.g., Mattanah, 2001)**.**

The research literature investigating the nature and effects of parental control of children contains numerous different conceptualizations of control, and findings have been sometimes inconsistent or equivocal (Barber et al., 1992; Barber et al., 1994; Rollins and Thomas, 1979)**.**

This literature has benefited from attempts to provide some conceptual organization to parental control of children, such as the distinction between coercive, inductive, and undifferentiated control attempts.

Psychological control refers to control attempts that intrude into the psychological and emotional development of the child (thinking process, self expressions, emotions, and attachment to parents).

Explicit attention to the construct of psychological control emerged in the 1960s, particularly in the work of Becker (1964) and Schaefer (1965a, 1965b).

Becker (1964) drew from work by Allinsmith (1960) and MacKinnon (1938) in defining psychological discipline as parental behaviour that, for example, appeals to pride and guilt, expresses disappointment, withdraws love, isolates the child, and involves shaming.

For these scholars, psychological discipline was an example of negative, love-oriented discipline that involved the manipulation of the love relationship between the parent and the child as a means of controlling child behaviour.

This negative, love-oriented discipline stood in contrast to positive, love oriented discipline (i.e., praise and reasoning) and to power assertive discipline techniques, such as physical punishment, yelling, forceful commands, and verbal threats.

Schaefer's (1959, 1965a, 1965b) factor analyses of child and parent report on his Child Report of Parent Behaviour Inventory (GRPBI) revealed three replicated factors: Acceptance versus Rejection, Firm Control versus Lax Control, and Psychological Autonomy versus Psychological Control.

Parental behaviour scales that primarily defined this latter factor were Intrusiveness, Parental Direction, and Control through Guilt. Other scales with significant loadings on this factor (but also had cross-loadings on one of the other two factors) were Possessiveness, Protectiveness, Nagging, Negative Evaluation, Strictness, and Punishment. Schaefer (1965b) labelled this factor Psychological Autonomy vs. Psychological Control because "the defining scales describe covert, psychological methods of controlling the child's activities and behaviours that would not permit the child to develop as an individual apart from the parent" (p. 555).

These early efforts converged in the view that psychological control is a rather insidious type of control that potentially inhibits or intrudes upon psychological development through manipulation and exploitation of the parent-child bond (e.g., love-withdrawal and guilt induction), negative, affect-laden

expressions and criticisms (e.g., disappointment and shame), and excessive personal control (e.g., possessiveness, protectiveness).

Later, however, Steinberg (Steinberg, 1990; Steinberg et al., 1989; Steinberg et al., 1992; Steinberg et al., 1991) has consistently found psychological control/autonomy to be distinct from behavioural control and parental acceptance (as did Schaefer, 1965b), but to this point he has aggregated these into typologies.

Other researchers have begun to focus on the independent contributions of psychological control to youth functioning (Barber et. al., 1992; Barber et al., 1994; Barber and Shagle, 1992; Fauber et al., 1990).

Theoretical guidance for further research on this distinction comes from several formulations of the idea that parents can intrude upon the psychological and emotional development of their children.

Diana Baumrind's (Baumrind, 1965, 1966, 1968, 1978) discussions of parental control consistently endorse parental styles that encourage the child's expression of opinions, verbal give and take between parents and children, and autonomous expression of children's individuality. She also underscores the importance of recognizing the child's individual interests and affirming the child's qualities (Baumrind, 1978).

In a separate line of research, Hauser has also emphasized parenting behaviours that are high related with psychological control (Hauser, 1991; Hauser et al., 1984). For Hauser, moment- to-moment exchanges between parents and children can either facilitate (enable) or restrict (constrain) interactions that are critical to the child's ego development. Enabling interactions enhance individuality by way of explaining, expressing curiosity, and engaging in joint problem solving. On the other hand, constraining interactions that, for example, devalue, judge,

gratify, distract, withhold, or show indifference, interfere in the development of individuality (Hauser, 1991). Such interactions undermine a child's participation in family interactions and discourage involvement with perceptions, ideas, and observations (Hauser et al., 1984).

2.5. Clinical perspective on control parental style

Support for the salience of the psychological control construct is also available from the clinical literature. It is thought that increased parental control can lead to a decrease in the child's own perceived control.

Reduced perceived control over a threatening or challenging stimulus would increase the perception of danger, leading to a more anxious fearful response (Vasey and Dadds, 2001).

In the literature it is noted that depressed persons recall their parents to have been psychologically controlling (e.g., over-intrusive, guilt inducing, negatively evaluating, etc.; Burbach and Bourdin, 1986).

Also, family members' openness to the ideas of others (permeability) and respect for maintaining one's own beliefs (mutuality) are central in the work of Grotevant and Cooper (1985). Similarly, family therapist researchers have long been concerned with relationship patterns that are intrusive and inhibit psychological autonomy.

In theorizing about the role of psychological control in the socialization process Barber (1996) differentiated between "psychological control" and "behavioural control"**, u**nderlying the distinctions between the psychological (e.g.,

psychological/emotional autonomy) and behavioural (e.g., conformity to rules and regulations) dimensions of a child's experience.

Empirically, Schaefer (1965b) made the same distinction by separating psychological control from firm control. Distinguishing between psychological and behavioural control facilitates an important shift in understanding the nature of control.

Another issue is whether psychological control uniquely affects aspects of child functioning.

For example, are behavioural and psychological control differentially related to existing distinctions (Achenbach, 1985; Cicchetti and Toth, 1991) between internalizing behaviours (inhibited, over controlled problems that are manifest privately or internally) and externalized problems (under controlled problems that tend to be more aggressive and socially disruptive)?

Existing literature imply that psychological control should have particular effects on internalized problems in children and that behavioural control should have more prominent associations with externalized problems.

Psychologically controlling processes involve socialization difficulties (Maccoby and Martin, 1983), that stifles independent expression and autonomy (Baumrind, 1965, 1978; Hauser, 1991; Hauser et al., 1984), and that does not encourage interaction with others (Baumrind, 1965, 1978; Hauser, 1991; Hauser et al., 1984).

Such an environment makes it difficult for a child to develop a healthy awareness and perception of self for several reasons: the implied derogation of the child, the lack of healthy interaction with others that is required for adequate self definition (Youniss and Smollar, 1985), limited opportunities to develop a sense of

personal efficacy (Seligman and Peterson, 1986), and, later in adolescence, interference with the exploration needed to establish a stable identity (Erikson, 1968; Marcia, 1980).

Psychological control has consistently been found to be correlated with feelings of guilt, self responsibility, confession, and indirect or non expression of aggression (Becker, 1964), dependency (Baumrind, 1978; Becker, 1964), alienation (Baumrind, 1968), social withdrawal (Baumrind, 1967; Baumrind and Black, 1967), low ego strength (Hauser, 1991; Hauser et al., 1984; Siegelman, 1965), inability to make conscious choices (Baumrind, 1966), low self-esteem (Coopersmith, 1967), passive, inhibited, and over-controlled characteristics (Beavers, 1982), and depressed affect (Alle et al., 1994; Barber et al., 1994; Burbach and Bourdin, 1986; Fauber et al., 1990).

Inadequate behavioural regulation includes impulsivity, aggression, delinquency, drug use, and sexual precocity (Baumrind, 1971, 1991; Dishion and Loeber, 1985; Dornbusch et al., 1985; Loeber and Dishion, 1984; Maccoby and Martin, 1983; McCord, 1979; Olweus, 1980; Patterson et al, 1989; Patterson and Stouthamer-Loeber, 1984; Pulkinnen, 1982; Volk et al., 1989).

Under-controlled environments do not foster self-regulation in children, often leaving them more impulsive, reckless, and more willing to take risks and violate social norms.

In un-regulating family environments, adolescents in particular also would be likely to be more responsive and susceptible to peer influence, which could include negative influences toward deviant behaviour.

Initial empirical tests of these ideas have been encouraging (Barber et al., 1994).

Second-order factor analysis of several measures of control—measured at both the dyadic, parent-child level and the family systems level—distinguished psychological control from behavioural control, and the contrasting effects of these on internalizing (depression) and externalizing (low self regulation) problems among pre-, early, and middle adolescents were confirmed (Barber, 1996).

2.6. Parental style of warmth: a literature review

Warmth has been used to describe the "responsiveness" parenting style. Warmth refers to the extent to which parents "intentionally foster individuality, self regulation and self assertion by being supportive and acquiescent to the children's special needs and demands" (Baumrind, 1991, p. 62).

The dimension of parent-child warmth is has emerged independently in several factor analytic studies of parenting performed over the last 45 years.

Schaefer (1959) found a dimension of warmth-hostility, ranging from high affection, positive reinforcement and sensitivity to the child's needs and desires on one end, to rejection and hostility on the other.

Baumrind (1971) noted that authoritative parents are generally warm and accepting, while authoritarian parents tend to be cold and hostile. She classified parents who were high in psychological autonomy and firm control as authoritative, whereas those high in psychological control and firm control were labelled authoritarian parents.

Reflecting these findings, Maccoby and Martin (1983) interpret the data as indicating a dimension ranging from acceptance, responsiveness, and child-centeredness to its opposite.

The dimension of warmth-hostility is also present cross-culturally. Warm parent child relationships are characteristic of a wide range of human societies at very different levels of economic development and social organization.

Significantly, parent-child affection is characteristic of societies in which the nuclear family is the norm (Blain and Barkow, 1988; Draper and Harpending, 1988; Katz and Konner, 1976; Weisner, 1984). The nuclear family social structure occurs among many economically advanced human societies (e.g., industrialized Western and Westernized societies).

However, the patterning of warmth varies widely, not only within cultures, but also between cultures. This cross-cultural and within-cultural variation in warmth has been shown to be associated with a consistent set of correlates related to adaptive functioning, including attraction to intimacy, lack of psychopathology, acceptance of adult values, and pro-social behaviour.

Data from multiple studies however demonstrates that the benefits of warm parenting are ethnically and socioeconomically independent and could transcend status and household composition.

Literature on resilience among children living in high-risk environments, for example, suggests that a warm and supportive relationship with an adult, particularly a parent, may help prevent the development of child problems (e.g., Masten and Coatsworth, 1998). This literature suggests that high levels of parental warmth might weaken the association between children's exposure to risk factors and children's externalizing problems.

Skopp et al. (2007) found that maternal and paternal warmth each moderated the relationship between father's aggression and children's externalizing problems.

McLoyd and Smith (2002) found that the link between physical discipline and American, African, Hispanic and European American children behavioural problems was moderate by maternal emotional support. This research utilized data from a 6 year study on a sample of 1039 European American, 550 African American and 401 Hispanic children. Maternal emotional support of the child was based on interviewer observations conducted as part of the home observation. For each of the 3 racial-ethnic groups, spanking predicted increase in the level of problem behaviour over time. Maternal emotional support moderated the link between spanking and problem behaviour. This pattern held for all three racial-ethnic groups.

Although warmth has been positively taken into account to consider child emotional adjustment, research into the effects of parental warmth on childhood anxiety is weak and inconsistent, showing no strong evidence of a relationship or any direct effect (Wood 2003, McLeod et al 2007, Murray et al., 2008).

Although a direct relationship between lack of warmth and childhood anxiety is not well established, a growing area of research is examining the possibilities of warmth as a moderating factor which protects the child from anxiety when mothers tend to be very over-controlling and intrusive.

2.7. Parental style of Intrusiveness: a literature review

In this study, we focused on one type of control, intrusiveness.

Although maternal intrusiveness has not been consistently defined in the literature, the definition used in this study considers intrusiveness to involve a constellation of insensitive, interfering parenting behaviours rooted in mothers' lack of respect for their infants' autonomy**.**

The highly intrusive mother has her own agenda in mind as she either overwhelms the child with excessive stimulation or interrupts the child's self-initiated activity to stop it or change its course.

In studies that have used this definition, intrusiveness has been operationalized as frequent, non contingent behaviour directed toward the child (e.g., Isabella and Belsky, 1991; Smith and Pederson, 1988) or as verbal or physical behaviour meant to stop or take over the child's activity (e.g., Biringen and Robinson, 1991; Carlson and Harwood, 2003; Egeland et al., 1993).

It also includes the use of demands rather than gentle guidance (e.g., Biringen and Robinson, 1991; Nolen-Hoeksema et al., 1995).

Based on this previous work, we viewed intrusiveness as parenting that dominates a child's play agenda so that the child has little or no influence on its content or pace.

Beginning with the classic studies of Ainsworth and her colleagues, most past research has indicated that intrusiveness harms the mother-child relationship and leads to poor social skills in children. Ainsworth found a consistent link between maternal intrusiveness and infant and toddler tendencies to look away during the strange situation, displaying avoidant attachment.

Research during school aged period (Egeland, 1985) shows that intrusiveness is negative relate to a high mother-child mutuality and positive affection.

In the literature, intrusiveness is also conceptually related to psychological control (Barber et al., 1994) and boundary violations (Jacobvitz et al., 2004, Sroufe et al., 1985).

Researchers have explained these findings by referring to three aspects of intrusive parenting (Ispa et al., 2004).

First, adult intrusiveness may provide overwhelming stimulation for children, causing them to shut down (or become avoidant) as a way of protecting themselves from an overload in information processing demands and from the negative affect produced by over-arousal (Ainsworth et al., 1978; Belsky et al., 1984, Ispa et al., 2004).

Second, infants and children may experience intrusiveness as stressful because it interferes with their ability to exercise control over interactions or to establish patterns of mutual reciprocity and regulation (Malatesta et al., 1989; Tronick, 1989). Because the child has little experience of mutual regulation with a his/her caregiver, the development of self-regulation and ability to engage in future positive relationships with others may be compromised (Egeland and Farber, 1984; Egeland et al., 1993; Pettit et al., 1991).

Third, because intrusive mothers do not read children's wishes and interests well and tend to take the lead in task and play situations, children may develop feelings of incompetence, which in turn can lead to disengagement, aggression, or other negative interpersonal styles and externalizing problems (Kahen et al., 1994; Pettit et al., 1991; Tronick, 1989, Ispa et al., 2004).

Kelley and Jennings (2003) reported an association between maternal depression and intrusiveness. Gelfand and Teti (1990) reasoned that depression is

often associated with negative views of self and of one's children, which in turn can result in intrusiveness.

It is interesting, however, that not all studies show negative impacts of maternal controlling or intrusive behaviour and all that show either neutral or positive consequences are based on non-European American or non-U.S. samples.

Three such studies used Latino samples. Carlson and Harwood (2003) found that high maternal physical control predicted secure attachment in Puerto Rican toddlers; Fracasso, Busch- Rossnagel, and Fisher (1994) found that, in Puerto Rican and Dominican immigrant families, mothers of secure infants engaged in more ''abrupt-interfering pick-ups'' than mothers of insecure infants; and Lindahl and Malik (1999) found that Latino school age boys were no more likely to exhibit externalizing behaviours if their parents used a hierarchical as compared to a democratic childrearing style.

Three Israeli studies indicated no relations between maternal intrusiveness and infant attachment security (Aviezar et al., 1999) or infant or preschooler active positive involvement with mothers during play (Eshel et al., 2000; Feldman et al., 1997), and studies of Chinese and Chinese American families reported neutral or positive effects of parental firm control (Chao, 2001; Leung et al., 1998).

Finally, several studies have indicated that high parental control, especially when combined with high warmth, has either neutral or beneficial consequences for African American children (Brody and Flor, 1998; Spieker et al., 1999).

Martınez's (1988) study of Mexican American parent–child relationships called attention to the importance of distinguishing between intrusiveness that is affectively neutral or positive, from that which is affectively negative.

Therefore Martınez found no relationship between maternal positive physical control (i.e., manual control meant to facilitate the child's successful task solution) or negative physical control (i.e., physically restraining behaviours indicating maternal disapproval) and 5-year-olds' non-compliance, imitation of their mothers, or negative talk to their mothers.

Moreover although mothers' negative physical control predicted children's negative talk to them, maternal positive physical control predicted children's positive verbal responses to their mothers and task involvement.

Their results show that researchers should not assume that maternal behaviour which seems to have negative consequences in one culture has similar consequences in other cultures. Intrusiveness may have different meanings in different cultures or its negative effects may be lessened to the extent that it is culturally normative or occurs in the context of high warmth.

First we need to understand which specific dimensions of the mother-child relationship affect child anxiety and self regulation problems. Second, although there is evidence that maternal warmth positively affects relationship outcomes (Maccoby and Martin, 1983) and may moderate the impact of highly controlling parenting (Brody and Flor, 1998; McLoyd and Smith, 2002), we know of no research testing the possibility that it moderates the specific relationship between maternal intrusiveness and mother child relationship quality over time.

Recently an unpublished work by Scott Lee Poltrock (2006), Syracuse University, New York, found that maternal warmth significantly moderated the relationship between mother report of maternal control and child anxiety.

They investigated parental control and warmth in a community sample of 68 families of 8-11 year old American children, using the Five Minute Speech

Sample (FMSS; Magana et al., 1986), the Egna Minuen Betraffande Uppfostram 'My memories of upbringing' (EMBU; Castro et al., 1993) and the SCAS (Spence Anxiety Assessment Scale, 1997).

Poltrock’s finding is the only study which takes into consideration parental warmth as a moderator and protective factor in children anxiety development.

The limit of this work is that the researcher used only self report measures and projective test to assess both mother and child dimensions.

Therefore no observational studies have been conducted until now to address this specific topic.

Chapter 3. Mother's containment and child regulation

3.1 Child Temperament, frustration and self regulation

Temperament is defined as the physiological basis for the affective arousal, expression, and regulation components of personality (Goldsmith et al., 1987).

Reactivity includes individual differences in negative affect, including fear (inhibition and anxiousness are related terms) and frustration. Self regulation includes processes that modulate reactivity, facilitating or inhibiting the affective response**.**

Negative emotionality and effort of control have been found to predict internalizing and externalizing problems (e.g., Eisenberg et al., 2001; Frick and Morris, 2004; Rothbart and Bates, 1998).

As noted above, the affective quality of parenting and parental control are often identified as key dimensions of parenting and are consistently related to child emotional and social adjustment (e.g., Loeber and Stouthamer-Loeber, 1986; Maccobby and Martin, 1983).

Specifically, parental negative affect, or rejection, predicts higher levels of externalizing problems (e.g., Lengua et al., 2000; Stormshak et al., 2000), as does inconsistent discipline (e.g., Chamberlain and Patterson, 1995; Hill et al., 2003).

Also, physical punishment is related to more child conduct problems (e.g., Deater- Deckard et al., 1996; Stormshak et al., 2000), although the adverse effects of physical punishment may depend on how it is operationalized (harsh/ abusive vs. corporal punishment), on how extensively it is used (Baumrind et al., 2002), or

on the values, culture, or context of the family (Brodsky and DeVet, 2000; Deater-Deckard et al., 1996; Lansford et al., 2004).

However, the effects of parenting might depend on children's temperament, and interactions between parenting and child temperament might account for complexity in developmental processes.

Belsky (2005) argues that children with certain characteristics, particularly high negative emotionality, are more susceptible to parental influences. Thus, individual differences in negative emotionality and effortful control might lead to different reactions to parenting, rendering a child more or less susceptible to parent behaviours.

In more recent research, interactions between specific dimensions of temperament and parenting have been investigated. Specifically, there is evidence that fearfulness, irritability, and effortful control interacts with parenting to predict children's negative adjustment.

Moreover, studies that examine interactions among multiple dimensions of temperament and parenting provide evidence of specificity in these interactions (Paterson and Sanson, 1999).

Kochanska (1995) found that gentle discipline that de-emphasizes power predicted compliance for children who were fearful whereas a positive parent–child relationship predicted compliance for fearless children.

Gentle discipline was thought to be ineffective for eliciting compliance from fearless children as it would not result in an 'optimal' level of fear arousal.

In another study, social reticence in four-year-olds was predicted by an interaction between toddlers' inhibition and maternal intrusiveness or derision,

with inhibition predicting later reticence only if mothers demonstrated intrusiveness (Rubin et al., 2002). Colder and colleagues (1997) found that parental over-involvement was related to depression in boys who were high in fearfulness.

Further, harsh discipline was more strongly related to aggression and depression for children who were high in fearfulness compared to children who were low in fearfulness (Colder et al., 1997).

Although the specific operationalization of fearfulness, parental control, discipline, and the affective quality of parenting vary across studies, these findings indicate that child fearfulness interacts with parenting behaviours to predict internalizing or externalizing problems.

The effects of parental rejection might be pronounced in children who are highly reactive and who might experience greater distress as a result of parental rejection. Therefore, children high in anxiousness might be more adversely affected by parental rejection than children low in those characteristics.

In particular, anxious children might internalize parental rejection and criticism more readily, as those children might perceive that their relationship with their parents is threatened (e.g., Gruener et al., 1999), resulting in increased internalizing problems.

Inconsistent discipline, which is generally expected to predict more adjustment problems, may not predict externalizing problems in children who are anxious and sensitive to cues of negative consequences.

Those children might find even inconsistently applied consequences aversive enough to comply with parental directives. Child irritability or frustration might also interact with parenting behaviours. For example, for children high in

irritability, maternal hostility was associated with externalizing problems, whereas maternal psychological control was related to internalizing problems (Morris et al., 2002).

These associations suggest hypotheses for the interaction between child frustration and parental behaviours.

For children high in frustration, parental rejection might engender greater irritability and anger, symptoms common to both internalizing and externalizing problems. Further, children who are easily frustrated might experience more distress and anger in responses to physical punishment and may not internalize the rules that parents are enforcing.

In addition, evidence suggests that temperament, parenting, and their interaction might operate differently for boys and girls (Sanson and Rothbart, 1995). There is evidence of mean differences across gender on fear, frustration (Kohnstamm, 1989), and effortful control (Silverman et al., 2003), with girls being higher in fear and effortful control, and boys being higher in frustration.

The evidence regarding gender differences in parenting effects can be characterized in a similar way. Although there is evidence of differences in parenting practices across girls and boys (e.g., Russell et al., 2003), the findings are inconsistent and do not emerge in meta-analyses (Lytton and Romney, 1991).

However, Sanson and Rothbart (1995) suggest that researchers might need to account for child temperament when examining gender differences in the relationship between parenting and child outcomes.

3.2. Emotional regulation in children

Emotional regulation is a complex construct (e.g., Campos et al., 2004; Cole et al., 2004).

Researches have defined Emotional regulation as a process through which an emotion can be intensified, reduced or simply maintained (Gross, 1998).

Whereas psychologist who investigated adults, generally considered emotion regulation as a process occurring essentially within the person, child psychologists have established the fundamental interpersonal nature of emotion regulation among children (Gross, 2007)

The emotional regulation process is an evolutionary process which changes throughout lifetime.

Emotional regulation may be a particularly important factor in understanding risk for internalizing problems, which are characterized by affective dysregulation involving sadness, fear, or joy.

One of the most common scenarios requiring emotional regulation for children is the demand to wait for a desired object or goal, especially when there is little else of interest in the environment. Examples include having to wait for a sought object, for school to end, or for a favourite snack or toy. For a young child, waiting even a few minutes without attaining a desired goal can provoke negative emotions.

Children may respond under such circumstances with adaptive strategies that serve to down-regulate levels of negative affect or with maladaptive emotional regulation strategies that maintain or even increase levels of negative affect.

Beginning in infancy, children utilize rudimentary behaviours to regulate emotional experience. These behaviours become increasingly sophisticated as children develop more complex cognitive and emotional skills (Kopp, 1989).

Grolnick et al. (1996) outlined a set of behaviours for regulating emotion that are commonly used by preschool-age children. The first set of strategies includes behaviours aimed at shifting attention from a distressing stimulus toward a non distressing stimulus (Derryberry and Rothbart, 1988).

Observational studies of infants and young children show that attention shifting, or refocusing attention on a non distressing stimulus, is generally an effective strategy that has been associated with lower levels of subsequent distress (Buss and Goldsmith, 1998; Calkins and Johnson, 1998; Grolnick et al., 1996).

Greater use of distraction and attention shifting has also been associated with lower concurrent and future externalizing behaviours in young children (Eisenberg et al., 2000; Gilliom et al., 2002; Valiente et al., 2003).

A second set of emotion regulation strategies described by Grolnick et al. (1996) includes comfort behaviours such as self soothing or seeking physical comfort from a caregiver.

Infants' levels of proximity seeking to parents is viewed as one of the most critical factors in determining attachment security during distress paradigms such as the Strange Situation (Gaensbauer, 1985).

Grolnick et al. also suggested that verbal behaviours may be used as a form of comfort seeking. Verbalizations such as "I can do it" or "I'm a big kid now" might serve as a primitive form of cognitive restructuring. Little is known,

however, about how comfort-seeking strategies used by young children are associated with internal regulation.

A third set of behaviours used by young children involves maintaining or increasing attentional focus on a distressing stimulus.

A growing body of literature suggests that this is a maladaptive approach to regulate aversive feelings.

Research with infants and toddlers has shown that sustained focus on a frustrating stimulus, such as searching for the mother during a separation or staring at a delayed prize, is associated with anger and distress (Gaensbauer et al., 1983; Gilliom et al., 2002; Grolnick et al., 1996).

Mischel and Ebbesen's (1970) classic work on delay of gratification revealed that enhanced attentional focus on a delayed reward was associated with decreased ability to wait for the reward.

Sustained focus on delay or distress also appears to be a risk factor for externalizing problems (Calkins et al., 1999; Gilliom et al., 2002).

Although little research has addressed links between sustained focus on distress and internalizing problems in young children, research has been conducted with older children on the relevant constructs of rumination (Nolen-Hoeksema, 1994) and involuntary control coping (Compas et al., 2001).

Findings from these studies show that, for older children and adolescents, sustained focus on the source of distress is associated with increased sad mood and internalizing problems (Compas et al., 2001; Nolen-Hoeksema, 1994; Silk et al., 2003).

Also, Parenting style and psychopathology could affect children self-regulation. Some evidence suggests that, for example, children of depressed mothers have a limited repertoire of emotion regulation strategies and that they utilize strategies that are considered to be less effective compared to children of never-depressed mothers (Garber et al., 1991; Silk et al., in press).

There are several reasons why children of depressed parents may show suboptimal emotion-regulatory responses. One reason is that emotion regulation strategies are learned and shaped during development within the context of child–caregiver interactions (Eisenberg et al., 1998), which have been shown to be disturbed when mothers are depressed (Goodman and Gotlib, 1999).

Another reason is that children may directly model dysfunctional parental regulation strategies.

Garber and colleagues argue that those children of depressed parents, who exhibit suboptimal regulated responses, may be at particularly high risk for internalizing problems.

These children may not have the skills to adaptively regulate arousal associated with exposure to family conflict. However, a child who is adept at down-regulating negative affect may be able to maintain a sense of emotional stability within the context of an emotionally arousing family environment (e.g., Morris et al., 2002).

In addition, children who are able to anticipate, seek out, or up-regulate positive affect, even in an environment potentially characterized by low levels of reward or positive emotion, may also be less vulnerable to developing internalizing problems.

Although there has been considerable research investigating the origins, correlates, and underlying physiology of fearful reactivity, there has been less research on frustrated reactivity.

In one study, Stifter and Braungart (1995) examined changes in the types of regulatory behaviours infants use to manage emotional reactivity and observed that there were relations between these behaviours and changes in negative affect.

Calkins and Johnson (1998) demonstrated that there are relations between regulatory behaviours and the tendency to be distressed by frustrating situations.

Moreover, Buss and Goldsmith (1998) observed that a number of different behaviours that infants display when observed in frustrating or constraining situations appear to reduce negative affect.

The limitations of this work are that it consists largely of laboratory assessments of behavioural indexes of temperament and does not attempt to externally validate this assessment with other types of measures, including possible physiological correlates.

A second issue with respect to frustration reactivity is its effect on developing regulatory ability.

Braungart-Rieker and Stifter (1996) demonstrated that frustration reactivity at 5 months of age was related to the use of fewer emotion regulation behaviours at 10 months of age.

What is unclear is whether some types of emotion regulation behaviours are more likely to be associated with heightened frustration over time than others.

A small number of studies conducted with children of various ages suggest that it might be possible to identify profiles of infants at higher risk for regulatory difficulties.

Research on emotion regulation suggests also that easily frustrated children may have shorter attention spans or longer latencies to organize a response requiring focused attention (Kochanska et al, 1998; Ruff and Rothbart, 1996).

3.3. Child Compliance

Another goal of the study was to illuminate differences between children who experience frustration and who are not able to manage it versus those who are able to manage frustration. To assess this issue we used a compliance task we called the “Tidy up task”.

Compliance can be operationally defined as obeying a parental command immediately or with a short delay (i.e., typically 5 to 15 seconds). Two components of compliance are important (Forehand, 1977). Initiated compliance is the child's first step toward obeying the parental command within a reasonable amount of time. Completed compliance is the child's full completion of the task identified in the parental command.

The existent literature focuses on child compliance in the toddler period and little is known about on school-aged/latency period, because it is assumed that no problem in compliance occurs in older non clinical children.

Although Piaget (1932) and Kohlberg (1969) did not view compliance as related to internalization, many developmental theorists view compliance to

maternal commands as an essential precursor to internalization (Kochanska, 1991; Kopp, 1982; Lytton, 1980).

Indeed, Kochanska and Aksan, and Koenig (1995) argued that internalization is rooted in some forms of compliance, especially in Committed Compliance.

They differentiated between *Passive Non-compliance* (child ignoring adult command to comply, with no attempt to negotiate his/her independence), *Situational Compliance* (transitional compliance, child requires mother's supervision to stay on task) and *Committed Compliance* (fully, endorsed, immediate compliance).

Research on non-compliance has demonstrated that this ability develops and changes with age (Kopp, 1982; Kuczynski et al., 1987).

Similarly, the ability to comply is related to developmental level (Kaler and Kopp, 1990; Olson et al., 1990). For example, toddlers who scored higher on a language test were more likely to comply with their mother's request to put toys away than infants with poorer language ability (Vaughn et al., 1984).

Individual differences in compliance/non-compliance are often attributed to characteristics in the child's environment, the most widely researched characteristic being maternal control strategies.

Although there is some evidence that immediate, short, and firm reprimands are effective in eliciting compliance (Pfiffner and O'Leary, 1989), most studies have found that mothers who use warmth, support, and guidance are more likely to get their toddlers to comply, whereas mothers' strategies of power assertion and physical punishment are more likely to elicit noncompliant behaviours (Crockenberg and Litman, 1990; Power and Chapieski, 1986).

Such studies suggest that non-compliance is the direct result of poor-quality caregiving techniques.

However, this inference is seriously limited, in that it views children as passive recipients of caregiver influence, rather than as active agents of their own behaviour.

Aside from the findings that developmental level contributes to greater, more organized compliant behaviour, the contribution of individual differences in child behaviour (i.e., temperament) to the development of compliance has been virtually neglected (Kochanska, 1993).

The influence of child temperament on compliance may be direct or indirect, through its impact on parental behaviour.

A child who is emotionally reactive, for example, may not have the skills to self-regulate his or her arousal for the purposes of compliance, or may be resistant to attempts to socialize compliant behaviour.

Braungart-Rieker and colleagues established that toddlers with greater negative reactivity were found to be less compliant, but the relation was mediated by mothers' control behaviour (Braungart-Rieker et al., 1997).

The importance of temperament to the development of behavioural control has received attention by Kochanska (1993, 1995), who has eloquently proposed and demonstrated that temperament, specifically fear and effortful control, contributes significantly to the internalization of standards for conduct.

Temperament is based on individual differences in reactivity and self-regulation in which reactivity refers to "the arousability of affect, motor activity and related responses," and regulation refers to processes such as attention,

approach/avoidance, and self-soothing that, function to modulate reactivity (Rothbart and Derryberry, 1981).

Because compliance to parental demands is the “first step” in the process of internalization and because the modulation of frustration is considered a component of compliance, Kochanska (1993) proposed that compliance is preceded by development of the ability to regulate emotional responses during infancy, especially those in response to frustration.

Opportunities to learn emotion and/or behavioural control in infancy may be directly linked to the experience of frustration.

Infants are often confronted with frustrating events in their daily lives. Indeed, parents may allow or even provide such experiences for the purposes of learning tolerance or emotional control (Demos, 1986).

Therefore according to Kochanska’s idea, this study wanted to investigate how a child’s capacity to manage a frustration (self-regulation) is associated with his/her ability to comply with their mother’s order, and how parent containment strategy influences their child’s compliance.

3.4. Some psychoanalytic suggestions

Both Winnicott and Bion have turned to the mother-baby relationship in order to ground and root their ideas in a basic universal human experience, transporting the mother-baby relationship into a metaphor for the analytical process.

Holding and *container-contained* theory refer to two different aspects of the mother-baby relationship and two different vertices of conducting the analytical process. With ‘primary maternal preoccupation’ and ‘reverie’ both Winnicott and Bion refer to something *good-enough-mothers* do for their baby.

Winnicott's holding refers to the very physical and psychological states in which mother and baby are bound to be from the beginning. The *good-enough mother* is described as responding to the infant's gestures, allowing the infant the temporary illusion of omnipotence, the realization of hallucination, and protection from the unthinkable anxiety. *Good-enough mothers* tries to provide what the infant needs, but she instinctively leaves a time lag between the demands and their satisfaction and progressively increases it.

As Winnicott states: "The good-enough mother starts off with an almost complete adaptation to her infant's needs, and as time proceeds she adapts less and less completely, gradually, according to the infant's growing ability to deal with her failure" (Winnicott, 1953). The good enough mother stands in contrast with the "perfect" mother who satisfies all the needs of the infant on the spot, thus preventing him/her from developing. The good-enough mothers’ behaviour can be described with another Winnicottian concept, namely graduated failure of adaptation. Her failure to satisfy the infant needs immediately induces the latter to compensate for the temporary deprivation by mental activity and by understanding. Thus, the infant learns to tolerate for increasingly longer periods both his ego needs and instinctual tensions.

Winnicott underlines that a good enough mother has to gradually prepare her infant for the external world. There is a transition (the transitional experience) between fantasy and reality, from illusion to the external world. The illusion is

necessary for the hallucination process. Without illusion it could not be possible for the infant to re-create the object in his/her mind. The “moment of illusion” is also linked to the capacity to fantasize, where fantasising is a way of dealing with frustration and psychic pain. He also pointed out that the gradualism of the process, without it, the child could be overwhelmed by negative affects and anguish and this will obstruct his capacity for thinking and modelling to reality.

Winnicott called this phenomenon Graduated failure of adaptation. When the child's psychological state is such that he cannot tolerate the fear evoked by the absence of his mother, or by the mother’s frustration, the delicate balance of the sense of simultaneously creating and discovering his objects collapses and is replaced by omnipotent fantasy.

The latter not only impedes the development of symbolization and the capacity to recognize and make use of external objects, but also involves a refusal to accept the externality of time. If the mother has succeeded in holding her child's un-integrated states over time, the infant can start to internalize the maternal function of holding an emotional situation over time. This has not to be confused with object constancy, but represents the taking over of the maternal holding environment in the form of a child who creates the matrix of his mind, a capacity to sustain an internal holding environment. Winnicott sees this as the prerequisite for the capacity to hold the depressive position.

Containing is a maternal function. Bion stresses this by using the ancient sign for woman to represent the container. There is some infant's “nameless dread”, the mental content that the child cannot metabolize. The mother's containing, her reverie and α-function refer to the mother's handling of the infant's nameless dread, otherwise the situation becomes incomprehensible to the infant

(1962, p. 36). Whenever α-function fails to operate in fact, the raw material of (no)-thoughts, (no)-impression and (no)-emotions experienced (what Bion calls beta-elements), remains indigestible to the mental apparatus, cannot be transformed and is evacuated. The infant's projections create holes in her inner world, feelings of helplessness, incomprehension, and anguish in the face of the infant's pain. The holes need to be filled with safety, words, support. The containing is the mother's ongoing translation of these infants nameless dread (anguish, pain) in α element (meaningful thoughts). According to Bion it is thanks to the maternal capacity for α-function that the baby himself develops the capacity for α-function. If the mother is not able to process the baby's experiences for him consciously and unconsciously, i.e., if her α-function is not available for her baby, the baby's own α-function fails to develop. Bion calls the capacity of the mother to mentalize and dream for her baby ‘reverie’. Through reverie the mother will contain her baby's experiences, and the baby will not need to evacuate his raw material. The baby will gradually perform his own α-function. He will introject the capacity to develop a container for his emotions as well as the capacity to dream and have thoughts. At the same time he will be able to contain unconscious and conscious thoughts, anguish and frightens feeling derived from mentalized emotional experience.

3.5. Maternal behaviour during the compliance task, the other part of the equation: a literature review.

Some literature has also underlined that secure attachment is associated with the child's readiness to comply with the mother, including internalized forms

of compliance (Londerville and Main, 1981; Matas et al., 1978; Stayton et al., 1971; Waters et al., 1986).

Parental affective availability is viewed as facilitating early negotiation of directives and prohibitions between the child and the parent (Emde et al., 1991).

Previous research (deCharms, 1976: Deci et al, 1981), has suggested that the dimension of autonomy may be particularly relevant to self regulation and self competence in children.

Research in the school field found that pupils of teachers who valued autonomy were more intrinsically motivated and evidenced greater perceived competence and self esteem than did pupils of more control-oriented teachers.

According to studies of teacher's style, parents who give autonomy to their children and provide them with regular opportunities to exercise positive and effective control over the situation, reinforce their child's sense of competence and self esteem.

Therefore, two dimensions seem to be essential in what Dumas and colleagues (1995) called "balance of power": mother control and child autonomy.

As explained above, Baumrind (1971), following Schaefer's differentiation, (which delineates two relevant dimensions namely firm *vs* lax control and psychological autonomy *vs* psychological control), pointed out that socially competent children tend to have "authoritative" mothers. In a positive emotional context characterized by warmth and nurturance, these mothers encourage their children's independence while still placing limits and controls. By contrast, aggressive children tend to have "permissive" mothers who can be emotionally positive or distant. More importantly, these mothers are inclined to respond in an

inconsistent manner, often failing to impose clear limits, especially when their children exhibit negative behaviours. Finally anxious children tend to have "authoritarian" mothers who are negative and punitive and place strict limits and controls that inhibit the development of their children's autonomy and social skills.

Forehand (1978) examined maternal reaction to child non-compliance and compliance in thirty-two non clinical dyads; children were 3.5-6.5 years old. Child compliance with mother instructions in a laboratory setting occurred for 50% of the time instead of the 74% (Johnson, 1973) or 62% of time (Forehand, 1975).

He found that mothers followed their child's compliance with contingent and positive behaviour half of the time, or just ignored their child for the other half of the time. Instead mothers reacted to child non-compliance in negative way and the typical behaviour was to repeat the command many times.

Therefore, there is a bidirectional effect between mothers' behaviour and child behaviour, where mother's negative statements or control could interfere with child compliance as well as child temperament, and child negative reaction to their mother's instructions could provoke and/or reinforce mother negative responses.

In 1997, Braungart-Rieker et al found that maternal behaviour mediated the association between child temperament and non-compliance, revealing that this relation could be indirect and influenced significantly by mother behavioural variables.

Beauchaine et al (2001) studied the pattern of responses by mothers of aggressive children during a tidy up situation. Compared with controls, these mothers offered fewer explanation/clarification responses and fewer unique and saturated solutions. After six weeks they asked the dyads to perform a challenging

block-building task. Maternal responses to the tidy up situation predicted conflict escalation during block building.

Koenig and colleagues (2000) pointed out that the tidy up is a very good task in order to draw the line between maltreatment, neglected and non abused children. They found that neglected or maltreated children showed less internalization and more negative affects compared with non abused children in a tidy up task.

Borrego and colleagues (2004) conducted a study with abusive and non abusive mothers and their children during a compliance task. The abusive mothers showed more criticism, controlling and coercive behaviours after child non-compliance reaction. The interesting finding was that in the abusive mother subgroup, child non-compliance was anticipated by a mother negative statement or behaviour.

We found just a few studies which took into account the relationship between non-compliance behaviour and anxiety disorders/internalizing problems in children (Grolnick and Ryan, 1989, Dumas et al., 1995, Kotler and McMahon 2004, Robinson and Cartwright-Hatton, 2008). Indeed, there has been very little research exploring the role of parents' discipline style in the genesis and maintenance of childhood internalizing symptoms (Robinson and Cartwright-Hatton, 2008).

Moreover, little research has been suggestive of a relationship between maternal anxiety and ineffective parenting behaviours.

The Kother's study (Kotler and McMahon, 2004) examined the relation between non compliant and anxious/withdrawn children. They recruited sixty mother child dyads randomly and they assigned children in three different groups

(anxious/withdrawn, angry/aggressive and socially competent) using a mother self report scale SCBE-30 (LaFreniere, 1990). They conducted one session of treatment with the Child Game parenting intervention (Forehand and McMahon, 1981). Using Kochanska's (1995) differentiations they measured the child compliance style of each group of children and mother's parenting style, video recording them and coded their behaviours minute by minute.

They found that socially competent children showed higher compliance in the pre treatment session compared to anxious and aggressive children. Interestingly, the anxious/withdrawn children exhibited higher levels of passive non-compliance while angry/aggressive children used more simple non-compliance or refusal. Socially competent children had a higher overall level of committed compliance and negotiation behaviour. The mother behaviour changed across the three different groups. Mothers of anxious/withdrawn children were even more intrusive and controlling than mothers of angry/aggressive children. Mothers of socially competent children showed a good interactive style and positive behaviour.

Robinson and Cartwright-Hatton (2008) have recently explored the associations between maternal discipline and child anxiety. Maternal discipline was assessed with self-report measures completed by the mother, and by a member of staff at the child's nursery.

The authors reported a significant association between mother self-reporting their own ineffective discipline and anxiety in pre-school aged children.

Robinson and Cartwright-Hatton differentiated between maternal "Ineffective discipline", "Over-reactive discipline", "Lax discipline" and "Verbose discipline". Maternal trait anxiety (assessed with self-report scales), was positively

associated with the use of ineffective discipline. No association was found between verbose discipline (use of reprimanding behaviours) and children's anxiety, whilst the strongest predictor of children's anxiety was "Over-reactive" discipline. Lax discipline and maternal anxiety did not seem to predict child anxiety symptomatology. A limit of the previous study is the reliance only on self-report measures.

These recent studies are going to open a new perspective in the child anxiety literature. Lack of supportive containment or ineffective discipline has been viewed as factors related to children externalizing behaviours. New evidence shows that maternal "inconsistent" discipline (lack of supportive containment) could be also associated with child internalizing problems.

This suggests that working on treatment clinicians might focus on mother's discipline style and ability to support and contain her child in order to reduce anxiety symptoms.

Chapter 4. The contribution of culture

4.1. Cross cultural studies

Parenting is culturally constructed (Harness and Super, 2002). Historical features of cultures influence the ways in which parents care for children in a society. Goodnow (1985) suggested that culture is the primary source of information that guides parental practices. Culture determines basic educational values, age-appropriate behaviours, and effective parenting techniques. Culture may influence the context in which anxiety is experienced, the interpretation of its meaning and responses to it, so culture could moderate the level of anxiety the child experiences. There are a number of cross cultural studies that highlight these differences (Bodas et al., 2008, Abbassi et al., 2007, Essau et al., 2004, Arrindell et al., 2003, Spielberger, 1966). Good and Kleinman (1985) argued that while the foundation and essential structure of anxiety disorders are the same, the phenomenology of anxiety -which constitutes the social reality, prevalence, and form of expression- may vary in quite significant ways from one culture to another. The full range of such variations have not yet been studied or identified.

Many investigations into cross cultural research have tried to focus on different points such as: Does the prevalence of anxiety disorders differ among ethnic and cultural groups? Do the risk factors for developing anxiety differ among ethnic and cultural groups? And: What are the differences in anxiety symptom patterns across cultures?

Although it is necessary, cross-cultural research is among the more difficult types of research to execute. The lack of cross-cultural research, lack of norms for

specific cultural groups, and unfamiliarity of investigators with the respective cultural background of research subjects are among factors which contribute to this difficulty.

Many cross cultural studies have been conducted between Western and Eastern countries, trying to compare two very different ways of understanding anxiety and distress.

A study conducted by Essau and colleagues (2004), for example, showed child anxiety varied consistently among Japanese and German children. These two cultures are often associated with restrictive and over protective family environments demonstrating higher levels of anxiety facets in children.

