Attachment, danger and role of the father in family life span

Franco Baldoni

MD, PhD, Associate Professor in Clinical Psychology,
Attachment Assessment Lab,
Department of Psychology, University of Bologna,
Bologna, Italy
franco.baldoni@unibo.it


Abstract: Human beings show an innate predisposition to develop attachment relations with primary parental figures that perform a protection function against danger. In couple and family life, this necessity is particularly evident in the perinatal period, during the adolescence and the emancipation of the offspring and in every stressful and potentially dangerous period. In these situations the family attachment system will be activated and a fundamental aspect of parenting will be to offer a secure base to the offspring, i.e. an atmosphere of safety and trust in the relationship with the attachment figure.

Another parental function very important for protection from traumatic experiences is to foster mentalization. This function, a consequence of the quality of attachment, is fundamental for the development and the organization of the Self and enables regulation and control of affects and their somatic correlates, mainly in stressful circumstances.

Empirical research has evidenced how in the perinatal period the mother’s and father’s emotional states are significantly linked. Moreover, in this period, fathers themselves may also suffer from affective disorders similar to post-partum depression. An important male function, in the perinatal period, seems to be provision of a secure base for his companion, helping her to overcome the difficulties, keeping suffering at endurance levels and fostering the conditions by which the special relation between the mother and the baby can develop in an adequate way. In fact, preoccupied, too anxious or depressed fathers, or those with behavioural problems (pathological aggressiveness, alcoholism, addiction disorders), can be a handicap for the emotional equilibrium of their companion and for the good development of the relationship between mother and child. Some research data confirming this hypothesis are described.

Keywords: Attachment, secure base, danger, post partum depression, couple, parenthood, father, mother
Attachment, secure base and mentalization in family life span

According to attachment theory (Bowlby, 1951, 1958, 1969, 1973, 1979, 1980, 1988), human beings show an innate predisposition to develop attachment relations with primary parental figures that perform a protection function against danger (particularly the mother, but also the father and other relatives or social group members). Exposure to dangerous situations like illness, physical or psychological traumas, abandonment, maltreatment and physical and sexual abuse is indeed very frequent and our species, during evolution, developed sophisticated defence strategies to better adapt to and protect against these conditions. To understand the importance of this theoretical approach we must consider the fundamental needs for survival of an animal species, like the human one (Baldoni 2010a; 2010b) (see Fig. 1):

![Diagram of fundamental needs](attachment:diagram.png)

**Fig. 1- Fundamental needs**

Firstly, we find the necessity for food, water, rest, to be cared for physically, to live in hygienic conditions and to be protected from climatic variations. Reproduction is also necessary to ensure the species in time through the birth of future generations. Lastly, protection against dangers is very important, particularly those from predators; the offspring of a brood could be devoured by another animal.

Starting from the first mammals, the development of the central nervous system (in particular the limbic system) has provided the capacity to experience *emotions*, i.e. genetically programmed biological phenomena which in human beings are cognitively elaborated in diversified mental states (*affects*) driving persons to more and more complex and adaptive behaviours. If we consider the effects generated by these needs, the necessity for food, somatic
care and that of reproduction involve the onset of *desire*, while the need for protection from dangers arouses a reaction called *fear*.

To cope with the necessities created by fundamental needs, the human species developed characteristic behavioural systems.

![Behavioural systems](image)

Fig. 2 - Behavioural systems

We can think of our behaviour as an organized system targeted to *caring* (food, hygiene, physical care), another system which guarantees an effective reproduction (*sexuality*) and a third system which protects from danger (*attachment*). These behaviours engender in us affects complementary to those described above: gratification of nourishment, bodily and sexual needs brings a sense of *pleasure*, protection from dangers brings *security*.

If we consider historically what has occurred in psychoanalysis and attachment theory development, we can see that the former has dealt mainly with aspects indicated in the lower part of the figure. Freud privileged sexuality and, subsequently, other analysts also addressed the need for care (Winnicott, for example, enhanced this aspect referring to *holding, handling* and other functions of the “ordinary devoted mother”). Such experiences, as we said, are linked to pleasure and displeasure affects. Attachment theorists, instead, have dealt mainly with the upper part of the figure, i.e. the problems connected with protection from dangers and the attainment of a sense of security.

However, these behavioural systems must not be considered totally independent. Clearly, we cannot speak of attachment without considering caring and sexual elements; as we cannot speak of caring without considering protection from danger and sexuality. Gender differences seem to play a specific role in all these behavioural systems.
Not all human bonds, even if significant, can be considered attachment relationships. In fact, at least three characteristics are needed (Weiss, 1982): a proximity seeking, a separation protest and a secure base effect.

