SECTION 3: CLINICAL PSYCHOLOGY





15. MATERNAL ANXIETY, PERCEIVED PARENTAL REARING STYLE AND ATTACHMENT TYPE, ON SEPARATION ANXIETY DISORDER

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Introduction

One of the negative experiences of children in early lives is common emotional disorder also known as separation anxiety or childhood anxiety disorder. Separation Anxiety Disorder (SAD) is characterized by developmentally inappropriate and excessive anxiety concerning separation from home or from those to whom the child is attached. The anxiety causes significant distress or impairment in social, academic, or other important areas of functioning. SAD with 4% rate in children, is often first diagnosed at age 6 or 7, when a child goes to school and more common in girls (Harvard Mental Health Letter [HMHL], 2007; APA, 2000).

Although, the cause of SAD is unknown, some risk factors have been identified. Affected children tend to come from families that are very close-knit. The disorder might develop after a stress such as moving from one location to another or through death in the family, in certain, cases; a trauma might bring about the disorder. Also, it sometimes runs in families, but the precise role of genetic and environmental factors has not been established. Although, researches have shown a connection between quality of parenting and attachment with childhood anxiety, that still need to determine, if quality of parent-child relationship has impact on development of separation anxiety disorder in children (Ogliari, Citterio, Zanoni, Fagnani, Patriarca, Cirrincione et al., 2006).

Bowlby (1969) believed that the pattern of an infant's early attachment to parents would form the basis for all later social relationships. He hypothesized that, when the mother was unavailable during the first months of the child's life, the attachment process would be interrupted, and predisposing the child to behavioural problems. Parker (1981) showed that parents, anxious attitude may play a role in the development of high anxiety levels in children. Also, Barlow (2000), and Chorpita and Barlow (1998) pointed out that an attentive parent, who promptly responds to the young child's needs, wishes, cries, etc., build a sense of safety and a positive expectation for doing something. Likewise, encouraging parents, who are less over-protective and let the child, explore and handle situations in his/her own way, encourage more independence, more security, and more self-confidence in the child. In this regard, we expect that separation anxiety in children is largely related to early interaction between parents and their offspring. In essence, attachment styles and parental rearing behaviour has direct relationship with separation anxiety disorder.

This study is an attempt to understand how separation anxiety is developed in

children. Although, many dimensions of families are potentially important to children's anxiety development, this study focuses primarily on the relationship between maternal anxiety, perceived parenting and attachment with separation anxiety disorder in children.

Research had been limited in its use of method to examine interaction between parent and children with special anxiety disorder. It is important to identify the specificity with which different parenting practice and behaviours, or different attachment types, are associated with specific anxiety disorder. The current study therefore extends beyond previous researches by considering mothers' behaviour in rearing and attachment orientation along with their anxiety as they related to children's anxiety. The main objective for this study is to examine the associations between maternal anxiety, perceived parenting, attachment types, and separation anxiety disorder in children. Perceived maternal parenting and attachment are considered as mediating variables for separation anxiety disorder.

This study may be useful for clinicians working with parents whose children may have behavioural or emotional problems. Also, this study may provide clinicians with a global perspective regarding parental perceptions of parental role as well as information regarding specific parenting behaviours. This information may help guide to the assessment, education and intervention activities. Another benefit of this study for psychologists is that it tends to encourage effective work between parents and children; this is necessary because apparently, parents play key roles in children's development. Training for mothers of newborns can be helpful to them in responding to their babies more effectively. Mothers can be taught how to interact more sensitively, affectionately, and responsively, paving the way for secure attachment and life long benefits associated with a positive internal working model of interpersonal relationships.

Literature Review

SAD is defined as excessive worry and fear regarding being apart from family members or individuals to whom a child is most attached. Children with SAD fear being lost from their family or fear something bad happening to a family member, if they are separated from them (APA, 2000). According to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (First and Tasman, 2004), SAD is a fairly common anxiety disorder consisting of excessive anxiety beyond that expected for the child's developmental level related to separation or impending separation from the attachment figure occurring in children younger than 18 years and lasting for at least 4 weeks.

