PREVENTION OF POSTNATAL DEPRESSION

Paola Benvenuti, Vania Valoriani, Duccio Vanni

Summary

This paper examines the various clinical profiles of postpartum depression, the problems of diagnosis inherent in this pathology, risk factors and their reliability as indicators, and some of the most resorted to measures of prevention and therapy.

Despite some scientific scepticism, the concept of puerperal depression has clinical validity in that it curtails stigmatizing the illness and allows women to understand and accept their situation, it makes prevention and therapy possible, it explains alterations in maternal conduct and in any case it is a problem that concerns the health of a not insignificant part of the population, and how services are organized.

The authors describe the various states of depression along a continuum (maternity blues, minor depression and major depression) indicating their evolution and consequences, and analyze the problems in formulating a swift diagnosis.

The risk factors identified in literature are illustrated, their significance respect the beginnings of postpartum depression discussed and their capacity to indicate the onset of the symptoms analyzed.

The various possibilities of prevention and therapy are described in an integrated perspective expecting continuity through the various levels of intervention which can take place over the perinatal period with an eye to forward planning which considers the particular moment in the woman’s life and the relationship with the child and her family.

**Key words:** Postnatal Depression – Risk Factors of Postnatal Depression – Preventive Interventions in Postnatal Depression

**Declaration of interest:** none

Paola Benvenuti, MD, Professor of Psychopathology, Department of Neurology and Psychiatry, University of Florence

Corresponding Author Paola Benvenuti, MD, Department of Neurology and Psychiatry, University of Florence, Viale GB Morgagni 85, 50134, Florence, Italy. Phone (+39) 0554298442 – Fax (+39) 0554298441, paola.benvenuti@unifi.it

Introduction

Postnatal depression is the name given to clinical depression that occurs in the months following childbirth. It is the most common psychopathological complication of childbirth, and can arise at any time in the first year after childbirth. It tends to develop gradually and may persist for some months. If left untreated, it may develop into a chronic depression or recur after a subsequent pregnancy.

Postnatal depression affects around 11-15% of all childbearing women. Mild to moderate cases of postnatal depression are sometimes unrecognized by women and their partners, family or friends or their general practitioner. Not everyone with postnatal depression will have the same symptoms. Sometimes women feel more anxious or angry than depressed.

Postpartum depression is studied in order to identify the risk factors, develop screening methods especially for the perinatal period in order to predict the onset of depression after birth, define reliable methods of diagnosis and assess the preventive and therapeutic measures resorted to by the various health services. It is known that this disorder has a very negative impact not only on the life of the woman overall, but also in the couple relationship, the relationship with the other children and with the family of origin, in developing the mother-child interaction and also in the cognitive, emotional and social development of the child. All this makes it important to identify the variables in the perinatal period which can single out a sample of women who risk postpartum depression from the general population, to study the risk factors for depression after the birth of the child and to assess the correspondence between the prenatal and postnatal periods in order to adopt measures for preventing the onset of depression in women at risk and for early identification and treatment of this pathology.

This article examines the various clinical profiles which trigger postpartum depression, the problems of diagnosis inherent in this pathology, risk factors and their reliability as indicators, and some of the most resorted to measures of prevention and therapy.
Clinical profiles

The pathology in puerperium is not recognized among the diagnoses of DSM-IV or ICD 10, except for a specification regarding the onset of major depression in the puerperal period. The RDC (Spitzer et al. 1978) diagnosis criteria provides a broader description of postpartum depression which clinically includes three different profiles: materni ty blues, minor depression and major depression. Their frequency is different: 30-70% for materni ty blues, 10-15% for minor depression and 3-6% for major depression respect to the total number of childbirths referred to. There is a certain agreement in literature regarding continuity among these three forms. Materni ty blues and puerperal psychoses are considered situations at the far ends of a line with minor depression in the middle when affective disturbances constitute the nucleus of the whole puerperal pathology.