1) **Proximity seeking** to an attachment figure is particularly evident in infant age, when the child, to be safe and calm, must be sure of the mother’s presence and availability, touching and embracing her, holding her hand, listening to her voice or keeping her in front of its eyes.

2) The **separation protest** consists in the attachment behaviours that are manifested when the individual feels in danger because the protection by the attachment figure is not guaranteed. This aspect is also evident in the young child when separated from its mother in an unfamiliar environment: it cries, screams, clings, trembling for fear and emits a series of signals that aim to promote as much closeness and attention as possible from the parent. Adults, too, may manifest behaviours that have the same meaning: think what happens in a romantic relationship when a member of the couple threatens to abandon or to be unfaithful to the other.

3) A third condition very important for attachment is the **secure base** effect, i.e. the special atmosphere of safety and trust in the relationship with the attachment figure. This concept, originally developed by Mary Ainsworth (1967; Ainsworth et al., 1978), was particularly evidenced by John Bowlby (1979, 1988), who explained how a child or an adolescent, in order to appear to the external world and explore the extra-familiar environment in a serene way, needs to feel safe to be able to return, knowing for sure that they will be welcomed, physically and emotionally nourished, comforted if sad and reassured if frightened. A fundamental aspect of parenting, therefore, is to foster a trusting feeling of support: to be available, when requested, to protect, care, help and encourage one’s own children, but also to know how to stay in the background when an active intervention is not necessary. A child or an adolescent who can count on these assurances will be prepared to move further away from the reassuring control of its parents, devoting itself with confidence to those experiences that will gradually make it an autonomous adult.

According to attachment theory, although attachment behaviours are particularly evident in infant age, they are active lifelong. Even in adulthood, in fact, significant bonds are developed that act to comfort from suffering and protect from dangers, and a lot of adult relationships, like couple ones, those between friends and those between adult offspring and their elderly parents, have characteristics in common with infant attachment, like proximity seeking, separation protest and secure base effect.

The differences between child and adult attachment, however, are equally important.
First, during childhood, attachment relationships are necessarily asymmetric (i.e. the child receives protection from the parent and not the other way round), while adult attachment relationships based on more reciprocity are possible. In early childhood, therefore, the relation with the parents is asymmetric, but in adulthood symmetric bonds are possible with the partner or with the parents, and again an asymmetric relationship with children (in this case, the person that was once protected becomes the person who protects). When parents are elderly, it is possible that the relationship with them will once again become asymmetric, but in reverse order with respect to childhood, as in the case of the adult child who takes care of its parents.

Secondly, the adult, unlike the child, integrates attachment behaviors (designed to protect from danger) with sexual ones and those related to taking care. This is especially evident in couple life, even if these three behavioural systems assume a very different importance depending on the type of relationship (Carli, 1995, 1999; Baldoni, 2005, 2010b; Cassidy and Shaver, 2008).

Attachment behaviours and secure base function are especially important in family life when moments of particular danger or difficulty (such as pregnancy, bereavement, traumatic experiences, disease or conflict with the social world) need to be addressed. In these situations the family attachment system will be activated, especially in the parents who will react on the basis of their Internal Working Models (IWM) (Bowlby, 1973), i.e. the inner representation of Self, of attachment figures and of the environment, as well as their relationships. IWMs are relationship models relatively stable in time, that are developed in the first years and used for environmental adaptation. In this way, past experiences (in particular dangerous ones) can be considered in the life span and used as a guide to future behaviour. Therefore, in stressful and dangerous situations, parents will express adaptive and defensive reactions that could influence the family wellbeing and adaptation, the attachment relationships and the psychosomatic development of the offspring.

Another important function of the parents, connected with attachment experiences and very important for protection from traumatic experiences, is to foster mentalization in their own children, i.e. the mental process by which a subject interprets, implicitly or explicitly, their and others’ behaviours as significant on the basis of intentional mental states (desires, needs, feelings, beliefs and personal motivations) (Bateman and Fonagy, 2004). This capacity is linked with the activity of the right brain (in particular the orbital and medial areas of the pre-frontal cortex), whose neuro-chemical regulation is complementarily regulated with rear cortex and subcortical structures. Mentalizing capacities are acquired in first attachment relationships, are the basis of empathy (i.e. the consciousness and sharing of other’s mental states accompanied by
the capacity to regulate them) and enable the person to go beyond the explicit behaviour to detect the psychological state that motivated it. Mentalization fosters psychological representation and symbolization of inner states and is crucial for development and organization of the Self, regulation and control of emotions (including their somatic correlates), adaptation to stress, self-monitoring (to reflect on one’s own behaviour) and self-agency experience (to recognize oneself as the protagonist of one’s own behaviour) (Fonagy et al., 1991, 2002).