According to First and Tasman (2004), in the US Prevalence range is 4.1-4.7% in children aged 7-11 years. The problem is most common among girls and associated with depression and other anxiety disorders especially social anxiety and panic disorder. In a recent national survey a lifetime rate of 4% was found. In a comprehensive literature research by (Cartwright-Hatton, McNicol, and Doubleday, 2006), they noted that the rates of diagnosis of anxiety disorder, varied widely between studies. However, the minimum figure was 2.6% and the maximum was 41.2%. SAD appeared to be most common anxiety diagnosis in the children aged below 12 years of age. Most of the studies reported prevalence rate for this disorder in between 0.5% and 20.2% of cases. Moreover, to our

knowledge, there has been no published epidemiological survey for child and adolescent mental disorders in Iran, but, the unpublished researches indicate that the rate of child and adolescent mental disorders approximately was very close to rates of disturbances reported by developed countries (Nejatisafa, Mohammadi, Sharifi, Goodarzi, Izadian, Farhoudian, Mansouri, Movaghar, 2006).

Eisen and Schaefer (2005) proposed that SAD is understood better by the key signs related to separation. These signs include a single sign or combination of some signs like Fear of Being Alone (FBA), Fear of Abandonment (FAb), somatic complaints or Fear of Physical Illness (FPI), and Worry about Calamitous Events and disaster (WCE). Although, the fears of young children are limited in two physical sensations, they may avoid some situation or places that create these sensations (Barlow, 2002).

Etiology of SAD

Research in the field of etiology of anxiety disorders in children is emerging from a wide range of research paradigms. Feigon, Waldman, Levy and Hay (2001) found that anxiety disorders are influenced by both genetic and environmental factors. Although, Ogliari et al. (2006) discovered that anxiety disorders are often associated with high heritability and non-shared environmental determinants. The primary explanatory models include genetic and familial factors, temperament, parenting and the role of parent-child interaction. Attachment and temperament are theoretical models that are derived from developmental psychology and are specific to the explanation of anxiety in children, whereas the others are more general factors derived from adult literature.

Familial and Genetic Factor

There is good evidence to show that parental psychological disorder increases the risk of disturbance in children's development and children who have parents with anxiety disorder are in high risk of getting anxiety disorder (Bernstein, Layne, Egan & Nelson, 2005). Also, Cooper, Fearn, Willetts, Seabrook and Parkinson (2006), discovered significant relationship between children and parent disorder, especially their mothers. High trait anxiety mothers showed less sensitive responsibility and reduced emotional tone with their infants during interaction (Nicol-Harper, Harvey & Stein, 2007). The emotional and psychological wellbeing of parents has important implications for children. Children of parents who are experiencing mental health problems are at greater risk for a range of psychosocial and developmental problems, and are less likely to benefit from mainstream parenting education efforts. Impairments in parental mental health have consistently been found to be a major risk factor for child development; the more severe and chronic the parent's disorder, the more likely there is to be a negative impact on parenting behaviours and therefore, child development. Parents suffering from anxiety have been observed to be highly critical, show less positive regard and affection, smile less, be more critical and more catastrophe during interactions with their children, and less likely to encourage psychological autonomy (Bayer, Sanson & Hemphill, 2006; Cooper, et al., 2006; Johnson, Cohen, Kasen & Brook, 2006; Manning & Gregoire, 2006; Bogels & Melick, 2004; Turner,

Beidel, Roberson-Nay, & Tervo, 2003; McBride, Schoppe, & Rane, 2002).

The studies have indicated that parents may affect children's development of healthy emotion focused coping strategies by trying to manage their child's anxiety or reinforcing anxious response in their children. Even though parents may have the best of intentions, negative and aversive parent and child interactions may develop when parents become critical of their child's inability to separate, resulting in children crying or displaying other signs of behavioural or emotional distress. Any attention to this distress could easily reinforce children's behaviour, thus reinforcing the cycle of anxiety and continuing the aversive parent child interactions (McLeod, Wood & Weisz, 2007; Hadwin, Garner & Perez-Olives, 2006). On the other hand, genetic influences on the etiology of anxiety disorders are studied in different lines of research, namely twin studies in adults, children and adolescents, and adoption studies in children and adolescents.