The authors found German children showed higher levels of separation anxiety, generalized anxiety, social phobia, panic and obsessive-compulsive disorder whilst Japanese children were higher on physical injury fears (assessed with the SCAS, Spence, 1997).

In contrast to their expectation, Japanese child-rearing practices did not seem to have detrimental effects. Instead, Japanese parental practices appear to be associated with reduced levels of anxiety in some domains. Why Japanese children showed more physical fears remains unclear.

Most studies that have examined the socio-cultural role of interpersonal relationships have used the concept of individualism vs. collectivism (Berry et al., 1992). Caucasian North-American society is typically a group that supports individualistic dimensions. Parents in this group have been described as placing a greater emphasis on fostering autonomy and independence in their children, than parents from other cultural groups. There is an insistence on the importance of personal objectives; initiative and autonomy are considered to be signs of maturity

and are strongly encouraged in education. Other cultures value collective dimensions and emphasize family values such as the respect of parental authority, mutual support and family allegiance (Cooper, 1994). Most Asian (Chen and Lan, 1998) and Latino (Best et al., 1994; Claes, 1998; Facio and Batistuta, 1998) societies fit this second model.

Studies comparing families in North America and Europe have found that across these continents parents tend to emphasize different values or characteristics in their children (Harkness et al., 2000) and interpret child behaviour differently. In the United States for example, authoritarian parenting, which is characterized by high levels of control and emphasis on parental power, is dominant in adolescence. In contrast, in some Europe countries, such as Germany, authoritative parenting is more common during childhood (Kander and Lesser, 1969). Cultures vary greatly in endorsement and use of parental control. For example, several studies have indicated that strict or intrusive childrearing practices are more characteristic of African American than of European American mothers (Bradley et al., 2001; McLoyd and Smith, 2002).

In addition, most comparisons between Latino and European American parenting have indicated that, regardless of country of family origin, Latino mothers tend to value obedience and politeness more than same socioeconomic-status European American mothers, to give the development of children's autonomy low priority, to report frequent use of discipline, to use didactic teaching methods, and to guide physically their toddlers' actions (Cardona et al., 2000; Carlson and Harwood, 2003; Harwood et al., 1999). Richman and colleagues (1992) found that maternal responsiveness during infancy, especially in the verbal

mode, is influenced by the mother's cultural background and school attendance between Afro-American immigrant and Mexican women.

Studies have also shown that high level of intrusiveness and other forms of control by parents in collectivistic cultures are not accompanied by low levels of closeness, sensitivity, or warmth of emotional expression (Carlson and Harwood, 2003; Ispa et al., 2004; Richman et al., 1992).

Following this literature, the link between controlling parenting and parent-child relationship outcomes is therefore also likely to vary in different cultural contexts**.** There are at least two possible ways in which culture may influence how maternal intrusiveness affects mother child relationship quality. First, intrusiveness by itself may have similar meanings in various cultural groups and it may have similar negative effects on the quality of mother child relations across cultural groups. However, in some cultural contexts, its negative effects may still be counterbalanced by other variables so that it ultimately does not negatively affect the mother child relationship. Alternatively, intrusiveness may have a distinctively different meaning in different cultural groups so that the same constellation of behaviours considered intrusive among some cultural groups, may be considered much less intrusive in others.

4.2. The United Kingdom and Italy: Why?

Most cross-cultural research has compared Western and Eastern countries but little is known about differences within Western countries, even if there are great differences among Mediterranean and Northern countries.

Some previous cross-cultural research studies, which have included Italy and/or United Kingdom in their investigations, will be outlined below.

Hollinger and Haller (1990) examined different countries' societal characteristics and patterns of social networks and support, looking at whether these aspects showed any effects on family dynamics. Seven countries, including Italy, the United Kingdom and the United States were examined and possible reasons for variances in family system were discussed.

The authors took into account development, geographic mobility and degree of urbanization. They also examined socio-economical differences such family size age and number of generations, traditional and religious beliefs and legal structure. Findings showed Italian families maintained very close kin relationships, whereas British and North American families do not show the same trend.

Owens and colleagues (2004) and Cortesi and colleagues (2004) well documented how "bedtime practices" are influenced by families' needs and culture beliefs. Many studies emphasized the role of different culture in encouraging children to sleep alone, in order to establish a sense of independence and autonomy. For example, in some societies and cultural settings (tribal, kibbutz), sleep is a communal phenomenon, while solitary sleep is considered to be the cultural ideal in many Anglo-European societies. So, how we sleep, where we sleep, with whom and for how long we sleep are molded by culture and customs.

In many parts of the world, such as in Asia, Africa, and South America, children are encouraged to sleep with their mothers, grandparents, or older siblings, even when ample space is available. Co-sleeping in childhood promotes closeness and togetherness in cultures where interdependency and solidarity are the

goals for the family. On the other hand, in industrialized Western societies such as those in North America, the United Kingdom, and Finland and in some parts of Europe, where autonomy is greatly valued, infants are encouraged to sleep alone from an early age. Although Italian parents tend to encourage solitary sleeping, Cortesi et al., (2004a) found that 7% of the 8- to 10-year-olds were reported to co-sleep.

Owens pointed out the American and Italian sleeping practices are more irregular, because many school-aged children have a late or irregular bedtime, and commonly watch television to fall asleep.

Cortesi and colleagues, in a further study (2004b) investigated sleep, behavioral, emotional problems, and parental relationships and psychological distress in a group of 376 school-aged children (half with sleep problems and half without). Findings suggest that co-sleepers have a significantly later bedtime, sleep anxiety scores, and more behavioral and emotional problems compared to other groups. Parents of co-sleepers have a significantly higher level of psychological and couple distress.

Hsu and Lavelli (2005) in a short term longitudinal study, compared thirty-two mother–infant dyads from the United States (n = 16) and Italy (n = 16) who participated at 1 and 3 months old. The authors found Italian mothers showed more affective and holding behaviors compared with the American mothers.

Italian dyads were more likely to openly express affection to each other than did American dyads during the first 3 months. Also, Italian mothers responded to their baby's social actions with affective and social stimulation in a synchronous fashion. This result seems to be consistent with Axia and Weisner (2002) who found that Italian parents show a preference for socially active and

affectively responsive “vivaci” (Italian term for “vivacious”) infants compared to quieter infants, considered less healthy and less lovable.

In line with Harwood and colleagues (1999), and Miller and Harwood, (2002), who found that American mothers are likely to emphasize the infant’s own sense of autonomy, personal choice, and self-reliance, Hsu and Lavelli established that American mothers, compared to Italian mothers, were more likely to respond to their infants’ involuntary behaviors such as hiccupping and sneezing as well as drowsiness in a synchronous fashion with less intense social response such as looking, smiling, and caressing, and preferred not to attend and respond to infant social signals during feeding for nutrients, they instead described Italian parents as over caring, they showed more physical affection in all of the previous situations.

Claes and colleagues (2003) examined parental practices (affection and control) in three different countries Italy, France and Canada. Nine hundred late adolescents (average age of 17 years) were asked to complete different self report measures concerning emotional bonds with parents, punitiveness for violation of norms and tolerance. Findings show that Canadian adolescents considered their parents to be more tolerant and rated them as using less punitive measures when rules were broken compared with European parents. Canadian parents also seemed to adopt equal norms for boys and girls, whereas Italian and French parents appeared less tolerant towards girls. An interesting result was that Italian adolescents reported strong emotional bonds with their parents, and also identified more conflicts with them. French adolescents reported weaker emotional bonds with each parent and less conflicts.

A not yet published paper by Cooper and colleagues (under preparation) explored anxiety symptoms in a large sample of 1275, eight to ten years old Italian

and British children. The authors assessed anxiety with the SCAS (Spence, 1997) and found some interesting differences. Overall, the Italian children had higher levels of anxiety than English children. In particular Italian children showed higher level of panic, physical injury and obsessive compulsive disorder symptoms. Results for social phobia did not reveal a significant main effect of country of origin; however Italian boys were more socially phobic than English boys. Separation anxiety did not differ significantly among countries but more specifically, 9 years old boys showed higher levels of symptoms than their English counterparts.

The higher levels of separation anxiety in Italian boys directly support Wood's study (2006) into parental intrusiveness and separation anxiety.

This previous study demonstrates clear differences between the two countries; however it does not address some issues such as: how parenting behaviour differs between Italy and England, and how these differences are related to children level of anxiety and maintenance.

4.3 Cross cultural comparisons among European adults

Consistent data from Europeans sample come from the European study for the epidemiology of Mental Disorder (ESEMeD) project.

It is a cross-sectional psychiatric epidemiological study (2004) in a representative sample of adults aged 18 years or older in Belgium, France, Germany, Italy, the Netherlands and Spain.

The diagnostic instrument was a new version of the Composite International Diagnostic Interview, the WMH-CIDI, which was developed and

adapted by the Coordinating Committee of the WHO World Mental Health (WMH) Survey Initiative.

Clear country differences were found for all pure disorders. Italy and Spain showed low prevalence of pure mood, anxiety and alcohol disorders, whereas Belgium, France, Germany and the Netherlands showed higher prevalence, with the exception of a low prevalence of pure mood disorder in Germany. Gender differences were found in pure mood disorders (most common in women) and co-morbid alcohol disorders (most common in men).

Another study by Lieb and colleagues (2005) provided epidemiological data for Generalized Anxiety Disorder in Europe after 1980.

The authors collected data using a MEDLINE search and with consultations with experts throughout Europe to identify additional studies. Research was included if conducted after 1980, and if established diagnostic instruments based on criteria from DSM-III onwards or ICD-10 were used.

Data confirm the preponderance of GAD among females and suggest that unlike other anxiety disorders, GAD is most common among older age groups.

Regarding the country variation, Belgium (Baruffol and Thilmany, 1993) and Iceland (Stefansson et al., 1991) provided the more dramatic lifetime effects of GAD in Europe.

This epidemiological research shows Italy is not one of the European countries with higher percentage of adults affected by mood and/or anxiety disorders.

Although there are some limitations in the previous studies, it is interesting to point out that Italian adults do not seem to be more anxious compared with other European populations; whilst previous research on child samples emphasised that

Italian children tend to be more anxious, tend to co-sleep with parents and show more sleep anxiety. Also, Italian teenagers seem to be emotionally closer to their parents relative to their Canadian and French counterparts, but this relationship involves a higher degree of conflict.

Summarizing, there is evidence that in the Italian culture, there are some clear aspects of childrearing practices, namely over-involvement, over-protectiveness, intrusiveness and less autonomy granting, which may together contribute to pathological anxiety in children. However, there is no evidence indicating Italian adults to be at increased risk for anxiety. Further investigations are required to better understand this.

In order to explore these important issues further, a study was conducted in which a group of British children and their mothers was compared to a group of Italian children and their mothers. The specific aims and hypotheses of the study were as follows.

4.4 Aims and Hypotheses

The principal aims of the current study were to:

i) test if parenting practices are influenced by cultural differences;

ii) test the specific link between intrusiveness and youth anxiety, and particularly with separation anxiety (Wood's model);

iii) compare English and Italian children in terms of their level of anxiety

iv) test whether parenting containment strategies differ between countries and account for differences in children's behaviours and self-regulation ability; and to

v) test whether children's behaviours and self-regulation ability differ between countries.

The following hypotheses can be specified:

i) Parental style will differ between Italy and England -in particular Italian parents will have a more intrusive parental style than English parents;

ii) Maternal Intrusiveness will be associated with child anxiety especially with separation anxiety;

iii) Italian children will show generally higher levels of anxiety, and notably, higher levels of separation anxiety than English children;

iv) Parenting style will mediate the relationship between culture and child anxiety;

v) Maternal warmth will moderate the relationship between maternal intrusiveness and child anxiety

vi) Maternal facilitation, supportive containment, lax control, intrusiveness and overall quality of relationship will differ between countries- in particular, compared to English mothers, Italian mothers will show more intrusiveness and lax control, less facilitation and supportive containment, and a worst overall quality of relationship;

vii) Italian children will show less committed compliance behaviour and more behavioural disturbance than English children;

viii) Child self-regulation will be associated with mothers' containment strategies and Maternal containment strategies will mediate the relationship between country and child behavioural disturbances;

ix) Parents' containment strategies (lax control/passivity) will be related to child anxiety (with high maternal lax control- or passive behaviour- associated with high child anxiety); and

x) Maternal mental state will be related to maternal lax control behaviour (with high maternal depression associated with lax control).

Chapter 5. Method

5.1. Ethical consideration

This project received ethical approval by the School of Psychology and Clinical Language Sciences Research Committee, Reading University. In Italy the ethical approval was granted by the University of Padua.

Before participating, a Consent Form and an information sheet containing details about the research were given to each family (See Appendix A).

All the subjects were volunteers; they did not receive any payment or compensation to participate in the study. They also had the right to withdraw from the study at any time without giving any explanation.

5.2. Participants

A sample of 109, 8-10 year old children with their mothers was recruited (60 Italians and 49 English dyads). Two primary schools in England and two elementary schools in Italy were asked to help with recruitment. In England four schools were contacted but only two schools agreed to participate; while in Italy, ten schools were contacted and two gave their consent for the study.

All schools were located in middle class areas.

5.3. Exclusion criteria

Children with a referred diagnosis for either physical and psychological (non-anxiety) problems were excluded from the study.

Families' ethnic background was taken in consideration. We excluded from the study those families who had not lived in England or in Italy for, at least, two generations[1].

5.4. English sample

Headmasters of two primary schools, one in Reading, (St. Peter's School), and one in South East London, (St. Vincent's School), were contacted. Permission was obtained to recruit participants from the schools.

Across both schools 130 letters were sent to parents in order to recruit families in the study.

One hundred and nineteen questionnaires were administered in Reading (St. Peters School). 42 families were excluded for ethnicity reasons, so only 77 families were contacted. Out of these, 33 families agreed to participate in the "home video assessment".

In St. Vincent's School, 40 questionnaires were administered, and 21 children were approached. Three families were excluded due to a non-English ethnic background, one family refused to participate, and one family could not be contacted. In total 16 families were recruited for the home video assessment.

Combined, the total sample of English mother-child dyads was 49.

5.5. Italian sample

In Italy, two primary schools in Venice gave their consent to administer questionnaires in the classrooms. The sample collection procedure in Italy was different, because the system is not the same. We did not send letters to parent

[1] The level of ethnic variation differs between countries. In practical terms, in Italy, we did not find minority ethnical families who had lived there for at least two generations, to be considered "Italian"; while in England this phenomenon did arise.

immediately; instead children's families were invited to participate through a letter distributed at school, after the questionnaire administration, and the children were asked to return the signed parental Consent Form after talking with their parents about participating.

We randomly telephoned families who had provided contact details in order to participate in the research involving "a home visit".

In Italy we administered questionnaires to 400 children. In the first school (Grimani, Mestre, Venezia) 60 families provided their contact details, out of these 15 were excluded for the ethnic reasons, 25 declined to participate, and 20 families accepted the "home visit".

In the second school (Sauro, Venezia) 146 families provided their contact details, of them 37 were excluded for their ethnic origin, 5 were excluded because they had a clinical diagnosis, 64 declined to participate, and 40 families accepted the home assessment.

This gave a total Italian sample size of 60.

The Italian and English samples (Italy N=60, England N=49), each family had lived in Italy or in England for at least two generations.

5.6. Procedure

The research procedure was conducted in two phases. In the initial phase, children completed two self-report questionnaires (the SCAS and the SDQ, see paragraph 5.7.1) in the classrooms. This was supervised by a researcher to ensure that all questionnaires were completed by the individual child independently from others. The researcher also assisted children with reading and understanding the

questions when necessary. After questionnaire completion in the schools, the children's families were contacted and the home assessment was arranged.

At the home visit (phase two), the mother and child were required to sit at a table where they were filmed carrying out the tasks. Initially they performed the *etch-a-sketch task* (see paragraph 5.8.1). Following a script, the researcher suggested that the sound on the camera recording needed to be boosted (a ruse). So the child was asked to put the double-holed belt on his/her clothes, performing *the belt task* (see paragraph 5.8.2). Finally, while the mother was required to complete some questionnaires, the child was asked to play for eight minutes with 330 pieces of Lego creating whatever he/she preferred. After this time the child was required to interrupt his/her playing and to pack away all the material in a box and to put away different colours in different box's sections (*tidy up task*, see paragraph 5.8.3).

5.7. Measures

5.7.1-Child Measures

The first measures we employed in the study were two self-report scales: the *Spence Child-Anxiety Assessment Scale* (SCAS, Spence, 1997) and the *Strengths and Difficulties Questionnaire* (SDQ, Goodman, 1997). These questionnaires were administered at school in order to ask children to report their own level of anxiety and behavioural problems without parental input.

The Spence Children Anxiety Scale (SCAS) is a child-self report questionnaire designed to assess child anxiety symptoms.

The instructions state "Please put a circle around the word that shows how often each of these things happens to you. There are no right and wrong answers". Children are asked to rate on a 4 point scale involving never (0), sometimes (1), often (2) and always (3) according to the frequency with which they experience each symptom (McCathie and Spence, 1991).

This measure consists of 44 items, of which 38 reflect specific symptoms of anxiety and 6 are positively worded filler items. Of the 38 anxiety items, in validation work (Spence et al, 2002), independent judges considered 6 to reflect obsessive-compulsive problems (OCD), 6 separation anxiety (SAD), 6 social phobia (SOC), 6 panic and 3 agoraphobia (PA), 6 generalized anxiety/overanxious symptoms (GAD) and 5 items concerned fears of physical injury (PHY). A confirmatory factor analyses supported six factors consistent with the hypothesised dimensions (Spence et al, 1998; Spence 2003).

Positive word filler items include item 11 (I am popular among other kids my own age), item 17 (I am good at sports), item 26 (I am a good person), item 31 (I feel happy), item 38 (I like myself) and item 43 (I am proud of my school work). Responses to positively-worded filler items are ignored in the scoring process.

The 0-3 ratings on the SCAS are summed for the 38 anxiety items to provide a total score (maximum = 114), with higher scores reflecting greater anxiety symptoms.

The SCAS has high internal consistency; the Cronbach's α has been found to be 0.92 for the total score (Spence, 1998, 2003). The internal consistency of the subscales is also acceptable, with coefficient α of .82 (panic), .70 (separation anxiety), .70 (social phobia), .60 (physical injury fear), 0.73 (obsessive-

compulsive) and 0.73 (generalized anxiety). High concurrent validity with other instruments assessing child anxiety and good test-retest reliability has been found (the correlation between the SCAS and the Revised Children's Manifest Anxiety Scale, RCMAS by Reynolds and Richmond, 1978, was 0.71).

SCAS back translation and normative data

The SCAS was translated into Italian in previous work (Cooper et al., 2009) by a native English speaker (Peter J. Cooper) and a native Italian speaker (Alessandro Gilli), according to guidelines developed by the international committee of psychologists of the International Test Commission (van de Vijer and Hambleton, 1996). The Italian version was independently back-translated into English by two Italian experts (Adriana Lis, Daniela Di Riso and Daphne Chessa), who are both culturally informed scholars of English language and psychology. Comparisons of the differences in these versions, together with discussions with several child psychologists, resulted in a final version (see Appendix B).

Previous research, conducted by Lis and colleagues, assessed the validity of the Italian SCAS. The SCAS was administered to 69 school children (Lis et al., in press): 24 in the third grade (aged 8 years), 25 in the fourth grade (aged 9 years), and 20 students in the fifth grade (aged 10 years) of a public school in Padua. The internal consistency of children's self-reports, as assessed by Cronbach's α was: .941. The children reported very few difficulties in understanding the scale items. With minor revisions in wording, the instrument was considered appropriate by the authors for more extended investigation.

Then, Lis and colleagues administered the Italian version of the SCAS to a community sample of 1397 children 8-10 years of age (mean = 9.04, S.D. = .78). The sample included 712 (51%) males and 685 (49%) females.

The researchers collected Italian normative data. The internal consistency of the total SCAS score and SCAS subscales was high (for the SCAS total score, α=.91, Panic-agoraphobia, α=.77; Separation-anxiety, α=.65; Social Phobia, α=.56, physical injury fears, α=.72, obsessing compulsive problems, α= .67, general anxiety, α=.74). Results were compared with previous normative data from other western countries (Australia, The Nederland, Belgium, and Germany). Significant differences were found. Italian children generally showed higher scores on the SCAS total and on most SCAS subscales. Gender and age differences were found; in line with previous literature, girls showed higher levels of anxiety than boys. Older children showed higher levels of social anxiety than younger children[2].

The Strengths and Difficulties Questionnaire. The SDQ is a brief screening tool that assesses children/adolescents' behaviors, emotions and relationships. Parent-rated, teacher-rated and self-report versions of the SDQ are available. The core instrument comprises 25 items that depict a positive or negative attribute under five scales: Emotional symptoms; Conduct problems; Hyperactivity-inattention; Peer problems; and Pro-social behaviors. The first four scales generate together a Total Difficulties Index.

The SDQ child version (SDQ, Goodman, 1997; Goodman et al., 1998) is a short questionnaire assessing children psychological externalizing problems and

[2] These Italian normative data will be referred to later when comparing Italian children subsample anxiety scores.

social adjustment of 8-to-16-year-olds. Each item is scored on 3-point Likert scale (0: “not true”; 1 “somewhat true”; 2 “certainly true”). Responses can be rated 0-2 for negatively worded items and rated inversely 2-0 for positively worded items. Psychometric properties of the SDQ have been assessed in a nationwide epidemiological sample of 10,438 British 5–to-15-year-old children (Goodman, 2001). A predicted five-factor structure (emotional, conduct, hyperactivity-inattention, peer, pro-social) was confirmed. Internalizing and externalizing scales were relatively “uncontaminated” by one another. Reliability was generally satisfactory, whether judged by internal consistency (mean Cronbach α: .73), cross-informant correlation (mean: 0.34), or retest stability after 4 to 6 months (mean: 0.62) (Goodman, 2001). The reliability and validity of the SDQ make it a useful brief measure of the adjustment and psychopathology of children and adolescents. The SDQ is being used as a research tool throughout the world - in developmental, genetic, social, clinical and educational studies. It has been translated into 40 languages and different dialects. It has normative data from diverse countries including the United States, European countries (among them UK and Italy) and Japan. It is available free of charge from the Internet (see http://www.sdqinfo.com) for non commercial use and has been used in the National Health Interview Survey in the United States, (NHIS, National Centre for Health Statistics, 2003).

During the past few years, SDQs have been completed for 100,000 children and adolescents in population based studies as well as in clinical samples. The largest study has been performed in Norway and Denmark. Obel et al (2004) showed that the distributions of the SDQ scores are very similar across Nordic countries (Iceland, Norway, Finland, Sweden and Denmark).

Marzocchi et al (2004) reported data from southern European countries (France, Italy, Spain, Portugal, Croatia), in a sample of children from 5 to 16 years of age. The results showed that, according to their teachers' ratings, Italian pupils showed less pro-social behaviour than their Spanish and Portuguese age-mates, whereas the Portuguese children were rated as being more hyperactive and inattentive than their Italian and Spanish counterparts. Authors explained these results as a consequence of cultural-related levels of tolerance and expectation in terms of hyperactivity and pro-social behaviours from the teachers of different countries.

These conclusions are somewhat controversial because self-report measures are noted to have many social desirability biases and they may not be reliable for a population of very young children. To address this limitation, Muris (2004) administered child, teacher and parent versions of the SDQ to a sample of younger children (1111, non clinical children aged 8 to 13 years) in order to examine the reliability and the validity of this self report measure. He found that, while the self-report SDQ was designed for youths aged 11 years and above, the data with younger children suggest that the scale provides useful information about psychopathological symptoms in children as young as 8 years old.

These results were not yet replicated in other samples of younger children, thus more weight should be placed in the maternal reported their children behavioural difficulties than in children self-report.

Extensive testing has been undertaken of the construct and concurrent validity with the Achenbach System of Empirically Based Assessment, the Child Behaviour Checklist and the Rutter Questionnaire (Achenbach et al: 2008; Klasen

et al, 2000; Goodman et al 1997), as well as test-retest and inter-rater reliability assessment of the SDQ.

The instrument is strong in terms of these psychometric properties. Less work has been done in the areas of content validity, predictive validity, and sensitivity to change.

The Italian version of this instrument (developed by Andrea De Giacomo, Paola Dazzan and Loreta Bernardi) is available on: www.sdqinfo.com (see Appendix C)

A pilot study by Lis et al. (in press) collected SDQ normative data on a community sample of 1397 Italian 8-10 years old children.

5.7.2. Maternal Measures

Mothers were asked to fill in the following self report questionnaires during the home visit.

Hospital Anxiety Depression Scale (HADS). The HADS is a brief (14 item) self-report measure for rating anxiety and depression in adults experiencing both somatic and mental distress. Each item is scored on 4 point likert scale ranging from 0 (Not at all) to 3 (Most of the time). Items 7 and 10 are reverse-scored.

The scale was developed by Zigmond and Snaith in 1983 and its principal use was with clinical patients. The HADS, in fact, was designed to provide a simple yet reliable tool for use in medical practice. The term 'hospital' in its title suggests that it is only valid in such a setting, but many studies conducted

throughout the world have confirmed that it is valid when used in community settings (Snaith, 2003).

The normative data were collected in Norway (Mikletun et al., 2001) on a community sample of 51,930 adults aged 20-89 years. This large population based study supported the bi-dimensional structure of the scale, confirming two separate but correlated dimensions of anxiety and depression (the subscales shared a variance of 24-36%). Results suggested that HADS has good psychometric properties in terms of factor structure, inter-correlation, homogeneity and internal consistency.

For the current study the HADS was translated into Italian by a native English speaker (Peter J. Cooper) and a native Italian speaker (Alessandra Raudino), according to guidelines developed by the international committee of psychologists of the International Test Commission (van de Vijer and Hambleton, 1996). The Italian version was independently back-translated into English by two Italian experts (Michela Muggeo and Serena Botturi), culturally informed in English language and psychology (see Appendix D)

The Skills of Daily living Activities (SDCL). The SDCL is a parent report questionnaire consisting of 22 items, developed by Wood (2006) designed to measure caregivers' level of assistance in specific child everyday routines such as threading belts, zipping zippers, personal hygiene, housing etc.

Each item describes a single self-care task (e.g., ''pulls zipper up/down''). Each item is scored on a 3 point scale- 3 (My child needs ''help'' with this skill), 2 (My child needs ''supervision'' with this skill), and 1 (My child does this skill without help or supervision). ''Help'' is defined as the parent actually providing

assistance with performing the skill (like helping the child wash their hands), and ‘‘supervision’’ as the parent staying in the same room with the child to provide reminders or feedback (but not actually helping the child perform the skill).

For the current study the SDCL was translated into Italian by a native English speaker (Peter J. Cooper) and two native Italian speakers (Alessandra Raudino and Adriana Lis), according to guidelines developed by the international committee of psychologists of the International Test Commission (van de Vijer and Hambleton, 1996). The Italian version was independently back-translated into English by two Italian experts (Michela Muggeo and Serena Botturi), culturally informed in English language and psychology (see Appendix E)

The Parent Child Interactive Questionnaire (PCIQ). The PCIQ is a parent self-report scale consisting of 8 core items, 3 experimental and 23 filler items and addresses concrete, observable parent–child interactions that have occurred during the past 1-week time using a rating scale based on the frequency of each behaviour. This is a 3 point scale where 1: This never or almost never occurred [0–1 days this week], 2: This sometimes occurred (2–5 days this week), or 3 :This almost always occurred (6–7 days this week). Items focus on parental help with children’s private daily routines that most school-age youth are capable of performing independently (e.g., dressing, bathing), intrusions on children’s personal space (lying with child on child’s bed at night), and infantilizing behaviour (e.g., using baby words). This scale was developed by Wood for his work in 2006 after reviewing previous self-report measures of “dependency induction”, “overprotection” and related constructs and selecting previous items from the literature and writing new ones. He reviewed the item pool with parenting experts to determine which had the best

face and content validity for his conceptualization of ‘‘intrusiveness;’’ and he selected 12 items for preliminary evaluation. This scale was initially administered to a convenience sample of 87 families of elementary school children, (Wood et al 2007) Item analyses across parent- and child-report versions of the scale suggested that eight items showed strong inter-correlations whereas four did not. Parent–child agreement was good in this primary sample, providing initial evidence of convergent validity. Furthermore, both child and parent-reports of intrusiveness were related to children’s separation anxiety scores, providing evidence of concurrent validity in a community sample of school aged children. In the 2006 sample of 44 clinically referred children, Wood found good internal consistency reliability (αs .70) (Wood, 2006). Cronbach’s α was 0.71 for parent-report. Thus, this scale has been shown to have good internal consistency, convergent validity and concurrent validity.

In Wood’s sample, the SDLC showed good internal consistency and was correlated with parent PCIQ scores providing initial evidence of convergent validity and the Cronbach’s α was 0.86.

For the current study the PCIQ was translated into Italian by a native English speaker (Peter J. Cooper) and two native Italian speakers (Alessandra Raudino and Adriana Lis), according to guidelines developed by the international committee of psychologists of the International Test Commission (van de Vijer and Hambleton, 1996). The Italian version was independently back-translated into English by two Italian experts (Michela Muggeo and Serena Botturi), culturally informed in English language and psychology (see Appendix F).

The Strength and Difficulties Questionnaire Parent Version (SDQ-P, Goodman 1997). The SDQ-P questionnaires (see above) includes a teacher and a parent version consisting of the same 25 items reported for the child version, scored in five different dimensions (emotional, conduct, hyperactivity, peer problems and pro-social behaviors).

Woerner et al (2004) in a nationwide representative field study conducted in German provided a validation of the SDQ parent report. Overall, 930 parent ratings were completed. The observed distributions of scores were used to define normal, borderline, and abnormal score ranges. Factor analysis yielded an exact replication of the original scales; the cut-off scores for the five subscales remaining stable in different clinical subgroups.

Becker et al (2004) administered parent and teacher SDQs to a sample of 543 adults, contributing to a validation of these two versions. They showed that parent and teacher scales were sufficiently homogeneous, with a good validity not only with regard to the discrimination between child psychiatric patients and a representative community sample, but also in the identification of different categories of disorders within the clinical sample.

The authors concluded that the parent and teacher SDQs proved to be valid and helpful questionnaires for use in the framework of a multi-dimensional behavioural assessment, and appear to be well suited for screening purposes, longitudinal monitoring of therapeutic effects, and scientific research purposes.

The Italian version of this instrument is available on: www.sdqinfo.com (see Appendix C).

Socio Demographics Questionnaire (SD): The SD is a brief questionnaire created specifically for the current study. At the end of the "home visit", mothers were asked to complete a questionnaire containing socio demographic information such as ethnicity background, number of children and family composition (see Appendix G).

5.8. Home assessment: Observational Measures

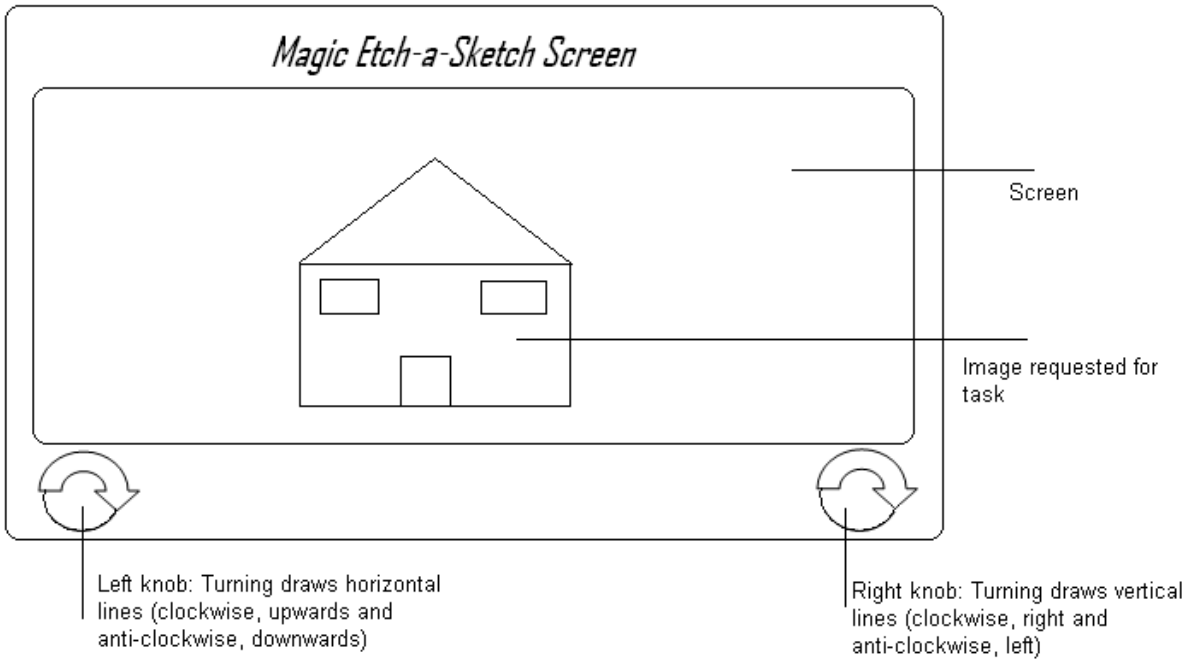
Three specifically designed observational frames were utilised to assess parenting style. Existing studies have employed a wide range of parent–child interaction tasks, coding procedures, and operational definitions of parenting behaviours. For example, parent–child tasks have included conflict and anxiety conversations (Beidel and colleagues, 1989); play dough and mysterious box tasks (Murray et al in preparation), 5-min speech tasks (Peters and Hulstijn, 2002), belt buckling (Wood, 2006) and an Etch-A-Sketch task (Ginsburg et al., 2006). In this study, parenting behaviours were compared across three different types of parent–child interaction tasks: etch-a sketch, belt buckling, and the tidy up tasks.

5.8.1. Etch-a-sketch task

The first task was the Etch-A-Sketch task, a cooperative learning challenge task that requires the parent and child to work as a team to succeed. The parent and child are given an Etch-A-Sketch board (see Appendix H) and instructed to use the board to copy a picture of a house (see Figure 1). The parent and child must work together as one controls the left knob (which only draws horizontal lines) and one controls the right knob (which only draws vertical lines). The parent and child are allowed a maximum of 10 minutes to complete the design.

This structured challenge task was selected because it contains elements hypothesized to elicit parental behaviours of importance to child anxiety, such as over-control, anxious behaviour and criticism.

Figure 1: Illustration of Etch-a-Sketch toy



For the instruction see Appendix I.

The task was videotaped and coded using the original coding scheme developed by Ginsburg and Grove (personal communication). The coding scheme concentrates on mother and child dimensions of interaction including over-control, warmth, criticism, and autonomy granting. Parent behaviours were rated at 1-min intervals on a 5-point Likert scale that incorporated both frequency and severity of the behaviour, ranging from 0 (no presence of the behaviour) to 4 (presence of the behaviour for most of the minute or several instances of extreme examples of the

behaviour). In addition, the total number of minutes each episode lasted was recorded and used to produce a mean score for each mother-child dyad.

Parent Variables (Ginsburg coding scheme)

Over control

Definition: Parent provides intrusive unsolicited help (e.g., touching child's Etch-a-Sketch knob without being asked, completing tasks or part of task without being asked, leaning over task, obstructing the view of the child, completing part of the task without the child's help, telling the child how to organize task). Parent may frequently direct the child's behaviour with commands and say things like "Let me do that" or "Turn your knob to the right, now the left stop". The statements are more directional than conversational. Note: This category rates over control and does not refer to needed or helpful instructions or redirection when the child is off task.

Granting of Autonomy

Definition: Parent supports, encourages, and/or accepts the opinions/problem solving strategies of the child. The parent encourages or allows the child to make decisions. Parent may say things like: "how do you think we should do this?"

"Yes, go ahead and try that". Parent will follow the child's lead.

If the parent is uninvolved in the task (e.g., looking around room), allowing the child to do whatever he wants, do not code as granting of autonomy. Granting of autonomy requires some parental acknowledgment of the child's choices/ideas. This acknowledgment could be verbal (ok) or non verbal (intently

listening to the child's ideas). Parent avoids judgement, encourages child to think independently and uses explanation.

Warmth / Positive affect

Definition: Parent expresses positive emotions toward the child, including words and gestures of endearment, compliments, encouragement, and affectionate gestures (e.g., laughter, gentle touches, and smiles). Parent seems comfortable with child and enjoys the time spent together. If parent laughs at their own joke, it is not coded as positive affect. Usually warmth is expressed non-verbally, however, parent may say things like: "I am having fun playing this game with you" or "You are doing such a good job". Expressed affection, mutual expression of feelings and physical orientation are coded as warmth.

Anxious Behaviour

Definition: Parent makes anxious or fearful statements, cautions in the absence of danger/threat, expresses self-doubts/worries, seek reassurance, and /or catastrophizes. Parent may also exhibit perfectionistic behaviour, wanting things to be just right. "I'm not sure if we are doing this right". Parent may also express anxiety in non-verbal actions, like rocking in the chair or tapping fingers on the table. They may also ask repeated questions/comments about task performance or give repeated reminders about the time limit.

Criticism

Definition: Parent shows criticism toward the child; parent attributes the responsibility for any negative event or outcomes to the child.

Child Variables

Over-Control

Definition: Child provides unsolicited intrusive help (e.g., touching parent's Etch-a-Sketch knob without being asked) and is over-involved in the task, (e.g., obstructing the view of the parent, completing parts of the task without the parent's help). Child may frequently direct the parent's behaviour with commands and says things like "Do it this way", "turn your knob to the right now the left, now stop", in a bossy tone of voice, or says "I want to do it in this way". Many children will attempt to control a situation to some extent, and this is not over-control. Child non-compliance with a parental command should not be coded as over control.

Warmth

Definition: Child expresses positive emotions toward the parent including words and gestures of endearment, encouragement, and affectionate gestures (e.g. laughter, gentle touch, smiles). If child laughs at their own joke, it is not considered as positive affect. Child is comfortable with parent and enjoys the time spent together.

Anxious Behaviour

Definition: Child makes anxious or fearful statements, cautions in the absence of danger/threat, expresses self-doubts/worries, seek reassurance, and /or catastrophizes. Child may also exhibit perfectionistic behaviour. Child could say "We are never going to get this right", or repeatedly ask for directions or reassurance.

Child Criticism

Children show criticism toward their mothers; child attributes the responsibility for any negative event or outcomes to the mother.

Self-efficacy

Definition: Child expresses confidence and/or competence beliefs in self and/or parent and communicates that parent and child are in control over outcomes (e.g., “We can do this If we try”) including encouraging comments “That`s it”.

Reliability

Three independent judges from three different countries (Italy, England, Greece) coded videos to establish reliability. They practiced initially on a set of 12 videos (half English and half Italian), discussing together their preliminary coding to try to reach an agreement. Reliability was then assessed on a different set of 12 videos (half English and half Italian). Intra-class correlation coefficients (ICCs) and their 95% confidence intervals (95% CI) were used to measure the agreement between raters minute by minute. ICCs and 95% CI were calculated according to the method described by Shrout and Fleiss. Values for ICCs range from 0 to 1. Reliability, values ≥.9 were considered excellent, values >.8 were considered good, and values ≥.6 were considered acceptable.

Table 1. Inter-rater reliability on the Etch-a-sketch variables.

	ICC	Lower Bound	Upper Bound
Maternal Over-control	**.835**	.577	.948
Autonomy Granting	**.676**	.018	.885
Maternal Warmth	**.753**	.331	.927
Maternal Anxiety	**.894**	.726	.967
Maternal Criticism	**.894**	.726	.967
Child Over control	**.839**	.509	.976
Child Warmth	**.764**	.363	.920
Child Anxious	**N/A***	N/A*	N/A*
Child Criticism	**N/A***	N/A*	N/A*
Child Self-efficacy	**N/A***	N/A*	N/A*

*N/A indicates that all the raters agreed that the child never showed anxiety, criticism or self-efficacy in these 12 videos. This could be either considered an absolute correlation, or non-applicable.

As can be seen from the Table 1, the agreement achieved by the independent judges was, on average, good (≥.8) for four of the categories and acceptable (≥.6) for three.

5.8.2. Belt Buckling task

The belt buckling task (Wood, 2006) is an observational assessment of parental intrusiveness. It involves the child attempting to put on a complicated belt (see Appendix L).

The child was required to put the belt over his/her clothes to attach a microphone to boost the sound of the camera and the mother was asked to intervene only if the child needed help (see Appendix M for the Instructions).

The task was videotaped and coded. The total number of seconds parents engaged in physical help or touched the child and the belt was recorded. In addition, child behaviour was coded; the children were grouped into those who struggled/asked for help, and those who showed autonomous behaviour, and those who were completely passive, leaving mothers to do everything.

Parent Variables

The numbers of seconds were recorded during which the mothers engaged in the following:

Touching the belt

Mother touching belt or checking the belt (seconds)

Wrapping the arms around the child

Mother wrapping their arms around the child to help to put the belt on (seconds)

Placing child on lap

Sitting the child on their lap while wrapping the belt around the child (seconds)

Picking and putting the chid in optimal position

Picking up or moving the child around to put her/him in an optimal position to attach the belt (seconds)

Physical affection before the completion of the task

Initiating moderate or intense physical affection (kiss, caress) before completing the task (seconds)

Belt Buckling

Mother fastens buckle on belt (seconds)

Mother Verbal Instruction

Mother gives verbal instructions to the child about putting the belt on his/her clothes in a bossy or gentle tone of voice. (YES/NO)

Child Variables

Child Autonomous behaviour

Child shows independence in touching, wrapping or putting the belt on, even if the mother attempts to control the situation (YES/NO).

Child asking for help

Child asks mother for help directly (YES/NO).

Child Passive Behaviour

Child does not make any effort to put the belt on, child also does not ask mother directly for any help (YES/NO).

Reliability

Three independent judges from three different countries (Italy, England, Greece) coded videos to establish reliability. They practiced initially on a set of 12 videos (half English and half Italian), discussing together their preliminary coding to try to reach an agreement. Reliability was then assessed on a different set of 12 videos (half English and half Italian). Intra-class correlation coefficients (ICCs)

and their 95% confidence intervals (95% CI) were used to measure the agreement between raters minute by minute. ICCs and 95% CI were calculated according to the method described by Shrout and Fleiss. Values for ICCs range from 0 to 1. For reliability, values ≥.9 were considered excellent, values >.8 was considered good and values ≥.6 were considered acceptable.

The ICC coefficients are shown below in Table 2:

Table 2. Inter-rater reliability on the belt buckling variables.

	ICC	Lower Bound	Upper Bound
Touching the belt	**894**	.726	.966
Wrapping the arms around the child	**926**	.804	.977
Physical affection	**N/A***	N/A*	N/A*
*Picking and putting the child in optimal position**	**N/A***	N/A*	N/A*
Belt Buckling	**984**	.958	.995
*Placing child on lap**	**N/A***	N/A*	N/A*

*N/A: the coders agreed that the mother never showed the following behaviours: Picking and putting the child in optimal position; placing the child on their lap and Initiate intense or moderate physical affection before the task was completed. This could be either considered an absolute correlation, or non-applicable.

As can be seen from table 2, two of the three categories on which reliability was calculated showed excellent (≥.9) reliability, and the other was almost excellent.

An inter-rater reliability analysis using the Cohen's Kappa statistic was performed to determine consistency among raters for the binary variables. As a rule of thumb, values of Kappa from 0.40 to 0.59 are considered moderate agreement, 0.60 to 0.79 substantial agreement, and 0.80 outstanding agreement (Landis and Koch, 1977). Most statisticians prefer for Kappa values to be at least 0.6 and most often higher than 0.7 before claiming a good level of agreement.

Table 3. Inter-rater reliability on the belt buckling binary variables.

	Cohen's Kappa between two judges
Mother Verbal Instruction	.80
Child Autonomous Behaviour	.75
Child asking for help	.88
Child Passive Behaviour	.79

As shown above, all kappa values were in the substantial to outstanding agreement range.

Creating the Intrusive Index

Raw scores consisted of the total number of seconds mothers displayed intrusive physical help or touching. An aggregate of the parent variables was created (i.e. touching, wrapping, affection, moving, buckling and sitting the child on the lap) and divided for the number of seconds of the entire episode, in order to compare episodes of different durations.