The lack of mentalization is the consequence of the failure of parental reflective capacities and of dysfunctions of attachment and family relationships. The family reflective capacities are important for maintaining wellbeing, solution of conflicts and adaptation capacities. Their lack can be considered a negative factor for relational difficulties and psychological, behavioural and somatic diseases presented by members of the family in the life span. Research has evidenced that these conditions are correlated with the development of insecure attachment, lack of expression and regulation of emotions and their somatic correlates (abnormal illness behaviour, psychosomatic breakdowns, false Self, alexithymia), psychiatric diseases (autism, personality disorders, eating disorders, depression), low control of impulses (acting outs), aggressive and antisocial behaviors (bullying, vandalism, individual or collective violence, sexual abuses) and greater vulnerability to stress and traumas (Allen and Fonagy, 2006; Baldoni, 2010a).

Family attachment and role of the father in a triadic perspective

According to attachment theory, a fundamental function of parenting is to supply a secure base for offspring. This condition favours the development and gradual autonomy of the offspring. The necessity of a secure base, however, is not perceived only during childhood, but is also a characteristic of adult age, evident in the relationship with one’s own family of origin and with elderly parents, and even more within the couple relationship. It is interesting to note how many successful persons (entrepreneurs, managers, politicians, scientists, artists, professionals) owe their personal success to the presence of a willing and encouraging companion who, in the couple and family relationship, fosters the partner’s career in a protective way. We can legitimately claim that, to varying extents, this also occurs in many other couple relationships. Obviously, the opposite may occur, i.e. the husband may support the wife in extra-family experiences, but this condition is much less frequent, also for cultural reasons.

In effect, while the female functions within the family, through the roles of wife and mother, have been extensively studied, the masculine ones are still somewhat obscure. As is well
known, the father’s function was greatly valorized by Freud, who identified its importance especially in the processes connected with the Oedipus complex, the development of sexual identity, the interiorization of an ethical and moral code and the development of the Super-Ego. However, little is known and even less has been written about the father’s function in the first three years of life, i.e. the pre-oedipal period. The majority of studies, moreover, have been confined for years to considering the child in interaction with one sole parent, within a dyad, evaluating the mother-child relationship and, more rarely, the father-child one.

More recent research data suggest that the father is extremely important even in the first years of life, but his role must be studied not so much in the direct relationship with the child as within a triadic perspective. If the father is considered in this perspective, we might recognize his function in at least three moments in the development of the family cycle: first childhood, oedipal period and adolescence (see Fig. 3).

![Triadic relationships in family life span](image)

In first childhood, the direct relationship of father and baby is secondary to that with the mother (hatched line), but the quality of his relationship with his companion is fundamental to enable mother and child to perform the developmental task adequately. In the oedipal period the involvement between the three members of the triad is equally intense (this is the period most studied by psychoanalysis). During adolescence, both the relation of the father with his companion and that with the child are very important. In this case the hatched line is between mother and child to indicate the need for both of a gradual separation and psychological autonomy.

The paternal function may be interpreted in a family triad perspective following attachment theory and, in particular, through the concept of secure base (Baldoni 2005, 2010b) (see Tab. 1).
**First infancy**
- To foster and protect the mother-child relation (adequate accommodation, economic support, providing food and other necessities, representing and protecting the family)
- Psychological support of mother during pregnancy and post-partum (antidepressive function)

**Adolescence**
- To support the child in its emancipation process
- To protect wife from psychological reactions from separation from her offspring and the changes in affective (maternal role) and sexual (menopause) functions (antidepressive function)

Tab. 1 – Paternal function as secure base

An important task of the father in first childhood is to foster the conditions for the privileged relation between mother and child to develop and to endure adequately. This occurs firstly by dealing with matters of a practical nature: ensuring a comfortable and safe dwelling, providing economic support, procuring food and the other needs for the family, and representing and protecting one’s own in relation to the external environment, dealing with possible problems and conflicts.

Another highly important male function, for a long time undervalued by research, seems to be the protection of his female partner in periods when she is most exposed to potential danger and to physical and emotional problems. These crucial moments in the woman’s life cycle (and that of the family) are essentially two: the first concerns pregnancy and the first months after birth (the perinatal period), the second coincides with the adolescence and the emancipation of the children. In these two moments, women are more greatly exposed to emotional difficulties and depressive-type reactions connected not only with physical and hormonal changes, but also with changes in their woman’s and mother’s sexual role. The function of the male, in these cases, is to assist the companion to overcome these problems by keeping suffering and difficulty at tolerable levels.