Family Background

Family characteristics have potentially important influences on children's development. These characteristics include demographic factors, such as income and education, as well as psychosocial factors, such as parental mental health. These factors are correlated with the quality of care that parents provide (Hungerford & Cox, 2006).

Positive mother- child interaction relationships are indicated by maternal sensitivity and responsiveness and by infant engagement and positive affection during their interactions. Early maternal employment, and its proxy, non maternal care, are inconsistently related to the attachment security. Grover, Ginsburg, and Lalongo, (2005) stated that children who experienced a more negative family environment had a greater number of losses and death and exhibited higher levels of anxiety. Parental difficulty in separating from the child may contribute to clinical problems. A break down in the marital relationship and one parent's over- involvement with the child is often seen. Children with serious current or past medical problems may be overprotected by parents and at greater risk for separation anxiety disorder. Parental illness and death may also increase the risk factor. Also, the high level of parents' education and income may reduce behaviour problems in children (Teramoto, Soeda, Hayashi, Satio & Urashima, 2005).

Studies conducted on employed mothers have shown that loss of mother time will affect children's development negatively, particularly during the first year of life. There is assumption that maternal employment affects both socio-emotional and cognitive development because it reduces mother's time with children, which leads to less sensitive mother- child relationship or less language and cognitive stimulation (Huston, 2002; Belsky, 2001). However, some studies on the impact of maternal employment on young children (for example, maternal deprivation) have found very few negative effects (Gottfried & Gottfried, 2006; Russell & Bowman; 2000). More recent research has shifted to investigate the impact of work on mothers' and fathers' parenting, showing positive as well as negative effects. For example, in some studies, maternal employment has been linked to more optimal parenting styles and better academic and social outcomes for children (Gottfried & Gottfried, 2006; Parke, 2004).

Temperament

Temperament describes individual differences which are: biologically based, evident early in life, and characteristic of an individual in many situations and over time. Differences in temperament are seen in infants. Some are fussy, sensitive to noises, easily startled and upset; others are calm and quickly adapt to regular eating and sleeping routines. Many eight-year-olds are energetic, intense, and quick responding, whether they are eating, playing, or talking with friends. Others have a deliberate tempo, are reflective, and take time to adjust to new situations, new foods, and new people. Parents who have several children recognize differences in persistence, distractibility, and energy levels, and are aware that one child may be typically outgoing and enthusiastic, while his brother is shy (Oatley, Keltner & Jenkins, 2006).

The general vulnerability to anxiety may be associated with the child's temperament, differenced in emotional and behaviour style. Individual differences in temperament or behavioural styles are important in family life in several ways because they affect the nature of the interactions among family members. Some children adapt quickly and easily to family daily routines. Others, especially highly active, intense children have a more difficult time adjusting to everyday demands, and their interactions with parents may lead to stress. It is important to note that parents, like children, also differ in temperament. Some are quick reacting and intense, while others are quiet and slow to respond; some are flexible and adaptable, and others are not. The mix between parents' and children's temperaments has a strong effect on family life, sometimes leading to positive interactions, sometimes to frustrations, and sometimes even to conflicts. This leads to the notion of goodness-of-fit, which can be a useful framework for helping parents figure out how temperament affects relationships in the family. Goodness of fit refers to the match or mismatch between a child and other family members especially mother.