Maternity Blues. This syndrome which refers to postpartum sadness also known as “milk fever or transient syndrome”; though known since last century it has only aroused interest in recent decades. The symptoms are bursting into tears very easily which is the main one, asthenia, a general tendency towards mood depression, anxiety, irritability, headaches, insomnia, lower concentration capacity, difficulty in conceptual thought up to a slight state of confusion and negative feelings towards the newborn child (Stein 1982). It is particularly prevalent — indeed it varies among the various cases from 20% to 80% of all women who have given birth with an average of around 40-50%. The symptoms emerge from the third or fourth day after birth and last about a week by which time it disappears completely (Cox et al. 1982, Kendell et al. 1981, Henshaw et al. 2004).

In a number of cases, though, evolution is different and includes:
- more serious and long-lasting symptoms that can last more than 15 days;
- evolution towards a symptomatology of a clinical depression (Happgood et al. 1988);
- rapid transformation of materni ty blues to puerperal psychosis.

The enormous frequency of the “maternity blues” syndrome leads us to consider it not so much an illness as a physiological reaction, although its “banality” should not induce us to underestimate it. Indeed, its importance lies in being a link between the biological side and the emotional disturbance, and it forms a sort of link between normality and puerperal psychopathology being that it includes many symptoms and problems, although minor, typical of the more severe puerperal depression.

The factors indicated in literature as associated with materni ty blues are biological and include hormonal changes resulting from birth and breast-feeding, possible dystocia from the birth, difficulty in natural breast-feeding and being primipara, which are more linked to materni ty blues than are obstetrical causes, the social-environmental situation, personality characteristics and the psychiatric background of the woman (Stein 1980, O’Hara et al. 1991a).

Two different hypotheses may serve to explain this syndrome:

a) that it is an acute organic reaction, which is also explained by the presence of cognitive disorders (Yalom 1968) or

b) that especially psycho-endocrine aspects are involved, deriving from the difficulty in accepting one’s female role and taking on a maternal function.

The psychological attitude of the woman can also interfere with maternity blues. Indeed, in the first days after the birth the anxiety of separation and loss are perceived very strongly, the affective orientation of the woman is changeable and she can have very severe doubts about her as yet untested maternal capabilities. This can therefore be considered as a sort of affective “latency period” necessary to break the bonds with the foetus and begin a new relationship with the actual child and its needs. This syndrome, therefore, despite having little clinical significance is the crucial psychological moment in puerperium in that it marks the moment from when she begins to start motherhood and its evolution is decided.

Minor Depression. The symptomatology of this form includes a dysphoric, sad disposition with anxiety and irritability associated with feelings of physical exhaustion, resentment and hostility in relating to others, in particular the partner and family members, pessimism towards reality, isolated and taciturn behaviour and a loss of vitality which can manifest itself as neglecting oneself and failure in the role of mother, loss of appetite and sex drive, insomnia and somatic symptoms of various kinds. Other disorders can often be significant in the symptomatology too, for example: anxiety disorders in the acute form of panic and the more generalised anxiety form, or in the form of phobias (often agoraphobia) and also obsessive compulsive manifestations which can appear both as compulsive behaviour tending to seeking perfectionism in looking after the child and also authentic obsessive symptoms. These characteristics have made this depression be defined as “atypical” for the predominance of “neurotic” symptoms and the lower seriousness of the clinical profile (Pitt 1968)

The most typical aspect of this disorder is the lack of security in one’s maternal capabilities which the woman experiences in a conflictual, guilt-ridden fashion, and which can appear as an excessive preoccupation for the child at the same time as feeling hostility towards it to a greater or lesser extent. Mothers can therefore vary between appearing anxious and hyperprotective towards the child, and seemingly detached and indifferent towards it and emotionally focused on herself alone. This symptomatology involves the surrounding circumstances in terms of constant calls for help not without a certain amount of aggressiveness. This is a kind of depression which Arieti and Bemporad (1981) called “demanding” in which the symptoms become continual claims for support and reassurance which are given little heed in the family surroundings. In fact irritability and tiredness in a woman who has just given birth and is breastfeeding are seen by family members as due to the fatigue and stress of the situation while at the same time their significance is lowered in terms of their marker for potential depression. When family doctors are called in they resort to traditional therapies such as advice on diet and conduct,
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prescribing for the symptoms etc., giving a non-specific response and often not recognizing in the physical distress the symptomatology of depression. Postpartum depression is little known even in psychiatric practice because it does not invalidate nor does it require a specific treatment except in particularly serious cases, and diagnosis is hard and often tardy. Besides, the women themselves tend to play down the importance of the symptomatology as do their family members and do not consult a specialist for fear of negative judgment in their maternal function and not living up to the social expectations of maternity (Bastien et al. 1999).