As we know, maternity involves women in situations of change and potential risk that encourage the development of emotional symptoms, especially anxious and depressive ones, like *maternity blues* (a transitory affective alteration occurring in 60-70% of mothers in the days immediately following childbirth), *post-partum depression* (PPD), *post partum psychoses* (PPP) and *post traumatic stress disorders* (PTSD) as a consequence of the child’s birth. In such cases psychological and biological aspects are clearly intermeshed since the bodily changes due to pregnancy and childbirth and the hormonal changes involved in milk production undoubtedly play an important role in the development of an affective disorder. Donald Winnicott described
this condition as “primary maternal preoccupation” (1956) and believed that if it occurred outside maternity, it would be considered a psychiatric illness, whereas in the first months after the partum it is a physiological and normal regression state useful for caring for the child.

At this time the father’s main role seems to be to provide security and emotional support, protecting his partner from excessive psychological suffering (Kaitz and Katzir, 2004). According to attachment theory (Bowlby, 1988), this “antidepressive” protective function of the male can be interpreted as a “secure base” effect (Whiffen and Johnson 1998; Dollander, 2004; Baldoni, 2005, 2010b), i.e. as a result of the particular atmosphere of safety and trust established within an attachment relationship (like the couple relationship).

If fathers are too worried, anxious or depressed, they may therefore represent a disadvantage for the emotional equilibrium of their partner and hinder the favorable trend of the mother-child relationship (Luca and Bydlowsky, 2001; Baldoni and Ceccarelli, 2010). Research into attachment has shown that fathers who display forms of insecure attachment accompanied by emotional or behavioral disorders are more likely to have children with unsecured attachment styles (van IJzendoorn, 1995; van IJzendoorn and De Wolff, 1997). One study, for example, has evidenced that alcohol abuse in father favours depression and lack of responsiveness in the mother and is predictive of an insecure relationship between mother and child (Das-Eiden and Leonard, 1996). A father with no particular psychological or behavioral disorder should be able to provide an adequate secure base in protecting the healthy mother and child. On the contrary, when the father is insecure and affected by emotional problems, there may be difficulties that redound on the mother-child dyad, leading to emotional disorders in the mother and insecure attachment in the child.

This should give us pause for thought, since our society currently tends to valorize, in fathers, the performance of substantially maternal functions, such as physical caring for the baby, feeding or diaper changing, neglecting their protective role.

During pregnancy, it is increasingly frequent to see worried and anxious manifestations by fathers who, in some cases, actually experience physical sensations and complaints similar to those of the wife (a phenomenon known as “couvade syndrome”). These excessive attitudes, in some ways comparable to the primary maternal preoccupation described by Winnicott (which he considers a normal and useful state of the woman), when manifested in the male should be carefully considered, since they may impair the marital and paternal secure base function.

The protective “antidepressive” function of the male towards his companion also emerges in another moment of the family life cycle: during adolescence and the gradual emancipation of the children. In this period, the mother must be able to give up the function performed during
childhood and prepare herself to see the child exit from the family. The function of the father, in this case, is not only to support the adolescent in this process (providing a secure base), but also to protect his companion from the psychological suffering connected with the loss of her maternal function and with the accompanying change in her affective and sexual role. Here again, psychological and biological factors intermesh (recall that this moment coincides with the start of the menopause in many women). In this period the male must be able to help mother and child psychologically to separate and in a loving way to return his companion within a couple relationship in which she will once more feel valorized. As against that, a father who is too apprehensive, invasive or hyperprotective and worsens the mother’s preoccupations by overlapping with them, may impair the process of independence of the child by obstructing the overcoming of this phase of the life cycle and encouraging his companion to develop depressive symptoms.

In order to understand the psychological problems manifested at significant moments in the family cycle, in particular in the perinatal period, it is therefore essential to study also fathers, considering the function they perform within a triadic perspective.

**Perinatal depression in fathers**

Empirical research has evidenced how in the perinatal period the mother’s and father’s emotional states are significantly linked (Harrison and Magill-Evans, 1996; Buist, Morse and Durkin, 2002; Kaitz and Katzir, 2004). Moreover, in this period, fathers themselves may also suffer from affective disorders similar to post-partum depression with a frequency ranging in the world from 2% to 31.3%, with a mean of 10.4% in 2010 (Paulson and Bazemore, 2010, Baldoni and Ceccarelli, 2010).