Parental Rearing Style

The word 'parent' can refer to the biological relationship of an adult to a child, or, when used as a verb, to the care and protection that the adult provides (Wood, McLeod, Sigman, Hwang & Chu, 2003). Parker, Tupling, and Brown (1979) developed Parental Bonding Instrument (PBI) and have identified two main dimensions of parenting that is bipolar. It comprises one pole, affection, emotional warmth, empathy and closeness, and the other, emotional coldness, indifference and rejection. Even the second factor is bipolar, one pole including parental control, overprotection, intrusion, excessive contact, and prevention of independent behaviour, and the other suggesting promotion of independence and autonomy. Majority of the studies using the PBI have employed a four-group classification system for parenting style. The intersection of the care and overprotection mean scale scores is determined and forms four quadrants that describe the child's perception of the parents' behaviour. The four possible parenting styles based on categorical distinctions for the combined Care and Overprotection dimensions include: "optimal parenting," defined by high care and Low overprotection scores; "affectionate constraint" defined by high care and high overprotection scores: "affectionless control,"

defined by low care and high overprotection scores; and "neglectful parenting," defined by low care and low protection scores (Parker et al., 1979).

Parker investigated the relationship of parental bonding to mental health in a variety of clinical populations. Lower parental care and greater parental overprotection were associated with depression, anxiety, panic disorder, agoraphobia and social phobia. In general, low maternal care was the dimension most strongly associated with poor mental health. Besides the main parenting dimensions of care and control, an anxious attitude of parents may also play a role in the development of high anxiety levels in children (Parker, 1981).

Most studies examined the relationship between parenting style or behaviour while childhood anxiety has focused on parenting dimensions: warmth, control, rejection, and modeling of anxious behaviours. Studies that has used direct observation and self-report measures on child and parenting, have found the relationship between parenting dimensions and anxious children includes high levels in overprotection, over-control, hostility and a lack of warmth (McGinn, Cukor, William & Sanderson, 2005; Bogels & Melick, 2004; Moore, Whaley, & Sigman, 2004). Also, positive relationship between maternal anxiety and anxiety in children had been found in many studies and revealed that when mothers are less warm and granted less autonomy in their interaction with their children, it led to the development of anxiety disorder in the children (Bayer et al., 2006; Roelofs et al., 2006; Bernstein et al., 2005; Marchand et al. 2004).

In addition, parental over control and the absence of autonomy may predict anxiety disorders in youths. Most of these were conducted with adult populations, for example, Muris, Meesters, Schouten and Hoge (2004) requested anxiety disorder patients and normal controls to retrospectively judge their child rearing practices as parents. The result indicated that anxiety disorder children reported their parents to be more rejective and controlling, and less emotional warm children found that anxious patients reported that their parents were less caring and more overprotective than did normal controls. Also, Caron, Weiss, Harris and Carton (2006), found that higher level of behaviour control were uniquely related to lower level of externalizing problem and higher level of internalizing problem. Taken together, clinical as well as non clinical studies in this domain suggest that parental rejection and control maybe risk factor for the development of high levels of anxiety or even anxiety disorders.

Attachment

The attachment system is one of major bio-behavioural systems that serve to motivate human infants. Attachment is embedded within primary relationships, particularly for young children. Normally, infants develop caregiver preferences and organized strategies for engaging in attachment behaviours through repeated interactions with their caregivers over time (Holmes, 2001). According to Bowlby (1969), when separated from the caregiver, children will exhibit attachment behaviour and thus elicit protective behaviour from their caregiver. A caregiver that is responsive and sensitive to the child's needs leads to confidence and a feeling of security in the child. These children are called securely

attached children. Insecurely attached children do not experience responsiveness and sensitivity from their caregiver, and do not trust that a caretaker will protect them. They may experience chronic vigilance and anxiety, which may set the stage for the development of anxiety disorder.