The resulted is a proportion *Intrusiveness Index score* with a range from 0 to 1.

5.8.3. Tidy up task

The Tidy up task, developed specifically for this study, is an observational task to assess parental containment and child compliance. It involves the parent requesting the child to tidy up 330 pieces of Lego after they have spent 8 minutes playing with them.

The tidy up is an emotion regulation task, because stopping the children while they were playing created frustration. A child, who can tolerate this frustration, stops playing and complains about the mother's instruction, yet will agree to tidy up.

The inability to regulate emotion in childhood may have implications for development. Children who are easily frustrated and cannot modulate their emotions may respond with more non-compliance to parental demands and thus be at risk of behaviour problems (Forehand, 1977).

The capacity to tolerate frustration is something that the child achieves through a mother's gradual failure of adaption (Winnicott, from the first illusion moment to the reality principle); also the container/mother (Bion) is someone who in the past, taught the child to tolerate negative feelings.

Children, who are not able to manage their frustration, might be less compliant as they cannot manage the negative affect - what Winnicott called the "Reality irruption" (see paragraph 3.4).

This feeling could provoke high arousal, and this lack of a capacity to tolerate frustration could be related to child negative adjustment.

The behavioural problem is only an outcome of this negative feeling; it is a way to express the negative affects, when the child cannot keep the aversive feeling inside of him.

Child incapacity to tolerate frustration and negative feelings might be linked to externalizing problems (such as behavioural and self regulation, social adjustment) as well as internalizing problems (such as anxiety or higher risk of developing anxiety, inhibition and peer problems).

Moreover, by learning to regulate their emotional arousal, children may adopt strategies that will contribute to their ability to control behaviour, such as using distraction to delay gratification (Vaughn et al., 1986).

The goal of the tidy up task, therefore, was to examine the role of emotion regulation in child compliance behaviours and the mother's containment strategy.

Child reactions to frustrating tasks and compliance to their mothers' instruction were investigated. Of particular interest was:

1. Whether children tolerated frustration and showed compliance with their mother's instruction;

2. Which strategies mothers used to contain their child and how they reacted to child non-compliant behaviours?

(For the tidy up task Instructions and coding scheme see Appendix N and O)

The task was videotaped and coded by two researchers.

Reliability[3]

Two independent judges, English and Italian speakers, coded the videos to assess reliability. They practiced on a set of 12 videos discussing together to try to reach an agreement. Then they assessed the reliability on a different set of 12 videos (half English and half Italian).

Inter-rater reliability analysis using Cohen's Kappa was performed on 12 videos (half English and half Italian) to determine consistency among raters for the binary variables.

Table 4. Inter-rater reliability on child binary variables.

	Cohen's Kappa between two judges
Child Committed Compliance	1.00
Child Passive Non-Compliance	1.00
Child Negotiation Compliance	1.00
Child Situational Compliance	1.00
Child Refusal	NA*

*N/A: the coders agreed that the child never showed this behaviour. This could be either considered an absolute correlation, or non-applicable.

As can be seen from the table 4, there was perfect agreement between the two raters on four of the child variables.

[3] The tidy up task was coded in two time frames. The first frame was from the observer's instruction to the moment in which mothers started to complete questionnaires. The second time frame was a post-questionnaire phase, where the mother interacted again with her child. However, information was available only for 21 Italian and 39 English mothers, because mothers completed the questionnaires quickly.

Table 5. Inter-rater reliability on maternal binary variables.

	Cohen's Kappa between two judges
Maternal Compliance (for the entire episode)	1.00

As can be seen from the table 5, there was a perfect reliability on this variable.

Intra-class correlation coefficients (ICCs) and their 95% confidence intervals (95% CI) were used to measure the agreement between raters. The ICC coefficients are shown below in Table 6.

Table 6. Inter-rater reliability on Maternal Ordinal Dimensions

	ICC	Lower Bound	Upper Bound
Maternal Intrusiveness	**.982**	.939	.995
Maternal Supportive Containment	**.985**	.873	.991
Maternal Facilitation	**.959**	.852	.989
Maternal Lax control	**.955**	.836	.998
Overall Quality of relationship	**.866**	.578	.998

As can be seen from table 6, four variables achieved an excellent reliability scores (ICC, values ≥.9) and one achieved a good reliability (ICC, values >.8).

Chapter 6.

Results

6.1. Demographical analysis

The recruitment began in March 2009 and was completed in July 2009.

The Italian sub-sample comprised 20 eight years old children, 20 nine year old children and 20 ten year old children. For each level of age group, half of the children were females and half were males (n=30 girls and n=30 boys).

The English sub-sample comprised 3 eight year old children, 27 nine year old children and 19 ten years old children. In this sub-sample 24 were female and 25 were males.

Table 7 below shows:

Age (in years)		Italian	English	Total
8	Male	10	1	11
	Female	10	2	12
9	Male	10	15	25
	Female	10	12	22
10	Male	10	10	20
	Female	10	9	19
Total		60	49	109

The mothers from the Italian and the English sub-samples did not differ in terms of age (Italy M=49.21 sd=7.12, England M=41.58 sd=4.70). There was no significant difference in terms of socio-economic status (Four Factor Index of

Social Status, Hollingshead, 1975); the majority of the present sample fell into the "Medium business, minor professional" category.

The Marital status for the Italian and English sub-samples did not show any significant difference: overall 90.8% of the couples were married, 4.6% divorced, 3.7% lived together, and 0.9% was a single mother (see table 8).

Table 8. Marital status for the Italian and English sub-sample.

	Marital Status				Total
	Married	Single	Divorced	Live with partner	
Italy	55	0	4	1	60
	91.7%	.0%	6.7%	1.7%	100%
England	44	1	1	3	49
	89.8%	2%	2%	6.1%	100%
Total	99	1	5	4	109
	90.8%	,9%	4.6%	3.7%	100%

Table 9. Mothers' and Children's Age.

	Entire Sample Mean (SD)	Italian Sample Mean (SD)	English Sample Mean (SD)	Statistical test T-Test for independent sample
Children's age in months	114.7 (SD=9.75)	112.5 (SD=11.16)	117.5 (SD=6.81)	T-test T=-2.784 p=.006
Mother's age in years	40.8 (SD=6.17)	40.2 (SD=7.12)	41.5 (SD=4.70)	*ns*

As can be seen from table 9, although the age of the Italian and the English mothers did not differ, the Italian children were slightly younger (by, on average five months) than the English children. A chi squared analysis revealed a significant group difference in terms of number of children (χ^2 (4) = 16.683, p = 0.002) with English families, on average, having more children per family than Italian families.

Number of years mothers and fathers had spent in their education were counted, transforming the "educational level variable" into a continuous variable, to avoid the confounding effect of two different educational systems. The mean number of years Italian mothers had spent in education was: 12.83 (SD=2.60); and for Italian fathers it was: 11.89 (SD=3.08).

The mean number of years English mothers had spent in education was: 15.32 (SD=3.18); and for English fathers it was: 15.46 (SD=3.16).

One-way analyses of variance (ANOVAs) revealed significant country group differences in:

(a)Mothers' educational level: $F(1,885) = 20.268$, $p \leq .001$ $\rho\eta^2 = .16$

(b)Fathers' educational level: $F(1, 1015) = 34.155$, $p \leq .001$ $\rho\eta^2 = .25$

Thus the English parents had spent longer in education level compared with the Italian parents.

We also took into account the child's position in the family system.

One-way analyses of variance (ANOVAs) revealed significant country group differences in:

Child Position: $F(1,400) = 5.879$, $p \leq .005$ $\rho\eta^2 = .05$.

The majority of children involved in this study were “firstborn child” in Italy and “second born” child in England.

For the variable’s distribution see Appendix P.

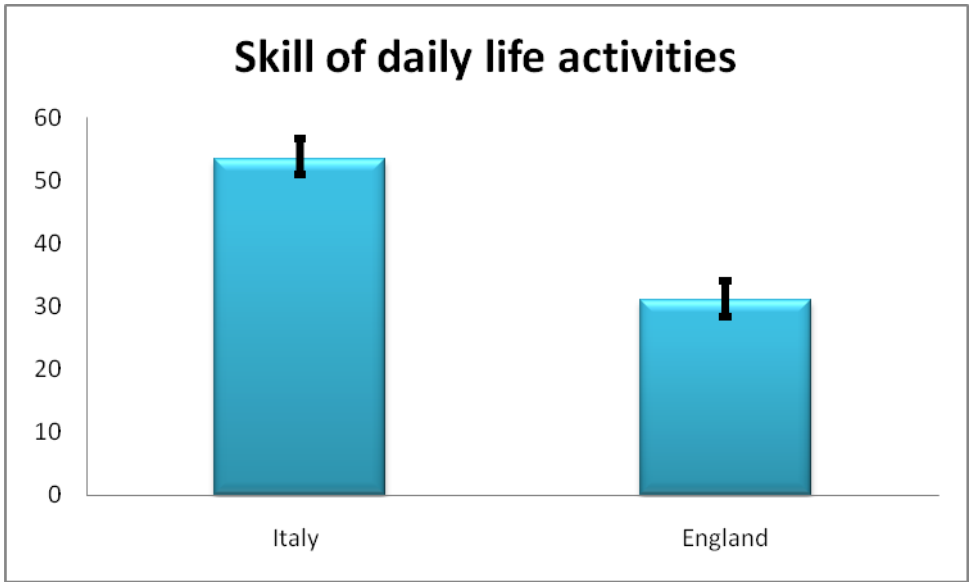
6.2. Hypothesis 1

Parental style will differ between Italian and English parents; in particular Italian parents will have a more intrusive parenting style than English parents.

Self report measures

For the SDCL, Italian mothers had significantly higher scores than the English mothers (t=19.24, df=107, p≤.01), as can be seen from Figure 2.

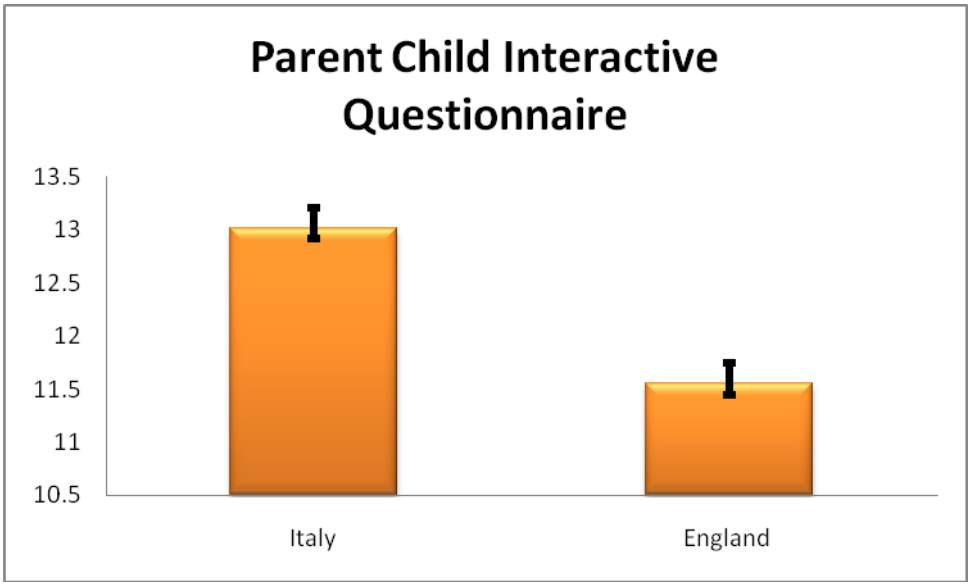
Figure 2. Country differences on the Skills of Daily Life Activities (mean scores are shown with standard errors)[4]



[4] For the current study, the Cronbach’s α on the SDCL was 0.94.

Similarly, for the PCIQ, Italian mothers had significantly higher scores than the English mothers ($t=2.961$, $df=107$, $p \leq .05$), as shown in Figure 3.

Figure 3. Country differences on the Parent Child Questionnaire (mean scores are shown with standard errors)[5]



Thus, Italians mother scored significantly higher on both of the self-report measures assessing their level of assistance (lack of autonomy granting) and intrusiveness towards their child[6].

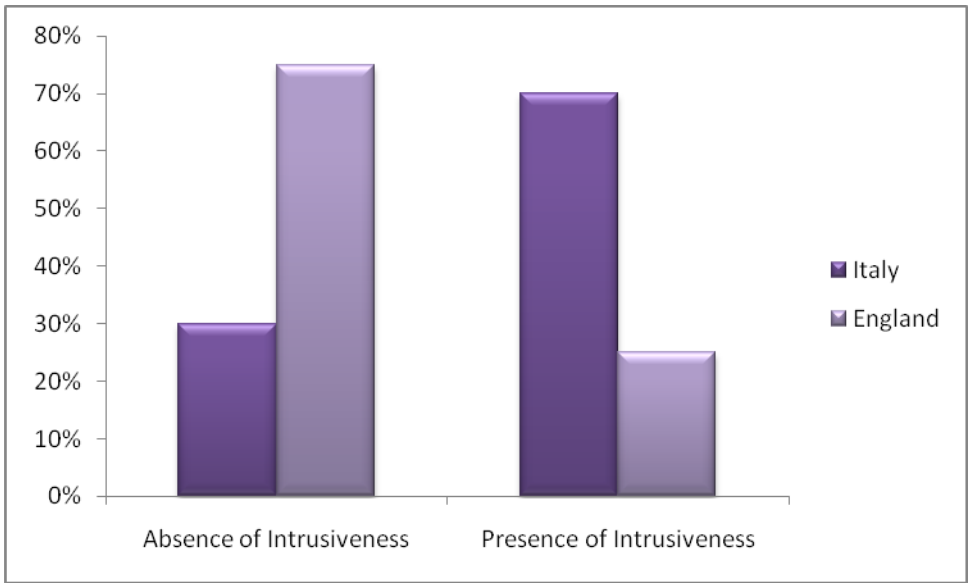
Observational measures

The Intrusiveness Index for the full sample was not normally distributed. This remained the case after a logarithmic transformation had been conducted. A dichotomised variable was therefore created based on a median split.[7]

[5] For the current study, the Cronbach's α on the PCIQ was 0.60.
[6] The SDCL and the PCIQ were not affected by the child's position in the family
[7] The dichotomization of this variable was based on the median of the continuous variable. Any value below the median was labelled "Absent" and every value above it was labelled "Present".

A Chi-squared analysis was performed on the binary variable revealed a significant difference in terms of the presence *or* absence of mothers' intrusive behaviour, during the belt buckling task, between countries (X^2 = 22.35, df=1, p≤.001). (See Figure 4).

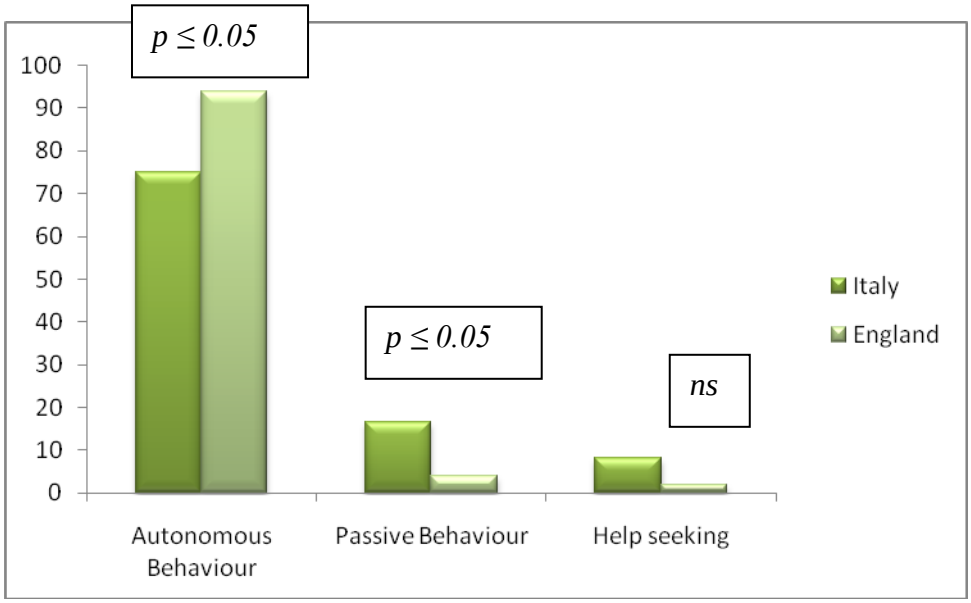
Figure 4. Country differences on the Belt Intrusiveness Index between Italy and England.



Thus, on the belt buckling task, a significantly greater proportion of the Italian mothers was rated as intrusive than English mothers.

In addition to rating maternal behaviour during the belt buckling task, children's behaviour was also rated for autonomous behaviour, passive behaviour and help seeking (all these as binary variable). (See Figure 5)

Figure 5. Differences on children behaviours at the belt buckling task (%).



A Chi-squared analysis revealed a significant difference between the Italian and the English children's behaviours during the belt task: (χ^2 (2) = 6.972, $p \leq 0.05$). Further analyses revealed that, compared to English children, a significantly smaller proportion of the Italian children evidenced autonomous behaviours (χ^2 (1) = 6.972, $p \leq 0.05$); and, correspondently a significantly grater proportion evidenced passive behaviours (χ^2 (1) = 4.360, $p \leq 0.05$). There was no difference between the Italian and English children in terms of "help-seeking" behaviour. It is interesting to note that even though the majority of children (75%) in the Italian subsample showed autonomous behaviour, mothers gave intrusive help in 57% of cases; in the English sample, mothers exhibited intrusive behaviour in 24% of the cases, and English children showed autonomous behaviour in 94% of the cases.

The country difference in terms of maternal intrusiveness behaviour was still significant after controlling for child autonomous behaviour[8]; and child's position in the family did not influence maternal intrusiveness[9].

Observational Measure

Etch-a-sketch Variables

The mother variable "over-control" for the full sample was not normally distributed. This remained the case after a logarithmic transformation had been conducted. The variable was therefore dichotomized based on a median split criterion[10].

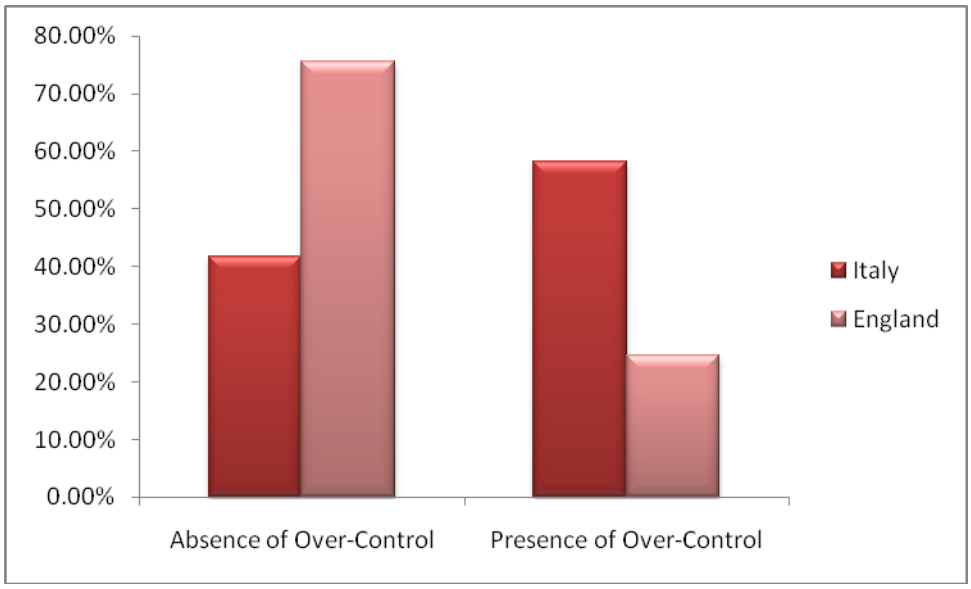
There was a significant difference between countries on the maternal over-controlling behaviour (X^2=12.60, df=1, p≤.001). (See Figure 6)

[8] A logistic regression was performed to test whether child autonomous behaviour mediated the relationship between intrusiveness and country. No significant effect was found regressing child autonomous behaviour variable on culture (B (s.e.) = -.814(.744), Wald test = 1.196, df=1, p=.276). Thus further regression to test a mediation hypothesis was not conducted.

[9] Whether the children were first or not-first born was unrelated to maternal intrusiveness (X^2=1.600, df=1, p=.127).

[10] The dichotomization of this variable was based on a median of the continuous variable. Any value below the median was labelled "Absence" and every value above it was labelled "Presence".

Figure 6. Percentages of Maternal Over-control between countries.



Thus, a greater proportion of the Italian mothers (58.3%) were over-controlling during the Etch-a-sketch task, than the English mothers (24.5%)[11].

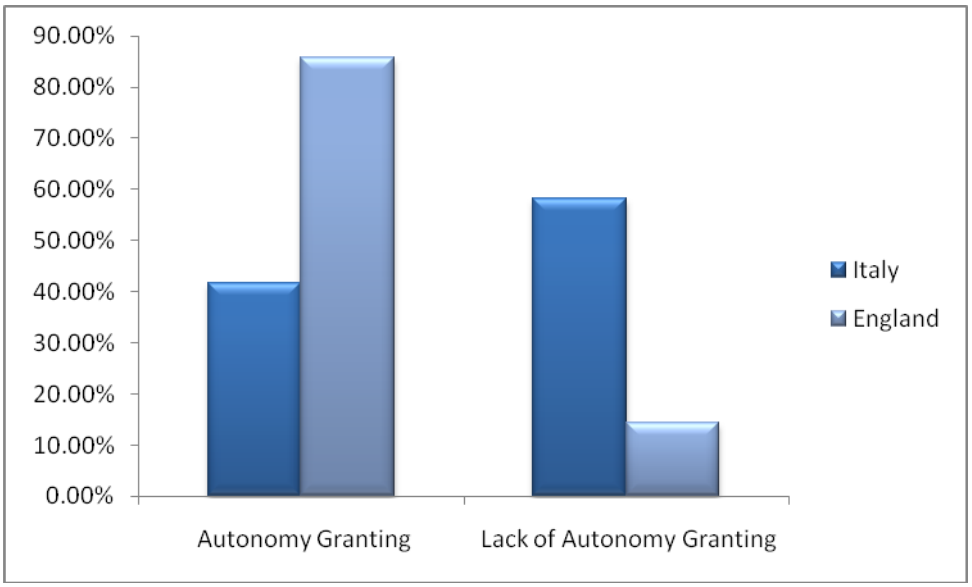
The maternal "Lack of autonomy granting" variable, for the full sample, was not normally distributed. This remained after a logarithmic transformation had been conducted. The variable was therefore dichotomized based on a median split criterion.[12]

There was significant difference between countries in terms of maternal autonomy granting behaviour (X^2 = 22.095, df=1, $p \leq .001$). (See Figure 7).

[11] Whether the children were first or not first born was unrelated to the proportion of maternal over-control (X^2=0.74, df=1, p=.786).

[12] The dichotomization of this variable was based on a median of the continuous variable. Any value below the median was labelled "Low" and every value above it was labelled "High".

Figure 7. Percentages of Maternal Autonomy granting between countries.



Thus, a significantly greater proportion of Italian mothers than English mothers failed to grant autonomy to their children[13].

Thus, on both the self-report measures and the observational measures, the Italian mothers were significantly more likely than English mothers to show intrusive and over-controlling behaviours towards their children.

6.3. Hypothesis 2

Maternal intrusiveness will be associated with child anxiety especially with child separation anxiety (Wood's Model)

A hierarchical regression was performed using as independent variables:

[13] Whether the children were first or not-first born was unrelated to the proportion of maternal granting of autonomy (X^2=1.930, df=1, p=.165) and therefore birth order was not considered in further analyses.

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable SCAS Total Score (SCAS)

F=.262 p=.852

Table 10. A multiple regression assessing Wood's model with the SCAS total Score.

	B	SE (B)	β	t
STEP 1				
Constant	35.49	5.45		
Skills of daily Activities	-.042	.121	-.033	-.344
STEP 2				
Constant	31.42	18.74		
Skills of daily Activities	-.045	.122	-.036	-.369
Parent child Questionnaire	3.902	17.18	0.22	.227
STEP 3				
Constant	35.62	19.52		
Skills of daily Activities	-.101	.141	-.080	-.711
Parent child Questionnaire	.848	17.65	.005	.048
Intrusiveness Index	4.02	5.11	.091	.786

$R^2 = .08$; $\Delta R^2 = .006$

A hierarchical regression was performed using as independent variables:

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable Separation anxiety factor (SCAS)

F=2.601 p=.05

Table 11. A multiple regression assessing Wood's model with SCAS Separation anxiety.

	B	SE (B)	β	t
STEP 1				
Constant	4.938	1.03		
Skills of daily Activities	.010	.023	.046	.475
STEP 2				
Constant	-4.151	3.43		
Skills of daily Activities	.022	.002	.013	.140
Parent child Questionnaire	8.716	3.15	**2.54***	2.68
STEP 3				
Constant	-3.947	3.591		
Skills of daily Activities	0.01	.026	.003	.027
Parent child Questionnaire	8.567	3.247	**2.56***	2.68
Intrusiveness Index	5.024	1.208	**2.01***	2.48

*significant at the 0.05 level

$R^2 = .263$; $\Delta R^2 = .067$

As Wood hypothesised, maternal intrusiveness was found to be significantly related to separation anxiety in children. The same analyses were conducted using the SCAS child anxiety sub-dimensions. None of these models revealed any significant effect, see Appendix Q). Thus, the link between maternal intrusiveness and separation anxiety does appear to be a specific one.

6.4. Hypothesis 3

Italian children will show generally higher levels of anxiety, and notably, higher levels of separation anxiety

Self-Report Measure

Table 12 shows the SCAS total and the subscale scores for the Italian and English children.

Table 12. SCAS total and subscale scores in Italian and English children[14] .

	Italy		England		Statistical Test: T-test
Child Self Report SCAS total score	Mean 34.23	SD 17.00	Mean 33.02	SD 14.62	T-test *ns*
Separation	5.63	3.06	5.02	2.96	T-test *ns*
Panic	5.06	4.54	4.76	4.15	T-test *ns*
Obsessive	6.05	3.83	6.21	3.35	T-test *ns*
Social Phobia	5.85	3.79	6.51	3.53	T-test *ns*
Physical Injury	3.76	2.72	4.08	2.66	T-test *ns*
Gen.Anxiety	6.61	3.66	6.67	2.41	T-test *ns*

(A more comprehensive table of SCAS scores, given in terms of gender and age is shown in Appendix R). It can be seen from table 12 that the Italian and the English children did not differ on overall anxiety (SCAS total score) or on any specific form of anxiety.

Even though no difference was found in child anxiety on the self-report measure, the effect of country of origin on child anxiety was examined using the "Child anxiety" observational variable from the etch-a-sketch task.

To score child anxiety in this task, several dimensions were examined: child anxious or fearful statements, cautioness in the absence of danger/threat,

[14] The mean score for the SCAS total on the Normative Italian sample of 1397 Italian children (Lis et al, in press) is 34.03. The Spence norms on the Australian sample of 2357, 8-11 years old children reveal a mean score for SCAS total of 30.36 (IC lower bound 29.66, upper bound 31.05). The mean for the current Italian sample is therefore very much in line with earlier Italian norms.

expressions of self-doubts/worries, reassurance seeking, and /or catastrophizing behaviours. Child perfectionistic behaviour was also considered.

As for maternal variables in the etch-a-sketch, child anxiety was scored on a 5 point Likert scale from 0 (the behaviour never occurs) to 4 (the behaviour occurs most of the time), minute by minute.

For the full sample, the median for the Child anxiety variable was 1. (This could be explained by the fact that this was a non-clinical sample, so high levels of anxiety were not expected, but above all the etch-a-sketch is not an anxiety provoking task).

Thus, the child anxiety variable for the full sample was not normally distributed. This remained after a logarithmic transformation had been conducted. The variable was therefore dichotomized based a median split criterion[15].

There was a significant difference between countries on the child anxiety behaviour (X^2=7.23, df=1, p≤.001) see table 13.

Table 13. Country differences on children observed anxiety.

	Italy		England		Statistical Test: X^2
Etch-a-sketch	Absence	Presence	Absence	Presence	
Child anxiety	0=68.3%	1=31.7%	0=89.8%	1=10.2%	X^2=7.23 df=1 p≤.001

[15] The dichotomization of this variable was based on a median of the continuous variable. Any value below the median was labelled “Absence” and every value above it was labelled “Presence”.

Thus, there was no difference between Italian and English children in their self-report of anxiety (SCAS). The data from the observational measure revealed a significant different between cultures, with Italian children evidencing significantly more anxiety than English children.

6.5. Hypothesis 4

Parenting style will mediate the relationship between culture and child anxiety

Given the marked differences in parental style between Italy and England, and given the differences in the observational measure of child anxiety between countries, it is necessary to establish whether maternal parenting strategies mediated the relationship between country of origin and manifest anxiety in children.

As Fiske, Kenny and Taylor (1982) suggest, an ANOVA provides a limited test of meditational hypotheses, rather as recommended by Judd and Kenny (1981b), a series of regression models should be estimated.

To test for mediation it is important to run three regression equations:

(1) Regressing culture on parenting

(2) Regressing culture on anxiety

(3) Regressing parenting on anxiety.

These three regression equations provide the test of the linkages of the meditational model. To establish mediation it was expect that all these regression analyses will be significant.

Three different kinds of variables assessing mother parenting styles were considered: Intrusiveness Index (belt task), Maternal Over-Control (Etch-a-sketch task) and maternal lack of Autonomy Granting (Etch-a-sketch task).

1a) the independent variable (country) must affect the mediator (Intrusive index) in the first equation. We performed a logistic regression because we used a binary variable (Intrusiveness Index) as the dependent variable. Wald test = 19.424, df =1, p=.000 Exp (β) =9.372, CI for exp(B) lower= 3.464, upper= 25.35.

1b) the independent variable (country) must affect the mediator (Maternal Over-Control) in the first equation. Wald test = 11.953, df =1, p=.001 Exp (β)=4.317, CI for exp(B) lower= 1.884, upper= 9.890.

1c) the independent variable (country) must affect the mediator (Maternal lack of Autonomy granting) in the first equation. Wald test = 19.254, df =1, p=.000 Exp (β) =8.400, CI for exp(B) lower= 3.247, upper= 21.73.

2) The independent variable (country) must be shown to affect the dependent variable (Child anxiety, etch-a-sketch task) in the second equation. Wald test = 6.591, df =1, p=.010 Exp (β) =4.078, CI for exp(B) lower= 1.395, upper= 11.92.

3a) The mediator (parenting, Intrusiveness Index) must be shown to affect the dependent variable (Child anxiety) in the third equation. Wald test did not show any significant effect (Wald test = 1.095, df =1, p=.295 Exp (β) =.612), CI for exp(B) lower= .244, upper= 1.535.

3b) The mediator (parenting, Mother-Over) must be shown to affect the dependent variable (Child anxiety) in the third equation. Wald test did not show any significant effect (Wald test = .092, df =1, p=.761 Exp (β) =.868), CI for exp(B) lower= .349, upper= 2.159.

3c) The mediator (parenting, Maternal lack of Autonomy Granting) must be shown to affect the dependent variable (Child anxiety from the etch-a-sketch) in the third equation. Wald test did not show any significant effect (Wald test = .688, df =1, p=.407 Exp (β) =.678), CI for exp(B) lower= .271, upper= 1.696.

These three conditions for mediation were not supported because the third set of regression did not show any significant effect. We can therefore conclude that in our sample parenting style did not mediate the relation between culture and manifest child anxiety.

6.6. Hypothesis 5

Parental warmth will moderate the relation between maternal intrusiveness and child anxiety.

A moderator variable is a variable that affects the direction and/or the strengths of the relationship between an independent or predictor variable and a dependent or criterion variable (Baron et al., 1986).

In the full sample we found strong and consistent differences between the two countries in parenting style across both the observational tasks and the self-report measures. However, we did not find any significant difference on children's

self-report anxiety, even though children differed in the manifestation of anxiety during a structured task.

All the previous literature has underlined that maternal over-controlling behaviour and intrusiveness are correlated with anxiety in children. Therefore, since this relationship did not emerge from the current data set, the possibility needs to be explored that a third variable intervened and modify the relationship between maternal intrusiveness and child anxiety. Maternal Warmth seemed a good candidate as it could play an important role in protecting the child from experiencing anxiety disorders.

The maternal warmth variable, for the full sample, was not normally distributed. This remained after a logarithmic transformation had been conducted. The variable was therefore dichotomized based on a median split criterion[16].

As can be seen from the table 14, the two countries differ significantly in term of maternal warmth (X^2=13.801, df=1, $p \leq .001$).

Table 14. Country differences in Maternal Warmth.

	Italy		England		Statistical Test: X^2
Etch-a-sketch	Low Warmth	High Warmth	Low Warmth	High Warmth	
Mother Warmth	0=40%	1=60%	0=75.5%	1=24.5%	X^2=13.801 df=1 $p \leq .001$

[16] The dichotomization of this variable was based on a median of the continuous variable. Any value below the median was labelled "Low" and every value above it was labelled "High".

The potential role of maternal warmth in moderating the relationship between maternal over-control and child anxiety total score was explored.

1 Model) An ANOVA was performed using as Independent variables:

- Maternal Over-control (Etch-a-sketch observed variables)

- Maternal Warmth (Etch-a-sketch observed variables)

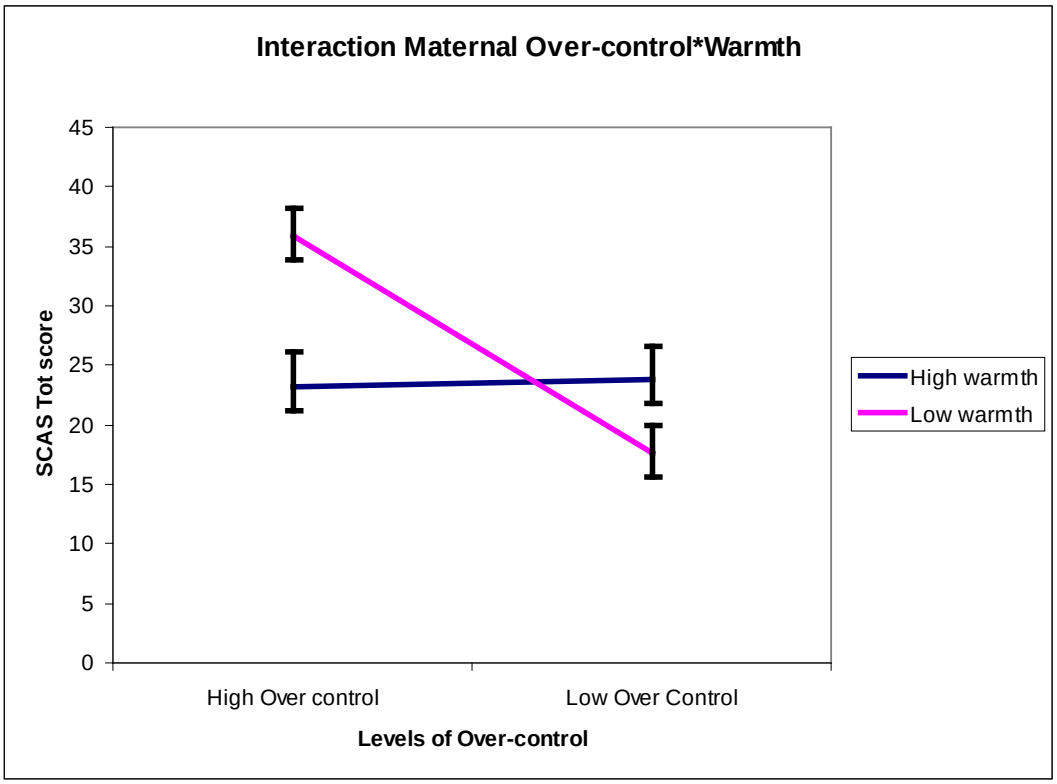
Dependent variable

-SCAS Total Score (Children anxiety on self report measure)

One-way analyses of variance (ANOVAs) revealed a significant effect of the interaction between maternal over-control and maternal warmth on the SCAS total score; $F(1,105) = 4.231$, $p \leq .005$ $\rho\eta^2 = .04$.

The interaction is shown below in Figure 8.

Figure 8. The significant interaction between maternal over-control and warmth on the SCAS total score.



As it can be seen from Figure 8, when there was low warmth, high maternal over-control was related to high child anxiety; but, when maternal warmth was high, child anxiety was low even where maternal over-control was high.

For further details on the model assessing the mediation effect of maternal warmth between maternal intrusiveness and SCAS total score see appendix S.

A further analysis was conducted to examine the potential role of maternal warmth in moderating the relationship between maternal intrusiveness and child Separation anxiety.

2 Model) An ANOVA was performed using as Independent Variables:

-Intrusive Index (Belt)

- Maternal Warmth (Etch-a-sketch observed variables)

as dependent variable:

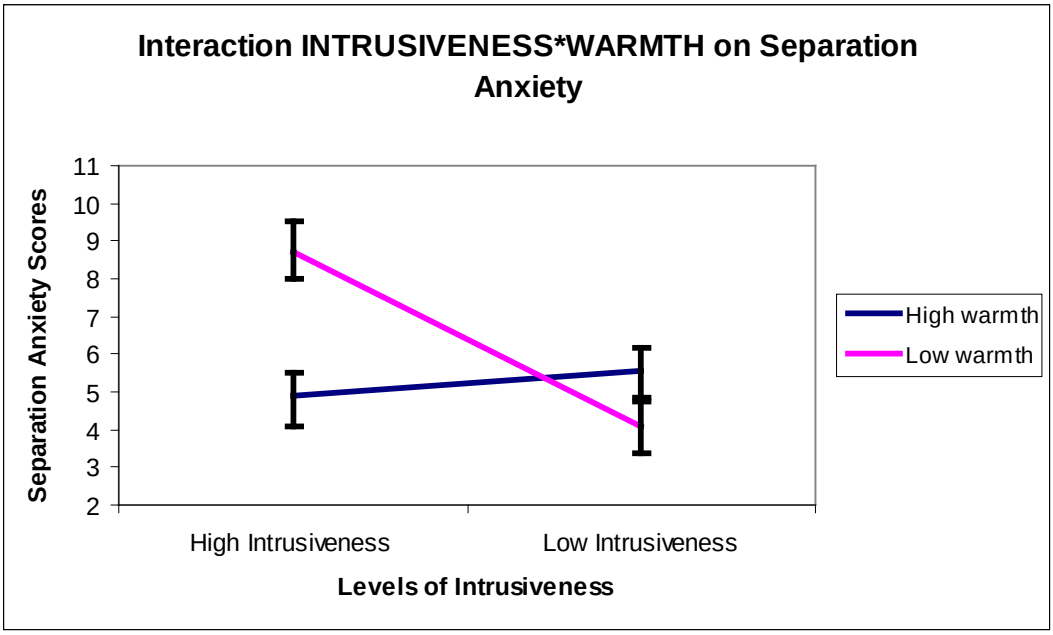
-Separation Anxiety SCAS (Children separation anxiety on self report measure)

-Age as covariate

-One-way analyses of variance (ANOVAs) revealed a significant effect of the age as a covariate on the SCAS Separation Anxiety: $F(1,104) = 6.642$, $p \leq .005$ $\rho\eta^2 = .06$, and also a main effect of Intrusiveness on child Separation Anxiety: $F(1,833) = 4.553$, $p \leq .005$ $\rho\eta^2 = .04$.

Finally, the one-way analyses of variance (ANOVAs) revealed a significant effect of the interaction between maternal Intrusiveness and maternal warmth on the SCAS Separation Anxiety: $F(1,104) = 6.930$, $p \leq .005$ $\rho\eta^2 = .06$.

Figure 9. The significant interaction between maternal intrusiveness and warmth on the SCAS Separation anxiety score.



As can be seen from Figure 9, when there was low warmth, high maternal intrusiveness was related to high child separation anxiety, but, when maternal warmth was high, child separation anxiety was low even where maternal intrusiveness was higher.

For further details on the model assessing the mediation effect of maternal warmth between maternal over-control and SCAS separation anxiety score, see appendix T.

For further details on the logistic model testing the mediation effect of maternal warmth between both maternal over-control and intrusiveness and child anxiety (variable from the etch-a-sketch task), see Appendix U.

Performing the same ANOVA's models for each country separately obviously reduces the sample size; no significant main effect or interaction effect emerged for the English subsample in each of the previous models. In the Italian sub-sample, however the interaction between Intrusiveness * Maternal Warmth

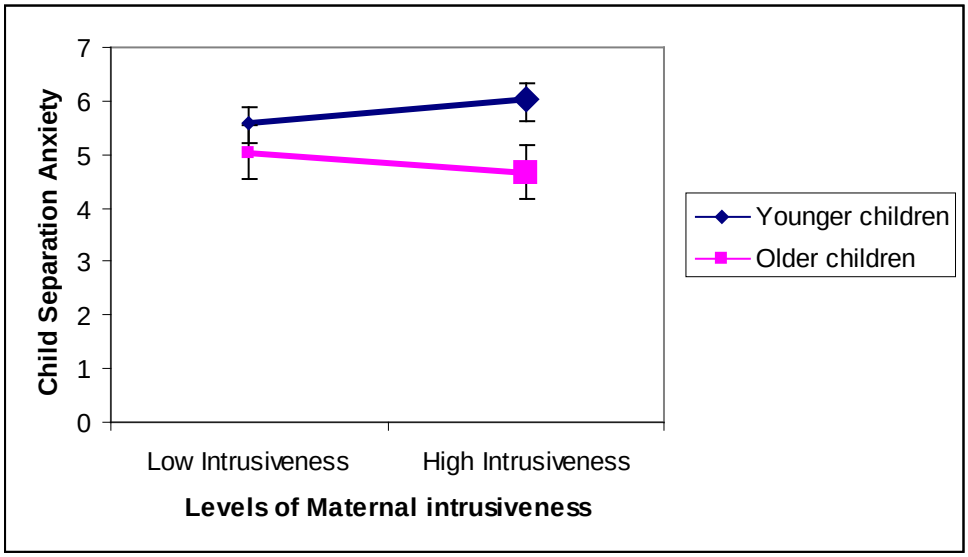
had a significant effect on child Separation Anxiety Disorder: F (1, 56) = 5.580. p≤ .005, ρη²= .09.

Thus, maternal warmth significantly moderated the impact of maternal over-control on child Anxiety.

Similarly, Maternal Warmth significantly moderated the impact of maternal intrusiveness on child Separation Anxiety.

Child age had an effect on the relationship between maternal intrusiveness and children separation anxiety: warmth protected younger children from experiencing separation anxiety when the mother was highly intrusive compared with older children (see figure 10)[17].

Figure 10 shows age differences in terms of experienced child separation anxiety.



[17] "Age in month" variable was dichotomized using a median split criterion. Younger children (N=58) ranged from 96 to 116 months, Older children (N=51) ranged from 117 to 131 months.

6.7. Hypothesis 6[18]

In the tidy up task, parental facilitation, holding, lax control, intrusiveness, and the overall quality of relationship will differ between countries; in particular Italian mothers, compared with English mothers, will show more intrusiveness and lax control, less facilitation and supportive containment and display a worst level of the overall quality of the relationship during the tidy up task.

Table 15 shows the differences between maternal behaviours in the tidy up task, between Italy and England.

Table 15. Country differences on maternal containment strategies.

	Italy		England		
	Absence	Presence	Absence	Presence	
Maternal Intrusiveness	0=43 71.7%	1=17 28.3%	0=47 95.9%	1=2 4.1%	Fisher exact test=.001
Maternal Supportive Containment	0=58 96.7%	1=2 3.3%	0=44 89.8%	1=5 10.2%	*NS*
Maternal Permissive behaviour (lax control)	0=29 48.3%	1=31 51.7%	1=46 93.9%	0=3 6.1%	Fisher exact test=.000
Maternal Facilitation	0=58 96.7%	1=2 3.3%	0=19 38.8%	1=30 61.2%	Fisher exact test=.000
Dyadic Quality of Relationship	Mean Rank 48.92		Mean Rank 62.45		Mann-Whitney test U=1105.0 Z=-2.36 p=.018
Maternal compliance	0=19 31.7%	1=41 68.3%	0=3 6.1%	1=46 93.9%	Fisher exact test=.001

[18] In the thesis is reported only the first time frame for the tidy up task. However, in the second time frame, differences on maternal Intrusiveness and Supportive containment are significant between countries, whilst Lax Control and maternal Facilitation did not present any difference.