The clinical expression of *Paternal Perinatal Depression* (PPD) (Luca and Bydlowsky, 2001; Dollander, 2004; Baldoni and Ceccarelli, 2010) differs from that of Maternal Perinatal Depression (MPD), the symptoms are less severe, the disorders are less definite and range from neurotic reactions of restlessness and sadness to melancholy, through states of impotence, desperation, discomfort and somatic complaints. The DPP diagnosis is difficult, since it often presents with mild or atypical symptoms associated with other complaints (anxiety, somatization, irritability, sexual and behavioural disorders, acting outs). Assessment must be made right from the first months of pregnancy up to the end of the first year from birth, paying particular
attention to the second trimester after birth – a period in which the complaint appears more frequently.

For the man, the transition to fatherhood represents a period of increased psychological vulnerability, but research has long focused on the mother-child relation, neglecting fathers as study objects (Solantaus and Salo, 2005). The reasons for this are connected with the difficulty of recruiting fathers, but also with methodological limitations and social-cultural factors that lead to neglecting the father in the perinatal period. DPP has therefore been little studied as compared with MPD, but recently interest in this subject has increased and interesting data have begun to emerge (Baldoni and Ceccarelli, 2010):

1) Research has found a significant correlation between PPD and MPD (Soliday, McCluskey-Fawcett and O’Brien, 1999; Matthey et al., 2000; Buist, Morse and Durkin, 2002; Goodman, 2004; Paulson and Bazemore, 2010).

2) The manifestation in the father of depressive, anxious and behavioural symptoms (abnormal illness behaviours, aggressive, hostile or violent attitudes, alcoholism, addict disorders) or an insecure attachment style, seems to foster a depressive reaction in the mother and to negatively influence the psychological and somatic development of the child. In these cases, the failed assumption of the paternal role and the relation with a father emotively not available or, on the contrary, anxious and intrusive, represents a threat for the whole family.

3) Empirical research has identified some psychological risk factors that can facilitate the paternal depressive reaction: couple conflicts and marriage unsatisfaction, the manifestation of depressive symptoms in the mother, an insecure attachment (particularly the dismissing one) high levels of perceived stress, personality traits (neuroticism), low relational quality with his own parents in infancy, work and economic difficulties, low social support, being a member of a newly composed family, an undesired pregnancy and the negative expectations regarding the birth of a child.

However, most research on DP was conducted using self-report questionnaires as Center for Epidemiologic Studies Depression Scale (CES-D), Beck Depression Inventory (BDI) and Edinburgh Postnatal Depression Scale (EPDS), whose results are less valid for the assessment of affective symptoms in the male. In the future, more specific studies are required, considering gender differences and other aspects like anxiety, illness behaviour, irritability, anger attacks and behavioural acting outs. Moreover, to investigate the seriousness and the course of DPP and to assess the impact of the disease on the development of the child and the couple’s quality of life, it is necessary to integrate self-report questionnaire data with those from clinical interviews (Cox, 2005).
**Data from research**

As we said, an important male function, in the perinatal period, seems to be the provision of a secure base for his companion, helping her to overcome difficulties, keeping suffering at endurance levels and fostering the conditions by which the special relation between the mother and the baby can develop in an adequate way. In fact, preoccupied, too anxious or depressed fathers, or those with behavioural problems (aggressive or abusing behaviours, alcoholism, addiction disorders), can be a handicap for the emotional equilibrium of their companion and for the good development of the relationship between mother and child (Das-Eiden and Leonard, 1996; van IJzendoorn and De Wolff, 1997; Luca and Bydlowsky, 2001; Dollander, 2004; Baldoni, 2005, 2010b; Baldoni and Ceccarelli, 2010). A lack of this protective function can foster an affective disorder in the mother and negatively influence the attachment and psychosomatic development of the child.

In the past, the majority of first-time parenthood research was performed in Anglo-Saxon countries and studied emotional feelings and fantasies of the mother (or of the couple) during pregnancy and the post-partum period. Only recently were studies conducted on the father’s role into the “transition to parenthood” perspective. Researches on father’s stress and on adaptation factors of the male to fatherhood (Buist, Morse and Durkin, 2003), on father’s mental wellbeing during perinatal period (Condon, Boyce and Corkindale, 2004), on male psychological experience in the change from couple to family (Kaitz and Katzir, 2004) and on “secure base” function of the father toward the mother-child dyad (Baldoni, 2005, 2010b) have been conducted.

Some results from the studies by our research group confirm the connection between mother’s and father’s mental states in the perinatal period and the influence of the father on the development of early attachment relationships and the psychosomatic development of the child:

1. Fathers whose companions have undergone affective post-partum disorders show anxiety, depressive symptoms, irritability, somatic complaints and worry about their own health and paternal role up to the fifth month of pregnancy;

2. During In Vitro Fertilization and Embryo Transfer Procedure (*IVF-ET*) when the male is anxious, depressed or hostile, women manifest affective disorders, anxiety and somatization independently of the success of the procedure;
3. Depression, low dyadic sensitivity and insecure attachment forerunners in fathers influence the development of preterm born children.