This disorder can evolve in various ways:
- it can resolve itself on average within six months leaving no trace;
- it can relapse successively with absolutely no link to the puerperium and take on all the characteristics of major depression;
- it can become chronic and change into a formally neurotic lifestyle often with phobic and obsessive aspects.

Puerperal depression has a specific progression in that onset of the symptoms occurs in a period from three to six months after birth with some cases noted as late as nine months from birth (Watson et al. 1984, Kumar and Robson 1984), although a number of studies report that some 50% of instances of depression were registered in the first 5 weeks after birth (Cooper et al. 1988, Cox et al. 1993, O’Hara et al. 1990). Probably the cases noted later correspond to the forms of depression known as “weaning” which mark the first significant break in the mother-child relationship.

If we wish to examine the incidence of postpartum depression in terms of the number of new cases which onset in a given period of time we must first distinguish between depression which arose during pregnancy which can last even into puerperium and the depression which instead onset during puerperium. Literature notes the link between depression in pregnancy and puerperal depression but relatively few distinguish between cases of onset in puerperium and those in which onset occurred earlier. Percentages and prevalence of the depressions registered in the first three months of pregnancy and in the first three months after birth have been noted separately (Kumar and Robson 1984) and show that the percentages in the first three months of pregnancy (13%) and at the third month after birth (14%) are higher than the other periods examined.

Further data have pointed to a lower prevalence of non-psychotic depression, again distinguishing between pregnancy (6%), the third month (8.7%), the sixth month (8.8%) and the 12 months after birth (5.2%), and a similar annual incidence (15.1%).

The high percentage of depression in the first three months of pregnancy raises a number of questions concerning the relationship between pregnancy depression and puerperal depression. Although we consider the pregnancy and puerperal symptomatology as belonging to distinct forms, most authors take anxiety and depression in pregnancy as a predictive factor of postpartum depression (O’Hara and Swain 1996, Cooper et al. 1996, Bernazzani et al. 1997a, Verkerk et al. 2003).

Major Depression. The symptomatology of major depression is more serious and persistent than that of minor depression; it can be associated with mental confusion and can have an acute beginning. The symptoms appear as a depressed state of mind, lack of interest, loss of appetite and weight, insomnia or hypersomnia, psycho-motor speeding up or slowing down, a feeling of fatigue and lack of energy, feelings of incapacity and guilt which can even appear delusional, loss of concentration, inability to make decisions, recurring thoughts of death and suicidal tendencies or even attempts at suicide. Maternity and care for the child are the stuff of most of the experiences and depressive delusions. Indeed, patients often have excessive feelings and even delusions of uselessness and self-acusation, they are often afraid of causing harm to their children as they care for them and feed them, of being the source of illness through their own insufficient care or the toxicity of their milk, or they may be convinced that their children are not healthy despite what the paediatrician or family doctor might say to the contrary. These symptoms can be underestimated by the woman’s family and her doctor and the seriousness of the situation can emerge dramatically with harm done to the child or by a act of self-harm. Indeed, ideas of suicide are recurrent and the behaviour of the woman unpredictable, but it must be remembered that the risk of self-harm is as high as that of serious harm to the child (infanticide and homicide).

Despite the decline in both perinatal and infant mortality, infanticide has remained relatively constant over the past 100 years in the U.K., with about 20 convictions per year (Marks and Kumar 1993). At least half of these women were suffering from severe postpartum mental illness and an additional number did not reach the courts because they committed suicide. Many mothers who non-accidentally injure or neglect their children are found to be suffering from less severe forms of depression and anxiety.

The onset of major depression is earlier than that of minor depression, being that it is distributed over the first month from birth and is more concentrated in the first week. The period of onset and the symptomatology raise the problem of whether major depression falls within puerperal psychoses. Clinically, they can in any case be assimilated especially if we remember that puerperal psychosis is being increasingly considered an affective disorder in its evolution too (Benvenuti et al. 1992).