As can be seen in table 15, compared to English mothers, Italian mothers were more intrusive (X^2 = 11.022 df=1, Fisher test=.001), and more permissive (lax control) (X^2 = 23.173, df =1, Fisher test=.000), with their children. No differences in Maternal Supportive containment were found between the two countries.

Mothers differed also in terms on Facilitation behaviours (English mothers facilitated their children more, giving them more practical support and guidance during the tidy up task compared with the Italian mothers) (X^2 = 43.587, df =1, Fisher test=.000), and they differed in terms of the overall Quality of Relationship[19] (Mann-Whitney test: U=1105.0, Z=-2.36, p=.018). Finally, Italian mothers were themselves less compliant with the instruction the research gave them than British mothers (Maternal compliance*:* X^2 =10.925 df =1, Fisher test=.001).

6.8. Hypothesis 7

Italian children will show less committed compliance and more behavioural disturbances compared with English children.

Table 16 shows the differences between child compliance behaviours in the tidy up task, between Italy and England.

[19] Conflicts were quickly and amicably resolved with no escalation and moreover there was a stronger sense of relatedness and mutual engagement between mothers and the child in the English sub-sample compared to Italian dyads.

Table 16. Country difference on child compliance

	Italy		England		
	Absence	Presence	Absence	Presence	
Child Committed Compliance	0=27 45%	1=33 55%	0=6 12.2%	1=43 87.8%	X^2 =13.709 df =1 p=.00
Child Situational Compliance	0=54 90%	1=6 10%	0=44 89,8%	1=5 10,2%	*NS*
Child Passive Non Compliance	0=44 73.3%	1=16 26.7%	0=48 98%	1=1 2%	Fisher exact test p=.00
Child Negotiation	0=56 93.3%	1=4 6.7%	0=49 100%	1=0 0%	*NS*

As can be seen from table 16 there were significant differences in terms of child committed compliance and child passive non-compliance between Italy and England: Italian children, compared to English children, evidenced less committed compliant and passive non-compliant behaviour (45% *vs* 12.2%).

Country differences were also found in child behavioural disturbances reported by parent (SDQ, parent version).Table 17 shows the SDQ subscale scores reported by parents for the Italian and English children.

Table 17. SDQ subscale scores (reported by parents) in Italian and English children[20].

	Italy		England		Statistical Test: T-test
Mother Self Report Total Difficulties score	Mean 11.06	SD 4.21	Mean 8.57	SD 3.85	T=3.192 df=107 p=.002
Emotion	2.70	3.06	1.77	2.96	T=2.474 df=107 p=.015
Conduct	2.10	1.76	1.38	1.42	T=2.282 df=107 p=.024
Hyperactivities	4.45	1.35	4.38	1.36	T-test *ns*
Peer	1.81	1.58	1.02	1.12	T=2.952 df=107 p=.004
Pro-social	8.16	1.65	8.38	1.53	T-test *ns*

(A more comprehensive table of SDQ scores (reported by parents), given in terms of gender and age is shown in Appendix V).

It can be seen from table 17 that the Italian and the English children differed in terms of Total Difficulties Score, Emotional, Conduct and Peer problems (Italian children scored higher on each of these sub-dimensions).

[20] No country differences were found in the children reports of their own level of difficulties, while a gender effect was found in their self-evaluations (a more comprehensive table of SDQ scores-reported by children- in terms of gender and age is shown in Appendix Z). Girls tended to show a higher level of emotional and peer conflicts but they exhibit more pro-social behaviours while boys had a higher level of conduct and hyperactive problems.

Thus, a significant differences in terms of self-regulation and externalizing behaviours occurred between Italian and English children.

6.9. Hypothesis 8

Child self-regulation is associated with mothers' containment strategy; and maternal containment mediates the effect of country on child behavioural disturbance.

To test if maternal lax control affects child compliant behaviour a logistic regression was performed using lax control (maternal strategy) as predictor and child passive non-compliance as the outcome variable. A significant effect of maternal lax control was found on child non-compliant behaviour (B (s.e.)= -1.824(.565), Wald =10.424, p=.001, Exp(B)=.161, CI for exp(B) lower= .053, upper= .488). A similar model, having child non-committed compliance as the outcome variable, was examined. A significant effect of maternal lax control was also found on child passive non-compliance behaviour (B (s.e.) =1.261(.448), Wald test=7.933, p=.005, Exp(B)=3.53, CI for exp(B) lower= 1.467, upper= 8.489).

Thus, the findings revealed that parental lax control affects child externalizing behaviour; in particular it seems to be strongly related to a passive non-compliant behaviour. A second set of logistic regression was performed using maternal intrusiveness (tidy up) as a predictor and child non-committed compliance as the outcome variable. The results indicated that maternal intrusiveness had also a significant effect on child non-compliance reaction in the

tidying up situation (B (s.e.) =1.175(.519), Wald test=5.119, p=.024, Exp(B)=3.24 CI for exp(B) lower= 1.170, upper= 8.954). Intrusiveness was found, however, to be unrelated to child passive non-compliant behaviour (B (s.e.)= .842(.606), Wald test=1.930, p=.165, Exp(B)=.431, CI for exp(B) lower= .131, upper= 1.414).

A linear regression model revealed that maternal intrusiveness in the tidy up task predicted child total difficulties problems (SDQ, parent version) as can be seen from table 18.

Table 18. Maternal intrusiveness at the tidy up predicts child behavioural difficulties (SDQ, parent version).

	B	SE (B)	β	t
Constant	.939	.019		
Maternal Intrusiveness (tidy up task)	.111	.047	.224*	2.37

*significant at the 0.05 level

$R^2 = .224$; $\Delta R^2 = .050$

To test if parental strategies mediated the relationship between country and child behavioural disturbance, four sets of regression analyses had to be run:

(1) Regressing country on parenting

(2) Regressing parenting on child behavioural disturbances

(3) Regressing country on child behavioural disturbances.

(4) Regressing, in the same model, both country and parenting on child behavioural disturbances.

The set of regressions provides the test of the linkages between the targeted variables. To establish mediation, all first three regression analyses would have to be significant. (A complete mediation occurs when, in the fourth step, the independent variable (country) no longer affects the outcome variable (child behavioural disturbance), whereas the mediator (parental intrusiveness) remains a significant predictor of the outcome (Fiske et al., 1982). If country remains a significant predictor, but drops its contribution to the model, a partial mediation is established).

1) The independent variable (country) must affect the mediator (Maternal Intrusiveness) in the first equation. Due to the binary nature of the variable a logistic regression was performed having (Intrusiveness) as the dependent variable. Wald test = 8.235, df =1, p=.004 Exp (β) =9.291, CI for exp(B) lower= 2.027, upper= 42.582.

2) The mediator (Intrusiveness) must be shown to affect the dependent variable (Child behavioural disturbances, SDQ parent version) in the second equation. A linear regression was performed, F= 5.647, p= .019 (R^2 = .224; ΔR^2 = .050)

3) The independent variable (country) must be shown to affect the dependent variable (Child behavioural disturbances) in the third equation. A linear regression was performed, F= 11.824, p= .001 (R^2 = .315; ΔR^2 = .10)

The three conditions for mediation were supported and therefore a linear regression was performed, using as independent variables country in the first step,

and country and maternal intrusiveness behaviour in the second step, and Child behavioural disturbances as the outcome variable.

Table 19 shows liner multiple regressions assessing the mediation effect of parenting behaviour between country and child behavioural disturbances.

F= 6.988, p= .001

	B	SE (B)	β	t
STEP 1				
Constant	1.131	0.53		
Country	-.119	.035	**-.315****	-.3.44
STEP 2				
Constant	1.095	.058		
Country	-.103	.036	**-.272***	-.282
Maternal Intrusiveness	.068	.048	.137	1.43

*significant at the 0.05 level, **significant at the 0.01 level

$R^2 = .341$; $\Delta R^2 = .017$

Thus, as can be seen from table 19, results evidenced that a partial mediation occurred between culture and child behavioural problem taking account of maternal intrusiveness.

Maternal Intrusiveness reduces the effect of culture on child behavioural problem but the relationship between them is still significant even after taking account of mediation variable. Meeting the first three steps does not, conclusively, establish that mediation has occurred because there are other (perhaps less

plausible) models that are consistent with the data. A complete mediation was therefore excluded[21].

In addition, to test whether the decrease of the effect of country on child behavioural disturbances was significantly reduced by the effect of maternal intrusiveness, the Sobel test was therefore conducted (Sobel test, z= 1.82, p=.006).

Sobel test was significant at a trend level, thus a partial mediation was established. Findings suggest that the impact of country on child behavioural disturbances, while reduced ones maternal intrusiveness, is considered nevertheless remaining significant.

6.10. Hypothesis 9

Parents' containment strategy (lax control) will be related to child anxiety

To test whether maternal lax control, exhibited in the tidy up task, could influence child internalizing problems, a linear regression was performed using as dependent variable child SCAS total score and as predictor maternal lax control at the tidy up task.

As it can be seen in table 18, maternal lax control was, indeed, significantly related to child anxiety reported on the SCAS (F=17.51, p=.000).

[21] Different mediation models were performed using as the outcome variable child non-compliance during the tidy up task and as the mediator variable, respectively, maternal intrusiveness and maternal lax control. A partial mediation was confirmed, while the hypothesis of complete mediation was excluded, because the fourth step was not satisfied in both cases.

Table 20. Maternal lax control at the tidy up predicts child anxiety (SCAS, total score).

	B	SE (B)	β	t
Constant	29.857	1.69		
Maternal lax control	13.049	3.11	.375**	4.18

*significant at the 0.01 level

$R^2 = .38$; $\Delta R^2 = .14$

This finding was confirmed in the Italian sub-sample, where the effect of maternal lax control on child anxiety was still significant, but it was not replicated in the English sub-sample.

The same regression was performed using SCAS separation anxiety as dependent variable and Maternal lax control as the independent variable (F= 7.531, p= .007).

Table 21. Maternal lax control at the tidy up predicts child separation anxiety (SCAS).

	B	SE (B)	β	t
Constant	4.883	.332		
Maternal lax control	1.679	.612	.256*	2.74

*significant at the 0.05 level

$R^2 = .26$; $\Delta R^2 = .066$

Thus as can be seen from table 21, maternal lax control was significantly related to child separation anxiety reported on the SCAS.

The same regression was performed using SCAS panic as dependent variable and Maternal lax control as the independent variable (F= 17.211, p= .000).

Table 22. Maternal lax control at the tidy up predicts child panic disorder (SCAS).

	B	SE (B)	β	t
Constant	3.892	.470		
Maternal lax control	3.546	.855	.377**	4.15

**significant at the 0.01 level

$R^2 = .38$; $\Delta R^2 = .14$

Thus as can be seen from table 22, maternal lax control was significantly related to child panic reported on the SCAS.

The same regression was performed using SCAS social anxiety as dependent variable and Maternal lax control as the independent variable (F= 3.951, p= .049).

Table 23. Maternal lax control at the tidy up predicts child social anxiety (SCAS).

	B	SE (B)	β	t
Constant	5.701	.414		
Maternal lax control	1.517	.763	.189*	1.98

*significant at the 0.05 level

$R^2 = .19$; $\Delta R^2 = .04$

Thus as can be seen from table 23, maternal lax control was significantly related to child social anxiety reported on the SCAS.

The same regression was performed using SCAS obsessive disorder as dependent variable and Maternal lax control as the independent variable (F= 4.078, p= .046).

Table 24. Maternal lax control at the tidy up predicts child obsessive disorder (SCAS).

	B	SE (B)	β	t
Constant	5.662	.415		
Maternal lax control	1.525	.755	.194*	2.02

*significant at the 0.05 level

$R^2 = .19$; $\Delta R^2 = .04$

Thus as can be seen from table 24, maternal lax control was significantly related to child obsessive disorder reported on the SCAS.

The same regression was performed using SCAS generalized anxiety disorder as dependent variable and Maternal lax control as the independent variable (F= 9.960, p= .002).

Table 25. Maternal lax control at the tidy up predicts child generalized anxiety disorder (SCAS).

	B	SE (B)	β	t
Constant	5.052	.345		
Maternal lax control	2.011	.637	.292*	3.15

*significant at the 0.05 level

$R^2 = .29$; $\Delta R^2 = .08$.

Thus as can be seen from table 25, maternal lax control was significantly related to child generalized anxiety reported on the SCAS.

Maternal lax control, however, did not predict child physical injury (SCAS)[22].

6.11. Hypothesis 10

Maternal mental state is related to maternal lax control behaviour

To test whether maternal mental state could be related to maternal parenting behaviours, we estimated the correlation between maternal self-reported their own anxiety and depression and maternal behaviours at the observational tasks[23].

A significant point-biserial correlation was found between maternal self reported their own level of depression and their lax control during the tidy up task (R*pb*=.242*, p=.005) and between maternal self reported their own level of anxiety and their lax control during the tidy up task (R*pb*=.204*, p=.005)[24].

[22] Maternal lax control did not predict separation anxiety in the Italian and English sub-samples (there was just a significant tendency). In contrast maternal lax control significantly predicted panic, social anxiety, obsessive disorder and generalized anxiety in the Italian sub-sample. These findings were not replicated in the English sub-sample.

[23] A correlation was calculated between maternal mental state and maternal behaviour during each task. No significant correlations were found between maternal anxiety and depression and each of the previous maternal parenting behaviour during the etch-a-sketch, belt buckling and tidy up tasks (see Appendix AB).

[24] The correlation between maternal depression and maternal anxiety reported on the *HADS* is significant (*R*=.456**, p=.001).

A logistic regression was performed to detect whether maternal depression should predict maternal lax control at the tidy up, Wald test revealed a significant effect of maternal depression in predicting maternal lax control behaviour (B(s.e.)=.189 (.077), df=1, Wald test=6.020, p=.014, ExpB=1.208, CI for exp(B) lower= 1.039, upper= 1.404.

Another logistic regression was performed to assess the effect of maternal self-reported anxiety on maternal lax control strategies, a significant relationship was found. Maternal anxiety predicted maternal permissive behaviour during the tidy up task significantly (B(s.e.)=1.603 (.778), df=1,Wald test=4.244, p=.039, ExpB=4.965, CI for exp(B) lower= 1.081, upper= 22.80.

Controlling for maternal depression and anxiety

An Anova was performed to test the effect of maternal lax control on the SCAS total score controlling for maternal depression.

ANOVA was performed using as Independent Variables:

-Maternal lax control (Tidy up task)

as dependent variable:

- SCAS total score (Children total anxiety on self report measure)

-Maternal depression as covariate

-One-way analyses of variance (ANOVAs) revealed a main effect of the lax control behaviour on child Anxiety: $F(1,106) = 16.091$, $p \leq .001$ $\rho\eta^2 = .13$. Maternal depression as covariate did not show any significant effect.

Thus, in our full sample, maternal lax control is related to child total anxiety independently of maternal depression.

An Anova was performed to test the effect of maternal lax control on the SCAS total score controlling for maternal anxiety.

ANOVA was performed using as Independent Variables:

-Maternal lax control (Tidy up task)

as dependent variable:

- SCAS total score (Children total anxiety on self report measure)

-Maternal anxiety as covariate

-One-way analyses of variance (ANOVAs) revealed a main effect of the lax control behaviour on child Anxiety: $F(1,106) = 17.397$, $p \leq .001$ $\rho\eta^2 = .14$. Maternal anxiety as covariate did not show any significant effect.

Thus, in our full sample, maternal lax control was related to child total anxiety independently of maternal anxiety[25].

An Anova was performed to test the effect of maternal lax control on the SCAS separation anxiety, controlling for maternal depression.

ANOVA was performed using as Independent Variables:

-Maternal lax control (Tidy up task)

as dependent variable:

- SCAS separation anxiety

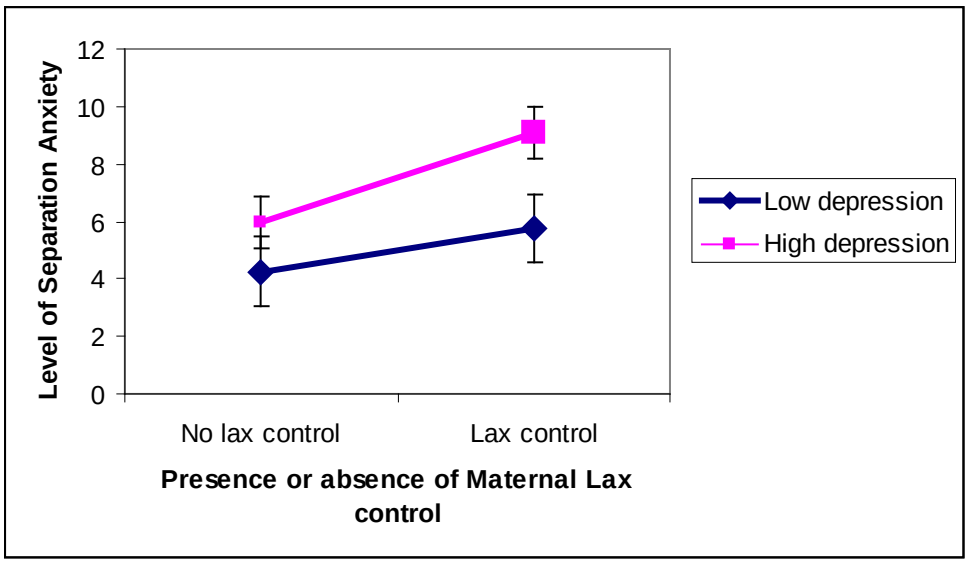
-Maternal depression as covariate

-One-way analyses of variance (ANOVAs) revealed a main effect of the lax control behaviour on child Separation Anxiety: $F(1,106) = 4.468$, $p \leq .005$ $\rho\eta^2 = .04$. Maternal depression as covariate showed a significant effect: $F(1,106) = 6.487$, p

[25] To test whether maternal depression or maternal anxiety mediates the relationship between maternal lax control and child anxiety, a set of regressions need to be estimated. However the regression assessing the predictor effect of maternal depression on child anxiety (SCAS total score) and the regression assessing the predictor effect of maternal anxiety on child anxiety (SCAS total score) were not significant. Thus, the mediation hypothesis was therefore excluded.

≤.001 $\rho\eta^2$= .06. Thus, the child seemed to experience more separation anxiety when the mother showed lax control and was more depressed than when she showed lax control but at the same time she was less depressed (see Figure 11).

Figure 11 shows the effect of maternal depression on the relationship between maternal lax control and child separation anxiety.



The same model was performed using as independent variable maternal lax control, as outcome variable child separation anxiety and as covariate maternal anxiety (HADS). Maternal lax control revealed a main effect on child separation anxiety: $F(1,103) = 8.295$, $p \leq .005$ $\rho\eta^2 = .07$. Maternal anxiety did not show any effect as covariate on child separation anxiety[26].

[26] Same models were performed to test the effect of maternal depression and maternal anxiety as covariate on each of the SCAS sub-dimensions. No significant effects were found using respectively as outcome variable: child panic, child social anxiety, child obsessive disorder and child generalized anxiety. Thus, maternal depression seemed to affect significantly only the relationship between maternal lax control and child separation anxiety and not with other kinds of anxiety. Maternal anxiety did not play any role in this relationship.

Chapter 7. Structural Equation Modeling

It is essential to better understand the relations between maternal and child constructs.

Therefore, at the second level of analysis, were explored the associations between: Maternal Intrusiveness, Maternal responsiveness and their collective relations with Child Internalizing and Child Externalizing behaviours. Furthermore an examination was made of whether the associations between these constructs differed as a function of the country of origin.

Both parent and child data were analysed in a single model. When models are run separately significant predictions are likely. However the associations between variables may be partially due to methodological error. Researchers have suggested that structural equation modeling (SEM) could address this limitation, so following this suggestion parent and child information was combined using SEM.

Before running the analyses data normalization and imputation of missing values for all variables were performed. Imputation of missing values and computation of normal scores were undertaken using PRELIS 2, based on a scheme described by Joreskog and Sorbom (1996). The missing values were imputed based upon values observed in other cases that had a similar response pattern over a set of matching variables. Consequently, if there were also missing values for the matching case, the value could not be imputed. Thus the excluded cases were eliminated. Asymptotic and polychoric matrices were chosen because the variables were ordinal or dichotomised measurements. These matrices will calculate normally distributed estimated values for each variable.

Structural equation modeling (Joreskog and Sorbom, 1996), implemented by the program LISREL (8.80), was used to test the adaptability of the current data to the hypothesized model, after the first level of analyses.

Structural equation modeling (Jöreskog and Sörbom 1996), implemented by the program LISREL (Version 8.80) was used to test model fit separately for each variable construct. Four different indices were created as latent variables ("Intrusiveness Observational Index", "Maternal Responsiveness Observational Index", "Child Internalizing problems self-report Index" and "Child Externalizing behaviours Observational Index"), in order to reduce and simplify the data.

It was tested if many variables, each reflecting one latent construct, could be explained by a single index and if this index was coherent with the observational data.

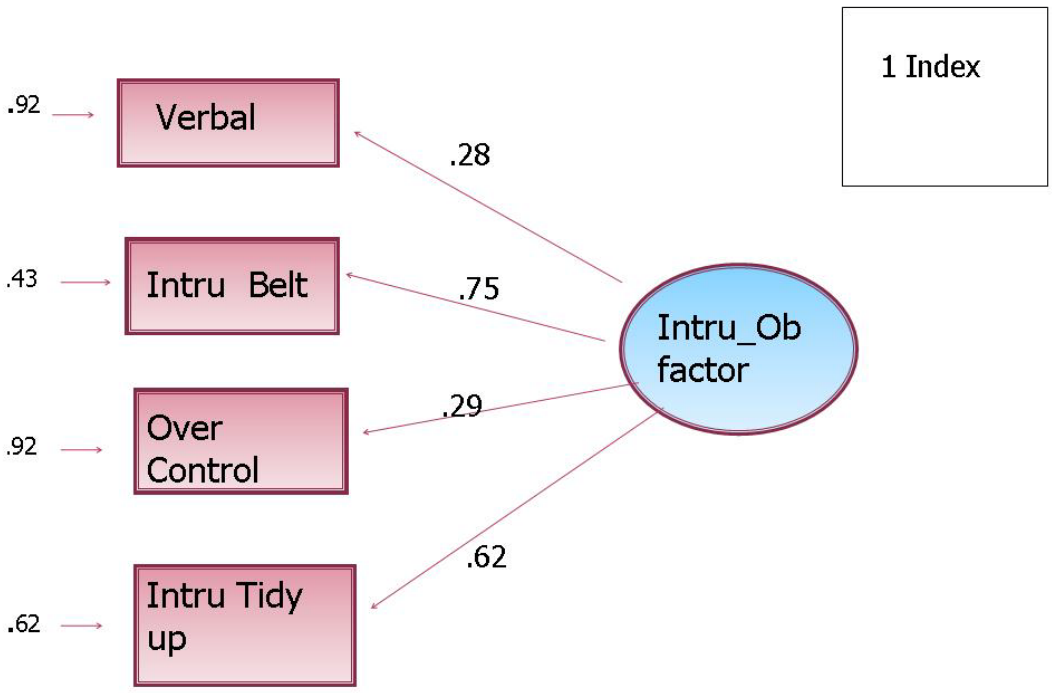
A variety of indices were considered as indicators of the model's overall goodness of fit: Chi-squared (X^2), for example, was used as a test of the null-hypothesis that the model fit the data. However, the reliance on chi-squared has been criticized. For that reason, were also used the comparative fit index (CFI) and non-normed fit index (NNFI), with value ranging from 0 (a poor fit) to 1 (a perfect fit). The Root Mean square error of approximation (RMSEA) was also calculated, as it is considered a measure of a good fit when lower than .06 (Hu and Bentler, 1999) and 90% CI for RMSEA.

7.1. Creating specific Indexes reflecting latent constructs

.

The first index created was the Maternal Intrusiveness Index. The differentiation between observational and self-report measures was retained, because of the gap in explaining different portion of variance between them, so only observational dimensions were used to create this index such as: "Maternal Intrusiveness" (Belt task)[27], "Maternal Verbal Instruction" (Belt task), "Maternal Over-Control" (Etch-a-sketch task) and "Maternal Intrusiveness" (Tidy up task). The purpose was to determine whether each of these different observed variables could reflect one single latent construct, coherent with the empirical data.

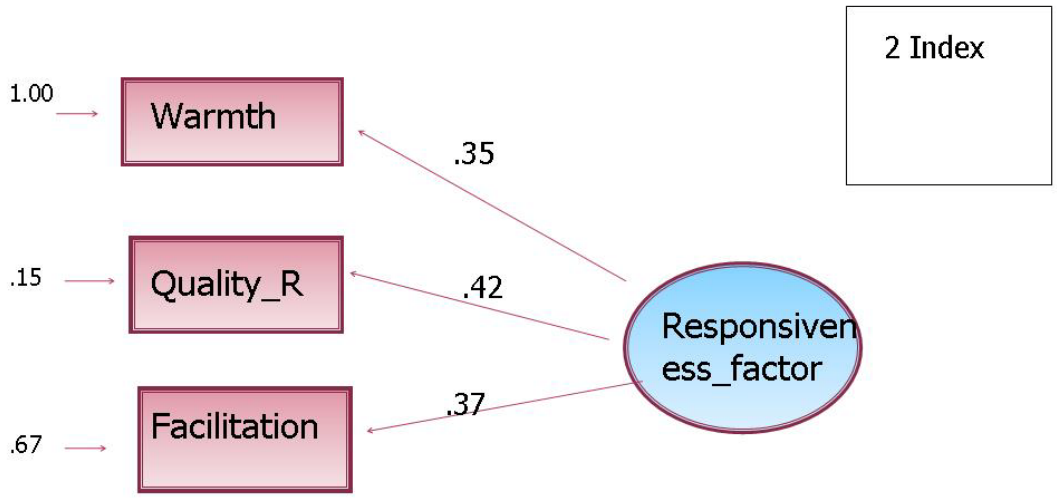
Figure 12 shows the Maternal Intrusiveness Index.



[27] Raw scores were the total number of seconds of mothers' intrusive physical help or touch. Parent variables (in seconds) were summed and divided by the number of seconds of the entire episode. This allowed the comparison between different timing episodes. This variable was called Intrusiveness Index score with a range from 0 to 1.

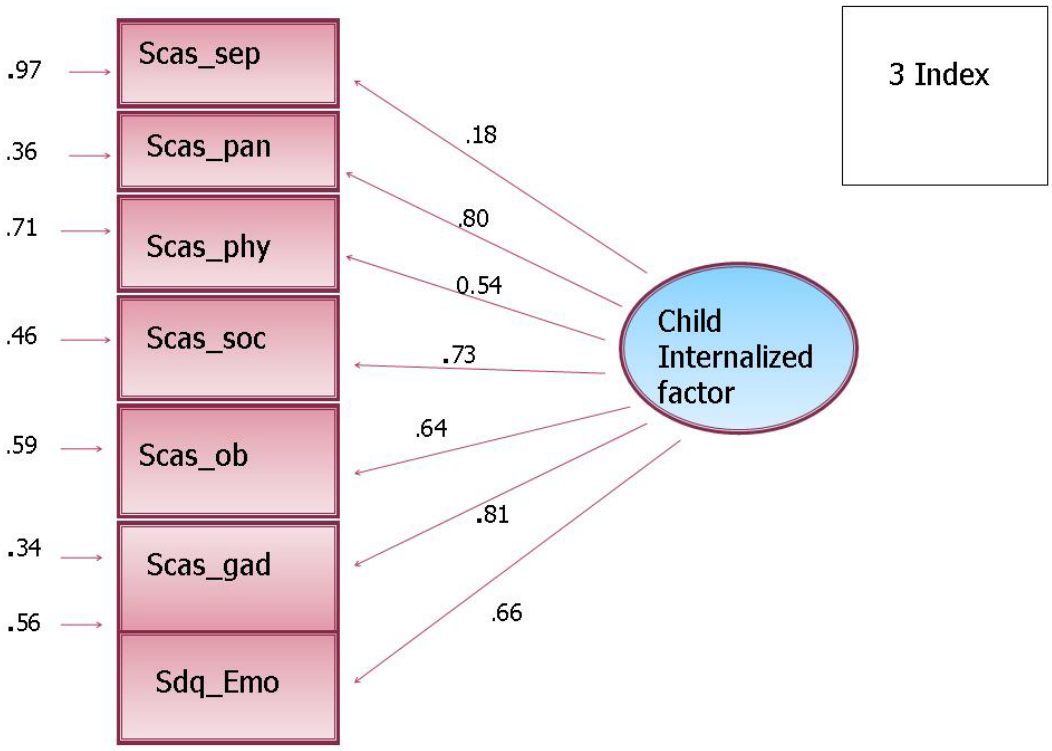
A Maternal Responsiveness variable was also created using “Maternal Warmth” (Etch-a-sketch task), “Quality of Relationship” (Tidy up task) and “Maternal Facilitation” (Tidy up task).

Figure 13 below shows the Maternal Responsiveness Index.



A self-report index was created to reflect Child internalizing problems. Only one observational measure from the etch-a-sketch task was representative of child anxiety problems, while most part of the information on child internalizing problems and anxiety came from self-report measures. Therefore, the six SCAS sub-dimensions and the SDQ Emotional factor were used to create the further index.

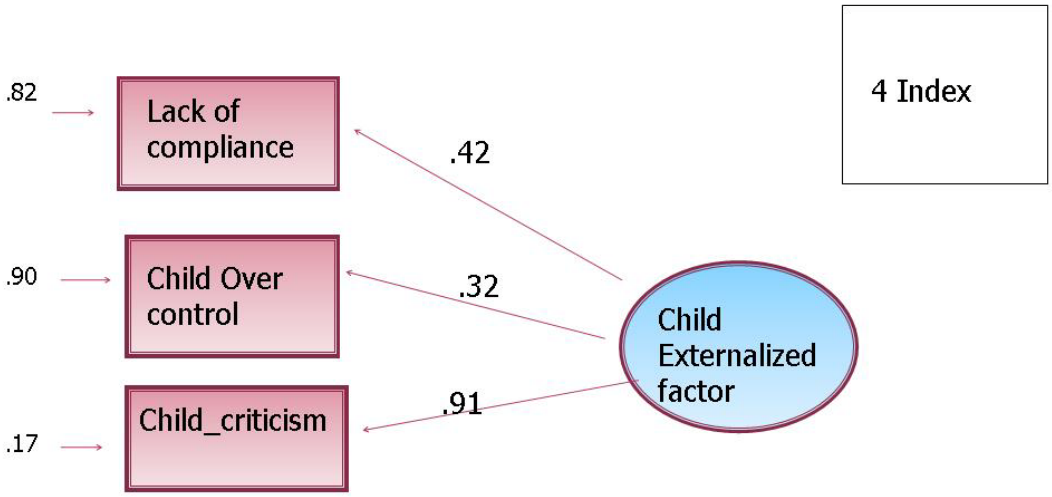
Figure 14 below shows the Child Internalizing problems Index.



Finally, an Index for Child Externalized Behaviour was created using the "Child non-compliance behaviour" (tidy up task)[28], "Child Over-Control" (Etch-a-sketch task) and "Child Criticism" (Etch-a-sketch task variables).

[28] The "Lack of Committed compliance" behaviour was considered as the absence of fully endorsed compliance during the tidying phase (adding together passive non-compliance, situational compliance and negotiation compliance in the tidy up task).

Figure 15 below shows the Child Externalizing behaviours



7.2. Interpreting Fit Scores

Each model reached a good or acceptable fit. Due to the sensitivity of the chi-square statistic to sample size, alternative goodness-of-fit measures were taken into consideration. Literature proposed descriptive measures of overall model fit, descriptive measures based on model comparisons, and descriptive measures of model parsimony.

Measures of overall model fit indicate the extent to which a structural equation model corresponds to the empirical data. A descriptive measure of overall model fit is the Root Mean Square Error of Approximation (RMSEA), which is a measure of approximate fit in the population. The RMSEA is bounded below by zero.

Although previous literature showed several cut-offs, there is general agreement that the value of RMSEA for a good model should be .05 or less (Steiger, 1990; Browne and Cudeck, 1993).

Measures based on model comparisons are the Normed fit Index (NFI), the Non-normed Fit Index (NNFI), and the Comparative Fit Index (CFI).

The basic idea of comparison indices is that the fit of an observed model is compared to the fit of some theoretical model. The NFI values range from 0 to 1, with higher values indicating better fit. The usual rule of thumb for this index is that .95 is indicative of good fit relative to the baseline model (Kaplan, 2000), whereas values greater than .90 are typically interpreted as indicating an acceptable fit (Marsh and Grayson, 1998; Schumacker and Lomax, 1996).

A disadvantage of the NFI is that it is affected by sample size (Bearden, et al., 1982). In order to address this limitation, Bentler and Bonnett (1980) developed the Non-normed Fit Index (NNFI). The NNFI ranges in general from zero to one, but as this index is not normed, values can sometimes leave this range, with higher NNFI values indicating better fit. A rule of thumb for this index is that .97 is indicative of good fit relative to the independence model, whereas values greater than .95 may be interpreted as an acceptable fit. An advantage of the NNFI is that it is one of the fit indices less affected by sample size (Bollen, 1990; Hu and Bentler, 1995, 1998).

The CFI compares the model fit to a baseline model where the latent variables are uncorrelated (Bentler, 1990). CFI ranges from zero to one with higher values indicating better fit. A rule of thumb for this index is that .97 is indicative of good fit relative to the independence model, while values greater than .95 may be

interpreted as an acceptable fit. Again a value of .97 seems to be more reasonable as an indication of a good model fit than the often stated cutoff value of .95.

Comparable to the NNFI, the CFI is one of the fit indices less affected by sample size (Bollen, 1990; Hu and Bentler, 1999).

Another index is the Goodness-of-fit index, GFI, also called gamma-hat or Jöreskog-Sörbom GFI. GFI varies from zero to one but theoretically can yield meaningless negative values. GFI is the percent of observed co-variances explained by the co-variances implied by the model. By convention, GFI should by equal to or greater than .90 to accept the model. As GFI often runs high compared to other fit models, many (e.g., Schumacker and Lomax, 1996) now suggest using .95 as the cutoff.

Table 26 below shows the comparative fit indexes for each model.

Table 26. Fit index for different constructs

Fit index							
Ho: Σm = Σf							
	X^2	df	p	RMSEA	CFI	NNFI	GFI
Intrusiveness	1.05	2	.001	0.00	1.00	1.10	.99
Responsiveness	0.47	1	.50	0.00	1.00	.98	.97
Internalizing prob.	3.30	4	.00	0.03	.97	.97	.95
Externalizing Beh.	3.15	1	.70	0.00	1.00	.98	.97

After good fit indexes were found in each of the previous models, factorial scores for each index were calculated with a regression matrix (*RM*).

Regression factorial scores were therefore estimated, in order to calculate which score every subject had reached on each of the previous indexes using the *R* software. Thus these new variables were used to test a more complex moderation model.

7.3. Global Model

Conceptually, structural equation modeling is a collection of statistical techniques that allows a set of relationship between one or more independent variables (IVs), either continuous or discrete, and one or more dependent variables (DVs), either continuous or discrete, to be examined. In the current model latent variables (indexes created previously) were used, which are not directly measured but were assessed indirectly through a composition of different (3 or more for each index) observed variables.

When the phenomena of interest are complex and multidimensional, SEM is the only analysis that allows complete and simultaneous testing of all the relationships.

The fundamental question that is addressed through the use of SEM techniques involves a comparison between a dataset, an empirical covariance matrix, and an estimated population covariance matrix that is produced as a function of the model parameter estimates. The main question asked by SEM is "Does the model produce an estimated population covariance matrix that is consistent with the sample observed covariance matrix?"

If the model is good the parameter estimates will produce an estimated matrix that is close to the sample covariance matrix. In turn, the sample covariance matrix is assumed to be representative of the population covariance matrix, so it can be assumed that the model describes the population.

"Closeness" is evaluated with the goodness of the fit indexes.

In the current model the aim was to estimate the relationship between 3 independent predictors (Maternal Intrusiveness, Maternal Responsiveness and the

interaction between them) and two dependent variables (Child Internalizing Problems and Child Externalizing behaviours).

Figure 16 shows a Path Diagram of the multiple regression Model

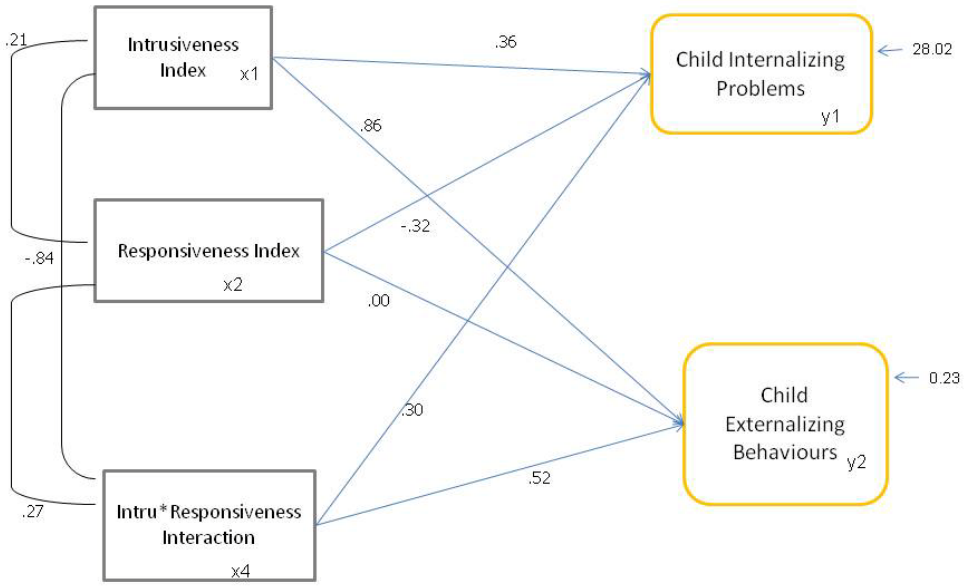


Table 27 shows fit indexes for the Global model in the full sample

Table 27. Fit index for the Global Model

Fit index							
Ho: Σm = Σf							
	X^2	df	p	RMSEA	CFI	NNFI	GFI
Global Model	0.853	1	.54	0.00	.97	.97	.96

As can be seen from Figure 16, Intrusiveness is a stronger predictor for externalizing behaviours than for internalizing problems. Responsiveness is a negative predictor of child internalizing problems. The interaction factor between Intrusiveness and Responsiveness shows a bigger effect on child externalizing behaviours.

The fit indexes indicated that this hypothesized model is consistent with the observational data in the overall sample. Maternal Intrusiveness seems to have a stronger effect on Child Externalizing Behaviours than on Child Internalizing Problems. Nevertheless, the interaction variable (Maternal Intrusiveness*Maternal Responsiveness) seems to influence both Child Internalizing and Externalizing problems.

Thus, SEM revealed that Maternal Responsiveness moderates the effect of Maternal Intrusiveness both on Child Internalizing and Externalizing factors in the full sample.

7.4. Multiple-group Models

Given the marked differences on parenting style and child rearing practices between Italy and England, it is important to establish whether the previous model created using SEM, holds true for the Italian and English samples independently.

Therefore it was investigated whether the effect of Maternal Intrusiveness*Maternal Responsiveness was different for Italy and England, performing the same model separately for the Italian families (N=60) and English families (N=49).

Figure 17 shows a Path Diagram of a multiple regression Model in Italy

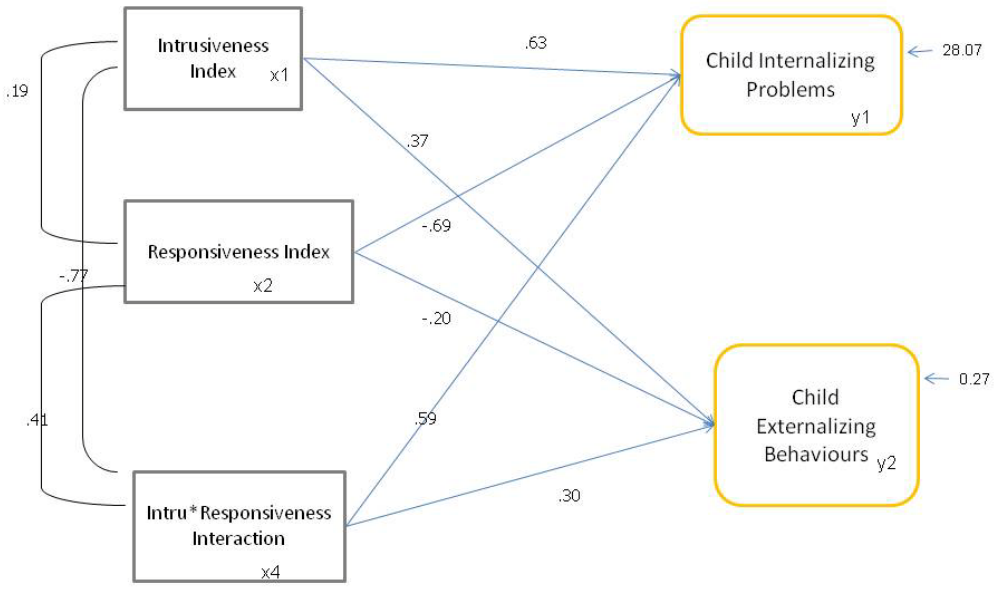


Table 28 shows fit indexes for the Italian model.

Table 28. Fit index for the Multiple-group Model, ITALY

Fit index							
Ho: Σm = Σf							
	X^2	df	p	RMSEA	CFI	NNFI	GFI
Model ITALY	0.654	1	.419	0.00	1.00	.99	.99

As can be seen from Figure 17, Intrusiveness was a stronger predictor for internalizing problems than for externalizing behaviours. Responsiveness was a negative predictor of child internalizing problems and of child externalizing behaviours. The interaction factor between Intrusiveness and Responsiveness showed a stronger effect on child internalizing problems in the Italian sub-sample compared to the Global Model.

Figure 18 shows a Path Diagram of a multiple regression Model in England

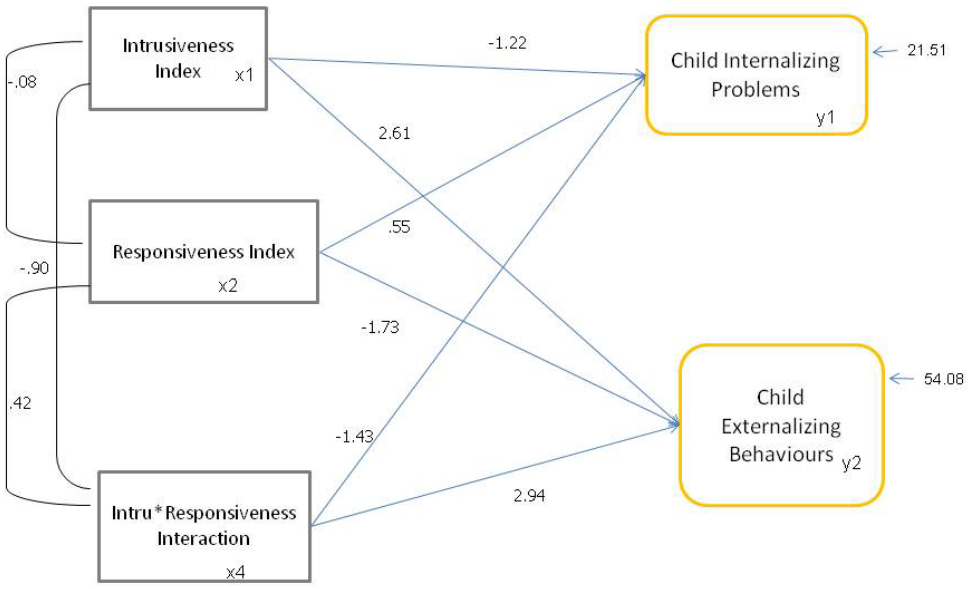


Table 29 shows Fit indexes for the English Model.