Bowlby (1969) maintains that the human infant is endowed with an attachment behavioural system which ensures sufficient proximity to one caretaker, and thus survival. In reality, the child's attachment figure is optimally sensitive and responsive to his/ her signals and needs. Sensitivity refers to the ability to accurately perceive the child's signals, and responsively to the capacity to respond consistently and adequately. A sensitive- responsive caretaker serves as a safe and reliable anchor from which to explore the world, the so-called secure base (Ainsworth, 1969). Children of sensitively responsive caregivers tend to be easily comforted after reunion with the attachment figure and will resume exploratory behaviour within a short while. These children reveal a secure internal working model of attachment. Children of consistently unresponsive or rejecting caregivers tend to avoid the attachment figure upon reunion because they have learned that this figure is unable to relieve their stress. Children of inconsistently responsive caregivers, are ambivalent, as evidenced by alternating contact-seeking and angry, resistant behaviour. These anxious ambivalently attached children try to minimize the distance from the caregiver and at the same time to prevent further separations by displaying their anger. Some of these children are difficult to soothe and are slow to resume the exploration of the environment. Subsequent research has revealed a fourth attachment type, anxious disorganized. These children are characterized by an absence of a consistent strategy for coping with the stress of the strange situation procedure, as revealed in such behaviours as stereotypes and alternating avoidant and ambivalent behaviour.

A reason for expecting a link between attachment style and health behaviour lies within attachment theory. Bowlby (1969) noted the attachment system in childhood as maintaining a balance between proximity- seeking and exploratory behaviour. That is attachment behaviour is most likely to be evident when the child is in a strange or threatening situation. According to Bowlby (1969), proximity to an available, responsive and supportive attachment figure, provides the child with a sense of a security. Studies indicated that this sense of security, consisted of a set of expectations such as availability of others and responsiveness of others in times of stress (Bar-Haim et al., 2007; Dallaire & Weinraub, 2005; Bohlin et al., 2000). Secure base provides the child with comfort and basic trust, enables the child to handle distress, and facilitates engagement behaviours like exploration of the environment.

It is generally assumed that insecure attachment (i.e. avoidant and ambivalent attachment) should be viewed as a risk factor for psychopathology. It was Bowlby (1969) who proposed that children's level of anxiety might be affected by the way in which they are attached to their caregivers. Research has, indeed, shown that early attachment relationships are significant predictors of fear and anxiety in later childhood. There is also abundant evidence that insecure attachment is involved in the etiology of child and adolescent depression. Studies in clinical and non-clinical samples indicate that insecurely

attached children display higher levels of depressive symptoms than their securely attached counterparts. And (Buren & Cooley, 2002) manifested that participants with negative self attachment style reported more symptoms of depression and social anxiety. Results suggested that the negative view of self, significantly predicts depression and anxiety.

Theoretical Framework

According to Bowlby (1969), a healthy relation between parent and child, a relationship that foster secure attachment and parental style that encourages child's searching in environment increase secure feeling in the child. Fostering of autonomy which is a must characters of parenting (Bowlby, 1977) prepared a pathway for developing and controlling the environment and is considered as a basic factor for children's adjustment. So, a secure attached child characterized by readiness for searching in the environment and then feels comfortable with searching attachment figure in time of upset. Bowlby (1977), reviewed pathologic parenting as a parental pattern and proposed, pathologic parenting at least include four behaviours like irresponsibility to the child's seeking behaviour for caretaker, active rejection of child, parental disruption (through separation), and threat of child by parent (for example, they show dislike to the child, abandon the child, etc), control or nurture of child, or include of behaviours that cause of sin feeling in child(for example child's behaviour is cause of parents' sick or death). The parental pattern proposed by Bowlby was supported by recent research on parenting, emotional abuse, emotional neglect, and mental un-adjustment.

Bowlby (1977) determined two necessary and special characters of parenting, care and control. These characters are for desirable parenting and necessary for healthy parent- child interaction. Parker, et al. (1979), defined care and control separately continue line that can specify desirable parenting in Bowlby's theoretical framework. Parker and his cooperators (1979) showed that desirable parenting diagnosed by high care and less control. The sense of good parental care that Bowlby (1969) offered includes a satisfied interaction which expresses warmth, intimacy, love, and continuity from mother to child.