1) Research on couples during perinatal period:

To better understand the effects of some psychological and behavioural factors in mothers and fathers during the perinatal period, we studied, in collaboration with the Department of Obstetrics and Gynaecology of University of Bologna, a sample of 40 couples evaluated from the second trimester of pregnancy to the first trimester after delivery (Baldoni, Baldaro and Benassi, 2009). On four occasions (V and VIII month of pregnancy, 3-6 days and III month post partum) all the subjects were asked to fill out four questionnaires: CES-D (Radloff, 1977) for depression symptomatology assessment, Symptom Questionnaire (SQ) (Kellner, 1981) for a global assessment of psychological suffering through four dimensions (anxiety, depression, somatization and hostility), Illness Behaviour Questionnaire (IBQ) (Pilowsky and Spence, 1983) for abnormal illness behaviour assessment and Perinatal Couple Questionnaire especially designed for this research.

Statistical analysis underlined, confirming other research data, that during pregnancy up to the puerperium fathers suffer from depressive alterations with oscillations that are correlated with the maternal suffering (p= 0.02). The scores progressively grow until the partum moment, then decrease (see Fig. 4).

Fig. 4 - Depression assessed with CES-D in mothers and fathers
After the partum, mothers and fathers were divided in two groups: Group 1 (12 cases, 30%) characterized by mothers that manifested an affective alteration in the 10 days post partum (maternity blues: 10 cases, clinical depression: 2 cases); Group 2 (28 cases, 70%) with mothers that had not manifested affective symptoms in the same period.

Fathers whose partners have been diagnosed with an affective alteration during post-partum (maternity blues or post-partum depression) resulted more depressed (p= 0.01) (See Fig. 5), anxious (p= 0.02), and irritable (p= 0.02). They tended to manifest their suffering with somatic symptoms (p= 0.05) and to worry about their health condition (p= 0.03) and paternal role. Their scores were significantly different from controls from the first assessment (V month of pregnancy). A high peak of anxiety and somatization was manifested in the month before the child’s birth and high levels of depressive symptomatology immediately after partum. Irritability scores increased in time and were particularly elevated at three months after the birth (while those of the controls decreased), a sign of a probable difficulty in playing the father’s role.

The same fathers differ from controls for some other aspects: the worse quality of couple relationship, the high frequency of somatic complaints during pregnancy, (33% vs. 7% of controls, p= 0.001) (see Fig. 7), a smaller involvement during labour and the tendency to be absent at the partum moment (58% vs. 7% of controls, p= 0.001) (see Fig. 8).

Fig. 5 - Depression assessed with CES-D in fathers
2) **Research on couples during In Vitro Fertilization and Embryo Transfer Procedure (IVF-ET)**

In a recent unpublished study in collaboration with the Department of Obstetrics and Gynaecology of the University of Modena and Reggio (Baldoni et al., 2010a) we examined 45 sterile couples who had undergone *In Vitro Fertilization and Embryo Transfer* procedure (IVF-ET). On three occasions (at the beginning of treatment, at egg pick up, and at 20-30 days from
egg pick up, when the possibility of a pregnancy could be checked) both partners were assessed by self-report psychological questionnaires: CES-D for depressive symptomatology assessment; Symptom Questionnaire (SQ) for a global assessment of psychological suffering; Whiteley Index (Pilowsky and Spence, 1983) for hypochondrial symptomatology assessment and a Rapid Stress Assessment Scale (VRS) (Tarsitani and Biondi, 1999) for a stress perception assessment.

The IVF-ET procedure entails an important hormonal therapy that can lead to severe somatic and psychological symptoms that induce some women to interrupt the treatment. Independently of the outcome of the procedure, the intensity of the somatic symptoms in the women was significantly correlated with the anxiety, depression and hostility levels in their male partners (p=0.05). Moreover, the anxiety in the women at the beginning of treatment was correlated with the anxiety and the hostility of the males (p=0.05), and the depression level from the beginning of treatment to the follow-up at the end of the procedure was always correlated with the male partner’s one (p=0.05). Significantly, women who resulted more severely depressed at the end of the procedure, even if not before, had partners that manifested psychological symptoms (high levels of anxiety, depression and hostility) already at the beginning of the treatment.

3) Research on families with preterm born children.