Table 29. Fit index for the Multiple-group Model, ENGLAND

Fit index							
Ho: Σm = Σf							
	X^2	df	p	RMSEA	CFI	NNFI	GFI
Model ENGLAND	17.16	1	.00	0.696	.64	-2.56	.86

As can be seen from Figure 18, Intrusiveness and Responsiveness do not explain large percentages of variance on child internalizing problems and child externalizing behaviours within the British sub-sample.

Overall Multiple Regression Model reached good fit indexes in the Italian sub-sample but not in the English one.

In Italy, Maternal Intrusiveness had a stronger impact on Child Internalizing problems than on Child Externalizing behaviours, and the interaction variable seemed to affect both Child Internalizing and Externalizing factors, but the effect was stronger for the Child Internalizing factor.

In England, the fit indicated that the model was not consistent with the observational data, therefore no confrontation for the metric or configural invariance between the multi-group models should be considered.

Thus, using SEM, revealed that Maternal Responsiveness showed a moderation effect on both Child Internalizing and Externalizing factors, (reducing the negative impact of Maternal Intrusiveness on Child Anxiety and Behavioural problems), and this was true for the Italian sub-sample particularly.

Chapter 8. Discussion

8.1. Cultural differences

Parenting practices and child rearing have been identified in the literature as associated with children's anxiety and social adjustment. The main purpose of the current study was to examine cultural differences in specific parenting practices between two different European countries, Italy and England, and determine whether differences in parenting might account for differences in levels of anxiety.

It was hypothesised that Italian mothers would demonstrate more intrusive behaviour than their English counterparts. Highly significant differences were indeed found between countries on the Intrusive Index (Belt task), and the Mother Over-Control and Lack of autonomy granting variables (Etch-a-sketch): Italian mothers demonstrated more intrusive behaviours than their English counterparts. These findings were also supported by highly significant differences between levels of self-reported intrusive parenting (PCIQ, Wood 2006) and self-reported levels of assistance in daily life activities (SCDL, Wood 2006), where Italian mothers scored significantly higher than English mothers.

These results support the evidence of cultural differences between Italian and English parenting styles, for 8 to 10 years old children, which Hsu and Lavelli (2005) and New and Richman (1996) had previously demonstrated in the toddler period. It has been argued that these differences in parenting could result from differences in the degrees of closeness in kinship relationships between Italy and England as reported by Hollinger and Haller (1990). These investigators found that Mediterranean cultures tend to promote less individualization and autonomy in

child rearing practices compared to Northern European countries. According to the authors, a country's socioeconomic development status could account for differences in child rearing practices. Moreover, family structure and size, religion and traditional beliefs seem to draw the way in which parenting practices develop and families promote independence or kinship closeness. Cross-cultural studies have suggested that as one moves moving from the North of Europe, towards the South of Europe, (especially Italy), family relationships appear more cohesive and the family plays an increasingly central role in daily life, maintaining a high level of closeness. Such factors may well correlate with parental lack of autonomy and possibly on intrusive parenting styles. Why such differences in family exist between Italy and England lie in the different history and development of these two countries.

Historically, the dissolution of traditional family structures was not only a result, but also a precondition (Hollinger and Haller, 1990), for the earlier industrial development of Northwestern Europe. In Northwestern and Central Europe, the industrialization occurred earlier than in the south, with the consequence that families left their home, lived at increasing distances from each other and they were often disintegrated.

In Eastern and Southeastern Europe, industrialization started later and also the family economy and life style was very different. Communities of brothers with their wives and children living in close proximity were more common. In contrast to Northwestern Europe, in this region the old farmer remained.

Another factor which needs to be considered is the influence on the family of Catholic norms in Italy. Historically, for example, the resistance against the liberalization of divorce laws was stronger in Southern European countries than in

Northern countries (Norway, Sweden and Britain). This has seemed to promote the intact family in Italy.

For example in England, cohabitation without marriage and single parent families are more common and legally recognized and accepted as equivalent options to the traditional marriage and nuclear family. Single mothers receive assistance in socio-economic terms and the welfare state guarantees than the same rights as a married couples. In Italy the percentage of single mothers is for lower than in the United kingdom, and even though, in theoretical terms, they have the same guarantees, from a practical point of view they do not receive the same amount of support they would receive in Northern European countries (Trifiletti, 1999, Gori 2000).

As noted by Wendland and Miljkovitch (2003), this is very important because single mothers often lack social support networks and can therefore easily feel stressed and depressed. All these conditions may lead to a risk of exposing their child to psychopathological consequences.

It would appear that social, economical and historical differences between the South and North of Europe could account for differences in the concept of the family, tradition and style life, which would collectively contribute to differences in parenting style and child-rearing practices.

8.2. Maternal Intrusiveness and Separation Anxiety in children

Previous research examining the role of parenting in childhood anxiety has identifies intrusiveness and over-control as important constructs in families with highly anxious children (Wood et al., 2003, Ballash et al., 2004, Hudson and

Rapee, 2001). According to Wood (2006, 2007), the intrusive parenting style is characterized by invasion of the child's privacy, unnecessary assistance in normal routine tasks, lack of autonomy granting and infantilizing behaviours. Given this, parent behaviours seem to undermine the child's self ability and self-efficacy and low self efficacy could lead to the development of anxiety in children.

Hence children, who have parents that normally take over tasks for them, may not develop adequate coping strategies to cope a wide range of novel and even feared situations. In this case, any separation situation tends to elicit child negative affect and irrational thoughts about what may happen if they are away from their parents. Thus, children tend to avoid separation from them as much as they can, to reduce aversive and negative feelings.

Following the model proposed by Wood (2006), who found a specific link between maternal intrusiveness and child separation anxiety, a cross-cultural study provided an excellent quasi-experimental examination of this model.

The same observational standard task and self-report measures, (Wood, 2006), were used to assess maternal intrusiveness in Italian and English families. Child separation anxiety was assessed by a SCAS sub-dimension (Spence, 1997).
A multiple hierarchical regression model indicated that the Parent Child Interactive Questionnaire (PCIQ) and the Intrusive Index (a combined index from the Belt Task) significantly predicted separation anxiety disorder in children. The Skills of Daily life activities Questionnaire (SDCL), which assesses the amount of help mothers give to their children routinely, did not show any direct effect on child separation anxiety. It is interesting to note that the large portion of explained variance, in the multiple hierarchical regression, comes from the PCIQ questionnaire, (which assesses the quantity of intrusive interaction between mother

and child during the last seven days), and from the observational Intrusiveness Task.

This could be explained by the fact that the SDCL seems to be more associated with the lack of Autonomy granting dimension than with Intrusiveness itself. Intrusiveness and Autonomy are two different constructs (a mother could grant no autonomy to her child in a non-intrusive way) even though they could overlap in practical terms.

The same model did not predict other kind of anxiety disorder in children. Hence, we could conclude that the parental Intrusive Index, in our overall sample, was specifically linked to child reports of their own levels of separation anxiety.

8.3. Differences in Children Anxiety

Contrary to the expectations raised from the big differences in intrusiveness between Italian and English mothers, Italian children did not have higher scores than the English children in the overall anxiety level and SCAS sub-dimensions. Specifically they did not show a higher score on Separation Anxiety sub-dimensions assessed by SCAS (Spence, 1997).

This finding is in itself perplexes because all the previous literature emphasizes that high intrusive and over-controlling parenting is associated with anxiety symptoms in children, especially separation anxiety (Rapee 2001, Wood 2006, McLeod 2007). This result is also in contrast with the previous finding of Cooper, Lis and colleagues (in preparation) who found that Italian children showed higher overall levels of anxiety compared to their English counterparts.

One possible explanation for the differences between the current and the earlier cross-cultural comparison could come from the small sample size used for this study. That is, the fact that no difference was found in levels of anxiety between the Italian and the English children could have been due to type II error.

Another explanation could be that other parenting styles (and perhaps the interaction between them) could intervene and play an important role in influencing child anxiety and self-regulation, changing the effect and the strength of maternal intrusiveness on them. This possibility was explored in the current study by examining the role of maternal warmth.

8.4. Warmth as a moderating factor

To recapitulate, analyses have shown no significant differences in the levels of child anxiety (assessed by SCAS child version) between the two countries, while strong differences were seen in parenting behaviours, which had previously been demonstrated, to have a strong relationship with childhood anxiety.

Previous research has shown that maternal warmth is negatively associated with maternal over-control, intrusiveness and rejection parenting style. Despite this general trend, it has been suggested that in different cultures, warmth could be positively related to high levels of intrusiveness (Ispa, 2004).

Indeed, studies have shown that high levels of intrusiveness and other forms of control by parents in some cultures are not accompanied by low levels of closeness, responsiveness, or warmth of emotional expression (Carlson and Harwood, 2003; Ispa, 1994; Richman et al., 1992).

It appears that level of maternal warmth, not only within cultures, but also between cultures, especially between Western and Eastern countries, may therefore need to be considered independently of other parenting dimensions.

A possible explanation is that the Caucasian society (North America, Northern Europe countries) typically supports individualistic dimensions and placing a greater emphasis on fostering autonomy and independence in children. Personal initiative, achievements and autonomy are strongly encouraged in education. On the other hand, other cultures (especially Asian culture, and some Southern European cultures) value more collective dimensions and emphasize family values, mutual support and family closeness. Most Asian, Latino, Spanish and Greek societies, for example, follow this second model. Hence, cultures vary greatly in the use of parental warmth and family values and cohesion.

Thus, parental warmth and control styles could vary in different cultures, but the most important implication is that the interaction between these two dimensions of parenting and their effect on child internalizing and externalizing behaviours, could vary across different cultures and countries.

Therefore, in the current research, warmth was considered as a possible moderating factor of the impact of parental intrusiveness and over-control on child anxiety. Therefore, additional analyses were conducted on observed maternal warmth scores (Etch-a-sketch) between the two countries. Notably, Italian mothers expressed significantly higher levels of warmth compared to English mothers.

Interactions between maternal warmth and intrusiveness as between maternal warmth and over-control were found to affect Child self-reported anxiety (SCAS total score) and Child self-reported separation anxiety (SCAS, sub-

dimension). In particular, the impact of both maternal high intrusiveness and high over-control was moderated by the presence of higly maternal warmth.

A more complex model, using SEM, was performed to test the moderation effect of Maternal Responsiveness (a variable combined using “warmth”, “facilitation” and “quality of relationship”) on both children internalizing and externalizing factors.

The global model for the full sample reached a good fit, demonstrating that maternal warmth moderates the negative effects of maternal intrusiveness on child internalizing problems and externalizing behaviours. In a further examination, considering each country separately, using a multi-group approach this moderation model was not found to be coherent with the observational data in the United Kingdom. In the Italian sub-sample this model reached an even better fit than in the global model, confirming the moderation effect of maternal warmth on maternal intrusiveness for both child internalizing and externalizing problems.

These findings suggest a relatively new concept in the child anxiety literature. Little research has examined the concept of warmth as a protective factor in relation to internalizing problems such as anxiety. Instead, normally, literature has found warmth has a moderation effect on child externalizing problems.

As suggested by McLeod (2007), specific parenting behaviours should be treated separately because they tend to explain different portions of variance in child anxiety. The finding of the current study suggests further that the interaction between different kinds of parenting behaviours and child-rearing practices should be treated separately across different cultures and countries due to the possible interaction effects on child internalizing and externalizing problems.

In particular, the role of potential warmth needs further investigation, even country-specific investigation, because it could play an important role in reducing the negative effects of parental control or intrusiveness in some cultures. From a clinical perspective, in addition to dealing with parental intrusiveness and over-control, treating child anxiety symptoms, clinicians should also focus on the affective aspects of the mother-child relationship in order to reduce child anxiety.

8.5. Differences in Maternal Containment strategies

Analysis of the data from the current study, showed significant differences in terms of mother containment strategies between Italy and England during the tidy up task. In particular Italian mothers, compared to English mothers, were found to show more lax control (passive or permissive behaviour), fewer Facilitation strategies and more Intrusive behaviours.

This is a notable finding because in the literature high levels of maternal permissiveness or passivity, has always been associated with externalizing problems in children.

Baumrind and colleagues (1971), for example, pointed out that aggressive children tend to have “permissive” mothers who can be emotionally positive or distant, whilst anxious children tend to have “authoritarian” and intrusive mothers who inhibit the development of their children’s autonomy and social skills.

In the current study the Italian mothers seemed to oscillate between intrusiveness and a permissiveness/passivity style. When there was maternal inconsistent discipline, children reacted with passive non-compliance behaviour to maternal instruction (i.e. the regression analyses revealed that maternal lax control

was associated with child passive non-compliant behaviour). Thus, in the current sample, lax control was associated with externalizing problems, in line with the major research in this field.

It was hypothesised that permissive/passivity style could be associated also with anxiety disorders in children. Little research has addressed this relationship. Kotler and McMahon (2004) found that anxious/withdrawn children exhibited higher levels of passive non-compliance, while angry/aggressive children used more simple non-compliance or refusal. Also, mothers of anxious/withdrawn children were found to be more intrusive and controlling than mothers of angry/aggressive children. This study did not assess lax control behaviour.

Robinson and Cartwright-Hatton (2008) recently reported a significant association between mothers self-reported their own discipline style and anxiety in pre-school aged children. They found that the strongest parental factor associated with child anxiety was "Over-reactive" maternal discipline. In this study lax discipline neither maternal anxiety nor was associated with child anxiety symptomatology. A limitation of this study was its total reliance on self-report measures.

It is a novel finding that a permissive or passive maternal behaviour is associated with anxiety problems in children (SCAS total score and child separation anxiety, panic, social anxiety, obsessive disorder and generalized anxiety). A possible explanation is that mothers who fail to provide guidelines to their children, basically mothers who withdraw themselves from the interaction with them without supporting them, will not helping the child in managing negative frustrating feelings. The increasing of negative feelings from an externalizing point of view could lead to a non-compliant behaviour or behavioural

problems in general, and from an internalizing point of view, then could evoke in children feelings of anxiousness.

The current study appears to be the first study to report a strong association between maternal inconsistent discipline and internalizing disorder (i.e. the regression showed maternal lax control was significantly associated with child anxiety total score, separation anxiety, panic, obsessive disorder, social anxiety and generalized anxiety assessed with the SCAS). This association was true for the Italian sub-sample, but not for the English sub-sample.

As previously noted, since the Italian and the English sample differed so markedly in terms of parenting styles, a country specific differentiation is needed when considering both internalizing and externalizing child problems.

This suggests that in terms of treatment, clinicians should focus on a mother's ability to support and contain her child in order to reduce anxiety symptoms.

An interesting relationship was found between maternal anxiety and depression and maternal lax control. In fact it seemed that maternal mental state significantly predicts maternal permissive behaviour and inconsistent discipline. Particularly, in the current study, maternal depression, in the full sample, influenced significantly the relationship between maternal lax control and child separation anxiety, revealing that child tended to experience more feelings of separation anxiety when mothers were more permissive and more depressed.

In the literature maternal psychopathology was found to be one of the strongest predictor of poor parenting, particularly, researchers well documented the relationship between maternal psychopathology and over-control behaviours.

Kelley and Jennings (2003) for example reported an association between maternal depression and intrusiveness. Gelfand and Teti (1990) reasoned that depression is often associated with negative views of self and of one's children, which in turn can result in intrusiveness.

Few studies have documented the relationship between parental coping strategies and the quality of discipline parents provide to children with behavioural problems (Mckee et al., 2004). Mckee and colleagues (2004) found that mothers who self-reported higher levels of depression, compared to mothers with low levels of depression, were likely to show, during pre-treatment and post-treatment observational sections, a greater use of avoidant-focused coping (poor parental coping styles, included lax control), less use of adaptive-focused coping, and reduced utilisation of social support. This was not true for fathers.

A possible explanation of the association between maternal mental state and ineffective discipline is that maternal lax control can be thought of as an attempt to avoid the stress associated with the child's negative or oppositional behaviour. Thus, parents' inability to cope with stress (particularly for depressed or anxious mothers) could lead to ineffective discipline. Also mothers with higher levels of depression or anxiety could not properly teach their children to manage frustration and negative feelings. These poor strategies could provoke oppositional behaviours in children.

Another interesting finding and somewhat unexpected, concerns the proportions of mothers who showed non-compliant behaviour to the observer's instruction during the tidy up task compared to English mothers. Italian mothers, in fact, showed highly levels of non-compliance (they seemed to hesitate when the observer gave the instruction to stop their child: mothers asked if their children

could finish what he/she was making up before packing away the materials, or mothers just said “ok” but they did not give the command to their child).

A significant relationship between maternal non-compliance and child non-compliance was found. Thus, just as anxiety runs in families as too does non-compliance.

This finding could be also explained by the fact that there are different cultural traditions regarding the respect of authority, social norms and negotiation behaviours between Italy and England. LeBaron (2003) reported cultural differences in negotiation behaviour and concept of time between Japan, American and European countries. LeBaron differentiated between negotiation behaviours in poly-chronic time cultures (this orientation is more common in Asian and some Mediterranean and Latin cultures including France, Italy, Greece, Mexico and some Eastern and African countries) and, on the other side, mono-chronic time cultures (more common in North American and North European countries). The author underlined that negotiators from poly-chronic cultures tend to: start and end meetings at flexible times, take breaks when it seems appropriate, sometimes overlap talk, view start times as flexible, not take lateness personally and comply in more flexible way. Negotiators from mono-chronic cultures instead tend to: prefer prompt beginnings and endings, schedule breaks, deal with one agenda item at a time, rely on specific detailed and explicit communication, prefer to talk in sequence, and view lateness as devaluing or evidence of lack of respect.

Even though negotiation behaviours between cultures are not the core of our investigation, following LeBaron’s reasoning, it could be that in Italy, people normally react to authority in a more flexible way than people in England, because this seems to be more socially accepted.

8.6. Differences in children compliant behaviours

In the current study child compliant behaviour during the tidy up task significantly differed between the two countries. Italian children, compared to English children, in fact showed a significantly higher proportion of non-committed compliant behaviour. Among them, the majority of children were passively non-compliant, a small proportion showed situational compliance, and just four children displayed negotiation behaviour.

Neither gender nor age was found to have an effect on child compliant behaviour.

Previous research on non-compliance has demonstrated that this phenomenon develops and changes with age (Kopp, 1982; Kuczynski et al., 1987). Thus, in the school-aged period normally children without behaviourally-referred problems, tend to show fully endorsed compliance.

Individual differences in compliance/non-compliance are often attributed to characteristics in the child's environment (the most widely researched characteristic being maternal control strategies), child temperament and self regulation differences.

In our research we investigated the effect of maternal strategies on child compliance behaviours during a tidying up situation.

Studies have indicated that mothers who use warmth, support, and guidance are more likely to get their children to comply, whereas mothers' strategies of power assertion and physical punishment are more likely to elicit non-compliant behaviours (Crockenberg and Litman, 1990; Power and Chapieski, 1986).

In the current study, maternal intrusiveness and permissive/lax control, during the tidy up task, predicted child non-compliant behaviour.

Child temperament was not taken into consideration, so no differences between British and Italian children were reported in terms of their self-regulation ability.

Instead, significant country differences were found in maternally reports of their child's difficulties (the Strengths and Difficulties Questionnaire, parent version). Compared to English mothers' evaluations, Italian mothers tended to report their children as having higher overall level of difficulties, higher conduct, hyperactive, peer and emotional problems.

No country differences were found in children's reports of their own level of difficulties. A gender effect was found in the child completed Strengths and Difficulties Questionnaire, girls tended to show a higher level of emotional and peer conflicts than boys, but they exhibit more pro-social behaviours as well, while boys had a higher level of conduct and hyperactive problems than girls.

This difference between mother and child evaluations could be due to the fact the 8-10 years old children are not reliable informants of their own behavioural problems (for more information see www.sdqinfo.com). Parent's evaluation, in the literature, has been found to be more precise and reliable.

In the current research, maternal reports of their children's difficulties seem to be in line with child non-compliant behaviour assessed in the observational task: both show clear country differences in child compliance and self regulation.

The reason why Italian children are more likely to show low self-regulation and non-compliance problems is probably explained by the strong differences in

their parent's behaviours and containment strategy, as suggested by the meditational analyses.

English mothers showed more facilitation, supporting their children with practical suggestions during the tidy up task, giving them more guidance. Italian mothers instead, exhibited lax control behaviour which lets the child to do what he or she wants.

Few studies have investigated cross-cultural differences in maternal expectancies and child rearing practices. Harwood and colleagues (1999) examined maternal interactive behaviours with their children in a sample of American women of non-Hispanic origin and Puerto Rican mothers. They found that American mothers place greater emphasis on socialization goals and childrearing strategies consistent with a more individualistic orientation, whereas Puerto Rican mothers place greater focus on goals and strategies consistent with a more collectivist culture orientation. The Puerto Rican mothers showed more affection and control towards their children than the American mothers.

Rosenthal and Roer-Strier, (2001) investigated parental developmental expectancies for 20 Soviet Union-born and 20 Israeli-born mothers. They found interesting differences in maternal expectancies. Israeli-born mothers, more than the Soviet-born mothers, were concerned with their children's place in society and their social success. They expected that their children should be able to delay gratification and behave according to social rules. Soviet-born mothers expected their children to express only positive feelings such as love and joy, and not negative feelings such as fear, sadness, or anger. All emotions, especially anger, were expected to be controlled. Children of Soviet-born mothers were emotionally cold and less expressive compared to the Israeli children.

Maternal expectations and culture background are highly associated with maternal behaviour and child-rearing practices. The expectation of “emotionally controlled children” is congruent with the image of the adaptive and successful expected adult which is common in many North European countries. The expression of feelings (both negative than positive) is not easily accepted in all cultures. In some contexts, it could be viewed as a sign of weakness and immaturity, so mothers start to teach their children very early to control and manage emotions and delay gratification.

In other cultures, the emphasis on controlling emotions is less important. Instead the lack in expression of feelings is associated with coldness and poor development of social skills. Axia and Weisner (2002) found that Italian mothers prefer more vivacious children than quiet children, in some southern countries the excess of control is even negatively associated with the development of creativeness, originality and spontaneity, which all together play an important role in the culture contribution of optimal child development.

Chapter 9. Study strengths and limitations

The present study is the first cross-cultural study using reliable observational measures to report systematic differences in parenting style and to relate parenting style to child internalizing and externalizing problems. This is also the first study investigating systematically cross-cultural differences in parenting between Northern and Southern countries in Europe.

Psychometrically well established measures and additional observational measures were used, because, as McLeod (2007) suggested, they account for percentages of variance in explaining childhood anxiety.

Despite several strengths of the present study, the result should be considered in light of some limitations.

The first limitation is the sample size, due to the difficulties of collecting video –recorded materials. Despite this, the use of observational measures compensate for the disadvantages of a small sample size, because it was possible to conduct a more deep and specific investigation looking at the mother-child interaction directly, instead of relying only on self-report measures in a larger sample.

Another limitation is due to the fact that raters were not blind to the country of origin condition due to the different languages of the participants of our two sub-samples. However inter-rater reliability was established between three different raters and this provides confidence in the coder's evaluations.

No longitudinal data are available, because of the cross-sectional design, so no information on the developmental course and the stability of these findings throughout childhood and adolescence will be available.

This work did not consider a range of other vulnerability factors such as low socio-economical level, child temperamental attitude or mother attachment style.

Also, the father's role in mediating or moderating the impact of maternal practices on child adjustment was not investigated.

9.1. Future research

Given the limitations highlightened in the previous section, longitudinal design studies, on larger samples, would be beneficial to current understanding the pathways child development and maintenance of anxiety.

The current study needs to be replicated in a larger population in order to examine possible variations of different kinds of parental styles and of the interaction between them in affecting child anxiety and behaviours.

Moreover, other cross-cultural studies need to be conducted in Europe, to investigate the differences in the cultural components within Europe and Western countries. Particularly, parental dimensions which could vary in different cultures need to be identified and investigated in order to understand their role in explaining child anxiety and behaviours.

The role of warmth deserves more investigation in future in the anxiety field and especially its link with child internalizing problems.

9.2. Intervention Application

The clinical implications of the main finding of the present research (warmth as a protecting factor which reduces the negative impact of maternal intrusiveness on child anxiety), should be taken into consideration in future therapeutic approaches to the management of childhood anxiety.

In treatment (or even in the prevention field) clinicians, working with children at risk of developing anxiety disorders, could focus on the affective aspects of the parent-child relationship

9.3. Conclusion

The present work provides strong empirical evidence for differences in parental styles between Italy and the United Kingdom.

There have been no previous cross-cultural studies conducted between northern and southern European countries which reported systematic differences in parenting behaviours, and which related them to both child internalizing and externalizing problems. The concept of warmth as a moderating factor is new in the literature, and it could be central in the future understanding of the development and maintenance of childhood anxiety in research, as well as in the clinical field.

References

Abbassi, A. A., Stacks, J. (2007). Culture and Anxiety: A Cross-Cultural Study among College Students. *Journal of Professional Counseling Practice Theory & Research*. 35,1; Education Module pg. 26.

Achenbach Thomas M. (1985). Assessment and taxonomy of child and adolescent psychopathology. Developmental clinical psychology and psychiatry series, Vol. 3. Thousand Oaks, CA, US: Sage Publications, 200 pp.

Achenbach TM, Becker A, Döpfner M, Heiervang E, Roessner V, Steinhausen HC, Rothenberger A. (2008). *Multicultural assessment of child and adolescent psychopathology with ASEBA and SDQ instruments: research findings, applications, and future directions.* J Child Psychol Psychiatry 49 (3):251-75.

Ainsworth M. D. S., Blehar M. C., Waters E., Wall S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ. Erlbaum.

Aksan, N., H. H. Goldsmith, et al. (1999). *Derivation and prediction of temperamental type among preschoolers*. Dev Psychol 35(4): 958-971.

Albano A.M, Silverman AM (1996) Anxiety Disorders Interview Schedule for DSM-IV Child Version, Clinical Manual. San Antonio, TX. Psychological Corporation.

Allen J. P., Hauser S.T., Bell K. L., O'Connor T.G. (1994). "Longitudinal assessment of autonomy and relatedness in adolescent family interactions as predictors of adolescent ego development and self-esteem" . Child Development 65(1): 179-194.

Allinsmith B.B. (1960). Expressive styles: II. Directnes with which anger is expressed. Inner conflict and defense. New York: Holt.

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Arrindell, W. A., Eisemann, M., Richter, J., Oei T. P. S., Caballo, V.E., van der Ende, J., Sanavio, E., Bage´s, N., Feldman, L., Torres, B., Sica, C., Iwawaki, S., Edelmann, R. G., Crozier, W. R., Furnham, A.,Hudson, B. L. (2003). Phobic anxiety in 11 nations Part I: Dimensional constancy of the five-factor model. Behaviour Research and Therapy 41, 461–479.

Aviezar O., Sagi, A., Joels, T., & Ziv Y. (1999). Emotional availability and attachment representations in kibbutz infants and their mothers. *Developmental Psychology*, 35, 811 – 821.

Axia Vanna D., Weisner Thomas S. (2002), Infant stress reactivity and Home Cultural Ecology of Italian infants and families. *Infant Behavior and Development*, Volume 25, Issue 3, Pages 255-268

Bandura, A. (1986). Social foundations of thought and action: a social cognitive theory. Prentice-Hall: Englewood Cliffs, NJ.

Barber, B. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development, 67,* 3296–3319.

Barber, B. K., Chadwick, B. A., Oerter, R. (1992). Parental Behaviour and Adolescent self-Esteem in the United States and Germany. *Journal of Marriage and the Family* 54, pp. 128-141 .

Barber, B. K., Olsen, J. E., & Shagle, S. C. (1994). Associations between parental psychological control and behavioral control and youth internalized and externalized behaviors. *Child Development*, 65, 1120-1136.

Barber, B. K., & Shagle, S. C. (1992). Adolescent problem behaviors: A social-ecological analysis. *Family Perspective*, 26, 493-515.

Barlow, D.H. (1988). Anxiety and its disorders: the nature and treatment of anxiety and panic. Guilford Press: New York.

Baron, R. M., Kenny, D. A. (1986), "The Moderator-Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations," *Journal off Personality and Social Psychology,* 51(6), 1173-1182.

Barrett, P. M. (1998). Evaluation of cognitive–behavioural group treatments for childhood anxiety disorders. *Journal of Clinical Child Psychology, 27,* 459–468.

Barrett, P.M., Rapee, R.M., & Dadds, M. R. (1996). Family Treatment of Childhood Anxiety: A Controlled Trial. *Journal of Consulting and Clinical Psychology, 64,* 333-342.

Barrett, P.M., Rapee R.M., Dadds, M.M., Ryan S.M. (1996). Family enhancement of cognitive style in anxious and aggressive children. *Journal of Abnormal Child Psychology,* 24, 187-203

Baruffol, E. & Thilmany, M. (1993). Anxiety, depression, somatization and alcohol abuse prevalence rates in a general Belgian community sample. *Acta Psychiatrica Belgica, 93,* 136-153.

Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4 (1 pt.2), pp. 1-103.

Baumrind, D. (1991). The Influence of Parenting Style on Adolescent Competence and Substance Use. *The Journal of Early Adolescence*, Vol. 11, No. 1, 56-95.

Baumrind, D. (1965). Parental control and parental love. *Children, 12(*6), 230-234.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development.* Vol. 37, No. 4 , pp. 887-90.

Baumrind, D. (1967). Child care practices anteceding three patterns of preschool behavior. *Genetic Psychology Monographs*. Vol 75(1), 43-88.

Baumrind, D. (1978). Parental Disciplinary Patterns and Social Competence in Children. Youth & Society, 9, 3, 239-76.

Baumrind, D., Black, A. E., (1967). Socialization Practices Associated With Dimensions Of Competence In Preschool Boys And Girls. *Child Development*. Vol 38(2), 291-327.

Baumrind, D., Authoritarian vs. authoritative parental control. *Adolescence*. Vol 3(11),255-272.

Baumrind, D., Larzelere, R. E., Cowan, P. A. (2002). Ordinary physical punishment: Is it harmful? *Psychological Bulletin*. Vol 128(4), 580-589.

Bearden, W. O., Sharma, S., & Teel, J. E. (1982). Sample size effects on chi-square and other statistics used in evaluating causal models. Journal of Marketing Research, 19, 425-430.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. Psychological Bulletin, 88, 588-606.

Beauchaine, T. P., Katkin, E. S., Strassberg, Z., & Snarr, J. (2001). Disinhibitory psychopathology in male adolescents: Discriminating conduct disorder from attention-deficit/hyperactivity disorder

through concurrent assessment of multiple autonomic states. *Journal of Abnormal Psychology*, 110, 610–624.

Beavers, W. R. (1982). Healthy, midrange, and severely dysfunctional families. In F. Walsh (Ed.), *Normal family processes* (pp. 45-66). New York: Guilford.

Beck, A.T. (1986). Cognitive approaches to anxiety disorders. In B. F. Shaw, Z.V. Segal, T. M. Vallis and F. E. Cashman (Eds) *Anxiety disorders: psychological and biological perspectives*. Plenum Press: New York, 115-136.

Becker, W. C. (1964). Consequences of different kinds of parental discipline. In M. L. Hoffman & L.W. Hoffman (Eds.), *Review of child development research* (Vol. 1,pp.169-208). New York: Russell Sage Foundation.

Becker, A., Woerner, W., Hasselhorn, M., Banaschewski, T., Rothenberger, A. (2004). Validation of the parent and teacher SDQ in a clinical sample. European Child and Adolescent Psychiatry. 13 (Suppl 2):11–16.

Beidel, D. C., Turner, S. M., (1997) At risk for anxiety: I. Psychopathology in the offspring of anxious parents. J *American Academy Child Adolescent Psychiatry*. Vol 36 (7), 918-24.

Beidel, D.C., Turner, S. M., Jacob, R. G., Cooley, M. R. (1989). Assessment of social phobia: Reliability of an impromptu speech task. *Journal of Anxiety Disorders*. Vol 3(3), 149-158.

Belsky, J., Jaffee, S.R., Sligo, J., Woodward, L., Silva P.A. (2005). Intergenerational Transmission of Warm-Sensitive-Stimulating Parenting: A Prospective Study of Mothers and Fathers of 3-Year-Olds. *Child Development*, Volume 76, Number 2, Pages 384 – 396.

Belsky, J., Rovine, M., Taylor, D. G. (1984). The Pennsylvania Infant and Family Development Project, II: The development of reciprocal interaction in the mother –infant dyad. *Child Development*, 55, pp. 718 – 728.

Bentler, P. M. (1990). Comparative fit indexes in structural models. Psychological Bulletin, 107, 238-246.

Berg, I.,R. McGuire (1974). Are mothers of school-phobic adolescents overprotective? *Br J Psychiatry*
124 (578): 10-13.

Bernstein, G.A., Borchardt, C.M. (1991) Anxiety Disorders of Childhood and Adolescence: A Critical Review. *Journal of American Academy of Child & Adolescent Psychiatry* 30 (4), pp. 519-532.

Berry. J.W.. Poortinga. Y.H.. Segall. M.H.. & Dasen. P.R. (1992). *Cross-crtlturalpsychology: Research and applicarions.* **New** York: Cambridge University Press.

Best, D. L., House, A. S., Barnard, A. E., Spicker, B. S. (1994). Parent-child interactions in France, Germany, and Italy. The Effects of Gender and Culture. *Journal of Cross-Cultural Psychology*, Vol 25 (2), 181-193.

Biederman, J., Rosenbaum, J.F., Bolduc, E.A., Faraone, S.V. & Hirshfeld, D.R. (1991). A high risk study of young children of parents with panic disorder and agoraphobia with and without comorbid major depression. *Psychiatry Research, 37,* 333-348.

Biederman, J., Hirshfield-Becker, D.R., Rosenbaum, J.F., Herot, C., Friedman, D., & Snidman, N. (2001). Further evidence of association between behavioural inhibition and social anxiety in children. *American Journal of Psychiatry, 158,* 1673-1679.

Biringen, Z., Robinson, J. (1991) Emotional availability in mother – child interactions: A reconceptualization for research. *American Journal of Orthopsychiatry*, 61, pp. 258 –271.

Bion, W.R. (1962). The Psycho-Analytic Study of Thinking. *International. Journal of Psychoanalysis*., 43:306-310

Blain, J., Barkow, J. (1998). Father involvement, reproductive strategies, and the sensitive period. In K. MacDonald (Ed.), *Sociobiological perspectives on human development* (pp. 373-396). New York: Springer-Verlag.

Bodas, J., Ollendick, T. H., Sovani, A.V. (2008). Test anxiety in Indian children: A cross-cultural perspective. *Anxiety, Stress, and Coping*. Vol.21(no.4)

Bögels, S. M. & Brechman-Toussaint, M. L. (2006). Family issues in child anxiety: attachment, family functioning, parental rearing and beliefs. *Clinical Psychology Review*, *26*, 834-856.

Bögels, S. M., & Tarrier, N. (2004). Unexplored issues and future directions in social phobia research. *Clinical Psychology Review*, 24, 731–736.

Bollen, K. A. (1990). Overall fit in covariance structure models: Two types of sample size effects. Psychological Bulletin, 107, 256-259.

Borrego, J. J., Timmer, S. G., Urquiza, A. J., Follette, W. C. (2004). Physically Abusive Mothers' Responses Following Episodes of Child Noncompliance and Compliance. Journal of Consulting and Clinical Psychology Vol. 72, No. 5, 897–903.

Bowlby, J. (1969) *Attachment and loss: Vol. 1. Attachment.* New York, Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol. 2 Separation anxiety and anger*. New York, Basic Books.

Bowlby, J. (1980). "By ethology out of psycho-analysis: an experiment in interbreeding." *Animal Behaviour* 28, pt 3: 649-656.

Bowlby, J. (1982). "Attachment and loss: retrospect and prospect." *American Journal of Orthopsychiatry* 52 (4): 664-678.

Bowlby, J. (1984). "Violence in the family as a disorder of the attachment and caregiving systems." *American Journal of Psychoanalysis* 44 (1): 9-27, 29-31.

Bradley, R. H., Corwyn, R. F., McAdoo, H. P., & Garcia Coll, C. (2001). The home environments of children in the United States part I: Variations by age, ethnicity, and poverty status. *Child Development*, 72, 1844 –1867.

Braungart- Rieker, J., Garwood, M.M., Stifter, C.A. (1997). Compliance and noncompliance: the roles of maternal control and child temperament. Journal of Applied Developmental Psychology Volume 18, Issue 3, 411-428.

Braungart-Rieker, J., & Stifter, C. A. (1996). Infants' responses to frustrating situations: Continuity and change in reactivity and regulation. *Child Development, 67,* 1767–1779.

Breton, J.J., Bergeron, L., Valla, J.P., Berthiaume, C., Gaudet N., et al. (1999). Quebec Child Mental Health Survey: prevalence of DSM-III–R mental health disorders. *The Journal of Child Psychology and Psychiatry and Allied Discipline*, Cambridge University Press, *40,* 375–384.

Brody, G.H., Flor, D.L. (1998) Maternal resources, parenting practices. and child competence in rural, single-parent African American families. *Child Development*, 69 (3) pp. 803-816.

Brodsky, A. E., DeVet, K. A. (2000). You have to be real strong. Parenting goals and strategies of Resilient Urban African American Single mothers. *Journal of Prevention and Intervention in the community*. Vol 20, N. 1/2 pp 159-178 .

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), Testing structural equation models (pp. 136-162). New-bury Park, CA: Sage.

Burbach, D. J., Bourdin, C. M. (1986). Parent-child relations and the etiology of depression: A. review of methods and findings. *Clinical Psychology Review*, 6, 113-153.

Buss, K. A., Goldsmith, H. H. (1998). "Fear and anger regulation in infancy: effects on the temporal dynamics
of affective expression." *Child Development* 69 (2): 359-374.

Buss, A., & Plomin, R. (1975). A temperament theory of personality development. New York: Wiley.

Buss, A., & Plomin, R. (1984). Temperament: Early developing personality traits. Hillsdale, NJ: Erlbaum.

Calkins, S. D., Gill, K. L., Johnson, M. C., & Smith, C. L. (1999). Emotional reactivity and emotional regulation strategies as predictors of social behavior with peers during toddlerhood. *Social Development, 8,* 310–334.

Calkins, S. D., & Johnson, M. C. (1998). Toddler regulation of distress to frustrating events: Temperamental and maternal correlates. *Infant Behavior and Development, 21,* 379–395.

Campos, J. J., Frankel, C. B., Camras, L. (2004). On the Nature of Emotion Regulation. *Child Development,* Vol. 75 (2), 377-394

Canino, G., Shrout, P.E., Rubio-Stipec, M., Bird, H.R., Bravo M., et al. (2004). The DSM-IV rates of child and adolescent disorders in Puerto Rico. *Arch. Gen. Psychiatry, 61,* 85–93.

Cardona, P. G., Nicholson, B. C., Fox, R. A. (2000). Parenting among Hispanic and Anglo-American mothers with young children. *The Journal of Social Psychology*. Vol 140(3), 357-365.

Carlson, V. J., Harwood, R. L. (2003) Attachment, culture and the caregiving system: The cultural patterning of everyday experiences among Anglo and Puerto Rican mother – infant pairs. *Infant Mental Health Journal*, 24, pp. 53 – 73.

Carpenter, M., Nagell, K. & Tomasello, M. (1998). Social cognition, joint attention, and communicative competence from 9 to 15 months of age. *Monographs of the Society for Research in Child Development, 64* (4, Serial No. 255).

Carr, A. (2006). The handbook of child and adolescent clinical psychology. A contextual approach. Routledge.

Castro, J., Toro, J., van der Ende, J., Arrindell, W. A. (1993). Exploring the Feasibility of Assessing Perceived Parental Rearing Styles in Spanish Children With Theembu. *International Journal of Social Psychiatry,* Vol. 39, No. 1, 47-57.

Chamberlain, P., Patterson, G. (1995). Discipline and child compliance in parenting. In M. Bornstein (Ed.), *Handbook of parenting*, Vol. 4: Applied and pratical parenting (pp.205-225). Mahwah, NJ : Eribaum.

Chao, R. K. (2001). Extending research on the consequences of parenting style for Chinese Americans and European Americans. *Child Development*, 72, 1832 – 1843.

Chen, H., Lan, W. (1998). Adolescents' perceptions of their parents' academic expectations: comparison of American, Chinese-American, and Chinese high school students. *Adolescence*. Vol 33 (130), 385-390.

Chorpita, B.F., Albano, A.M., Barlow D.H. (1996) Cognitive processing in children: relation to anxiety and family influences. *Journal of Clinical Child Psychology*, 25, pp. 170–176.

Chorpita, B. F. & Barlow D. H. (1998). The development of anxiety: the role of control in the early environment. *Psychological Bulletin, 124,* 3-21.

Cicchetti, D., Toth S. L. (1991). Internalizing and externalizing expressions of dysfunction. Hillsdale, N.J., L. Erlbaum Associates.

Cleas, M. (1998). Adolescents' Closeness with Parents, Siblings, and Friends in Three Countries: Canada, Belgium, and Italy. *Journal of Youth and Adolescence*. Vol. 27 (2), 165-184.

Cleas, M., Lacourse, E., Bouchard, C., Perucchini, P. (2003). Parental practices in late adolescence, a comparison of three countries: Canada, France and Italy. *Journal of Adolescence*, Volum 26, Issue 4, 387-399.

Cobham,V. E., Dadds, R.,&Spence, S. H. (1998). The role of parental anxiety in the treatment of childhood anxiety. *Journal of Consulting and Clinical Psychology, 66,* 893–905.

Cole, P., Martin, S., Dennis, T. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development*, 75, 317-333.

Colder, C. R., Lochman, J. E., Wells, K. C. (1997). The Moderating Effects of Children's Fear and Activity Level on Relations Between Parenting Practices and Childhood Symptomatology. *Journal of Abnormal Child Psychology*. Vol 25 (3), 251-263.

Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., Wadsworth, M.E. (2001). Coping with stress during childhood and adolescence: Problems, progress and potential in theory and research. *Psychological Bulletin*, 127.

Cook, M. & Mineka, S. (1987). Second-order conditioning and overshadowing in the observational conditioning of fear in monkeys. *Behavior Research and Therapy, 25,* 349-364.

Cooper, C. R. (1994). Cultural perspectives on continuity and change in adolescents' relationships. In R. Montemayor, G. R. Adams, & T. P. Gullotta (Eds.), Personal relationships during adolescence. Thousand Oaks: Sage.

Cooper, P.J., Fearn, V., Willets, L., Seabrook, H. & Parkinson, M. (2006). Affective disorder in the parents of a clinic sample of children with anxiety disorders. *Journal of Affective Disorder*, *93*, 205-212.

Cooper, P.J., Gallop, C., Willetts, L., & Creswell, C. (2008). Treatment response in child anxiety is differentially related to the form of maternal anxiety disorder. Behavioural and Cognitive Psychotherapy, 36, 41-48.

Coopersmith, S. (1967). The antecedents of self-esteem. Palo Alto, CA: Consulting Psychologists Press, Inc.

Cortesi, F., Giannotti, F., Sebastiani, T., & Vagnoni, C. (2004). Cosleeping and sleep behavior in Italian school-aged children. Journal of Developmental and Behavioral Pediatrics, 25, 28–33.

Costello, E. J., Angold, A. (1995). Epidemiology. In J. March (Ed.), *Anxiety disorders in children and adolescents* (pp. 109-124). New York: Guilford.

Costello EJ, Mustillo S, Erkanli A, et al (2003) Prevalence and development of psychiatric disorders in childhood and adolescence. Arch Gen Psychiatry 60:837–844.

Creswell, C. (2004). The development of anxious cognitions in children. Doctoral dissertation, University College London, London.

Creswell, C., Murray , L.M., & Cooper, P.J. Intergenerational transmission of anxious information processing bias. In J. Hadwin & A. Field Information Processing Biases in Child and Adolesxent Anxiety. Wiley (in press).

Creswell, C., Murray, L., Stacey, J., Cooper, P. (2009). Parenting and child anxiety. In Silverman, W & Field, A. (Eds) Anxiety Disorders in Children and Adolescents: Research, Assessment and Intervention (in press).

Creswell, C., In Silverman, W & Field, A. (Eds) Anxiety Disorders in Children and Adolescents: Research, Assessment and Intervention (in press).

Creswell, C., O'Connor, T. G. (2006). Anxious cognitions in children: An exploration of associations and mediators. *British Journal of Developmental Psychology*, Volume 24, Number 4, pp. 761-766 (6).