According to this perspective, individual differences in attachment styles reflect rules and strategies which children learn about handling negative emotion. These rules are learned through experiences of caretaker's responses to attachment related distress, but generalized to other distressing situations. Secure children, who usually experience responsive care giving, learn to acknowledge their distress and seek help from others. In contrast, insecure children learn strategies which are adaptive in the short term, but maladaptive in the longer term because of the caregiver's attitudes and behaviours. Avoidant children learn to deny or suppress their distress, so they are not to risk further distancing on the part of caregivers. Anxious- ambivalent children tend to be overly vigilant to negative events and express their upset very strongly, to ensure a response from inconsistent caregivers.

Chorpita and Barlow (1998) supposed when parents react to child's needs, the child is experiment controlling. Along with childhood, some behaviours (like crying), transmit child's physical or affective needs. When this needs meet with parents, the child can

experiment controlling. In times, with a stable secure base, seeking in environment, create a set of behaviours that consisted of more controlling experiment. Without a stable secure base, which bend to seeking and controlling of the environment the child do not receive encouragement, function, seeking is limited and the behaviours inhibited. So, the chance for experiment of controlling is very few.

Barlow (2000) pointed out two characteristics of parenting that develop a child's sense of control. Attentive parents, who promptly respond to the young child's needs, wishes, cries, etc., build a sense of safety and a positive expectation for doing something. Likewise, encouraging parents, who are less over-protective and let the child, explore and handle situations in his/her own way, encourage more independence, more security, and more self-confidence in the child. Parental over-control does the opposite, leading to less sense of self-control in the child, to seeing the world as a more dangerous place requiring constant vigilance and help from others, and to feeling more anxiety and depression, perhaps throughout life. In the other hand, mothers, who have level of anxiety tend to protect their children, less warm and granted less autonomy in their interaction with their children (Bayer et al., 2006; Roelofs et al., 2006; Bernstein et al., 2005; Marchand et al., 2004), and feel least comfortable, when their children's attachment behaviour or needs are activated, and tend to minimize exploration behaviour in their children or reject them (Marvin, Cooper, Hoffman and Powell, 2002) and led the children to developing anxiety disorders.

As noted, insecure attachment, associated with anxiety disorders in children, and, anxious/ over-control parenting associated with insecure attachment. On the other hand, anxious mothers with less warm and less autonomy to their children, lead their children to insecure state. It is hypothesized; maternal anxiety play an important role in the pathway leading to child separation anxiety, and over-control/ anxious parenting and insecure attachment type mediate development of this disorder. Anxious mothers are likely to be hyper-vigilant to cues of threat and negativity. It is possible that their children become aware of these fears and negative expectations, which become incorporated in their own working models. In addition, anxious mothers may discourage exploratory activities and overprotect their children, leading to self-perceptions of incompetence. Also, Over-concern and high level of anxiety in mothers send a message to the child that there is something threatening, as well as decrease opportunities for the child to face and cope with normal fears and strange situations.

A central hypothesis of this study is that at this point research on maternal anxiety has not focused enough on the importance of parenting styles and attachment types as mediating variables. Mediation models explain "how" an effect occurred by hypothesizing a causal sequence. The basic mediation model is a causal sequence in which the independent variable (X) causes the mediator (M) which in turn causes the dependent variable (Y), therefore explaining how X had its' effect on Y.

Maternal anxiety is hypothesized to affect parenting and attachment styles which, in turn, affect children's anxiety. In other words, the child is affected by specific parenting styles and attachment types, rather than maternal anxiety. Negative parenting styles and

insecure attachment types as mediators are likely to have contributed on the effect of maternal anxiety on children's anxiety. This study seeks to answer to what role maternal anxiety, parental behaviours and attachment types play in children's separation anxiety disorder. Also, some variables serves as background of mother (such as education, employment), and children (such as experience of inpatient, kindergarten) that may increase or decrease the intensity of children's anxiety. The framework of this study is hereby depicted below in figure 1.