The traumatic experience of preterm birth, the anxiety for illness and death, and the early and prolonged separation from the baby are psychologically stressful and dangerous events for the family. In these situations the family attachment system will be activated, especially in the parents who will react on the basis of their attachment styles and psychological characteristics (dyadic sensitivity, levels of anxiety and depression, stress perception) and express adaptive and defensive reactions that could influence the mother-child-father triad and the psychosomatic development of the premature child. In this critical situation, the psychological characteristics of the father are particularly important for the protection of the family and the development of valid attachment relations.

We studied Mother-Father-Child relationship and attachment forerunners in 89 families: 35 families with preterm born children (birth weight ≤ 1500 gr, gestational age 24-32) and a control group of 54 families with term-born children (birth weight > 2500 gr, gestational age > 40) for 267 total subjects (Baldoni et al., 2007, 2008, 2010b; Baldoni, 2010c). The study was
conducted in collaboration with the Neonatal Intensive Care Units of Rimini and Brescia hospitals.

The study was based on a longitudinal survey with data collection in four steps (3, 6, 12 and 30 months corrected age of the baby), corresponding to particularly important phases for the child’s psychomotor development and internal representations of attachment. Mother-Child and Father-Child couples were subjected to Child-Adult Relationship Experimental Index (CARE-Index) (Crittenden, 1979-2004). CARE-Index is an audiovisual procedure for the evaluation of the attachment forerunner in children from 0 to 24 months old which indicates the adult’s ability to perform their parenthood function. It consists in a 3-4 minutes video recording in which adults are asked to play freely with their own child as they usually do. The recording is usually made at home, in an environment as familiar as possible. The central significance of the codification structure is the “dyadic sensitivity”, made by any configuration of behaviours which the child fancies, increasing its well-being and attention and reducing the nuisance. CARE-Index cannot directly value the attachment configurations (which emerge later and are only plain under dangerous situations or at least of moderate stress), however the procedure can evaluate the adult’s sensitivity, the dyadic relationship characteristics and the infant’s attachment forerunner, allowing us to detect those relationships which are most at risk of lack of care for the child.

Both parents were also assessed by Dyadic Adjustment Scale (DAS) (Spanier, 1976) for quality of couple adjustment assessment, CES-D, Parenting Stress Index (PSI) (Abidin, 1987-2006) for parental stress assessment and STAI Y-2 (Spielberger et al., 1983) for the trait anxiety assessment. The child’s psychomotor development was assessed by the Bayley Scales of Infant and Toddler Development (BSID III) (Bayley, 2006). Attachment assessment followed the Dynamic-Maturative Model (DMM) criteria (Crittenden, 2000, 2008).

In mothers of preterm born children statistical analysis evidenced high risk interactive behaviors at CARE-Index (low scores at Dyadic Sensibility Scale, p= 0.000), high anxiety (p= 0.003) and high depression (p= 0.03), in fathers low scores at Dyadic Sensibility Scale (p= 0.000) (see Fig. 8), high anxiety (p= 0.024) and depressive symptoms (p= 0.009). In interaction, attachment forerunners suggest an insecure attachment in preterm mothers (p= 0.001) and fathers (p= 0.000) and in preterm children in the interaction with the mother (p= 0.028) (see Fig. 9). These risk factors were correlated, in both parents, with low performance of the child at Bayley Scales (p= 0.04).
Fathers of preterm children frequently presented risk factors as a negative perception of the child and uncomfortable feelings with it, stressful events in the last year and an unsatisfied perception of the hospital care. The results show in the preterm family insecure forerunners of attachment and high risk interactive behaviors with the baby. In particular, mothers and fathers with insecure attachment and psychological difficulties (unresolved losses or traumas, anxiety, depression), could influence the psychomotor development of the preterm child.

Dividing the sample according to fathers’ attachment forerunners and their dyadic sensitivity at CARE-Index, univaried ANOVA data evidenced, in the insecure fathers group and in the low dyadic sensitive fathers group (independently of the term or preterm birth of their child), significantly high levels of anxiety at STAI Y-2 ($p \leq 0.02$) and of parental stress ($p= 0.03$) and negative perception of the child ($p= 0.000$) at PSI. Insecure attachment forerunners, low
dyadic sensitivity and high levels of depressive and anxious symptoms were correlated, in both parents, with lower scores of the performance of the child in almost all Bayley scale indexes (p=0.04). In particular, children with fathers with insecure attachment forerunners and low dyadic sensitivity reported significantly lower scores at all Bayley scales.