Creswell, C., O'Connor, T.G. & Brewin, C.R. (2006). A longitudinal investigation of maternal and child "anxious cognitions". *Cognitive Therapy and Research, 30,* 135-147.

Creswell, C., O'Connor, T., & Brewin, C. (2008). The impact of parents' expectations on parenting behavior: An experimental investigation. *Behavioral and Cognitive Psychotherapy*, *36,* 483-490.

Creswell, C, Schniering, C. A, Rapee, R. (2005). Threat interpretation in anxious children and their mothers: comparison with nonclinical children and the effects on treatment. *Behav. Res. Ther.* 43:1375–81.

Creswell, C., Willetts, L., Murray, L., Singhal, M., & Cooper, P. (2008). Treatment of child anxiety: An exploratory study of the role of maternal anxiety and behaviors in treatment outcome. *Clinical Psychology and Psychotherapy, 15,* 38-44.

Crockenberg, S., & Litman, C. (1990). Autonomy as competence in 2-year-olds: Maternal correlates of child defiance, compliance, and self-assertion. *Developmental Psychology, 26,* 961–971.

Dadds, M.R., Barrett, P.M., Rapee, R.M., & Ryan, S. (1996). Family process and child anxiety and aggression: An observational analysis. *Journal of Abnormal Child Psychology*, 24, 715–734.

De Giacomo, A., Dazzan, P., Bernardi, L. "SDQ Italian Version", www.sdqinfo.com

Deater-Deckard, K., Dodge, K.A., Bates, J.E., & Pettit, G.S. (1996). Physical discipline among African American and European American mothers: Links to children's externalizing behaviors. *Developmental Psychology*, 32, 1065–1072.

Demos, V. (1986). Crying in early infancy: An illustration of the motivational function of affect. *Affective development in Early Infanc,* ed. T.B. Brazelton & M. Youngman. Norwood, NJ: Ablex, pp. 39-73.

Denham, S., Zoller, D. & Couchard, E. (1994). Socialisation of pre-schoolers emotion understanding. *Developmental Psychology, 30,* 928-936.

Derryberry, D., Rothbart, M. K. (1988). Arousal, affect, and attention as components of temperament. *Journal of Personality and Social Psychology*. Vol 55(6), 958-966.

DiBartolo, P.M. & Helt, M. (2007). Theoretical models of affectionate versus affectionless control in anxious families: a critical examination based on observations of parent–child interactions. *Clinical Child and Family Psychology, 10,* 253-274.

Dishion, T. J., Loeber, R. (1985). Adolescent Marijuana and Alcohol Use: The Role of Parents and Peers Revisited. The American Journal of Drug and Alcohol Abuse. Vol. 11, No. 1-2, Pages 11-25

Dornbusch, S. M., Carlsmith, J. M., Bushwall, S. J., Ritter, P. L., Leiderman, H., Hastorf, A. H., & Gross, R. T. (1985). Single parents, extended households, and the control of adolescents. *Child Development, 56,* 326-341.

Draper, P., Harpending, H. (1988). A sociobiological perspective on the development of human reproductive strategies. In K. MacDonald (Ed.), *Sociobiological perspectives on human development* (pp. 340-372). New York: Springer-Verlag.

Dumas, J. E. & LaFreniere, P. J. (1993). Mother-Child Relationships as Sources of Support or Stress: A Comparison of Competent, Average, Aggressive, and Anxious Dyads. *Child Development, 64,* 1732-1754.

Dumas, J.E., LaFreniere, P.J., & Serketich, W.J. (1995). 'Balance of power': A transactional analysis of control in mother–child dyads involving socially competent, aggressive, and anxious children. *Journal of Abnormal Psychology*, 104, 104–113.

Dunn, J., Brown, J., & Beardsall, L. (1991). Family talk about feeling states and children's later understanding of others' emotions. *Developmental Psychology, 27,* 448-455.

Eaves, L.J., Silberg, J.L., Meyer, J.M., Maes, H.H., Simonoff, E., Pickles, A. et al. (1997). Genetics and developmental psychopathology: the main effects of genes and environment on behavioural problems in the Virginia twin study of adolescent behavioural development. *Journal of Child Psychology and Psychiatry, 38,* 965-980.

Egeland B., Farber E. A. (1984) Infant – mother attachment: Factors related to its development and changes over time. *Child Development,* 55, pp. 753 – 771.

Egeland B., Pianta R., O'Brien M. A. (1993) Maternal intrusiveness in infancy and child maladaptation in early school years. *Development and Psychopathology,* 5, pp. 359 – 370.

Ehringer M.A., Rhee S.H., Young S., Corley R., Hewitt J.K. (2006) Genetic and environmental contributions to common psychopathologies of childhood and adolescence: a study of twins and their siblings. *Journal of Abnormal Psychology,* 34(1), pp. 1–17.

Eisenberg, N., Cumberland, A., &Spinrad, T. L. (1998). Parental socialization of emotion. *Psychological Inquiry, 9,* 241–273.

Eisenberg, N., Cumberland, A., Spinrad, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., et al. (2001). The relations of regulations and emotionality to children's externalizing and internalizing problem behavior. *Child Development, 72,* 1112–1134.

Eisenberg, N., Fabes, R. A., Guthrie, I. K., & Reiser, M. (2000). Dispositional emotionality and regulation: Their role in predicting quality of social functioning. *Journal of Personality and Social Psychology, 78,* 136–157.

Eley, T. C. (2001). Contributions of behavioral genetics research: Quantifying genetic, shared environmental and non-shared environmental influences. In M. W.Vasey, & M. R.Dadds (Eds.), The developmental psychopathology of anxiety (pp. 45–59). London: Oxford University Press.

Eley, T. C., Bolton, D., O'Connor, T. G., Perrin, S., Smith, P., & Plomin, R. (2003). A twin study of anxiety-related behaviors in pre-school children. *Journal of Child Psychology and Psychiatry, 44,* 945-960.

Emde R.N. (1991) L'esperienza relazionale nel bambino piccolo: aspetti evolutivi e affettivi. In: Sameroff A.J., Emde R.N., *I disturbi delle relazioni nella prima infanzia*. Torino, Bollati Boringhieri.

Erikson, E. (1968). Identity, youth, and crisis. New York: Norton.

Eshel, Y., Landau, R., Daniely, A., & Ben-Aaron, M. (2000). Adult attunement and child availability: Interaction of mother and caregiver with three-year-old kibbutz children. *Infant Mental Health Journal*, 21, 411–
427.

Essau, C.A., Conradt, J., Petermann, F. (2000). Frequency, comorbidity, and psychosocial impairment of anxiety disorders in German adolescents. *Journal of Anxiety Disorders, 14,* 263–279.

Essau, C. A., Sakano, Y., Ishikawa, S., Sasagawa, S. (2004). Anxiety symptoms in Japanese and in German children. *Behaviour Research and Therapy* 42, 601–612.

Facio, A., & Batistuta, M. (1998). Latins, Catholics and from the far south: Argentinian adolescents and their parents. Journal of Adolescence, 21, 49–67.

Fauber, R., Forehand, R., Thomas, A. M., Wierson, M. (1990). A Mediational Model of the Impact of Marital Conflict on Adolescent Adjustment in Intact and Divorced Families: the Role of Disrupted Parenting.
Child Development, 61, 1112-1123.

Fauber, R. L.; Long, N. (1991). Children in context: The role of the family in child psychotherapy. *Journal of Consulting and Clinical Psychology*. Vol 59(6), 813-820.

Feigon, S.A., Wladman, I.D., Levy, F. & Hay, A.D. (2001). Genetic and environmental influences on separation anxiety disorder symptoms and their moderation by age and sex. *Behavior Genetics, 31,* 403-411.

Feinman, S., Roberts, S., Hsieh, K.-F., Sawyer, D., & Swanson, D. (1992). A critical review of social referencing in infancy. In S. Feinman (Ed.), *Social referencing and the social construction of reality in infancy* (p. 15-54). New York: Plenum Press.

Feldman, R., Greenbaum, C. W., Mayes, L. C., & Erlich, S.H. (1997). Change in mother – infant interactive behavior: Relations to change in the mother, the infant, and the social context. *Infant Behavior and Development*, 20, 151 – 163.

Field, A.P., Hamilton, S.J., Knowles, K.A., & Plews, E.L. (2003). Fear information and social phobic beliefs in children: A prospective paradigm and preliminary results. *Behaviour Research and Therapy, 41,* 112-123.

Fisak, Jr., B., & Grills-Tsquechel., A.E. (2007). Parental Modeling, Reinforcement, and Information Transfer: Risk Factors in the Development of Child Anxiety? *Clinical Child and Family Psychology, 10,* 213-231.

Fiske, S. T., Kenny, D. A., Taylor, S. E. (1982). Structural models for the mediation of salience effects on attribution. *Journal of Experimental Social Psychology*. Vol 18(2), 105-127.

Fivush R (1991). The social construction of personal narratives. *Merrill Palmer Quarterly* 37, 59–82.

Fivush, R., & Vasudeva, A. (2002). Remembering to relate: socio-emotional correlates of mother-child reminiscing. *Journal of Cognition and Development, 3,* 73-90.

Flannery-Schroeder E, Kendall PC. (2000). Group and individual cognitive-behavioral treatments for youth with anxiety disorders: a randomised clinical trial. *Cogn. Ther. Res.* 24:251–78.

Fonagy, P., Gergely, G., Jurist, E., & Target, M. (2002). Affect regulation, mentalization and the development of the self. New York: Other Press

Fonagy, P., Gergely, G., Target, M. (2002). Affect regulation, mentalization, and the development of the self. Other Press, LLC New York: Other Press.

Ford, T., Goodman, R., & Meltzer H. (2003). The British child and adolescent mental health survey 1999: the prevalence of DSM-IV disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 42,* 1203–1211.

Forehand, R. (1977). Child noncompliance to parental requests: Behavioral analysis and treatment. In M. Hersen, R.M. Eisler, P.M. Miller (Eds.), *Progress in behavior modification,* Vol. 5 (pp. 11 l-147). New York:
Academic Press.

Forehand, R., Gardner, H., Roberts, M. (1978). Maternal Response To Child Compliance And Noncompliance: Some Normative Data. *Journal of Clinical Child Psychology*, page 121.

Forehand, R. L., & McMahon, R. J. (1981). *Helping the noncompliant child: A clinician's guide to parent training.* New York: The Guilford Press.

Forehand, R., King, H. E., Peed, S., & Yoder, P. (1975). Mother–child interactions: Comparison of a noncompliant clinic group and a non-clinic group. *Behaviour Research and Therapy, 13,* 79–84.

Fox, N.A., Henderson, H.A., Marshall, P.J., Nichols, K.E. & Ghera, M.M. (2005). Behavioural inhibition: linking biology and behaviour within a developmental framework. *Annual Review of Psychology, 56,* 235-262.

Fracasso, M. P., Busch-Rossnagel, N. A., & Fisher, C. B.(1994). The relationship of maternal behavior and acculturation to the quality of attachment in Hispanic infants living in New York City. *Hispanic Journal of*
Behavioral Sciences, 16, 143 – 154.

Frick, P. J., Morris, A. S. (2004) Temperament and developmental pathways to conduct problems. *Journal of Clinical Child & Adolescent Psychology,* Volume 33, Issue 1 , pages 54 – 68**.**

Gaensbauer, T. J. (1985). Relationships between attachment behavior in the laboratory and the caretaking environment. *Infant Behavior and Development, 8,* 355–369.

Gaensbauer, T. J., Connell, J. P., & Schulz, L. A. (1983). Emotion and attachment: Interrelationships in a structured laboratory paradigm. *Developmental Psychology, 19,* 815–831.

Garber, J., Braafladt, N., & Zeman, J. (1991). The regulation of sad affect: An information-processing perspective. In J. Garber & K. A. Dodge (Eds.), *The development of emotion regulation and dysregulation: Cambridge studies in social and emotional development* (pp. 208–240). New York: Cambridge University Press.

Gazelle, H., Ladd, G. W. (2003). Anxious Solitude and Peer Exclusion: A Diathesis-Stress Model of Internalising Trajectories in Childhood. *Child Development*, Volume 74, number 1, 257-278.

Gelfand, D. M., & Teti, D. M. (1990). The effects of maternal depression on children. *Clinical Psychology Review*, 10,329 – 353.

Gilliom, M., Shaw, D. S., Beck, J. E., Schonberg, M. A., & Lukon, J. L. (2002). Anger regulation in disadvantaged preschool boys: Strategies, antecedents, and the development of self-control. *Developmental Psychology, 38,* 222–235.

Ginsburg G.S., Schlossberg M.C. (2002) Family-based treatment of childhood anxiety disorders. *International Review of Psychiatry*, 14 (2), pp. 143-154.

Ginsburg, G. S., Grover, R. L., Cord, J. J., Ialongo, N. (2006). "Observational Measures of Parenting in Anxious and Nonanxious Mothers: Does Type of Task Matter?". *Journal of Clinical Child & Adolescent Psychology*, 35:2, 323-328.

Goldsmith, H. H. (1987). *The Toddler Behavior Assessment Questionnaire*. Unpublished manuscript, University of Oregon.

Good, B. J., Kleinman, A. M. (1985). Culture and anxiety: Cross-cultural evidence for the patterning of anxiety disorders. *Anxiety and the anxiety disorders*, 297-323.

Goodman R. (1997) The strenght and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38 (5), pp. 581-586.

Goodman R (2001) Psychometric properties of the Strengths and Difficulties Questionnaire. *Journal of the American Academy of Child and Adolescent Psychiatry* 40:1337–1345.

Goodman, S. H.,& Gotlib, I. H. (1999). Risk for psychopathology in the children of depressed mothers: A developmental model for understanding mechanisms of transmission. *Psychological Review, 106*, 458–490.

Goodman, R., Meltzer, H., Bailey, V. (1998). The Strenghts and Difficulties Questionnaire: a pilot study on the validity of the self-report version. *European Child and Adolescent Psychiatry*. 7:122-130.

Goodnow, J. J. (1985). Change and variation in ideas about childhood and parenting. In I. E. Sigel (Ed.), Parental belief systems: The psychological consequences for children. Hillsdale, NJ: Lawrence Erlbaum.

Goodwin, R.D., Fergusson, D.M., & Horwood, L.J. (2004). Early anxious/withdrawn behaviours predict later internalising disorders. Journal of Child Psychology and Psychiatry, 54, 874–883.

Goodyer, I. (1988.), Stress and Adolescence. U: S. Fisher i J. Reason (ur.), *Handbook of life stress cognition and health* (str. 26-27), New York, John Wiley and Sons.

Gordon, D., Nowicki, S., & Wichern, F. (1981). Observed maternal behaviors in a dependency producing task as a function of children's locus of control orientation. Merrill-Palmer Quarterly, 27, 43-51.

Gori, C. (2000). Solidarity in Italy's policies towards the frail elderly: a value at stake. *International Jouurnal of Social Welfare*. 9: 261-269.

Gregory, A.M. & Eley, T.C. (2007). Genetic influences on anxiety in children: what we've learned and where we're heading clinical child and family. *Psychology Review, 10*, 199-212.

Grolnick, W., Bridges, L., & Connell, J. (1996). Emotion regulation in two-year-olds: Strategies and emotional expression in four contexts. *Child Development, 67*, 928–941.

Gross, J.J. (1998b). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271-299.

Gross, J. J. (2007) (Ed) . Handbook of emotion regulation. New York, NY, US: Guilford Press.

Grotevant, H. D., & Cooper, C. R. (1985). Patterns of interaction in family relationships and the development of identity exploration in adolescence. *Child Development*, 56, 415-428

Grüner K., Muris P, Merckelbach H. (1999) The relationship between anxious rearing behaviours and anxiety disorders symptomatology in normal children. *Journal of Behavior Therapy and Experimental Psychiatry*, 30, pp. 27-35.

Gunnar, M.R., & Stone, C. (1984). The effects of positive maternal affect on infant responses to pleasant, ambiguous, and fear-provoking toys. *Child Development, 55*, 1231-1236.

Ispa, J. M., Fine, M. A., & Halgunseth L. C., Harper, S., Robinson, J., Brooks-Gunn, L.J., & Brady-Smith, C. (2004). Maternal intrusiveness, maternal warmth, and mother-toddler relationship outcomes: variations across low-income ethnic and acculturation groups. *Child Development*, *75* (6), 1613-1631.

Hadwin, J.A., Garner, M., & Perez-Olivas, G. (2006). The development of information processing biases in childhood anxiety: a review and exploration of its origins in parenting. *Clinical Psychology Review, 26,* 876-894.

Harkness, S., Super, C. M., Van Tijen, N. (2000). Individualism and the "Western Mind" reconsidered: American and dutch parents' ethnotheories of the child. New Directions for Child and Adolescent Development. Volume 2000 Issue 87**,** Pages 23 – 39.

Harkness, S., Super, C. M. (2002). Culture and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting*: Vol. 2. *Biology and ecology of parenting* (2nd ed., pp.253-280). Mahwah, NJ: Erlbaum.

Harwood, R. L., Schoelmerich, A., Schulze, P. A., Gonzalez, Z. (1999). Cultural Differences in Maternal Beliefs and Behaviors: A Study of Middle- Class Anglo and Puerto Rican Mother- Infant Pairs in Four Everyday Situations. *Child Development,* Vol. 70, Number 4, Pages 1005-1016.

Hauser, S. T . (1991). Adolescents and their families: Paths of ego development. New York, NY, US: Free Press. xii, 318 pp.

Hauser S.T., Powers S.I., Noam G.G., Jacobson A.M., Weiss B., Follansbee D.J. (1984) Familial contexts of adolescent ego development. *Child Development,* 55, pp. 195-213.

Hayward, C., Killen, J., Kraemer, K. et al. (1998). Linking self-report childhood behavioural inhibition to adolescent social phobia. *Journal of the American Academy of Child and Adolescent Psychiatry, 37,* 1308-1316.

Hermans, H. J. M., Ter Laak, J. J. F., & Maes, P. C. J. M. (1972). Achievement motivation and fear of failure in family and school. *Developmental Psychology, 6,* 520–528.

Hettema, J.M., Neale, M.C. & Kendler, K.S. (2001). A review and meta-analysis of the genetic epidemiology of anxiety disorders. *American Journal of Psychiatry, 158* (10), 1568-1578.

Hill, N. E., Bush, K. R., & Roosa, M. W. (2003). Parenting and family socialization strategies and children's mental health: Low-income Mexican-American and Euro-American mothers and children. *Child Development,* 74, 189 – 204.

Hirshfeld, D.R., Biederman, J., Brody, L., Faraone, S. V., & Rosenbaum, J. F. (1997). Expressed emotion toward children with behavioral inhibition: associations with maternal anxiety disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 36,* 910-917.

Hollingshead, A. B. (1975). *Four factor index of social status*. Unpublished manuscript, Yale University, Department of Sociology, New Haven, CT.

Hollinger, F., Haller, M. (1990). Kinship and social networks in modern societies: a cross-cultural comparison among seven nations. European Sociological Review 6:103-124. Oxford University Press.

Hu, L., & Bentler, P. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), Structural equation modeling. Concepts, issues, and applications (pp. 76-99). London: Sage.

Hu, L., & Bentler, P. M. (1998). Fit indices in covariance structure analysis: Sensitivity to underparameterized model misspecification. *Psychological Methods*, 3, 424-453.

Hu, L., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modelling*, 6, 1–55.

Hudson, J. L., & Rapee, R. M. (2001). Parent–child interactions and anxiety disorders: An observational study. *Behaviour Research and Therapy, 39,* 1411–1427.

Hudson, J.L. & Rapee, R.M. (2002). Parent-child interactions in clinically anxious children and their siblings. *Journal of Clinical Child and Adolescent Psychology*, 31, 548-555.

Hudson J.L., Rapee R.M. (2004) From anxious temperament to disorder: an etiological model of generalized anxiety disorder. In *Generalized Anxiety Disorder: Advances in Research and Practice*, ed. R.G. Heimberg, C.L. Turk, D.S. Mennin, pp. 51–76. New York, Guilford.

Hsu, H.-C., Lavelli, M. (2005). Perceived and observed parenting behavior in American and Italian first-time mothers across the first 3 months. *Infant Behaviour and Development*. Volum 28, Issue 4, 503-518.

Ialongo, N., Edelsohn, G., Werthamer-Larsson, L., Crockett, L., and Kellam, S. (1995). The significance of self-reported anxious symptoms in first grade children: Prediction to anxious symptoms and adaptive functioning in fifth grade. *J. Child Psychol. Psych. Allied Discipl.* 36 (3):427–437.

Isabella R., Belsky J. (1991) Interactional synchrony and the origins of infant – mother attachment: A replication study. *Child Development*, 62, pp. 373 – 384.

Jacobvitz, D., Hazen, N., Curran, M., Hitchens, K. (2004). Observations of early triadic family interactions: Boundary disturbances in the family predict symptoms of depression, anxiety, and attention-deficit/hyperactivity disorder in middle childhood. Development and Psychopathology, 16 : 577-592 Cambridge University Press.

Jang, K. L. (2005). *The behavioral genetics of psychopathology: A clinical guide*. Mahwah, NJ: Erlbaum.

Johnson, R. M. (1973). A simple method for pairwise monotone regression. *Psychometrika*. Springer New Yor, Volume 40, Number 2,163-168.

Jöreskog, K. G., & Sörbom, D. (1996). LISREL 8: User's reference guide. Chicago: Scientific Software International.

Judd, C. M. and Kenny, D. A. (1981b) *Estimating the Effects of Social Interventions*. Cambridge University Press, New York.

Kagan, J., Reznick, J.S., Snidman, N., Gibbons, J. & Johnson, M.O. (1988). Childhood derivates of inhibition and lack of inhibition to the unfamiliar. *Child Development, 59,* 1580-1589.

Kagan, J. (1989). Temperamental contributions to social behaviour. *American Psychologist, 44,* 6668-674.

Kagan, J. (1994). Inhibited and unhibited temperaments. In W.B. Carey & S.C. McDevitt (Eds) Prevention and Early Intervention: individual differences as risk factors for mental health of children. Brunner/ Mazel. New York.

Kagan, J., Snidman, N., Kahn, V. & Towsley, S. (2007). The preservation of two infant temperaments into adolescence. *Monographs of the Society for Research in Child Development*. No, 287. Blackwell. Boston.

Kahen V., Katz L. F., Gottman J. M. (1994) Linkages between parent – child interaction and conversations of friends. *Social Development,* 3, pp. 238 – 254.

Kaler, S.R. & Kopp, C.B. (1990). Compliance and comprehension in very young toddlers. *Child Development*, 61, 1997-2003.

Kandel, D., Lesser, G. S. (1969) . Parent-Adolescent Relationship and Adolescent Independence in the United States and in Denmark. *Journal of Marriage & the Family*. Vol.31(2), pp. 348-358.

Kaplan, D. (2000). Structural equation modeling: Foundation and extensions. Thousand Oaks, CA: Sage Publications.

Kashani, J.H., & Orvaschel, H. (1990). A community study of anxiety in children and adolescents. *American Journal of Psychiatry, 147*, 313–318.

Katz, M. M., & Konner, M. J. (1976). The role of the father: An anthropological perspective. In M. Lamb (Ed.), The role of the father in child development (pp. 155-176). New York: Wiley.

Kelley, S. A., & Jennings, K. D. (2003). Putting the pieces together: Maternal depression, maternal behavior, and toddler helplessness. *Infant Mental Health Journal*, 24, 74 – 90.

Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A. C., & Eaves, L. J. (1992). The genetic epidemiology of phobias in women. *Archives of General Psychiatry*, 49, 273−281.

Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A. C., and Eaves, L. J. (1993a). Panic disorder in women: A population-based twin study. *Psycholog. Med.* 23:397– 406.

Kendler, K. S., Neale, M. C., Kessler, R. C., Heath, A. C., and Eaves, L. J. (1993b). Major depression and phobias: The genetic and environmental sources of comorbidity. *Psycholog. Med.* 23: 361–371.

Kindt, M., Bierman, J. S., & Brosschot, J. S. (1997). Cognitive bias in spider fear and control children: Assessment of emotional interference by a card format and a single-trial format of the Stroop. *Journal of Experimental Child Psychology, 66,* 163-179.

Klasen, H., Woerner, W., Wolke, D., Meyer, R., Overmeyer, S., Kasnitz, W., Rothenberger, A., Goodman, R. (2000). Comparing the German version of the Strengths and Difficulties Questionaire (SDQ-Deu) an the Child Behavior Checklist. European Child and Adolescent Psychiatry, in press

Kochanska, G. (1991) Patterns of inhibition to the unfamiliar in children of normal and affectively ill mothers. *Child Development, 62,* 250-263.

Kochanska, G. (1993). Toward a synthesis of parental socialization and child temperament in early development of conscience. *Child Development, 64*, 325–347.

Kochanska, G. (1995). Children's temperament, mothers' discipline, and security of attachment: Multiple pathways to emerging internalization. Child Development, 66, 597−615.

Kochanska, G., Aksan, N. (1995). Mother-Child Mutually Positive Affeet, the Quality of Child Compliance to Requests and Prohibitions, and Maternal Control as Correlates of Early Internalization. *Child Development,* 1995, 66, 236-254.

Kochanska, G., Aksan, N., Koenig, A. L. (1995). A longitudinal Study of the Roots of Preschoolers' Coscience: Commited Compliance and Emerging Internalization. *Child Development,* 66, 1752-1769**.**

Kochanska, G., Tjebkes, T. L., & Forman, D. R. (1998). Children's emerging regulation of conduct: Restraint, compliance, and internalization from infancy to the second year. *Child Development, 69*, 1378–1389.

Koenig, A. L., Cicchetti, D., & Rogosch, F. A. (2000). Child compliance/ noncompliance and maternal contributors to internalization in maltreating and nonmaltreating dyads. *Child Development, 71,* 1018–1032.

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally.

Kohlmann, C., Schumacher, A., & Streit, R. (1988). Trait anxiety and parental child-rearing behavior: Support as a moderator variable? *Anxiety Research, 1*, 53–64.

Kohnstamm, G. A. (1989). Temperament in childhood: Cross-cultural and sex differences. Temperament in childhood. (pp. 483-508). Oxford, England: John Wiley & Sons. xvii, 641 pp.

Kopp, C. B. (1982). The antecedents of self-regulation: A developmental perspective. *Developmental Psychology, 18,* 199–214.

Kopp, C. (1989). Regulation of distress and negative emotions: A developmental view. *Developmental Psychology, 25*, 243–254.

Kotler , J. S., McMahon, R. J. (2004). Compliance and Noncompliance in Anxious, Aggressive, and Socially Competent Children: The Impact of the Child's Game on Child and Maternal Behavior. *Behavior Therapy* 35,495-512.

Krohne H.W. (1990) Parental childrearing and anxiety development. In Hurrelmann K., Losel F. *Health hazards in adolescence* (pp. 115- 130), Berlin, Walter de Gruyter.

Krohne,H.W.,&Hock, M. (1991). Relationships between restrictivemother child interactions and anxiety of the child. *Anxiety Research*, 4(2), 109−124.

Kuczynski, L., Kochanska, G., Radke-Yarrow, M., & Girnius-Brown, O. (1987). A developmental interpretation of young children's noncompliance. *Developmental Psychology, 23,* 799–806.

LaFreniere, R J. (1990). *Social Competence and Behavior Evaluation-30 (preschool ed.) (parent version).* Unpublished measure.

Landis, J. R., Koch, G. G. (1977). "The measurement of observer agreement for categorical data," *Biometrics*, Volume 33, pp.159-174.

Lansford, J.E., Deater-Deckard, K., Dodge, K.A., Bates, J.E., & Pettit, G.S. (2004). Ethnic differences in the link between physical discipline and later adolescent externalizing behaviors. *Journal of Child Psychology and Psychiatry*, 45, 801–812.

Last, C.G., Hersen, M., Kazdin, A.E., Francis, G., & Grubb, H.J. (1987). Psychiatric illness in the mothers of anxious children. *American Journal of Psychiatry, 144,* 1580–1583.

Last, C.G., Hersen, M., Kazdin, A.E., Orvaschel, H. & Perrin, S (1991). Anxiety disorders in children and their families. *Archives of General Psychiatry, 48,* 928-939.

LeBaron, M. (2003). Culture-Based Negotiation Styles.
Available at: http://www.beyondintractability.org/essay/culture_negotiation/

Legrand LN, McGue M, Iacono WG (1999). A twin study of state and trait anxiety in childhood and adolescence. Journal of Child Psychology and Psychiatry 40, 953–958.

Lengua, L.J., Wolchik, S. A., Sandler, I. N., West, S. G. (2000). The Additive and Interactive Effects of Parenting and Temperament in Predicting Adjustment Problems of Children of Divorce. *Journal of Clinical Child & Adolescent Psychology,* Volume 29, Issue 2 , 232 – 244.

Leung, K., Lau, S., & Lam., W. L. (1998). Parenting styles and academic achievement: A cross-cultural study. *Merrill-Palmer Quarterly*, 44, 157 – 172.

Lewinsohn, P.M., Hops, H., Roberts, R.E., Seeley, J.R., & Andrews, J.A. (1993). Adolescent psychopathology: I. Prevalence and incidence of depression and other DSM-III–R disorders in high school students. *Journal of Abnormal Psychology, 102,* 133–144.

Lewinsohn, P.M., Zinbarg, R., Seeley, J.R., Lewinsohn, M., Sack, W.H. (1997). Lifetime comorbidity among anxiety disorders and between anxiety disorders and other mental disorders in adolescents. *Journal of Anxiety Disorders, 11,* 377–394.

Lieb, R., Becker, E., Altamura, C. (2009). The epidemiology of generalized anxiety disorder in Europe *European Neuropsychopharmacology*, Volume 15, Issue 4, Pages 445-45.

Lindahl, K. M., & Malik, N. M. (1999). Marital conflict, family processes, and boys' externalizing behavior in Hispanic American and European American families. *Journal of Clinical Child Psychology*, 28, 12 – 24.

Lipsitz, J.D., Williams, J. B., Rabkin, J.G., Remien, R.H., Bradbury, M., el Sadr, W., Goetz, R., Sorrell, S., Gorman, J.M. (2004). Psychopathology in male and female intravenous drug users with and without HIV infection. American Journal Psychiatry 1994; 151:1662-1668.

Lis A., Di Riso D., Raudino A. (in press) Children's separation anxiety in a community Italian sample: The SASI-C administred to 6-11 year old children.

Loeber, R., Dishion, T. J. (1984). Boys who fight at home and school: Family conditions influencing cross-setting consistency. Journal of Consulting and Clinical Psychology. Vol 52(5), 759-768.

Loeber, R., Stouthamer-Loeber, M. (1986). Family factors as correlates and predictors of juvenile conduct problems and delinquency. In M. Tonry & N. Morris (Eds.), *Crime and justice: An annual review of research.* (Vol. 7). Chicago: Universuty of Chicago Press.

Londerville, S., & Main, M. (1981). Security of attachment, compliance, and maternal training methods in the second year of life. *Developmental Psychology, 17*, 289–299.

Lytton, H. (1980). Parent-child interaction: The socialization processes observed in twin and singleton families. New York: Plenum.

Lytton, H., Romney, D. M. (1991). Parents' differential socialization of boys and girls: A meta-analysis. Psychological Bulletin. Vol 109(2), 267-296.

Maccoby E. E., Martin J. A. (1983) Socialization in the context of the family: Parent – child interaction. In Hetherington E. M., *Handbook of child psychology*. Vol. 4: Socialization, personality, and social development (4^{th} ed., pp. 1 – 101), New York, Wiley.

MacKinnon, DW (1938). Violation of prohibition. In HA Murray (Ed.), Explorations in personality. New York: Oxford Univer. Press, 1938. Pp. 491-501.

MacLeod, E.T., Maudlin, I., Darby , A. C., and Welburn, S.C. (2007). Antioxidants promote establishment of trypanosome infections in tsetse. Parasitology (2007), 134:827-831 Cambridge University Press.

Magana, A. B., Goldstein, M. J., Karno, M., Miklowitz, D. J. (1986). A brief method for assessing expressed emotion in relatives of psychiatric patients. *Psychiatry Research*, 17, 203-212.

Malatesta C. Z., Culver C., Tesman J. R., Shepard B. (1989) The development of emotion expression during the first two years of life. *Monographs of the Society for Research in Child Development*, 54, (1 – 2, Serial No. 219).

Manassis K., Bradley S.J. (1994) The development of childhood anxiety disorders: toward an integrated model. *Journal of Applied Developmental Psychology*, 15, pp. 345–366.

Mancini C, van Ameringen M, Szatmari P, Fugere C, Boyle M (1996). A high risk pilot study of the children of adults with social phobia. *Journal of the Academy of Child and Adolescent Psychiatry* 35, 1511–1517.

Marcia J. (1980) Handbook of Adolescent Psychology. In J. Adelson ed. Pp. 159 – 187. New York . John Wiley and Sons.

Marsh, H. W., Hau, K-T., Balla, J. R., & Grayson, D. (1998). Is more ever too much? The number of indicators per factor in confirmatory factor analysis. Multivariate Behavioral Research, 33, 181-220.

Martin, M. & Jones, G. V. (1995). Integral bias in the cognitive processing of emotionally linked pictures. *British Journal of Psychology, 86,* 419-435.

Martin; A., Marsh, H. (2003). Fear of failure: Friend or foe?. Australian Psychologist, Volume 38, Number 1, pp. 31-38(8).

Martìnez, E. A. (1988). Child behavior in Mexican American/ Chicano families: Maternal teaching and childrearing practices. *Family Relations*, 37, 275 – 280.

Marzocchi, G. M. (2002). Il «Questionario SDQ Strenghts and Difficulties Questionnaire» uno strumento per valutare difficoltà comportamentali ed emotive in età evolutiva. *Difficoltà di apprendimento*. Vol 8, n. 1, pp.75-84.

Marzocchi, G. M., Capron, C., Di Pietro, M., Duran Tauleria, E., Duyme, M., Frigerio, A., Gaspar, M. F., Hamilton, H., Pithon, G., Simões, A., and Thérond, C. (2004). The use of the Strengths and Difficulties Questionnaire (SDQ) in Southern European countries. *European Child & Adolescent Psychiatry.* Volume 13, Supplement 2, PP. ii40-ii46.

Masten, A. and Coatsworth, D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist, 53,* 205–220.

Matas, L., Arend, R. A., & Sroufe, L. A. (1978). The continuity of adaptation in the second year: Relationship between quality of attachment and later competence. *Child Development, 49*, 547–556.

Mattanah, J.F. (2001). Parental psychological autonomy and children's academic competence and behavioral
adjustment in late childhood: More than just limit-setting and warmth. *Merrill-Palmer Quarterly*, 47, 355–376.

McCathie, H., Spence, S. H. (1991). What is the Revised Fear Survey Schedule for Children measuring?. Behaviour Research and Therapy. Vol 29(5), 495-502.

McClure, E.B., Brennan, P.A., Hammen, C., Le Brocque, R.M., 2001. Parental anxiety disorders, child anxiety disorders, and the perceived parent–child relationship in an Australian high-risk sample. J. Abnorm. *Child Psychology*. 29, 1–10.

McCord, J. (1979). Some child-rearing antecedents of criminal behavior in adult men. *Journal of Personality and Social Psychology*, 37, 1477-1486.

McGord, J. (1990). Problem behaviors. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold: The developing adolescent* (pp. 414-430). Cambridge, MA: Harvard University Press.

Mckeen T. E., Harvey E., Danforth J.S., Ulaszek W.R & Friedman J.L (2004). The relation between parental coping style and Parent-Child Interactions before and after treatment for Children with ADHD and Oppositional behaviour. *Journal of Clinic Child and Adolescent Psychology, 33:1,* 158-168.

McLeod, B.D., Wood, J.J., & Weisz, J.R. (2007). Examining the association between parenting and childhood anxiety: A meta-analysis. *Clinical Psychology Review*, *27*, 155-172.

McLoyd V.C., Smith J. (2002) Physical discipline and behavior problems in African American, European American and Hispanic children: Emotional support as a moderator. *Journal of Marriage and Family*, 64, pp. 40-53.

Merikangas, K. R., Avenevoli, S., Dierker, L., & Grillon, C. (1999).Vulnerability factors among children at risk of anxiety disorders. *Biological Psychiatry*, 46, 1523-1535.

Merikangas, K. R., Dierker, L. C., & Szatmari, P. (1998). Psychopathology among offsping of parents with substance abuse and/or anxiety disorders: A high risk study. *Journal of Child Psychology and Psychiatry*, 37, 711−720.

Messer, S.C., & Beidel, D.C. (1994). Psychosocial correlates of childhood anxiety disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *33*, 975–983.

Mikletun A., Stordal E., Dahl A. (2001). Hospital Anxiety and Depression (HAD) scale: factor structure, item analyses and internal consistency in a large population. *British Journal Psychiatry*, 179: 540-44.

Miller, A. M., Harwood, R. L. (2002). The Cultural Organization of Parenting: Change and Stability of Behavior Patterns During Feeding and Social Play Across the First Year of Life. *Parenting*, Volume 2, Issue 3, pages 241 – 272.

Mills R.S.L., Rubin K.H. (1998). Are behavioral and psychological control both differentially associated with chilhood aggression and social withdrawal? *Canadian Journal of Behavioral Science*, 30, 132-126

Mineka, S., Davidson, M., Cook, M., & Kein, R. (1984). Observational conditioning of snake fear in rhesus monkeys. *Journal of Abnormal Psychology, 93,* 355-372.

Mineka S, Zinbarg R (2006). A contemporary learning theory perspective on the etiology of anxiety disorders : it's not what you thought it was. *American Psychologist* 61, 10–26.

Mischel, W., & Ebbesen, E. B. (1970). Attention in delay of gratification. *Journal of Personality and Social Psychology, 21,* 204–218.

Moore, P.S., Whaley, S. E., & Sigman, M. (2004). Interactions between mothers and children: impacts of maternal and child anxiety. *Journal of Abnormal Psychology, 113,* 471-476.

Morris, A. S., Silk, J. S., Steinberg, L., Sessa, F. M., Avenevoli, S., & Essex, M. J. (2002). Temperamental vulnerability and negative parenting as interacting predictors of child adjustment. *Journal of Marriage and Family, 64,* 461–471.

Moses, L., Baldwin, D. Rosicky, J., & Tidball, G. (2001). Evidence for referential understanding in the emotions domain at twelve and eighteen months. *Child Development, 72*, 718-735.

Muris, P. (2002). Parental rearing behaviors and worry of normal adolescents. Psychological Reports, 91, 428−430.

Muris, P., Bo¨gels, S. M., Meesters, C., van der Kamp, N., & van Oosten, A. (1996). Parental rearing practices, fearfulness, and problem behaviour in clinically referred children. *Personality and Individual Differences, 21,* 813–818.

Muris, P., Meesters, C., Eijkelenboom A., Vincken, M. (2004). The self-report version of the Strengths and
Difficulties Questionnaire: Its psychometric properties in 8- to 13-year-old non-clinical children. *British Journal of Clinical Psychology*, 43, 437- 448.

Muris, P., Meesters, C., Merckelbach, H., & Hulsenbeck, P. (2000). Worry in children is related to perceived parental rearing and attachment. *Behavior Research and Therapy*, 38, 487–497.

Muris, P., Merckelbach, H., Jong, P. J., & Ollendick, T. H. (2002). The etiology of specific fears and phobias in children: a critique of the non-associative account. *Behavior Research and Therapy, 40,* 185-195.

Murray, L., Cooper, P.J., de Rosnay, M., Pearson, J., & Sack, C. (2005). Intergenerational transmission of maternal social anxiety: The role of social referencing processes. Manuscript submitted for publication.

Murray, L., Creswell, C., & Cooper, P.J. (2009). The development of anxiety disorders in childhood: an integrative review. *Psychological Medicine*, 39, 1413-1423.

Murray, L., De Rosnay, M., Pearson, J. Bergeron, C., Schofield, L., Royal-Lawson, M. & Cooper, P.J. (2008) Intergenerational transmission of maternal social anxiety: the role of social referencing processes in infancy. *Child Development, 79*, 1049-1064.

Nelson, K. (1993). The psychological and social origins of autobiographic memory. *Psychological Science, 4,* 1-8.

Nilzon, K. R., & Palmerus, K. (1997). The influence of familial factors on anxiety and depression in childhood and early adolescence. *Adolescence*, *32*, 935–943.

Nolen-Hoeksema, S. (1994). An interactive model for the emergence of gender differences in depression in adolescence. *Journal of Research on Adolescence, 4,* 519–534.

Nolen-Hoeksema S.,Wolfson A., Mumme D., Guskin K. (1995) Helplessness in children of depressed and nondepressed mothers. *Developmental Psychology,* 31, pp. 377 – 384.

Ollendick, T.H. (1979). Fear reduction techniques with children. In . M. Hersen, R. M. Eisler and P. M. Miller (Eds) Progress in behavior modification. Academic Press: New York, 127-168.

Olson, S., Bates, J., & Bayles, K. (1990). Early antecedents of childhood impulsivity: The role of parent–child interaction, cognitive competence, and temperament. *Journal of Abnormal Child Psychology, 18*, 317–334.

Olweus, D. (1980). Familial and temperamental determinants of aggressive behavior in adolescent boys: A causal analysis. *Developmental Psychology*, 16, 644-666.

Owens J, Witmans M. (2004) Sleep problems in Current Problems in Pediatric and Adolescent Health Care. 34**:** 154–79.

Parker, G. (1983). Parental overprotection: a risk factor in psychosocial development. Grune and Stratton: New York.

Paterson, G., Sanson, A., (1999).The association of behavioural adjustment to temperament, parenting and family characteristics among 5-year-old children. Social Development. Vol 8(3),293-309.

Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44*, 329– 335.

Patterson, G. R., & Stouthamer-Loeber, M. (1984). The correlation of family management practices and delinquency. *Child Develompent*, 55, 1299-1307.

Perry, N. W., & Millimet, C. R. (1977). Child-rearing antecedents of low and high anxiety eighth-grade children. In C. D. Spielberger, & I. G. Sarason, (pp. 189–204). *Stress and anxiety, vol. 4.* New York: Wiley.

Peters, H. F. M., Hulstijn, W. (1984). Stuttering and anxiety: The difference between stutterers and nonstutterers in verbal apprehension and physiologic arousal during the anticipation of speech and non-speech tasks. Journal of Fluency Disorders. Volume 9, Issue 1, Pages 67-84.

Pettit G. S., Harrist A. W., Bates J. E., Dodge K. (1991) Family interaction, social cognition and children's subsequent relations with peers at kindergarten. *Journal of Social and Personal Relationships*, 8, pp. 383 – 402.

Pfiffner, L., & O'Leary, S. (1989). Effects of maternal discipline and nuturance in toddler's behavior and affect. *Journal of Abnormal Child Psychology, 17*, 527–540.

Phillips, N.K., Hammen, C. L., Brennan, P. A., Najman, J. M., & Bor, W. (2005). Early adversity and the prospective prediction of depressive and anxiety disorders in adolescents. *Journal of Abnormal Child Psychology, 33*, 13-24.

Piaget, J. (1932). The moral judgment of the child. London: Kegan Paul.

Pine, D.S, Cohen, P., Gurley, D., Brook, J., Ma, Y. (1998). The risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Archives of General Psychiatry*, 55, 56–64.

Poltrock, S. L. (2006). Parenting variables associated with childhood anxiety: Parental warmth as a moderator of overly controlling parenting. Syracuse University. Publication Number 3251784.

Power, T.G. & Chapieski, M.L. (1986). Childrearing and impulse control in toddlers: A naturalistic investigation. *Developmental Psychology, 22,271-275*.

Pulkkinen, L. (1982). Self-control and continuity from childhood to adolescence. In P. B. Baltes & O. G. Brim (Eds.), *Life span development and behavior* (Vol. 4, pp. 63-105). New York: Academic Press.

Rapee, R.M. (1997) Potential role of childrearing practices in the development of anxiety and depression. *Clinical Psychology Review, 17*, 47-67.

Rapee, R.M. (2001). The development of generalized anxiety disorder. In the developmental psychopathology of anxiety (ed. M.W. Vasey and M.R. Dadds), 481-504. Oxford university press: New York.