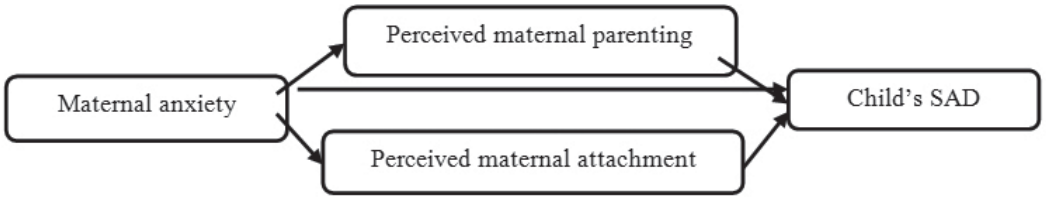

Figure 1: maternal parenting and maternal attachment as mediator of association between maternal anxiety and child's SAD.

Research Hypotheses

- There is no significant relationship between maternal anxiety and SAD experienced by Iranian first graders.
- There is no significant relationship between maternal anxiety and perceived parental rearing styles by Iranian first graders.
- There is no relationship between maternal anxiety and perceived attachment types by Iranian first graders.
- There is no significant difference between various parental rearing styles and level of SAD experienced by Iranian first graders.
- There is no significant difference between various attachment types and level of SAD experienced by Iranian first graders.

Methodology

Sample

All students enrolled in the first grade in school were eligible for the study. Participants were 160 children recruited from primary schools, and their mothers. Selection of participants was based on random sampling in public schools.

Instruments

Separation Anxiety Assessment Scale- Child version (SAAS-C)

Separation Anxiety Assessment Scale-Child version is a 34-item measure designed to assess separation anxiety and related anxiety symptoms. Frequency of symptoms extends from 1 (never) to 4 (all the time) to indicate the relative frequency of child's problem behaviours. The SAAS-C comprises four key symptom dimensions, including a Fear of Being Alone (FBA), Fear of Abandonment (FAB), Fear of Physical Illness (FPI), and Worry about Calamitous Events (WCE). The SAAS-C also contains a Frequency

of Calamitous Events (FCE) subscale and a nine-item Safety Signals Index (SSI) that assesses a child's reliance on safe person, places, objects, and actions. These symptom dimensions were drawn from the clinical child literature on SAD and related problems (Chorpita, Albano, & Barlow, 1998). SAAS-C items were developed based on questions from clinical and structured interviews, child daily diaries (Eisen & Schaefer, 2005).

Child Attachment Interview (CAI)

A modified version III of the CAI (Target, Fonagy & Shmueli-Goetz, 2003) used in this study involves an interview into relationship episodes, which consist of the child's descriptions of interactions with her/his mother. The psychometric properties of the CAI were good, suggesting that children aged 7 to 12 years were able to respond to direct questioning regarding attachment- related experiences, and their responses appeared to reflect their internal attachment organisation. Coding of scores was based on CAI (Target et al. (2003), and the Adult Attachment Projective (AAP: George, West, 2001). The sum/ pattern of six scale scores is then used to generate the overall classification of secure and insecure attachment which includes Emotional Openness, Balance, Overall Coherence, Deactivation, Cognition Disconnection, and Synchrony. The coding is a scale score ranging from 1(low) to 7 (high) to each scale described below.

Attachment Questionnaire- Child version

The Attachment Questionnaire Child version (AQC) is a single-item measure of attachment style (Hazan and Shaver, 1987, cited by Muris, Mayer, & Meesters, 2000). The AQC is based on the assumption that attachment to a considerable extent defines affectionate relationships. This implies that one can infer attachment style from children and adolescents' perception of close relationships. The AQC consists of three descriptions that correspond with three basic patterns of attachment.

The Egna Minnen av Barndoms Uppforstran for Children

The Egna Minnen av Barndoms Uppforstran for Children (EMBU-C) developed by Castro, Toro, Van-den-End & Arrindel (1993) is an inventory for assessing memories of parental rearing behaviour. It consists of 40 items that can be allocated to four subscales: "emotional warmth", "rejection", "overprotection", and "anxious rearing". In this scale using 4-point Likert scale. Each item had to be answered on a 4-point Likert-scale. For each EMBU-C item, children assessed mother's rearing behaviour. This scale considered 10 items par subscale. Items were randomly allocated within the questionnaire. A total score of 160 and sub total score par subscale was 40. Total score and subscale scores are obtained by summing relevant items, and with higher scores reflecting higher level of behaviour.