The consequences of postpartum depression are seen in many areas:
1. the risk that the woman suffers future depression in the successive five years (60%, Cooper and Murray 1995; 80%, Philipps and O’Hara 1991);
2. the depression episode turns chronic (Nott 1987);
3. an overall state of dysfunction during the depression episode;
4. the couple relationship deteriorates as does that with the other children and the family of origin;
5. the depression has a negative interference with the cognitive and affective development of the child (Coghill et al. 1986, Murray 1992, Murray and Cooper 1997);
6. an association between maternal depression and patterns of insecure attachment in the child (Murray...

Problems in diagnosis. There are many problems in diagnosing puerperal depression. Observation has pointed to the onset of depression in a significant number of women in the first year after birth and a high frequency of depression episodes in this same period. The adjective puerperal, however defines the link between depression and the birth only in terms of time and its apparent clearness justifies the problems in diagnosing this form.

Considering these problems as follows:

a) a first problem concerns the variability in prevalence of puerperal depression reported by literature: the lowest values (3-7%) come from case histories of family doctors who probably only diagnosed the severest cases of depression. In fact these values correspond to diagnoses of endogenous and puerperal depression, or to cases where there was psychiatric intervention. The highest values (between 20 and 30%) instead correspond to evaluation criteria based on a number of symptoms which can be detected by the use of questionnaires or rating scales, or to a non-codification of the reference criteria applied, or to a broadening of the criteria so as to include also the least severe forms of depression. The work carried out by Pitt (1968) marked an important phase in the definition of puerperal depression and in identifying its prevalence (11%) which corresponds to that now reported in the various countries;

b) a second problem is the time lapse between birth and the detection of the depressive symptomatology. Data is not homogeneous and varies between about three weeks up to one year after birth, too broad a time lapse to be indicative. What is however clear is that the standardisation of criteria of diagnosis and instruments of assessment corresponds to a greater homogeneity in the times of registration. It has been pointed out (Kumar and Robson 1984) that the incidence of depression increases substantially in the third month after birth (14%) even though new cases are registered in later months, and that the percentage of new cases of depression was double in a group of women giving birth (Cox et al. 1993) despite seeing the same prevalence of depression in a group of women who had given birth six months before (13.8%) compared to a control group (13.4%). Attempts were made to explain this paradox taking account of the different duration of depression (Cooper and Murray 1995): a duration of some three months was noted in two-thirds of the puerperal forms studied which would be a shorter duration than that which appears in other phases of their lives;

c) a third problem is the difficulty in implementing a reliable screening procedure for puerperal depression using instruments which are adequately sensitive, namely able to identify depression properly, and specific, namely able to identify normality. The many questionnaires used in clinical practice to assess depression are not particularly sensitive or specific as regards postpartum depression. Presently, the Edinburgh Postnatal Depression Scale (EPDS) (Cox et al. 1987) is used, a self-administered questionnaire, as a screening instrument for assessing postpartum depression in the general population, which has been validated in many countries all over the world (O’Hara 1994a, 1994b; Benvenuti et al. 1999; Heh 2001; Berle et al. 2003; Uwakwe and Okonkwo 2003; Aydin et al. 2004; Adouard et al. 2005). This self-rated instrument requires women to read 10 statements relating to emotional health and for each statement choose one of four possible responses. The responses are rated from 0 to 3 and summed to yield the score. The EPDS was developed specifically to screen for postnatal depression and has been used extensively with antenatal and postnatal women (Milgram et al. 2005). The questionnaire has been recently used besides assessing maternal depression and the issue of paternal depression too (Matthey et al. 2000, Luoma et al. 2004, Ramchandani et al. 2005). The questionnaire is a tool for detecting the risk of postpartum depression in the general population, but it still needs further verification and screening to avoid tackling the problem of diagnosing postpartum depression in a way which is too reductive.

d) a fourth problem lies in formulating a swift diagnosis for this kind of depression; it has been noted that family doctors or operators in others areas of the health profession only diagnose postpartum depression in 50% of cases (Appleby et al. 2003, England et al. 1994) and that a mere one third of cases diagnosed is properly treated. In point of fact, this pathology is inadequately recognized and treated in the various countries independently of the countries’ socio-cultural or health organizational characteristics;

e) a fifth problem is the specificity of this form compared to the depression which occurs in other periods of one’s life.