Rapee, R.M. & Spence, S.H. (2004). The etiology of social phobia: empirical evidence and an initial model. *Clinical Psychology Review, 24*, 737-767.

Richman, A. L., Miller, P. M., & LeVine, R. (1992). Cultural and educational variations in maternal responsiveness. *Developmental Psychology*, 28, 614 – 621.

Rickman M, Davidson R (1994). Personality and behavior in parents of temperamentally inhibited or uninhibited children. *Developmental Psychology* 30, 346–354.

Rollins, B. C. & Thomas, D. L. (1979) Parental support, power, and control techniques in the socialization of children. In *Contemporary Theories About the Family: Research-Based Theories, Volume 1 (eds W. R. Burr, R. Hill, F. I. Nye et al).* New York: The Free Press.

Rosenbaum, J.F., Biederman, J., Gertern, M. et al. (1988). Behavioral inhibition in children of parents with panic disorder and agoraphobia. *Archives of General psychiatry, 45*, 463-470.

Rosenbaum, J.F., Biederman, J., Hirshfield, D.R., Bolduc, E.A., Faraone, S.V., & Kagan., J. (1991). Further evidence of an association between behavioral inhibition and anxiety disorders: Results from a family study of children from a nonclinical sample. *Journal of Psychiatric Research, 25*, 49-65.

Rosenbaum, J.F., Biederman, J., Hirshfeld-Becker, D.R. et al (2000). A controlled study of behavioural inhibition in children of parents with panic disorder and depression. *American Journal of Psychiatry, 157*, 2002-2010.

Rosenthal, M. K., Roer-Strier, D., (2001). Cultural differences in mothers' developmental goals and ethnotheories. The Hebrew University, Jerusalem, Israel. International *Journal Of Psychology, 36* (1), 20- 31.

Rothbart, M. K., & Bates, J. E. (1998). Temperament. In W. Damon (Series Ed.) & N. Eisenberg (Vol. Ed.), *Handbook of child psychology: Vol. 3. Social, emotional and personality development* (5th ed., pp. 105–176). New York: Wiley.

Rothbart, M. K., & Derryberry, D. (1981). Development of individual differences in temperament. In M. E. Lamb & A. L. Brown (Eds.), *Advances in developmental psychology*. Hillsdale, N.J: Erlbaum.

Rubin KH, Mills RSL. 1991. Conceptualizing developmental pathways to internalizing disorders in childhood. *Can. J. Behav. Sci.* 23:300–17.

Rubin, K.H., Nelson, L.J., Hastings, P., & Asendorpf, J. (1999) The Transaction between parents' perceptions of their children's shyness and their parenting styles. *International Journal of Behavioral Development, 23,* 937-957.

Ruff, H., & Rothbart, M. K. (1996). *Attention in early development.* New York: Oxford University Press.

Russell, A., Hart, C. H., Robinson, C. C., & Olsen, S. F. (2003). Children's sociable and aggressive behaviour with peers: A comparison of the US and Australia, and contributions of temperament and parenting styles. *International Journal of Behavioral Development*, Vol. 27, No. 1, 74-86.

Sanson, A., & Rothbart, M. K. (1995). Child temperament and parenting. In M. Bornstein (Ed.), *Handbook of parenting* (Vol. 4, pp. 299-321). Hillsdale, NJ: Erlbaum.

Scabini, E. (2000). Parent-Child Relationships in Italian Families: Connectedness and Autonomy in the Transition to Adulthood. *Psicologia: Teoria e Pesquisa.* Vol. 16 n. 1, pp. 023-030.

Schaefer E. S. (1959) A circumplex model for maternal behavior. *Journal of Abnormal and Social Psychology*, 59, pp. 226 – 235.

Schaefer, E. S. (1965). Children's reports of parental behavior: An inventory. *Child Development*, 36, 413-424.

Schumacker, R. E., & Lomax, R. G. (1996). A beginner's guide to structural equation modeling. Mahwah, NJ: Lawrence Erlbaum Associates.

Schwartz, C., Snidman, N., Kagan, J. Et al (1999). Adolescent social anxiety as an outcome of inhibited temperament in childhood. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*, 1008-1015.

Seligman, M.E. P., Peterson, C. (1986). A learned helplessness perspective on childhood depression: Theory and research. In M. Rutter, C.E. Izard, and P. Read (Eds.), *Depression in Young People: Developmental and Clinical Perspectives*. New York: Guilford, 223-249.

Shaffer, D., Fisher P., Dulcan M.K., Davies M., Piacentini J., et al. (1996). The NIMH diagnostic interview schedule for children version 2.3 (DISC-2.3): description, acceptability, prevalence rates, and performance in the MECA study. *Journal of the American Academy of Child and Adolescent Psychiatry, 35* (7), 865–877.

Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, *8*, 420–428.

Siegelman, M. (1965a). College student personality correlates of early parent-child relationships. *Journal of Consulting Psychology, 6, 558-564.*

Siegelman, M. (1965b). Evaluation of Bronfenbrenner's questionnaire for children concerning parental behavior. *Child Development 36*, 164-174.

Silk J.S., Morris A.S., Tomoe K., Steinberg L. (2003) Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs. *Journal of Research on Adolescence*, 13, pp. 113-128.

Silk, J. S., Shaw, D., Skuban, E., Oland, A., & Kovacs, M. (in press). Emotion regulation strategies among offspring of mothers with childhood onset depression. *Journal of Child Psychology & Psychiatry.*

Silove D., Manicavasagar V., O'Connel D., Morris-Yates A. (1995) Genetic factors in early separation anxiety: implications for the genesis of adult anxiety disorders. *Acta Psychiatrica Scandinavica*, 92 (1), pp. 17-24.

Silverman, W. K., Goedhart, A. W., Barrett, P., Turner, C. (2003). The facets of anxiety sensitivity represented in the Childhood Anxiety Sensitivity Index: Confirmatory analyses of factor models from past studies. Journal of Abnormal Psychology. Vol 112(3), 364-374.

Siqueland, L., Kendall, P. C., & Steinberg, L. (1996). Anxiety in children: Perceived family environments and observed family interaction. *Journal of Clinical Child Psychology, 25*, 225–237.

Skopp N.A., McDonald R., Jouriles E.N., Rosenfield D. (2007) Partner aggression and children's externalizing problems: Maternal and partner warmth as protective factors. *Journal of Family Psychology*, 21 (3), pp. 459-467.

Skre, I., Onstad, S., Torgersen, S., Lygren, S. and Kringlen, E. (1993). A twin study of DSM III-R anxiety disorders. Acta Psychiatrica Scandinavica. 88, 85-92.

Smith P. B., Pederson D. R. (1988) Maternal sensitività and patterns of infant – mother attachment. *Child Development*, 59, pp. 1097 – 1101.

Snaith, R.P. (2003). The hospital anxiety and depression scale. *Health and quality of life outcomes*. 1:29.

Sorce, J. F., Emde, R. N., Campos, J. J., & Klinnert, M. D. (1985). Maternal emotional signaling: Its effect on the visual cliff behavior of 1-year-olds. *Developmental Psychology, 21*, 195–200

Spence S.H. (1997) Structure of anxiety symptoms among children: A confirmatory factor-analytic study. *Journal of Abnormal Psychology*, 106 (2), pp. 280-297.

Spence S.H. (1998) A measure of anxiety symptoms among children. *Behavior Research and Therapy*, 36, pp. 545-566.

Spence, S. H., Barrett, P. M., Turner, C. M. (2003). Psychometric properties of the Spence Children's Anxiety Scale with young adolescents. *Journal of anxiety disorders*. Volume 17, Issue 6, Pages 605-625.

Spieker, S. J., Larson, N. C., Lewis, S., Keller, T. E., & Gilchrist, L. (1999). Developmental trajectories of disruptive behavior problems in preschool children of adolescent mothers. *Child Development*, 70, 443 – 458.

Spielberger, C. D. (1966). Theory and research on anxiety. In C. D. Spielberger (Ed.), *Anxiety and Behavior*. Pp. 3-19. New York: Academic Press.

Sroufe, L.A. (1977). Wariness of stranger and the study of infant development. *Child Development, 48*, 731-746.

Sroufe, L.A., Jacobvitz, D., Mangelsdorf, S., deAngelo, E., & Ward, M.J. (1985). Generational boundary dissolution between mothers and their preschool children: A relationship systems approach. *Child Development*, 56, 317–325.

Stayton, D. J., Hogan, R., & Ainsworth, M. D. S. (1971). Infant obedience and maternal behavior: The origins of socialization reconsidered. *Child Development, 42,* 1057–1069.

Stark, K., Humphrey, L., Crook, K., Lewis, K. (1990). Perceived family environments of depressed and anxious children. Child and maternal figures's perspectives. *Journal of Abnormal Child Psychology*, 18, 527-547.

Stefansson, J.G., Lindal, E., Bjornsson, J. K., Guomundsdottir, A. 1991. Lifetime prevalence of specific mental disorders among people born in Iceland in 1931. Acta Psychiatr Scand 84:142–149.

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. Multivariate Behavioral Research, 25, 173-180.

Stein, A., Woolley, H., Cooper, S. D., Fairburn C. G. (1994). An Observational Study of Mothers with Eating Disorders and Their Infants. *Journal of Child Psychology and Psychiatry.*Vol. 35, No. 4, pp.733-748.

Stein, M.B., Chartier, M.J., Hazen, A.L., Kozak, M.V., Tancer, M.E., Lander, S., Furer, P., Chubaty, D. & Walker, J.R. (1998). A direct-interview family study of generalized social phobia. *American Journal of Psychiatry, 155* (1), 90-97.

Steinberg L. (1990). Autonomy, conflict, and harmony in the family relationship, In S.S. Feldman & G.R. Elliott (Eds.), *At the threshold : The developing adolescent* (pp.255-276). Cambridge, MA : Harvard University Press.

Steinberg, L., Elmer, J.D., & Mounts, N.S. (1989). Authoritative parenting, psychosocial maturity, and academic success among adolescents. *Child Development, 60,* 1424–1436.

Steinberg, L., Lamborn, S., Dornbusch, S., & Darling, N. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement, and encouragement to succeed. *Child Development*, 63, 1266-1281.

Steinberg, L., Mounts, N. S., Lamborn, S. D., & Dornbusch, S. M. (1991). Authoritative parenting and adolescent adjustment across varied ecological niche. *Journal of Research on Adolescence*, 1, 19-36.

Stierlin, H. (1974). Shame and guilt in family relations: Theoretical and clinical aspects. *Archives of general psychiatry*. 30(3):381-389.

Stifter, C. A., & Braungart, J. M. (1995). The regulation of negative reactivity in infancy: Function and development. *Developmental Psychology, 31,* 448–455.

Stormshak, E. A., Bierman, K. L., McMahon, R.J., Lengua, L. J. (2000), Parenting practices and child disruptive behavior problems in early elementary school. *Journal of Clinical Child Psychology*. 29:17–29.

Stubbe, D. E., Zahner, G. E., Goldstein, M. J., & Leckman, J. F. (1993). Diagnostic specificity of a brief measure of expressed emotion: A community study of children. *Journal of Child Psychology & Psychiatry & Allied Disciplines, 34,* 139–154.

Swearingen, E.M.C. & Cohen, L. H. (1985). Life events and psychological distress: a prospective study of young adolescents. *Developmental Psychology, 21,* 1045-1054.

Thapar, A. & McGuffin, P. (1995). Are anxiety symptoms in childhood hereditable? *Journal of Child and Psychology and Psychiatry, 36,* 439-447.

Torgerson, S. (1983). Genetic factors in axiety disorder. *Archives of Generak Psychiatry*, 40, 1085-1089.

Trifiletti, R. (1999). Southern European Welfare Regimes And The Worsening Position Of Women. *Journal of European Social Policy*, 9; 49.

Tronick E. Z. (1989) Emotions and emotional communication in infants. *American Psychologist*, 44, 112 – 119.

Turner, S.M., Biedel, D.C., & Costello, A. (1987) Psychopathology in the offspring of anxiety disordered patients. *Journal of Consulting and Clinical Psychology, 55,* 229-235.

Turner, S.M., Beidel, D.C. & Wolff, P.L. (1996). Is behavioral inhibition related to anxiety disorders? *Clinical Psychology Review, 16,* 157-172.

Valiente, C., Eisenberg, N., Smith, C. L., Reiser, M., Fabes, R. A., Losoya, S., et al. (2003). The relations of effortful control and reactive control to children's externalizing problems: A longitudinal assessment. *Journal of Personality, 71,* 1171–1196.

van der Vijver, F. J. R., & Hambleton, R. K. (1996). Translating tests: Some practical guidelines. European Psychologist, 1, 89-99.

Vasey, M.W., & Dadds, M.R. (2001). An introduction to the developmental psychopathology of anxiety. In M.W. Vasey & M.R. Dadds (Eds.), The developmental psychopathology of anxiety (pp. 3–26). Oxford: Oxford University Press.

Vaughn, B. E., Kopp, C. B., & Krakow, J. B. (1984). The emergence and consolidation of self-control from eighteen to thirty months of age: Normative trends and individual differences. *Child Development, 55,* 990–1004.

Vaughn, B. E., Kopp, C. B., Krakow, J. B., Johnson, K., & Schwartz, S. S. (1986). Process analyses of the behavior of very young children in delay tasks. *Developmental Psychology, 22,* 752–759.

Volk, H D., Reincke, P., Falk, P., et al. (1989). Diagnostic value of an immune monitoring program for the clinical management of immunosuppressed patients with septic complications. *Clin. Transplantation*, **3**, 246-52.

Warner, V., Mufson, L. & Weissman, M.M. (1995). Offspring at low and high risk for depression and anxiety: mechanism of psychiatry disorder. *Journal of the Academy of Child and Adolescent Psychiatry, 34,* 786-797.

Warren, S.L., Emde, R. N., & Sroufe, L. A. (2000). Internal representations: predicting anxiety from children's play narratives. *Journal of the American Academy of Child and Adolescent Psychiatry, 39,* 100-107.

Waters E, Hay D, Richters J. 1986. Infantparent attachment and the origins of prosocial and antisocial behavior. In *Development of Antisocial and Prosocial Behavior: Research, Theories, and Issues*, ed. D Olweus, J Block, M Radke-Yarrow, pp. 97–125. Orlando, FL: Academic.

Weisner, T. S. (1984). Ecocultural niches of middle-childhood: A cross-cultural perspective. In W. A. Collins (Ed.), *Development during middle childhood; The years from 6 to 12* (pp.315-369). Washington DC: National Academy Press.

Weissman M.M. (1993) Family genetic studies of panic disorder. *Journal of Psychiatric Research*, 2, pp. 69-78.

Weissman, M.M., Leckman, J.F., Merikangas, K.R., Gammon, G.D. & Prusoff, B.A. (1984) Depression and anxiety disorders in parents and children. *Archives of General psychiatry, 41,* 845-852.

Wendland, J., Miljkovitch, I. (2003). From Late Pregnancy To Six Months' Postpartum: Content And Evolution Of High-Risk Primiparous Single Mothers' Conscious Representations. *Journal of Social and Clinical Psychology*, Vol. 22, No. 6, pp. 745-770.

Winnicott, D. W. (1953). Transitional objects and transitional phenomena. *International Journal of Psychoanalysis*, 34, 89-97.
Wood J.J. (2006) Parental intrusiveness and chidren's separation anxiety in a clinical sample. *Child Psychiatry and Human Development*, 37, pp. 73-87.

Woerner, W., Becker, A., Rothenberger, A. (2004). Normative data and scale properties of the German parent SDQ. *European child & adolescent psychiatry.* Volume 13, Supplement 2, ii3-ii10.

Wolfradt, U.,Hempel, S., Miles, J. N. V. (2003).Perceived parenting styles, depersonalisation, anxiety and coping behavioue in adolescents. Personality and Individual Differences, Volume 34, Issue 3, Pages 521-532.

Wood, J. J., Kiff, C., Jacobs, J., Ifekwunigwe, M., Piacentini J. C. (2007- under review). Dependency on elementary school caregivers: the role of parental intrusiveness and children's separation anxiety. *Psychology in the Schools*, Vol. 44(8).

Wood, J. J., McLeod, B. D., Sigman, M., Hwang, W.C., & Chu, B. C. (2003). Parenting and childhood anxiety: Theory, empirical findings, and future directions. *Journal of Child Psychology and Psychiatry, 44*, 134–151.

Woodward, L.J., & Fergusson, D.M. (2001). Life course outcomes of young people with anxiety disorders in adolescence. Journal of the American Academy of Child and Adolescent Psychiatry, 40, 1086–1093.

World Health Organization. (1992). *The ICD-10 international classification of diseases and related health problems (tenth revision)*. Geneva: WHO.

Youniss, J., & Smollar, J. (1985). Adolescent relations with mothers, fathers, and friends. Chicago: The University of Chicago Press.

Zigmond A.S., Snaith R.P. (1983) The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavia*, 67, pp. 361-370.

Zimmermann, P., Mohr, C., Spangler, G. (2009). Genetic and attachment influences on adolescents' regulation of autonomy and aggressiveness. *Journal Of Child Psychology and Psychiatry*. 50: 11, pp. 1339-1347.

Appendix A.1

Information Sheet

We are very grateful to the children who have kindly helped us by completing our questionnaires on child children's fears and worries and behaviour. We are now seeing children and their mum's in their own homes.

We are asking children to play a game with their mums; and we are asking the mums to fill in certain questionnaires for us.

We ask children and their mums if we can make a video recording of the things they do.
We are visiting children and their mothers in their homes. Here we ask the mother and child to do some things together (e.g. playing a joint game) and we video record this. The tasks are not at all stressful and mothers and children generally find them fun. They only take about 15 minutes to complete. We also ask the mother fill in questionnaires, concerning her own feelings her child's.
The information we collect on the families who are helping us is kept in a locked cupboard within our research unit and only identified by a code number with no names attached. So it is absolutely confidential.

We would be very grateful if you could help us with our study. The things I want you to do today will only take about half an hour to complete. Of course, you do not have to take part if you don't want to. And you can stop taking part at any time if you feel like it.

If you have any questions about the study, please do ask me now. If you would like us to send you a report of the findings of our study, we'd be very happy to do so when we have finished analysing all the information we have gathered.

If you would like further information about the study, please do either email or call one of us. We will, of course, be very happy to discuss the study with you.

We should be most grateful if you and xxx were able to help us with our study. However, if you do not wish to take part, please return the slip below to xxx School
Thank you very much for your help.

Yours sincerely,
Alessandra Raudino

a.raudino@reading.ac.uk, alessandra.raudino@unipd.it

Appendix B.1

SCAS English Version

Name: _____

Date of Birth: _____

PLEASE PUT A CIRCLE AROUND THE WORD THAT SHOWS HOW OFTEN EACH OF THESE THINGS HAPPEN TO YOU. THERE ARE NO RIGHT OR WRONG ANSWERS.

1. I worry about things	**Never**	**Sometimes**	**Often**	**Always**
2. I am scared of the dark	**Never**	**Sometimes**	**Often**	**Always**
3. When I have a problem, I get a funny feeling in my stomach	**Never**	**Sometimes**	**Often**	**Always**
4. I feel afraid	**Never**	**Sometimes**	**Often**	**Always**
5. I would feel afraid of being on my own at home	**Never**	**Sometimes**	**Often**	**Always**
6. I feel scared when I have to take a test	**Never**	**Sometimes**	**Often**	**Always**
7. I feel afraid if I have to use public toilets or bathrooms	**Never**	**Sometimes**	**Often**	**Always**
8. I worry about being away from my parents	**Never**	**Sometimes**	**Often**	**Always**
9. I feel afraid that I will make a fool of myself in	**Never**	**Sometimes**	**Often**	**Always**
10. I worry that I will do badly at my school work	**Never**	**Sometimes**	**Often**	**Always**
11. I am popular amongst other kids my own age	**Never**	**Sometimes**	**Often**	**Always**
12. I worry that something awful will happen to someone in my family	**Never**	**Sometimes**	**Often**	**Always**
13. I suddenly feel as if I can't breathe when there is no reason for this	**Never**	**Sometimes**	**Often**	**Always**

14. I have to keep checking that I have done things right (like the switch is off, or the door is locked)	**Never**	**Sometimes**	**Often**	**Always**
15. I feel scared if I have to sleep on my own	**Never**	**Sometimes**	**Often**	**Always**
16. I have trouble going to school in the mornings because I feel nervous or afraid	**Never**	**Sometimes**	**Often**	**Always**
17. I am good at sports	**Never**	**Sometimes**	**Often**	**Always**
18. I am scared of dogs	**Never**	**Sometimes**	**Often**	**Always**
19. I can't seem to get bad or silly thoughts out of my head	**Never**	**Sometimes**	**Often**	**Always**
20. When I have a problem, my heart beats really fast	**Never**	**Sometimes**	**Often**	**Always**
21. I suddenly start to tremble or shake when there is no reason for this	**Never**	**Sometimes**	**Often**	**Always**
22. I worry that something bad will happen to me	**Never**	**Sometimes**	**Often**	**Always**
23. I am scared of going to the doctors or dentists	**Never**	**Sometimes**	**Often**	**Always**
24. When I have a problem, I feel shaky	**Never**	**Sometimes**	**Often**	**Always**
25. I am scared of being in high places or lifts (elevators)	**Never**	**Sometimes**	**Often**	**Always**
26. I am a good person	**Never**	**Sometimes**	**Often**	**Always**
27. I have to think of special thoughts to stop bad things from happening (like numbers or words)	**Never**	**Sometimes**	**Often**	**Always**
28. I feel scared if I have to travel in the car, or on a Bus or a train	**Never**	**Sometimes**	**Often**	**Always**
29. I worry what other people think of me	**Never**	**Sometimes**	**Often**	**Always**
30. I am afraid of being in crowded places (like shopping centers, the movies, buses, busy	**Never**	**Sometimes**	**Often**	**Always**

playgrounds)

31. I feel happy	**Never**	**Sometimes**	**Often**	**Always**
32. All of a sudden I feel really scared for no reason at all	**Never**	**Sometimes**	**Often**	**Always**
33. I am scared of insects or spiders	**Never**	**Sometimes**	**Often**	**Always**
34. I suddenly become dizzy or faint when there is no reason for this	**Never**	**Sometimes**	**Often**	**Always**
35. I feel afraid if I have to talk in front of my class	**Never**	**Sometimes**	**Often**	**Always**
36. My heart suddenly starts to beat too quickly for no reason	**Never**	**Sometimes**	**Often**	**Always**
37. I worry that I will suddenly get a scared feeling when there is nothing to be afraid of	**Never**	**Sometimes**	**Often**	**Always**
38. I like myself	**Never**	**Sometimes**	**Often**	**Always**
39. I am afraid of being in small closed places, like tunnels or small rooms	**Never**	**Sometimes**	**Often**	**Always**
40. I have to do some things over and over again (like washing my hands, cleaning or putting things in a certain order)	**Never**	**Sometimes**	**Often**	**Always**
41. I get bothered by bad or silly thoughts or pictures in my mind	**Never**	**Sometimes**	**Often**	**Always**
42. I have to do some things in just the right way to stop bad things happening	**Never**	**Sometimes**	**Often**	**Always**
43. I am proud of my school work	**Never**	**Sometimes**	**Often**	**Always**
44. I would feel scared if I had to stay away from home overnight	**Never**	**Sometimes**	**Often**	**Always**
45. Is there something else that you are really afraid of?		**YES**		**NO**
Please write down what it is How Often are you afraid of this thing?	**Never**	**Sometimes**	**Often**	**Always**

Appendix B.2

SCAS ItalianVersion

CERCHIA LA PAROLA CHE INDICA QUANTO SPESSO TI ACCADONO QUESTE COSE. NON CI SONO RISPOSTE GIUSTE O RISPOSTE SBAGLIATE.

1. Mi preoccupo delle cose	Mai	Qualche volta	Spesso	Sempre
2. Mi spavento del buio	Mai	Qualche volta	Spesso	Sempre
3. Quando ho un problema, provo una strana sensazione nello stomaco	Mai	Qualche volta	Spesso	Sempre
4. Ho paura	Mai	Qualche volta	Spesso	Sempre
5. Avrei paura a rimanere da solo a casa	Mai	Qualche volta	Spesso	Sempre
6. Mi sento spaventato quando devo fare un compito in classe	Mai	Qualche volta	Spesso	Sempre
7. Mi spavento quando devo usare un bagno pubblico o una toilette pubblica	Mai	Qualche volta	Spesso	Sempre
8. Mi preoccupo a stare lontano dai miei genitori	Mai	Qualche volta	Spesso	Sempre
9. Ho paura di rendermi ridicolo davanti alle persone	Mai	Qualche volta	Spesso	Sempre
10. Mi preoccupa andare male a scuola	Mai	Qualche volta	Spesso	Sempre
11. Sono popolare tra i ragazzi della mia età	Mai	Qualche volta	Spesso	Sempre
12. Mi preoccupo che potrebbe succedere qualcosa di terribile a qualcuno della mia famiglia	Mai	Qualche volta	Spesso	Sempre
13. Improvvisamente sento come se non riuscissi più a respirare, senza alcun motivo	Mai	Qualche volta	Spesso	Sempre
14. Devo continuare a controllare che ho fatto bene le cose (come, che l'interruttore sia spento o che la porta sia chiusa)	Mai	Qualche volta	Spesso	Sempre

15. Mi spavento se devo andare a letto da solo	Mai	Qualche volta	Spesso	Sempre
16. Ho problemi ad andare a scuola la mattina perché mi sento nervoso o spaventato	Mai	Qualche volta	Spesso	Sempre
17. Sono bravo negli sport	Mai	Qualche volta	Spesso	Sempre
18. I cani mi spaventano	Mai	Qualche volta	Spesso	Sempre
19. Sembra che non riesco a scacciare dalla mia mente brutti o stupidi pensieri	Mai	Qualche volta	Spesso	Sempre
20. Quando ho un problema il mio cuore batte molto velocemente	Mai	Qualche volta	Spesso	Sempre
21. Improvvisamente comincio a tremare e ad agitarmi senza alcun motivo	Mai	Qualche volta	Spesso	Sempre
22. Mi preoccupo che possa accadermi qualcosa di brutto	Mai	Qualche volta	Spesso	Sempre
23. Mi spaventa andare dal dottore o dal dentista	Mai	Qualche volta	Spesso	Sempre
24. Quando ho un problema, mi agito	Mai	Qualche volta	Spesso	Sempre
25. Mi spaventa stare in posti elevati o prendere l'ascensore	Mai	Qualche volta	Spesso	Sempre
26. Sono una brava persona	Mai	Qualche volta	Spesso	Sempre
27. Devo pensare a qualcosa di particolare (come dei numeri o delle parole) per impedire che accadano brutte cose.	Mai	Qualche volta	Spesso	Sempre
28. Mi sento spaventato se devo viaggiare in macchina, o sull'autobus sul treno	Mai	Qualche volta	Spesso	Sempre
29. Mi preoccupo di quello che le altre persone pensano di me	Mai	Qualche volta	Spesso	Sempre
30. Ho paura a stare in un posto affollato (come centri commerciali, cinema, autobus, e parchi giochi pieni di persone)	Mai	Qualche volta	Spesso	Sempre
31. Mi sento felice	Mai	Qualche volta	Spesso	Sempre
32. Improvvisamente mi sento veramente spaventato senza alcun motivo	Mai	Qualche volta	Spesso	Sempre
33. Mi spaventano gli insetti e i ragni	Mai	Qualche volta	Spesso	Sempre

34. Improvvisamente mi vengono le vertigini e mi sento svenire anche senza nessun motivo	Mai	Qualche volta	Spesso	Sempre
35. Ho paura se devo parlare di fronte alla mia classe	Mai	Qualche volta	Spesso	Sempre
36. Il cuore improvvisamente mi comincia a battere troppo velocemente senza alcuna ragione	Mai	Qualche volta	Spesso	Sempre
37. Sono preoccupato di potermi spaventare anche quando non c'è niente di cui aver paura	Mai	Qualche volta	Spesso	Sempre
38. Mi piaccio	Mai	Qualche volta	Spesso	Sempre
39. Mi spaventa essere in un posto piccolo, come i tunnel o le stanze piccole	Mai	Qualche volta	Spesso	Sempre
40. Devo fare e rifare più e più volte alcune cose (come lavarmi le mani, oppure pulire o mettere a posto le cose in un certo ordine)	Mai	Qualche volta	Spesso	Sempre
41. Sono infastidito da immagini e pensieri brutti o stupidi che passano nella mia mente	Mai	Qualche volta	Spesso	Sempre
42. Devo fare alcune cose in un certo modo per impedire che accadano brutte cose alcune	Mai	Qualche volta	Spesso	Sempre
43. Sono orgoglioso di come vado a scuola	Mai	Qualche volta	Spesso	Sempre
44. Mi spaventerebbe passare tutta la notte a dormire fuori casa	Mai	Qualche volta	Spesso	Sempre
45. C'è ancora qualcosa di cui sei veramente spaventato? Se si, per piacere scrivi qui sotto che cos'è	Si	No		
Quanto spesso sei spaventato da questa cosa?	Mai	Qualche volta	Spesso	Sempre

Appendix C.1

Strengths and Difficulties Questionnaire English Version

For each item, please put a circle around the statement that you feel is closest to truth. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of how thing shave been for you over the last six months.[29]

	NotTrue	**SomewhatTrue**	**CertainlyTrue**
1) I try to be nice to other people. I care about their feelings			
2) I am restless, I cannot stay still for long			
3) I get a lot of headaches, stomach-aches or sickness			
4) I usually share with others (food, games, pens etc.)			
5) I get very angry and often lose my temper			
6) I am usually on my own. I generally play alone or keep to myself			
7) I usually do as I am told			
8) I worry a lot			
9) I am helpful if someone is hurt, upset or feeling ill			
10) I am constantly fidgeting or squirming			

[29] The mothers version includes the same identical item, in the same order.

11) I have one good friend or more			
12) I fight a lot. I can make other people do what I want			
13) I am often unhappy, down-hearted or tearful			
14) Other people my age generally like me			
15) I am easily distracted, I find it difficult to concentrate			
16) I am nervous in new situations. I easily lose confidence			
17) I am kind to younger children			
18) I am often accused of lying or cheating			
19) Other children or young people pick on me or bully me			
20) I often volunteer to help others (parents, teachers, children			
21) I think before I do things			
22) I take things that are not mine from home, school or elsewhere			
23) I get on better with adults than with people my own age			
24) I have many fears, I am easily scared			

25) I finish the work I'm doing. My attention is good			

Appendix C.2

Strengths and Difficulties Questionnaire Italian Version

Per ciascuna domanda, per favore, segna una crocettas e: Non e` vero, e` vero parzialmente, e` assolutamente vero. Per aiutarci, e` importante che tu faccia del tuo meglio per tutte le domande anche se non ne sei assolutamente certo o non ti sembra importante. Per favore dacci le tue risposte basandoti sul comportamento che hai avuto negli ultimi 6 mesi.

	Non e` vero	E` vero parzialmente	E` assolutamente vero
1) Cerco di essere gentile verso gli altri; sono rispettoso dei loro sentimenti			
2) Sono agitato(a), non riesco a stare fermo per molto tempo			
3) Soffro spesso mal di testa, mal di stomaco o nausea			
4) Condivido volentieri con gli altri (dolci, giocattoli, matite ecc.)			
5) Spesso ho delle crisi di collera o sono di cattivo umore			
6) Sono piuttosto solitario, tendo a giocare da solo			
7) Generalmente sono obbidente e faccio quello che mi è stato detto			
8) Ho molte preoccupazioni			
9) Sono di aiuto se qualcuno si fa male, è arrabbiato o malato			

10) Sono costantemente in movimento; spesso mi sento a disagio			
11) Ho almeno un buon amico o una buona amica			
12) Spesso litigo. Costringo gli altri a fare quello che voglio			
13) Sono spesso infelice o triste; piango facilmente			
14) Generalmente sono ben accettato(a) dalle persone della mia età			
15) Sono facilmente distratto(a); trovo difficile concentrarmi			
16) Le situazioni nuove mi rendono nervoso(a), mi sento poco sicuro di me stesso			
17) Sono gentile con i bambini piccoli			
18) Sono spesso accusato(a) di essere un bugiardo o un(a) ingannatore(trice)			
19) Sono preso(a) di mira e preso(a) in giro dalle persone della mia età			
20) Sono spesso volontario per aiutare gli altri (genitori, insegnanti, bambini)			
21) Penso prima di fare qualcosa			

22) Ho rubato degli oggetti che non mi appartenivano da casa, da scuola o dagli altri posti			
23) Ho migliori rapporti con gli adulti che con le persone della mia età			
24) Ho molte paure, mi spavento facilmente			
25) Sono in grado di finire ciò che mi viene chiesto; rimango concentrato(a) per tutto il tempo necessario			

Appendix D.1

HADS Hospital Anxiety and Depression Scale English Version

Please answer the questions below with respect to how you have been feeling ***in the past month***. Please choose the response (from 0 to 3) that best corresponds to how you have been feeling and indicate this by circling the appropriate number.

1. I feel tense or 'wound up'	Most of the time **3**	A lot of the time **2**	From time to time, occasionally **1**	Not at all **0**
2. I still enjoy the things I used to enjoy	Definitely as much **0**	Not quite so much **1**	Only a little **2**	Hardly at all **3**
3. I get a sort of frightened feeling as if something awful is about to happen	Very definitely and quite badly **3**	Yes, but not too badly **2**	A little, but it doesn't worry me **1**	Not at all **0**
4. I can laugh and see the funny side of things	As much as I always could **0**	Not quite so much now **1**	Definitely not so much now **2**	Not at all **3**
5. Worrying thoughts go through my mind	A great deal of the time **3**	A lot of the time **2**	From time to time, but not too often **1**	Only occasionally **0**
6. I feel cheerful	Not at all **3**	Not often **2**	Sometimes **1**	Most of the time **0**

7. I can sit at ease and feel relaxed	Definitely **0**	Usually **1**	Not Often **2**	Not at all **3**
8. I feel as if I am slowed down	Nearly all the time **3**	Very often **2**	Sometimes **1**	Not at all **0**
9. I get a sort of frightened feeling like 'butterflies' in the stomach	Not at all **0**	Occasionally **1**	Quite Often **2**	Very Often **3**
10. I have lost interest in my appearance	Definitely **3**	I don't take as much care as I should **2**	I may not take quite as much care **1**	I take just as much care as ever **0**
11. I feel restless as I have to be on the move	Very much indeed **3**	Quite a lot **2**	Not very much **1**	Not at all **0**
12. I look forward with enjoyment to things	As much as I ever did **0**	Rather less than I used to **1**	Definitely less than I used to **2**	Hardly at all **3**
13. I get sudden feelings of panic	Very often indeed **3**	Quite often **2**	Not very often **1**	Not at all **0**
14. I can enjoy a good book or radio or TV program	Often **0**	Sometimes **1**	Not often **2**	Very seldom **3**

Appendix D.2

HADS Hospital Anxiety and Depression Scale Italian Version

Per favore, risponda alle domande qui in basso tenendo conto di come si e` sentito/a nell`ultimo mese. Per ogni domanda risponda cerchiando le caselle vicine (da 0 a 3) che pensa meglio corrispondano a come si e` sentito/a. Indichi con un cerchio il numero appropriato.

1) Mi sento teso o "agitato"	La maggior parte delle volte 3	Molte volte 2	Qualche volta, occasionalmente 1	Per niente, assolutamente no 0
2) Ancora mi divertono/piacciono le cose che normalmente mi divertivano	Sicuramente molto 0	Non proprio così tanto 1	Solo un po' 2	Quasi mai 3
3) Provo un sentimento di paura come se qualcosa di terribile dovesse accadere	Molto spesso e piuttosto intensamente, negativamente 3	Si, ma non troppo intensamente 2	Un po', ma non mi preoccupo 1	Per niente 0
4) Riesco a ridere e a trovare il lato divertente delle cose	Come ho sempre fatto 0	Non così tanto adesso 1	Assolutamente non tanto adesso 2	Per niente 3
5) Pensieri negativi attraversano la mia mente	La maggior parte del tempo 3	Molte volte 2	Qualche volta, ma non così spesso 1	Solo occasionalmente 0
6) Mi sento allegro	Per niente 3	Non spesso 2	Qualche volta 1	La maggior parte del tempo 0
7) Riesco a mettermi a mio agio e a rilassarmi	Sicuramente 0	Solitamente 1	Non spesso 2	Per niente 3
8) Mi sento come se fossi rallentato	Quasi tutto il tempo 3	Molto spesso 2	Qualche volta 1	Per niente 0

9) Avverto una sensazione di paura come di “farfalle nello stomaco”	Per niente 0	Occasionalmente 1	Quasi sempre 2	Molto spesso 3
10) Ho perso interesse nella cura del mio aspetto	Assolutamente 3	Non ho quella cura che dovrei avere 2	Non posso prendermi molta cura 1	Ho la cura che ho sempre avuto 0
11) Mi sento nervoso come se dovessi essere sempre in movimento	Davvero moltissimo 3	Molto spesso 2	Non molto 1	Per niente 0
12) Non vedo l’ora di fare delle cose divertenti	Come ho sempre fatto 0	Meno di quanto fossi solito fare 1	Sicuramente meno di quanto fossi solito fare 2	Quasi mai 3
13) Avverto all’improvviso un senso di panico	Davvero molto spesso 3	Molto spesso 2	Non molto spesso 1	Per niente 0
14) Mi posso divertire con un buon libro o con la radio o con un programma alla TV	Spesso 0	Qualche volta 1	Non spesso 2	Molto raramente 3

Appendix E.1

KATES Skills of Daily Living Checklist EnglishVersion

Your child has probably been able to do some "skills of daily living" independently for years, but may have less experience with other skills. Please rate how much help or supervision your child needs for each of the skills listed below. Please base your ratings on your child's behavior ***within the last week***.

For this questionnaire, you will asked to choose one of three options for each skill (see boxes below).
"**help**" means you actually provide assistance with performing the skill (like helping your child wash his/her hands);
and "**supervision**" means you stay in the same room with your child to provide reminders or feedback (but do not need to actually help him/her perform the skill).

SKILL	1 My child **needs my help** with this skill	2 My child **needs my supervision** with this skill	3 My child does this skill **without help or supervision**

PTO

SKILL	1 My child **needs my help** with this skill	2 My child **needs my supervision** with this skill	3 My child does this skill **without help or supervision**
Grooming and Personal Hygiene			
1. Washes and dries hands	☐	☐	☐
2. Combs and brushes hair	☐	☐	☐
3. Brushes teeth	☐	☐	☐
4. Takes bath or shower	☐	☐	☐
5. Washes and rinses hair	☐	☐	☐
Basic Dressing			
6. Puts on trousers	☐	☐	☐
7. Puts on jersey	☐	☐	☐
8. Pulls zip up/down	☐	☐	☐
9. Threads a belt	☐	☐	☐
10. Fasten Buttons	☐	☐	☐
11. Does up shoe laces	☐	☐	☐
Clothes Selection and Care			
12. Puts dirty clothes in linen basket	☐	☐	☐
13. Puts clean clothes away	☐	☐	☐
14. Wears clothes that are clean	☐	☐	☐
15. Selects clothes that fit	☐	☐	☐
16. Selects clothes that match	☐	☐	☐
17. Selects clothes appropriate to weather	☐	☐	☐

18. Selects clothes appropriate to occasion	☐	☐	☐
Basic House Chores			
19. Making a bed	☐	☐	☐
20. Setting the table	☐	☐	☐
21. Making breakfast	☐	☐	☐
22. Making bag lunch	☐	☐	☐

Appendix E.2

KATES Skills of Daily Living Checklist Italian Version

Il suo bambino e` stato probabilmente in grado di svolgere alcune "attivita` di routine giornaliera", da solo gia` da parecchio tempo, ma potrebbe avere meno esperieza con altre abilita`. Per piacere indichi quanto aiuto o supervisione il suo bambino ha bisogno per ciascuna delle abilita` elencate qui di seguito. Per favore risponda basandosi sui comportamenti presentati da suo figlio nell`ultima settimana.

All`interno di questo questionario "**aiuto**" significa che effettivamente fornisce assistenza al suo bambino per portare a termine l`attivita` in questione (ad esempio aiutare il suo bambino a lavarsi le mani), e "**supervisione**" significa che si trova con lui nella stessa stanza e gli ricorda di farlo o gli da` dei riscontri (ma non ha bisogno effettivamente di aiutarlo nell`eseguire quella determinata attivita`).

ABILITA`	1 Mio figlio **ha bisogno del mio aiuto** per	2 Mio figlio **ha bisogno della mia supervisione** per	3 Mio figlio **non ha bisogno del mio aiuto o della mia supervisione** per
Toilette e Igiene Personale			
1. Lavarsi e asciugarsi le mani	☐	☐	☐
2. Pettinarsi e spazzolarsi i capelli	☐	☐	☐
3. Lavarsi i denti	☐	☐	☐
4. Fare il bagno o la doccia	☐	☐	☐
5. Lavarsi e risciacquarsi i capelli	☐	☐	☐
Vestirsi			
6. Infilarsi i pantaloni	☐	☐	☐
7. Mettersi un maglione	☐	☐	☐
8. Alzarsi o abbassarsi la cerniera (aprire e chiudere)	☐	☐	☐

9. Infilarsi la cintura nei passanti	☐	☐	☐
10. Abbottonarsi	☐	☐	☐
11. Allacciarsi le scarpe	☐	☐	☐
Scelta del vestiario e cura			
12. Mettere i vestiti sporchi nel cesto dei panni	☐	☐	☐
13. Riporre i vestiti puliti	☐	☐	☐
14. Indossare vestiti puliti	☐	☐	☐
15. Selezionare vestiti della giusta misura	☐	☐	☐
16. Selezionare vesti che si abbinano	☐	☐	☐
17. Selezionare vestiti appropriati rispetto al clima	☐	☐	☐
18. Selezionare vestiti appropriati rispetto all`occasione	☐	☐	☐
Attività domestiche di base			
19. Farsi il letto	☐	☐	☐
20. Preparare la tavola	☐	☐	☐
21. Preparare la colazione	☐	☐	☐
22. Preparare il cestino della merenda	☐	☐	☐

Appendix F.1

Parent Child Interactive Questionnaire English Version

Please use the following response scale to indicate how often each kind of interaction between you and your child occurred ***this week (in the last 7 days)***. Even if behaviour only happened one time per day, count it when making your ratings.

	1 This never or almost never occurred (0-1 days this week)	2 This sometimes occurred (2-5 days this week)	3 This almost always occurred (6-7 days this week)
1. I encouraged my child to make choices about something.	1	2	3
2. I stayed in my child's room while he/she fell asleep.	1	2	3
3. I helped my child start his/her bath or shower.	1	2	3
4. I used baby words when I talked with my child.	1	2	3
5. I encouraged my child to play with a friend or neighbour.	1	2	3
6. I put out clothes for my child to wear.	1	2	3
7. My child and I wrestled around for fun.	1	2	3
8. My child slept for part or all the night in my room.	1	2	3
9. I gave my child a piggy-back ride	1	2	3

or picked him/her up.			
10. My child sat on my knee or my lap.	1	2	3
11. I asked my child about a test or work at school.	1	2	3
12. I gave my child help in putting on or taking off clothes.	1	2	3
13. My child went outside (front or back yard) by him/herself.	1	2	3
14. I lay down with my child on his/her bed and we read or talked before bedtime.	1	2	3
15 I reminded my child about his/her homework.	1	2	3
16. I helped my child take a bath or shower, or wash his/her hair.	1	2	3

Appendix F.2

Parent Child Interactive Questionnaire Italian Version

Per favore utilizzi la seguente scala per indicarci, nell`arco dell`ultima settimana (negli ultimi 7 giorni), quante volte e` avvenuta tra lei e suo figlio ciascuna delle interazioni descritte nel questionario. Nel corso della compilazione, lo indichi anche quando il comportamento sia avvenuto solo una volta al giorno.