Markus, Lindhout & Boer (2003), suggested that EMBU-C can be considered to be a suitable instrument for children between 7-13 years old, with relations to psychological disorders and the perception of parenting.

General Health Questionnaire- 28 (GHQ- 28)

The GHQ- 28 as a self-report instrument was designed for the detection and assessment of individuals with an increased likelihood of current psychiatric disorder. A Persian version of the GHQ-28 was administered. The validity and reliability of the GHQ-

28 Persian version has been documented in several Iranian publications in a nationwide study (Malakouti, Fatollahi, Mirabzadeh, & Zandi, 2007; Kalafi, Hagh-Shenas, & Ostovar, 2002; Noorbala, Bagheri Yazzdi, Yasami, Mohammad, 2002).

The instrument is composed of questions referring to unusual, unpleasant emotions and the inability to continue normal functioning. In the GHQ-28 the respondent is asked to compare his recent psychological state with his usual state. For each item four answer possibilities are available. In the study the Likert scoring procedure (0, 1, 2, and 3) is applied for four subscales include "somatic," "anxiety," and "social dysfunction", and "depression". The total global health score can range from 0 to 84. This is obtained by finding the sum of all the items on the measure. Subscale scores are formed by finding the sum of the items for each scale with scores ranging from 0 to 21. On this measure high scores are related to high levels of psychological distress, while low scores indicate less psychological distress.

Beck Anxiety Inventory (BAI)

The Beck Anxiety Inventory (BAI; Beck & Steer, 1993) is a 21-item scale that designed to measures the severity of self-reported anxiety in adults and adolescents. The BAI is specifically designed to reduce the overlap between depression and anxiety scales by measuring anxiety symptoms. It consists of descriptive statements of anxiety symptoms which are rated on a 4-point scale. The BAI total score is the sum of the ratings for the 21item symptoms. Each symptom is rated on a 4-point scale ranging from 0 to 3. The maximum score is 63 points.

Personal history

A demographic form developed by the researcher was also included in this study. the mothers provided information about their children include of age, gender, birth order, back ground of illness, and information about their marital status, child number, education status, occupation status, back ground of illness, and background of hospitalization.

Procedure

All the children were interviewed one on one for the completion of a set of instruments in their classrooms. The instructions were read by the researcher and the children were asked if they had any questions about the questionnaires with assurances that their responses would remain confidential. Also, they were given the option to stop at any time, if they felt uncomfortable about completing the interview. The mothers' of the children were invited to participate by telephone or mail. They were requested to complete GHQ and BAI for the assessment of their anxiety.

Data Analysis

SPSS would be used to calculate descriptive statistics, Cronbach's alpha, percentage, mean scores, standard deviations, range, and skew for all measures as well as the individual subscales used in the study. Correlations will be computed in order to examine the connection between perceived parental rearing and anxiety symptom, also perceived attachment type and anxiety symptom. Possible gender effects will be examined by t-test.

Evaluation of the mediator models is based on the guidelines of (Baron & Kenney, 1986) for the identification of a mediating variable. These guidelines suggest that three conditions need to be met to demonstrate a mediation relation: (1) the regression of the mediator on to the model predictor should be significant; (2) the regression of the model criterion on the mediator should be significant; (3) the correlation between the model criterion and predictor should be significantly reduced or eliminated when controlling for the mediator. Three conditions should be met when positing perceived parenting and attachment type as a mediator between maternal anxiety and child's separation anxiety. Regression analysis, use for significant association between variables and significant predictor of child's separation anxiety. A hierarchal regression analysis will be conducted to discover if maternal anxiety is a unique predictor of child's separation anxiety.

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