**Final remarks**

During pregnancy until the late postnatal period, parental mental states are connected and fathers are often affected by emotional alteration, oscillating in correlation with the mother’s suffering. Fathers whose partners are diagnosed with an affective alteration during post-partum (maternity blues or post-partum depression) are, in fact, more depressed, anxious and hostile and tend to manifest their suffering with somatic symptoms and to worry about their health condition and their paternal role (Guillaumont, 2002). In most cases a lack of couple balance is evident (Condon, Boyce and Corkindale, 2004), especially the deterioration of the couple’s sexual life (Seimyr, et al., 2004). Our research group confirmed these results in families with term and preterm born children and in couples who had undergone *In Vitro Fertilization and Embryo Transfer* procedure (IVF-ET).

Different interpretative hypotheses are possible. In some cases the couple equilibrium could be influenced by particularly disadvantaged psychosocial conditions (lack of family and social support, work or economic problems, social gap). One can also suppose that more depressed and anxious people are attracted to each other (but there are no evident research data about this). A more convincing explanation comes from recent research on couple attachment and father’s secure base function.

Our research on the families of preterm born children show that dyadic sensitivity and interactive mother-child and father-child behaviors at three months corrected age are significantly different from the control group. An interesting datum from our studies is the high number of fathers of preterm children who show difficulties in interaction with the baby (low dyadic sensitivity and insecure attachment forerunners at CARE-index) and other psychological risk factors (negative perception of the child, intense uncomfortable feeling during the first contact with it, depressive symptoms), even more frequent and intense than the mothers’. 40% of mother-preterm child interactions (against 5% of controls) and 75% of father-preterm child interaction (against 30% of controls) were in the “high risk area” suggested by CARE index, an area that often requires psychological and pharmacological treatment. Moreover, mothers of
preterm children showed a lesser couple adjustment, in particular lower levels of dyadic consensus with the partner (at DAS). These factors may negatively affect the mother-child-father relationship. Research evidenced a positive correlation between couple satisfaction and quality of mother-child relation. Therefore, a valid help supplied by the father to the companion fosters a better mother-child relation (Dickie, 1987; Broom, 1994). Fathers of preterm children also show more significant stressful events in the last year that may remove them from couple and parental tasks, focusing them on external problems instead of dedicating themselves to the family (Parke, 1996).

Our studies confirm the research data concerning the influence of attachment style and relational capacities of both parents on psychomotor development of the preterm born child and the attachment relationship between it and the mother. In particular, there is evidence of a correlation between insecure attachment and low dyadic sensitivity in fathers with low adjustment by the couple, the development of an infant’s insecure attachment and the manifestation of psychomotor difficulties in the preterm born child.

Research data underline the necessity for longitudinal researches on wide samples studying the family in the perinatal period in all potentially dangerous conditions to assess internal working models (i.e. attachment styles) of parents, their sensitivity in the relation with the child and the link between parenting stress and quality of family attachment. These researches could check if some alterations of the parental behavior are adaptive and transitory, or a negative trend that will influence the development of the child in the future.

Conclusions

In our species, a main function of being a parent is to protect the offspring from physical and psychological danger supplying a valid attachment and a secure base. Moreover, the attachment style and dyadic sensitivity of both parents influences the attachment and psychosomatic development of children. Psychological interventions on the affective and relational problems during perinatal period and in every high risk and stressful situations for the family (like the preterm birth of a baby) would therefore concern not only the mother but both partners. In particular, for prevention of maternal perinatal depression and attention to the mother-child relationship, it is fundamental to recognize the importance of the father from the beginning of the pregnancy and to promote his involvement in the gynaecological consultations, in the family consultation services and in the assistance throughout the year following the birth
When the father manifests a significant psychological suffering (like a perinatal depression) or a behavioural alteration, family or individual psychotherapeutic help (enabling depressive and anxious symptomatology, hypochondriac worry and relational or parental difficulties to be reduced) and, in some cases, psychopharmacological treatment are needed. This can foster, in a triadic perspective, the psychological and relational wellbeing of the couple and the development of valid attachment bonds, and produce positive and long-term effects on the psychosomatic development of the offspring.

The research on family attachment provides useful data for the organization of preventive and treatment interventions, increasingly targeted and sustained over time, considering also the father figure and taking into account the specific developmental needs and the psychological difficulties of the infant and its family, and taking into account eventual difficulties of the siblings (psychological help from the physician and nurses in the ward, assistance from a psychologist, psychoeducational groups, possible individual, couple or family counselling or therapy) (Baldoni et al., 2009; Facondini et al., 2010; Cena, Imbasciati and Baldoni, 2010). In this perspective, to cope with high risk situations, health programs have been proposed, considering all family members and organizing home intervention. It is also possible to organize special training seminars and consulting meetings for operators of the Departments of Obstetrics and Gynaecology and the Neonatal Intensive Care Unit to ensure a long-term monitoring of the psychological and physical health of the child and an appropriate psychological help for its family.

References