While literature provides some data which show some slight variance in the symptomatology of postpartum depression, defined “atypical” because of the predominance of neurotic symptoms such as anxiety, irritability and phobias over depressive ones (Pitt 1968), and typified by more serious episodes and a more difficult marital relationship (Whitlen and Gotlib 1993), current thought sees no difference between depression in the postpartum period and that of other moments of life. There are, however, a number of specificities to be attributed to postpartum depression which are linked to the context of maternity and the relationship with the child which call for broader prevention and therapy specifically targeted at the disease of depression in general.

Despite some scientific scepticism, therefore, there do exist valid clinical reasons for using the concept of puerperal depression: a) it can reduce the stigmatisation of the illness and allow women to acknowledge and accept their condition thus making prevention and therapy possible; b) it can lead to understanding significant alterations in maternal conduct such as negligence towards the newborn, and even infanticide; c) it is a problem that involves the health of a substantial part of the population and the organisation of services; d) it generates public awareness on maternal depression which often, however, does not correspond to its diagnosis (Brockington 1996).
Risk factors of postpartum depression and predictive capacity

**Risk factors.** Although the aetiology of puerperal depression is still being studied, it can safely be linked to a series of risk factors which recent literature divides into: confirmed respect to correspond to agreeing with 75% of clinical studies monitored, probable which correspond to agreeing with 40-60% of a review of published studies and possible in that they are only indicative (Pope 1999), thus establishing a kind of hierarchy of importance for clinicians.

Among the factors definable as confirmed there are: a personal history of depression, depression in pregnancy, a conflictual and unsatisfactory couple relationship, a lack of support from the partner and parents and the occurrence of traumatic events in the course of the previous year (Brugha et al. 1998, Webster et al. 2000). It is now accepted that women who have a history of clinical depression are more vulnerable to relapsing into affective disorders in the puerperal period (Appleby et al. 1994; Warner et al. 1996; Bernazzani et al. 1997a, 1997b; Eberhard-Gran et al. 2002) compared to women who have not and that a depressive symptomatology in pregnancy is an important predictive factor for postpartum depression (Affonso et al. 1991, Ussher 1992, Green and Murray 1994, O’Hara and Swain 1996), which points to a continuity of psychological distress during the whole maternity process.

The birth of a child is the most significant event for a couple – both partners must adapt to the presence of a child and change their relationship functional to it. The special attention that a mother gives her baby in the first weeks after birth, which corresponds to a state of mind she resorts to for adapting herself to the needs of the child defined by Winnicott (1958) “primary maternal preoccupation” cuts the partner out of the affection and can contribute to conflict and difficulty in the couple relationship especially if it was not particularly satisfactory before the birth. Lack of marital satisfaction before the birth is held to be a predictive factor for puerperal depression even though it is to be remembered that depressed women tend to perceive their marriage negatively even before birth. Normally marital satisfaction tends to fall in the puerperal period especially if the partner has psychological problems and is jealous of the attention paid to the child. Furthermore, some symptoms of depression, such as irritability, tiredness, lack of interest and a drop in social relations can contribute to increasing marital dissatisfaction and arouse feelings in the woman of loneliness, lack of intimacy and affective support on the part of her partner.

In settings like this, depression can be directly caused by a difficult relationship with the woman’s mother, perceived as being little able to provide support, the perception that the partner is incapable of attending to the needs for protection typical of this period as well as the psychological and social stress deriving from the lack of support in looking after the child on the part of the family and social context (Merchant et al. 1995). These factors point to a conflict between the woman and her points of significant affective reference and with maternity and all the implications of psychological maturity, the taking on of responsibility and the changes that it involves. In pregnancy and after giving birth the woman turns to her mother whom she takes as a role model as a mother, her partner and sometimes personal friends within her social network. If the relationship with her mother is conflictual and the relationship with her partner particularly vulnerable, especially in a family environment in which family ties between present and past generations are weak and acceptance of maternity is ambivalent because of more or less conscious feelings of rejection for the child, the chance of a puerperal depressive imbalance is assuredly high. On the issue of support, it is useful to remember that there is often a difference between the subjective perception of the support, which can be lacking or inadequate being that it falls within the area of the expectancies the woman has of the maternal figure and the partner, and the actual concrete support received in pregnancy and in caring for the child (Bernazzani et al. 2004).