	1 Non e` accaduto mai o quasi mai (mai o al limite 1 solo giorno in questa settimana)	2 E` accaduto qualche volta (2-5 giorni in questa settimana)	3 E` accaduto quasi sempre (6-7 giorni in questa settimana)
1. Ho incoraggiato mio/a figlio/a a prendere delle decisioni (riguardo a qualcosa).	1	2	3
2. Sono rimasto nella stanza di mio/a figlio/a mentre si addormentava.	1	2	3
3 Ho aiutato mio/a figlio/a ad iniziare a farsi il bagno o la doccia	1	2	3
4. Ho utilizzato un linguaggio da bambini per parlare con mio figlio.	1	2	3
5. Ho incoraggiato mio/a figlio/a a giocare con un amico o un vicino.	1	2	3
6. Ho preparato a mio/a figlio/a i vestiti da indossare.	1	2	3
7. Io e mio/ a figlio/a abbiamo fatto la lotta per gioco.	1	2	3

8. Mio figlio/a ha dormito per una parte o tutta la notte nella nostra camera da letto.	1	2	3
9. Ho messo mio/a figlio/a sulle mie spalle o l`ho preso in braccio.	1	2	3
10. Mio figlio si e` seduto sulle mie ginocchia o sul mio grembo.	1	2	3
11. Ho chiesto a mio/a figlio/a come sono andati gli esercizi o i compiti a scuola.	1	2	3
12. Ho aiutato mio figlio a mettersi o a togliersi i vestiti.	1	2	3
13. Mio/a figlio/a e` andato da solo di fronte casa o in cortile.	1	2	3
14. Mi sono coricato/a con mio figlio nel suo letto e prima che si addormentasse abbiamo letto o parlato.	1	2	3
15. Ho ricordato a mio/a figlio/a di fare i compiti.	1	2	3
16. Ho aiutato mio figlio a farsi il bagno o la doccia, o a lavarsi i capelli.	1	2	3

Appendix G.1

Demographic Questionnaire English Version

Please could you complete the following demographics questionnaire to the best of your ability? Unless stated, the questions are asking about you:

Age:

Your Nationality:

Your father's country of birth:

Your mother's country of birth:

Which of the following best describes your marital status? Please Tick:

Single ☐
Married ☐
Living with Partner ☐
Separated/Divorced (living alone) ☐

If you are married/living with Partner, is the person you are living with the father of the child involved in this study? (Please Circle)

Yes No

How many children do you have? …….

What is the birth order of the child involved in this study (for example: oldest, youngest, 2nd Child etc)?

……

Which of the following best describes the level of education you achieved? (Please tick)

Completed GCSE ☐
Completed 'A' Level education or equivalent ☐
Completed degree level education or equivalent ☐

If you are currently employed, is this (please circle) full-time part-time

If in employment, please describe your job:
…….

……
……

Which of the following best describes the level of education your partner achieved?

Completed GCSE ☐
Completed ‘A’ Level education or equivalent ☐
Completed degree level education or equivalent ☐

If your partner is currently employed, is this (please circle) full-time part-time

If he is in employment, please describe his job:
……

……
…….

Thank you very much for your help

Appendix G.2

Demographic Questionnaire Italian Version

Per favore, compili il seguente questionario socio demografico rispondendo a tutte le domande:

Età:

Nazionalità:

Luogo di nascita di suo Padre:

Luogo di nascita di sua Madre:

Quale delle seguenti opzioni descrive meglio la sua condizione:

Single ☐
Sposata ☐
Convivente ☐
Separata, Divorziata ☐

Se è sposata o convivente, può dirci se il suo partner attuale è il padre del bambino che sta prendendo parte a questo studio? (Per favore, indichi con un cerchio)

Si No

Quanti figli ha? …….

Se ha altri figli, ci può dire l'ordine di nascita del bambino che sta partecipando allo studio (per esempio: il più grande, il più piccolo, 2nd figlio etc..)?

……

Quale delle seguenti opzioni descrive meglio il suo livello di istruzione scolastica?

Diploma Scuole Medie ☐
Diploma Scuole Superiori ☐
Laurea Triennale ☐
Laurea Magistrale ☐
Specializzazione Post-lauream, Master ☐

Se ha un lavoro, può per favore, cerchiare una delle seguenti opzioni:

full-time part-time

Se ha un lavoro, ci può brevemente descrivere che tipo di lavoro fa:
…….

Quale delle seguenti opzioni descrive meglio il livello di istruzione scolastica raggiunto da suo partner?

Diploma Scuole Medie	☐
Diploma Scuole Superiori	☐
Laurea Triennale	☐
Laurea Magistrale	☐
Specializzazione Post-lauream, Master	☐

Se il suo partner ha un lavoro, può per favore, cerchiare una delle seguenti opzioni:

full-time part-time

Se il suo partner ha un lavoro, ci può brevemente descrivere che tipo di lavoro fa:
…….

La ringraziamo molto per la sua collaborazione!

Appendix H

Appendix I

Etch-a-sketch Instruction

The mother and child are told “Now I’m going to ask you both to draw a house with this Etch-A-Sketch. In case you are not familiar with an Etch-A-Sketch, as you can see, it is a rectangular frame with a silver screen in the centre and two white knobs, one in each of the lower corners: the left and the right. The left knob controls the horizontal lines like this (show them); turning it clockwise will make the line move right; turning it counter-clockwise will move the line left. The right knob controls the vertical lines like this (show them). Clockwise: up, and Counter-clockwise: down. To make a diagonal line the two knobs have to be turned at the same time. Now I will ask your mother to control the left knob and you to control the right one.

Now each try your own dials (child first, then mother). Now I want you, each using your own dials, to work together to try and copy this drawing of a house. Ok? Any questions?”

Appendix L

Appendix M

Belt Buckling Instruction

The child is told “I want to boost the sound recording on the camera, could you put this belt on over your clothes, so I can attach this microphone to you? I am going to sort out some other stuff. The belt doesn’t have to be tight. You can probably do it by yourself.”

Parents are then told “But Mr, Mrs…you can help…if he/she needs it”.

Appendix N

Instruction

The child is told

"I'd like your mum to fill in some questionnaires. While she is doing this, how about playing with these building blocks, Ok?"

The child is left for eight minutes to play, in order for them to get involved in making something, but not long enough for them to stop playing, in order for play to be interrupted by the mother.

The mother is then told

"Actually, Mrs……., could you get…….to put the materials away now, separated by colours in these different boxes, as I need to get things packed away."

Appendix O

The tidy up coding scheme

Developed at the Winnicott Unit Research
(Raudino, Murray, Cooper)

Kochanska, Aksan, and Koenig (1995) argued that the absence of internalization is rooted in some forms of non-compliance. They differentiated between *Passive Non-Compliance, Situational-Compliance* and *Committed-Compliance*. We retained this differentiation, adapting each of these dimensions to a different task and a different age.

Start coding after the observer has given the instruction to the mother and carry on until the end of the task.

Child variables

1) Child Negotiation Behaviour
2) Child passive non-compliance
3) Child situational compliance
4) Child committed compliance
5) Child Refusal

N.B This is a comprehensive system, mutually exclusive categories are used and raters are required to code for all sections**.**

Child variables

Negotiation Behaviour

-CHILD NON-COMPLIANCE/ NEGOTIATION BEHAVIOUR occurs when children verbally refuse to comply while maintaining a tone of voice that is non-angry or non-distressed and tries to negotiate his/her independence with the mother. For example, a child might say “I’ll clean this up later, okay mum?’ or

simply say “no” in a mild manner, or just say “I will finish what I’m doing and then I will clean up ok?”(i.e. video N. 20)

Code 1 presence of this behaviour

Code 0 absence of this behaviour

Passive Non-Compliance

-CHILD PASSIVE NON-COMPLIANCE: Reluctance to accept maternal agenda. Children simply ignore adult commands while maintaining non-angry or non-distressed affect. Children take a long latency period time (more than 10-15 seconds) before starting to clean up. Children don’t stay on task immediately but continue their playing, ignoring mother’s requests for compliance, and only whether and when the mother repeats the instruction or when they finish what they were making, they will initiate to pack away the materials. Here there is no attempt to negotiate about the command. (i.e. video N. 18)

Code 1 presence of this behaviour

Code 0 absence of this behaviour

Situational Compliance

-CHILD SITUATIONAL COMPLIANCE consists of transient cooperation. It is exhibited when the child is generally cooperative but needs a reminder/support to stay on task. The child is essentially cooperative, but nevertheless lacks sincere commitment and requires parental sustained help or supervision. For example, the child responds positively to maternal intervention but asks for help (for example how to put the things away, how to carry on with the task; or a child could look at the mother often before he starts to pack away the materials. Sometimes the mother has to repeat the instruction before the child stars to clean up. Sometimes children could whimper, or comply in a very slow way or complain: (“Oh how many pieces of Legos ...I’m tired ..!) (i.e. video N.38). Thus, the child situational compliance could be verbal or non-verbal (the child could show tiredness, boredom yawing or sighing). Code as situational compliance also when, after a period of tidying, the child continues to play with the Lego to complete whatever she/he was making (for example the child could interrupt the cleaning just for a short period to complete her/his making up, Video N 86).

Code 1 presence of this behaviour

Code 0 absence of this behaviour

N.B. It is important to note that sometimes situational compliance could be difficult to differentiate from committed compliance. This is resolved by looking at the duration (the latency period) the child remains hovering, hesitating, showing insecurity before to start to pack away. In the literature "Committed Compliance" (Kochanska, 1995), is a behaviour that usually occurs within 10/15 seconds. So if the child remains hesitant for a long period after the mother's instruction, this is not coded as committed compliance, even if he/she packs away all the materials later. (i.e video N. 25)

Child Refusal

-CHILD REFUSAL/ OPPOSITIONAL. Overt protest to maternal agenda. Child does not clean up, and refuses overtly if prompted, child shows oppositional behaviour, or the child engages in an alternate activity for the entire episode. Coding refusal means that the child refused to comply with the task. It is not enough if the child says "NO" but then puts away the things.

Code 1 presence of this behaviour

Code 0 absence of this behaviour

Committed Compliance

-CHILD COMMITTED COMPLIANCE: fully endorsed compliance is rated when the child complies with the requests; makes no attempt to be non-compliant, and does not need reminders from the mother to stay on task. The child works willingly, does not try to negotiate setting his own goals (e.g., moving spontaneously from one pile of Lego to the next), having clearly accepted and endorsed the maternal agenda. The work is not contingent on maternal sustained control. The child appears to endorse, embrace, and accept the parental agenda as his or her own.

Code 1 presence of this behaviour

Code 0 absence of this behaviour

Mother variables

Maternal compliance to the observer's instructions
(binary variable)

1=committed compliance (they start immediately to instruct the child)
0= mothers seem to hesitate when the observer gives the instruction to stop their child, mothers ask whether their children could finish what they were making up before to pack away the materials, or mothers just say "it is fine" but after that they do not give the order to put the materials away to their child.

Intrusiveness
Code minute by minute

Intrusiveness refers to the degree to which the mother lacks respect for the child's autonomy and acts in an overly demanding and controlling manner. A highly intrusive mother will set the agenda for the child, interfere with the child's needs, interests and/ or actual behaviours, in a way that disrupts and cuts across the completion of the task. Intrusiveness can be both verbal and non-verbal. Intrusiveness includes physically intrusive behaviour and a commanding/ intrusive tone of voice. There are two important points at which intrusiveness is coded: 1) when the mother gives the instruction to the child; 2) when the mother finishes filling in her questionnaires. The second point of is not available for the entire sample because we stopped the child clean up if there was committed compliance.

Some general principles

- ✓ If the mother packs away the things taking Lego in her hands in an intrusive way without smiling at the child or

without showing any sign of warmth, or unpacks the child's construction without asking if the child would like to do this (often children like to do this by themselves or just want to wait until the end of the task retaining their creation), or the mother packs away with very speedy movements without respecting the child rhythm because she wants to finish, code as intrusiveness.

- ✓ When the mother helps the child to pack away the things, this is coded as a "facilitation process" if the child needs help or can benefit from it, if the atmosphere between the two of them is quite warm and positive, and if the mother does not impose her agenda taking over the task, otherwise it should be coded ad intrusiveness.
- ✓ Tone of voice. If a verbal directive is said in a warm tone, this is coded as less intrusive than if it is said in a commanding tone. If the mother has a commanding/ intrusive tone of voice while she interacts with her child, and this does not allow the child to be autonomous during the task, it is considered as an intrusive behaviour.
- ✓ The mother's intrusiveness is always coded taking into account the child's behaviour. This means that the same maternal behaviour can be intrusive for one child but not for another – it depends if the child can benefit from facilitation/ encouragement to approach or go on with the task.
- ✓ Intrusive remarks can also be facilitative. Sometimes these two variables overlap. Some mothers use verbal directives or commands to guide the child to do the task. In this case it is resolved by looking at the speech structure as Stein suggested. He differentiated between mildly control (e.g. suggests, guides, prompts such as "Would you like", "Shall we", "We could just" "you might") and strong control (command, prohibit, forbid, such as "Put that here", "Do that one", "Pick those up") (see Stein *et al*, 1994).

- ✓ If the mother helps the child but she enjoys helping him and both of them are quite happy with this, we will score this with the code “Quality of Relationship”. Normally this task does not provoke overprotection statements. We asked the mother to repeat the instruction we gave to her, so in some way she guides the child to comply. If the mother guides the child at the beginning explaining what the child has to do or how he has to pack away the things, this is not coded as intrusiveness. Only if the mother tone of voice giving the instruction is controlling and negative we will code as intrusiveness.

Intrusiveness scale (1-5)

1. The mother says or does nothing intrusive.
2. The mother has made one verbal directive in a controlling and commanding way or performed a mildly physically intrusive act (e.g. taking away a piece of Lego from her child’s hand). Alternatively, she has used more than one verbal directive that is not made in an over-controlling way.
3. The mother is verbally and/ or physically intrusive on 3 to 4 occasions. Overall, however, her behavior is not highly intrusive.
4. The mother is over-controlling. She will be verbally intrusive or physically intrusive for the majority of the time.
5. The mother is strongly intrusive throughout the session. She may be strongly physically intrusive on one occasion, or she may be verbally and physically intrusive on many occasions. On the whole it seems as if the mother sets the agenda for the task and does not let the child take part fully.

Facilitation

Code minute by minute

General principles

The cleaning up task does not need mother facilitation because the children are 8, 9 and 10 years old, and also because the mother is supposed to be busy filling in her questionnaire. But in many cases the mothers helped the child. Not every kind of mother intervention/helping strategy could be coded as intrusiveness. Sometimes the mother just wants genuinely to help the child because there are 380 pieces of Lego and she finished her forms. Facilitation measures the extent to which the mother provided the child with a structured approach to the task, guiding him by suggesting task-related practical strategies whether the child could benefit from it. A facilitative mother makes verbal comments and/or explanations to the task.

Facilitation, generally, occurred when the mother intervened to help the child in packing away the things after she had filled in her forms. In spite of this, a facilitative behaviour could be coded even when the mother is filling her questionnaire, for example when she gave the instructions to her child she could give a suggestion or an explanation that made easier for the child comply with the task.

When the mother helped and gave prompts to the child, we need to differentiate what is an intrusive behaviour and what is a facilitative behaviour, taking into account the child reaction to the mother's behaviour. If the atmosphere was positive and the child enjoyed the mother's help or suggestion, it means that mother's suggestion or prompt was not intrusive.

Such a mother might guide the child making some comment, such as "why don't you put this colour here; why don't you use another box", in a tone of voice that is either positive (or other expressions of physical affection, smiling, laughing with the child, encouraging the child) or neutral. Facilitation can be verbal and nonverbal (for example the mother could divide by colour and prepare different piles of Lego for the child).

A mother may **verbally** facilitate in the following ways:

1) Suggesting practical strategies using task-related requests or verbal directives
2) Redirecting child attention to the task when he/she is distracted
3) Negotiating with the child for her support in task completion

If the child expresses the desire to carry on the cleaning by himself, or just to do something by himself, and the mother provides him some suggestions (verbal or physical) or insists on helping him, this is not coded as Facilitation, even if done in a warm way. If the child does not require any facilitation (e.g. not anxious or

reluctant to do the task), the mother's facilitation score will be scored **one point** lower than she would otherwise be scored.

Facilitation scale (1-5)

1. The mother provides no structure for the child. She provides no suggestions and/or practical strategies throughout the task, and does not help the child in the task. If required, she does not pace the child.
2. The mother provides little/a rather poor quality facilitation in the task. She may not make comments about the task or about what the child is doing and gives very poor strategies for the task. She does not attempt to discuss what the child is doing and does little to pace the child.
3. The mother shows moderate facilitation. She may attempt to make comments and to give practical strategies for the task. She may also attempt to discuss what the child is doing. But she does not intervene practically to help the child (and the child did not request this).
4. The mother is moderately facilitative. She provides a clear structure to the task offers some facilitative solution to pack away and some practical strategies, helps the child practically in making the cleaning.
5. The mother is highly facilitative. She paces the child well, offers many practical strategies/ instructions to the child where appropriate. She will help the child for most of the time. Overall the task is carried out smoothly.

Supporting Containment

Code minute by minute

General principles

Mother emotionally/supporting containment behaviour is the best strategy the mother can use to get to her child to comply with the task when he/she feels frustrated and does not want to proceed or hesitates, or when he/she shows passive non-compliance behaviour. Containing does not require any physical gesture, what we try to assess is if the mother is able to reduce her child's negative and aversive

feelings (frustration) and if she is able to redirect the child to the task cooperating with him/her.

Supporting containment here could be compared with a good copying strategy the mother gave to the child in order to comply with the external/environmental requests.

We code as *Supporting containment* when the child shows an opposite behaviour, or when the child continues to play and the mother uses explanations, repeats the instructions with a positive tone of voice, reasons with the child, empathizes (for example she could say: "Yes I could understand you don't want to put away your making up, but you could play with your own Lego later and create something like this", or "What did you do with these pieces of Lego? It's very nice. Yes it's a shame that you have to puck away, I'm sorry").

Supporting containment strategy could be verbal or non-verbal.

This variable measures how the mother responses to the child's needs and requests. A mother who uses *Supporting containment* strategy is a mother who shows high sensitiveness and responsiveness, it means that the mother is able to answer appropriately to the child needs. A highly responsive mother will provide well-timed and appropriate responses to the child's needs. This means that the mother supports the child when he needs help or reassurance or when he shows non-compliant behaviour or tiredness, but does not move in too quickly before the child seems to need or want help. For example, a responsive mother will help the child in packing away the things or separating the Legos by colour at the appropriate moment.

A supporting mother is a mother who shows good empathy ("I'm sorry", "Yes, I could understand you don't want to put away now"), she seems to understand child desire but at the same time she mediates with the external request (the instruction to put away NOW) and propose a good strategy to help the child to comply with the task ("Why don't you use your own Lego later to make something like this?"). Sometimes the mother makes some comments about the child creation ("What did you create? It's very nice" (video N 5) or just laughs or jokes with him/her. Many times mothers use a non-verbal strategy to hold the child, for example she could look at the child in a warm way and smiling, keeping eyes contact when the child shows hesitate or insecure behaviour.

A mother who scores low on this variable may insist that the child has to show compliance because the instructions say so even though the child has repeatedly expressed reluctance to do the task, or may make comments such as "why do I have to do it?. She may also criticise the child (e.g. by saying "you should do it better" or "quickly"). Criticism also contributes to a low score on the *Supporting containment* code. To score very low on *supporting containment* behaviour, the mother has to do one highly insensitive act or just does not provide any responses to the child.

***Supporting containment* (1-5)**

1. The mother is not responsive to the child's needs and requests. The mother may not provide suggestions for the child. Actions by the mother are not related to the emotions/ needs of the child. When the child has questions or needs assistance, she does not respond to these cues. She is slow to re-direct the child when off-task or does not re-direct the child at all. She may push the child hurrying up. (low capacity of *Holding* is related with a high score in *Lax control/Passive Behaviour*)
2. The mother is generally unresponsive to her child's behaviour, however on one or two occasions she clearly provides a well-timed contingent response. She may not answer to the child if she/he wants some suggestions.
3. The mother is moderatly responsive to her child's behaviour. She will sometimes clearly provide a contingent response to her child. In general she may seem a bit slow to respond to her child's needs/requests.
4. The mother is responsive to her child for most of the time, she may fail to provide one or two responses to her child, but in general she is able to give some good strategies to motivate the child and redirect his/her attention to complete the task.
5. The mother is highly responsive to her child's needs and requests throughout the session, containing her child properly and at the right time.

Lax Control/Passive behaviour

Code minute by minute

General principles

Mother passive behaviour or lax containment appears when the child shows a not fully compliant behaviour (as passive non-compliance behaviour) and the mother leaves the child to do what he/she wants. This variable measures the extent to which the mother appears unresponsive and unhelpful in managing child non-compliance or staying off task. A passive mother is not actively engaged in her child's approach to the task and provides a general lack of guidance. She could be so involved in completing her questionnaire to forget the child. It is normal if the mother is involved in filling in her forms, but the crucial moment occurs after she had given the instructions to her child. If, in that period, she does not pay attention to her child's reaction to her instruction or if she notices that her child is not immediately compliant or just shows irritation and she does not make any comments, code as passive behaviour or lax containment.

Mother could show passive behaviour in a non-verbal and physical way (i.e. the overall posture, lack of eye contact, absence of warmth or smiling). If the mother fails to respond because she is distracted by the presence of a sibling or of another person in the room that was not the observer, this should not be coded as passivity. A passive mother may also fail to respond to the child needs and requests, and may appear hesitant in facilitation and therefore she is slow to respond to the child's behaviour. A passive mother ignores child's request (i.e. when the child asks her mother for some help).

Passivity Scale (1-5)

1. The mother shows no signs of passivity in the task. The mother responds to all of the child's behaviour, she appears involved in child's needs.
2. The mother may show one small/ brief sign of passivity. She may be a bit slow or fails to respond to one or two cues for facilitation/ request for help.
3. The mother is passive some of the time. She fails to respond on more than two occasions and appears slightly unresponsive to her child requests.
4. The mother is passive half of the time. She does not appear to be actively engaged and quite a lot of her responses are too slow. The mother shows lack of guidance, showing just a weak reaction to her child non-compliant

behaviour. She leaves the child to do what he/she wants for most of the time.

5. The mother is characterised by passivity for the majority of the task. The mother leaves the child to do what he/she wants for all the session, even if he/she shows an oppositional behaviour, without offering or showing any suggestion or strategy, even if the child does require assistance.

Quality of Relationship

Dyadic Variable

Code for the entire episode

General principles

Code the quality of relationship for the entire episode, considering not the quantity of the interactions (because this task did not elicit interaction) but the general dyadic atmosphere (verbal and especially non-verbal).

A high score on this scale indicates that there is a strong sense of relatedness and mutual engagement between the mother and the child. The pair seems "in tune" with each other and seem relaxed, evidenced by smooth and warmth behaviours.

A dyad who has a good quality relationship is able to manage with frustration and the stressful event, and the conflicts are quickly and amicably resolved, with no escalation. To gain a low score on this scale, there must be evidence of rejection, ignoring/passivity or dismissal on the part of mother or the child. Little or no affective sharing occurs, or attempts made by one are ignored by the other. This relationship is characterised by negativity (i.e. frustration, tension, anxiety or hostility). They do not seem "in tune" with each other or seem to enjoy being together.

Quality of relationship scale (1-5)

1. The interaction is largely negative (mother or child uses criticism) and does not flow smoothly but seems awkward or rigid.. Conflicts are not quickly resolved.
2. Reciprocal interactions are sporadic. Emotional engagement is seen but it is weak and erratic. Affective sharing and contingent responsiveness occur but are inconsistent or infrequent.

3. Interactions are somewhat relaxed, positive and harmonious, although there are some instances of negativity. Or most of the time the interaction is neutral. There is some sense of mutual engagement and reciprocity.
4. Interactions are positive for most of the session with a fair amount of affective and/ or verbal sharing and contingent responding. Interactions seem to be relaxed. One or two instances of negativity may occur but in general the tension is minimal or absent.
5. Interactions are positive through the session. Child distress or conflicts are smoothly handled and held. Affective and/ or verbal sharing and contingent responsiveness occur frequently. Overall the pair seems synchronised and warm.

Appendix P

The Variable Distribution

SOURCE	Variable list	Theoretical and Observational range	Skewness	Kolmogorov-Smirnov test	After Transformation
	Age in months	Number of months in total Range 96-132 Minimum=96 Maximum=131	-.344	. 382	
Child Questionnaire SCAS	SCAS total score	39 item self report scale Rate in an ordinal scale from 0 to 3 Range for Total Score Factor 0-117 Minimum=15 Maximum=94	. 776	. 257	
	SCAS Separation	Rate in an ordinal scale from 0 to 3 Range for Separation Anxiety Score Factor 0-18 Minimum=0 Maximum=14	.439	.167	
	SCAS Panic	Rate in an ordinal scale from 0 to 3 Range for Panic Score Factor 0-27 Minimum=0 Maximum=19	1.185	.009 (Not normal)	Trasf. log10
	SCAS Physic Injury	Rate in an ordinal scale from 0 to 3 Range for Physical Injury Score Factor 0-15	.473	.320	

		Minimum=0 Maximum=11			
	SCAS Obsessive	Rate in an ordinal scale from 0 to 3 Range for Obsessive Score Factor 0-18 Minimum=0 Maximum=17	.490	.017(Not normal)	Trasf. log10
	SCAS Social Phobia	Rate in an ordinal scale from 0 to 3 Range for Social Anxiety Score Factor 0-18 Minimum=0 Maximum=17	.733	.035(Not normal)	Trasf. log10
	SCAS Gad	Rate in an ordinal scale from 0 to 3 Range for Generalized Anxiety Score Factor 0-18 Minimum=0 Maximum=18	.617	.110	
SDQ	SDQ Child-Emotion	Rate in an ordinal scale from 0 to 2 Range for Emotional Score Factor 0-10 Minimum=0 Maximum=9	.382	.016(Not normal)	Trasf. log10
	SDQ Child-Conduct	Rate in an ordinal scale from 0 to 2 Range for Conduct Score Factor 0-10 Minimum=0 Maximum=8	.488	.009(Not normal)	Trasf. log10
	SDQ Child-Hyper	Rate in an ordinal scale from 0 to 2 Range for	.079	.022(Not normal)	Trasf. log10

		Hyper Score Factor 0-10 Minimum=1 Maximum=9			
	SDQ Child-Peer	Rate in an ordinal scale from 0 to 2 Range for Peer Score Factor 0-10 Minimum=0 Maximum=10	.894	.013(Not normal)	Trasf. log10
	SDQ Child-Pro-social	Rate in an ordinal scale from 0 to 2 Range for Pro-social Score Factor 0-10 Minimum=3 Maximum=10	-.287	.018(Not normal)	Trasf. log10
	SDQ Child-Total Difficulties	Rate in an ordinal scale from 0 to 2 Range for Total Difficulties Score Factor 0-40 Minimum=3 Maximum=27	.170	.333	
Mother Questionnaire SDQ	SDQ Mother-Emotion	Rate in an ordinal scale from 0 to 2 Range for Emotional Score Factor 0-10 Minimum=0 Maximum=10	1.199	.001(Not normal)	.000 This variable is still not normal
	SDQ Mother-Conduct	Rate in an ordinal scale from 0 to 2 Range for Conduct Score Factor 0-10 Minimum=0 Maximum=7	.862	.001(Not normal)	.002 This variable is still not normal
	SDQ Mother-Hyper	Rate in an ordinal scale from 0 to 2 Range for	.531	.000(Not normal)	

		Hyper Score Factor 0-10 Minimum=2 Maximum=9			
	SDQ Mother-Peer	Rate in an ordinal scale from 0 to 2 Range for Peer Score Factor 0-10 Minimum=0 Maximum=7	1.235	.000(Not normal)	
	SDQ Mother-Pro-social	Rate in an ordinal scale from 0 to 2 Range for Pro-social Score Factor 0-10 Minimum=4 Maximum=10	-.652	.000(Not normal)	
	SDQ Mother-Total Difficulties	Rate in an ordinal scale from 0 to 2 Range for Total Difficulties Score Factor 0-40 Minimum=3 Maximum=22	.805	.057	Trasf. log10
KATES (Skills of Daily Activities)	Skills of Daily Activities-Total Score	Rate in an ordinal scale from 1 to 3 Range 22-66 Minimum=22 Maximum=65 (High scores=less autonomy in daily routine)	-.050	.051	
PCIQ	Parent Child Interactive Questionnaire (PCIQ Core Item)	Rate in an ordinal scale from 1 to 3 Range 8-24 Minimum=8 Maximum=20 (high score=high intrusiveness)	.750	.030(Not normal)	Trasf. log10
HADS	HADS Mother	14 item self report scale:	.892	.031(Not normal)	Trasf. log10

	Anxiety Mum reports her own anxiety	Rated in an ordinal scale from 0 to 3 Range for Anxiety Factor 0-21 Minimum=0 Maximum=15			
	HADS Mother Depression Mum reports her own depression	14 item self report scale: Rated in an ordinal scale from 0 to 3 Range for Depression Factor 0-21 Minimum=1 Maximum=14	.252	.160	
Observational Measures BELT	Intrusive Index (from 0 to 1) amount of physical help BELT TASK	Range 0-1 Number of seconds mum helped her child (in wrapping, touching, lapping, affection, buckling) divided for the time of the entire episode. Minimum=0 Maximum=1	.438	.011(Not normal)	Dichotomised
Etch-a-sketch	Mum Over control	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=0 Maximum=2.25	1.909	.000(Not normal)	Dichotomised
	Mum Warmth	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added	-.738	.019(Not normal)	Dichotomised

		together and divided by the time of the entire episode Minimum=.50 Maximum=4			
	Mum Lack of Autonomy Granting	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=.25 Maximum=4	-1.026	.005(Not normal)	Dichotomised
	Mum Anxious	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=0 Maximum=1.33	1.895	.000(Not normal)	Dichotomised
	Mum Criticism	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=0 Maximum=1	2.217	.000(Not normal)	Dichotomised
	Child Over Control	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the	2.919	.000(Not normal)	Dichotomised

		time of the entire episode Minimum=0 Maximum=3.90			
	Child Warmth Mean	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=.25 Maximum=4	-.378	.071	
	Child Anxious	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=0 Maximum=2.40	6.244	.000(Not normal)	Dichotomised
	Child Criticism	Rated in an ordinal scale from 0-4 for each minute, then all the 10 were added together and divided by the time of the entire episode Minimum=0 Maximum=1	1.884	.000(Not normal)	Dichotomised

TIDY UP VARIABLES	Rating	Skewness	Kolmogorov-Smirnov	Transformation
Mother Intrusivity	Rated in an ordinal scale from 1-5 for each minute, then all minutes were added and divided by the time of the first episode Minimum=1 Maximum=4	2.264	.000(Not normal)	Dichotomised
Mother Supportive Containment	Rated in an ordinal scale from 1-5 for each minute, then all minutes were added and divided by the time of the first episode Minimum=1 Maximum=4.50	-.119	.000(Not normal)	Dichotomised
Mother Facilitation	Rated in an ordinal scale from 1-5 for each minute, then all minutes were added and divided by the time of the first episode Minimum=1 Maximum=5	.260	.000(Not normal)	Dichotomised
Mother Lax control	Rated in an ordinal scale from 1-5 for each minute, then all minutes were added and divided by the time of the first episode Minimum=1 Maximum=4	1.206	.000(Not normal)	Dichotomised

Quality of Relationship	Rated in an ordinal scale from 1-5 for each minute, then all minutes were added and divided by the time of the first episode Minimum=0 Maximum=5	.142	.000(Not normal)	Non parametric test because the istogram revealed it was approximaly normally distributed

Appendix Q

Regression : Assessing the Wood's Model

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable SCAS total Score (SCAS)

F=.262 p=.852

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable Panic disorder (SCAS)

F=.102 p=.958

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable Obsessive disorder (SCAS)

F=.607 p=.612

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable Physical Injury (SCAS)

F=.249 p=.862

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable Social phobia (SCAS)

F=1.454 p=.232

1 STEP Skills of daily life Activities

2 STEP Parent Child Interactive Questionnaire

3 STEP Intrusive Index (Belt task)

Dependent variable Generalized anxiety (SCAS)

F=.457 p=.713

Appendix R

Scas Score differences on gender and age

	England (*n*= 49)		Italy (*n*= 60)	
	Boys (*n*= 26)	Girls (*n*=23)	Boys (*n*= 30)	Girls (*n*= 30)
Total SCAS				
8 yrs	33.00 (-)	43.50 (6.36)	27.40 (13.46)	45.90 (18.11)
	n =1	n =2	n = 10	n = 10
9 yrs	25.73 (11.13)	39.91 (18.78)	20.60 (11.66)	41.40 (12.91)
	n =15	n =12	n = 10	n = 10
10 yrs	30.80 (15.20)	36.11 (10.04)	32.50 (18.70)	37.60 (16.41)
	n=10	n =9	n = 10	n = 10
Panic Attack				
8 yrs	4.00 (-)	7.00 (2.82)	2.60 (2.45)	8.40 (5.87)
9 yrs	2.73 (2.37)	5.91 (5.53)	1.90 (2.23)	6.70 (4.94)
10 yrs	4.50 (4.45)	5.77 (3.38)	5.30 (4.29)	5.50 (3.65)
Separation Anxiety				
8 yrs	3.00 (-)	8.00 (1.41)	5.20 (2.29)	8.00 (2.86)
9 yrs	4.40 (2.61)	5.66 (3.96)	4.60 (3.94)	7.20 (3.22)
10 yrs	4.20 (2.57)	5.66 (2.44)	3.90 (1.91)	4.90 (2.07)
Physical Injury Fears				

8 yrs	5.00 (-)	7.50 (.70)	3.00 (2.21)	6.00 (2.44)
9 yrs	3.20 (2.48)	5.08 (3.39)	1.20 (1.22)	4.60 (2.31)
10 yrs	3.10 (2.18)	4.44 (1.74)	3.30 (3.43)	4.50 (1.95)
Social Phobia				
8 yrs	5.00 (-)	7.00 (2.82)	5.10 (3.92)	7.50 (4.52)
9 yrs	4.66 (3.08)	8.66 (3.93)	3.00 (2.86)	7.00 (3.23)
10 yrs	5.70 (3.26)	7.66 (2.82)	6.40 (4.35)	6.10 (2.51)
Obsessive Compulsive Disorder				
8 yrs	9.00 (-)	6.00 (-)	5.10 (4.45)	7.10 (3.78)
9 yrs	5.40 (3.29)	7.50 (3.75)	4.40 (2.50)	7.50 (2.50)
10 yrs	5.70 (3.68)	5.55 (2.50)	6.80 (5.73)	5.40 (2.87)
Generalized Anxiety Disorder				
8 yrs	7.00 (-)	7.50 (3.53)	6.40 (2.22)	8.40 (4.90)
9 yrs	5.70 (2.08)	7.08 (2.60)	3.00 (2.21)	8.40 (3.50)
10 yrs	7.10 (2.92)	7.00 (2.12)	6.80 (3.85)	6.70 (2.31)

Australian norms (edited by Susan Spence) for 8-11 years old boys, considered as "normal" scores ranging from 0 to 31-32 and as "elevated" scores ranging from 33-34 to 56-59, in the SCAS total Score.
Scas tot score for English boys in our sample is: 27.96
Scas tot score for Italian boys in our sample is: 26.83

Australian norms (edited by Susan Spence) for 8-11 years old girls, considered as "normal" scores ranging from 0 to 48-49 and as "elevated" scores ranging from 50-51 to 71-74, in the SCAS total Score.
Scas tot score for English girls in our sample is: 38.73
Scas tot score for Italian girls in our sample is: 41.

Appendix S

Warmth moderation models

Model) An ANOVA was performed using as Independent variables:

-Intrusive Index (Belt)

-Maternal Warmth (Etch-a-sketch observed variables)

and as dependent

-SCAS Total Score (Children anxiety on self report measure)

One-way analyses of variance (ANOVAs) did not reveal any significant effect between maternal intrusiveness and maternal warmth on the SCAS Total Score.

Main effect of Intrusiveness $F(1,105) = 3.093$, $p = .082$ $\rho\eta^2 = .029$.

Main effect of Warmth $F(1,105) = .622$, $p = .432$ $\rho\eta^2 = .006$.

Main effect of Intrusiveness*Warmth $F(1,105) = 1.089$, $p = .299$ $\rho\eta^2 = .010$.

Appendix T

Model) An ANOVA was performed using as Independent variables:

-Maternal Over-control (Etch-a-sketch observed variables)

-Maternal Warmth (Etch-a-sketch observed variables)

And as Dependent variable

-SCAS Separation Anxiety (Children anxiety on self report measure)

One-way analyses of variance (ANOVAs) did not reveal any significant effect between maternal over-control and maternal warmth on the SCAS Separation anxiety

Main effect of Over-control $F(1,105) = 2.705$, $p = .103$ $\rho\eta^2 = .025$.

Main effect of Warmth $F(1,105) = .010$, $p = .922$ $\rho\eta^2 = .000$.

Main effect of Over-control*Warmth $F(1,105) = .578$, $p = .449$ $\rho\eta^2 = .005$.

Appendix U

Model) A logistic regression was performed using as independent variables:

1 STEP Maternal over-control

2 STEP Maternal Warmth

3 STEP Over*Warmth

as dependent variable “Child anxiety” (binary) from the etch-a-sketch.

The regression did not reveal any significant effect.

	B	S.E.	Wald	df	Sig.	Exp(B)
Maternal Over-control	.154	.923	.028	1	.867	1.167
Maternal Warmth	.588	.775	.576	1	.448	1.800
Over*Warmth	.105	1.074	.010	1	.922	.900
Constant	-1.435	.352	16.634	1	.000	.238

Model) A logistic regression was performed using as independent variables:

1 STEP Intrusive Index

2 STEP Maternal Warmth

3 STEP Intrusive Index*Warmth

as dependent variable “Child anxiety” (binary) from the etch-a-sketch.

The regression did not reveal any significant effect.

	B	S.E.	Wald	df	Sig.	Exp(B)
Maternal Intrusiveness	1.050	.984	1.139	1	.286	.350
Maternal Warmth	.000	.874	.000	1	1.000	1.000
Intru*Warmth	1.110	1.123	.978	1	.323	3.036
Constant	-1.447	.393	13.558	1	.000	.235

Appendix V

Strength and Difficulties Parent's version
Differences on gender and age

	England (*n*= 49)		Italy (*n*= 60)	
	Boys (*n*= 26)	Girls (*n*=23)	Boys (*n*= 30)	Girls (*n*= 30)
Emotional Problems				
8 yrs	.00 (-)	2.00 (.00)	3.40 (.84)	2.40 (2.22)
	n =1	n =2	n = 10	n = 10
9 yrs	1.73 (1.83)	2.16 (2.58)	2.00 (1.69)	3.00 (2.10)
	n =15	n =12	n = 10	n = 10
10 yrs	1.30 (1.56)	2.00 (1.93)	1.50 (1.08)	3.90 (2.46)
	n=10	n =9	n = 10	n = 10
Conduct Problems				
8 yrs	3.00 (-)	.50 (.70)	3.20 (2.09)	2.10 (1.52)
9 yrs	1.40 (1.54)	1.25 (1.05)	1.70 (1.94)	1.90 (1.72)
10 yrs	1.70 (2.16)	1.22 (.66)	2.00 (1.88)	1.70 (1.25)
Hyperactivity Problems				
8 yrs	4.00 (-)	3.00 (.00)	4.60 (2.11)	4.30 (.94)
9 yrs	4.06 (1.27)	4.33 (1.49)	5.20 (1.31)	4.00 (1.24)
10 yrs	4.70 (1.41)	5.00 (1.32)	4.50 (1.35)	4.10 (.73)

Peer Problems				
8 yrs	0.00 (-)	3.00 (2.82)	2.00 (1.41)	1.70 (1.49)
9 yrs	.73 (1.22)	1.00 (.85)	1.40 (1.64)	1.90 (1.44)
10 yrs	1.00 (.81)	1.22 (.97)	2.40 (2.22)	1.50 (1.35)
Pro-social Behaviours				
8 yrs	8.00 (-)	9.50 (.70)	8.30 (1.33)	8.50 (1.64)
9 yrs	8.46 (1.40)	8.66 (1.66)	7.70 (1.82)	8.50 (1.64)
10 yrs	7.80 (1.61)	8.33 (1.73)	8.40 (1.57)	7.60 (2.01)
Total Difficulties				
8 yrs	7.00 (-)	7.93 (3.51)	13.20 (4.02)	10.50 (3.97)
9 yrs	7.93 (3.51)	8.75 (5.15)	10.30 (5.55)	10.80 (3.70)
10 yrs	8.70 (4.02)	9.44 (3.20)	10.40 (4.83)	11.20 (3.15)

Appendix Z

Strength and Difficulties Children's version
Differences on gender and age

	England (*n*= 49)		Italy (*n*= 60)	
	Boys (*n*= 26)	Girls (*n*=23)	Boys (*n*= 30)	Girls (*n*= 30)
Emotional Problems				
8 yrs	5.00 (-)	3.50 (.70)	3.50 (2.01)	3.80 (2.20)
	n =1	n =2	n = 10	n = 10
9 yrs	2.28 (1.72)	5.54 (2.73)	2.60 (2.27)	4.40 (2.36)
	n =15	n =12	n = 10	n = 10
10 yrs	3.11 (2.26)	4.33 (1.73)	3.80 (1.54)	4.20 (2.65)
	n=10	n =9	n = 10	n = 10
Conduct Problems				
8 yrs	3.00 (-)	1.50 (.70)	3.50 (2.27)	3.40 (1.26)
9 yrs	2.85 (2.21)	2.90 (1.44)	2.80 (1.93)	3.10 (1.52)
10 yrs	3.55 (2.69)	3.77 (2.10)	3.10 (1.52)	2.80 (1.03)
Hyperactivity Problems				
8 yrs	6.00 (-)	4.00 (1.41)	4.80 (1.13)	4.90 (1.72)
9 yrs	4.28 (1.89)	5.09 (1.04)	4.90 (1.28)	3.60 (.84)
10 yrs	4.22 (1.20)	5.00 (1.65)	5.00 (1.24)	5.30 (1.15)
Peer Problems				

8 yrs	2.00 (-)	3.50 (2.12)	3.30 (1.70)	3.70 (1.63)
9 yrs	2.35 (2.79)	2.90 (1.51)	2.50 (1.50)	3.10 (2.72)
10 yrs	2.11 (1.69)	2.77 (1.71)	3.10 (1.91)	2.50 (1.90)
Pro-social Behaviours				
8 yrs	6.00 (-)	6.50 (.70)	7.20 (2.25)	6.80 (2.09)
9 yrs	7.21 (1.52)	7.63 (2.01)	7.10 (2.02)	7.90 (1.79)
10 yrs	8.00 (1.50)	7.66 (1.58)	7.70 (2.05)	6.60 (2.06)
Total Difficulties				
8 yrs	18.00 (-)	12.50 (2.12)	15.10 (5.06)	15.80 (4.87)
9 yrs	11.78 (5.98)	16.45 (4.05)	12.80 (5.84)	14.20 (4.07)
10 yrs	13.00 (5.02)	15.88 (3.48)	15.00 (4.16)	14.80 (4.82)

Appendix AB

Point Biserial Correlation (*Rpb*) *and* Pearson product moment correlation	Maternal Depression (HADS)	Maternal Anxiety (HADS)
Maternal Depression (HADS)	**1**	
Maternal Anxiety (HADS)	***r*** **.456**** **(Pearson)**	**1**
Intrusive Index (Belt)	**.122** **(*Rpb*)**	**.083** **(*Rpb*)**
Maternal Over-control (etch-a-sketch)	**.061** **(*Rpb*)**	**-.011** **(*Rpb*)**
Maternal lack of autonomy (etch-a-sketch)	**.013** **(*Rpb*)**	**.102** **(*Rpb*)**
Maternal Warmth (etch-a-sketch)	**-.080** **(*Rpb*)**	**-.182** **(*Rpb*)**
Maternal Intrusiveness (tidy up)	**-.087** **(*Rpb*)**	**-.011** **(*Rpb*)**
Maternal lax control (tidy up)	**.242*** **(*Rpb*)**	**.204*** **(*Rpb*)**
Maternal Supportive containment (tidy up)	**-.039** **(*Rpb*)**	**.017** **(*Rpb*)**

Maternal Facilitation (tidy up)	**-.084** **(*Rpb*)**	**-.044** **(*Rpb*)**
Overall Quality of Relationship (tidy up)	***r* -.053** **(Pearson)**	***r* -.152** **(Pearson)**

**significant at the 0.01 level

*significant at the 0.05 level