In short, the conflictual aspects can be linked above all to minor depression, namely the form with a late onset whose symptomatology is not invalidating, which allows the woman to carry out her role as a mother, although with difficulty. It is possible that contrary to puerperal psychosis where the impossibility of taking on the role of mother becomes dramatic and the acute crisis is the rejection and flight from it, puerperal depression allows a process of elaboration to begin, but it then encounters obstacles and difficulties of various kinds which prevent success (Benvemuti et al. 1981). The significance of recent traumatic events is to be considered as objective data (e.g. bereavement, difficulties of a marital or economic nature or relating to the habitation) both in terms of the psychological repercussions that the ensuing stress can have on the woman during pregnancy as well as the effect each traumatic event can have on her experience and subjective perception (Paykel et al. 1980; O’Hara et al. 1991b; Bernazzani et al. 1997a, 1997b). Indeed, reaction to a bereavement is usually unconsciously removed until after giving birth because of the difficulty in negotiating the overlapping of the events of birth and death.

Among the factors defined as probable there is a family history of mood disorders, the absence of a partner, severe maternity blues, some personality characteristics and especially a negative cognitive style after the birth, a traumatic birth experience and obstetrical complications, depression in the partner, health, temperamental and behavioural complications involving the child, genetic vulnerability and alterations of the serotonergic system and the hypothalamus-hypophysis-surrenal axis.

A family history of psychopathology is the commonest risk factor for the onset of depression in adolescence and one of the most significant during the course of one’s life. The link between a family history of mood disorders and postpartum depression is known; it seems to involve genetic and psychosocial aspects such as, for example, a lack in the social factors of learning and a deficit in interpersonal relationships (Watson et al. 1984, Campbell et al. 1992, O’Hara 1994a). In any case, a family history of psychiatric disorder has the consequence of serious hardships for both adults and children.

Being a single parent involves much higher re-
sponsibilities towards the child of a practical and affective nature and is tied to other risk factors such as a lack of support, economic difficulties, being unemployed, and the interaction of these factors heightens the possibility of postpartum depression (Brugh et al. 1998).

The link between puerperal depression and very marked maternal blues shows that this symptomatology involves the psychoendocrine system in its entirety, namely in both biological and psychological terms regarding the acceptance of the role of female and mother even though no alterations in hormone levels (progactrin, progesterone, estradiol, cortisol) except extraxil which was linked to maternal blues (O’Hara et al. 1991a).

Many personality traits were thought to be possible risk factors for puerperal depression such as dependence, orality, neuroticism, a dysfunctional cognitive style, a locus of external control and a high sensitivity in interpersonal relations in the sense of a combination of shyness, need for approval, low self-esteem and separation anxiety (Boyce 1994).

The question of the relationship between personality and postpartum depression is complex for a number of reasons: what probably makes women vulnerable is not just one personality typology but the combination of more than one personality trait; it may be that when the personality assessment is carried out soon after the birth the emotional alterations caused by maternal blues can kick in; that the personality assessment, especially for identifying a negative cognitive style, carried out before the birth is not adequate for identifying the personality traits; that the variability of the instruments used and the relative poorness of samples studied makes it hard to identify the dysfunctional aspects of the personality and affects the results depending on whether assessment is carried out in postpartum or during pregnancy. It is good to remember that postpartum depression affects the overall functioning of the personality and makes assessing its premorbid characteristics impossible. Indeed it makes the woman’s personality dysfunctional as a whole and the emergence of depressive symptoms which overlap the personality traits, give rise to a negative cognitive style which is more a consequence of the depression than a personality trait.

A number of studies have pointed to a relationship between some obstetrical factors such as a negative birth experience, the perception of a negative attitude on the part of the staff, the non-presence of a loved one and depression, highlighting the variability of the physical contexts, the methods used for assessing the subjective impact of the birth and the presence of the partner as a protective factor (Niven 1985, Murray and Cartwright 1993, Hung and Chung 2000).

A growing interest is being focused on the link between depression in the partner and postpartum depression in the woman. Contrary to the idealized image of the parent relationship, it was seen that in the months after birth, mental illnesses among parents and the emotional hardships of the partner can contribute to worsening the mother’s psychological problems (Arain et al. 1996).

It has been noted that there is a relationship between postpartum depression and factors involving the health, temperament, and behaviour of the child being that depressed mothers are but marginally involved emotionally with their children; they perceive the child as more “difficult” to care for and themselves as being particularly ineffective in giving maternal care (Armstrong et al. 1998). It is also true that the children of depressed mothers express more negative feelings and respond more negatively to stress than do children of non-depressed mothers, showing the extent to which the quality of the mother-child relationship affects the maternal mood.

Among the risk factors defined as possible, namely which require further study and examination, are breastfeeding, auto-immune thyroid dysfunction noted after four to five months after giving birth, hormonal changes, the woman’s age, a premature birth, physical disorders such as tiredness, sexual problems, perineal pain and backache some months after giving birth.

While it is noted that young women and adolescents seem more at risk of developing postpartum depression there is no agreement on parity though perhaps being primipara aged over thirty can increase the risk of depression. As regards breastfeeding no difference is noted in the initial intention to breastfeed between depressed and non-depressed women while it is noted that depressed women stop breastfeeding earlier than non-depressed women do (Murray and Stein 1989).

Premature birth seems to be linked to depression being that it is a traumatic life event, it is frequently associated with caesarean birth and because it is difficult to bear up under the experience of having your baby in intensive care for a more or less long period.

Thyroid dysfunction as a link to depression, which had already been noted in the 60s, is confirmed on monitoring women for a year approximately after birth and documenting the level of anti-thyroid antibodies (Harris 1993), seeing the possibility of an auto-immune pathology responsible for this co-morbidity. As regards the importance of biological factors, it can be hypothesised that puerperal depression is “aspecific” namely in all ways similar to the depression which arises in other periods of life and thus linked to the aetio-pathogenetic factors implicit in mood disorders or that it be “specific” namely linked to a possible hormonal dysfunction characteristic of the puerperium, caused by changes in the levels of oestrogen progesterone and prolactine. The so-called aspecific factors are not linked to an increased risk of the onset of puerperal depression while other specific factors are relatively more linked.

Literature also identifies protective factors to postpartum depression (Fombonne 1993, Fontaine and Jones 1997) including an optimistic attitude in women in the sense of expectancy of something positive independently of their capabilities and positive self-esteem in the sense of believing that individual capabilities can achieve everything one desires. Other factors are a satisfactory couple relationship and a positive perception of affective support on the part of the partner (Morse 1993, Bernazzani et al. 2004), the feeling that effective social support is possible during the whole pregnancy- puerperal period and an adequate preparation for parenthood which over and above the information on pregnancy, includes labour and birth also elaborating often not-realistic expectations of parents and their emotions.
**Predictive reliability of risk factor.** Many attempts have been made to develop a screening method for identifying women at risk of developing postpartum depression. The results are controversial and in any case incomplete, from the ability to screen only 6% of the variance (Appleby et al. 1994) to being able to predict only 17% for major depression, especially bearing in mind the relation with the partner as the main risk factor (Stamp et al. 1996).

Successfully, a screening model was developed (Cooper et al. 1996) which considered six areas:

- a) the emotional experience of the pregnancy and the presence of anxiety and depression
- b) the physical experience of the pregnancy
- c) any psychiatric precedents of depression
- d) any bereavements prior to age 11
- e) the quality of the woman's relation with her mother, her partner and her very close friends
- f) social factors such as satisfaction at work or in the life ambiant.

This method, however, applied to 6431 pregnant women only singled out one third of those who later went on to be diagnosed with major depression. These same authors suggest introducing the additional variables in postpartum depression of the seriousness of maternity blues and the behaviour of the child. In this light, other researchers developed a questionnaire for identifying women at risk of depression before they gave birth (Righetti-Veltema et al. 1998) taking account of the main risk factors known. Recently (Nielsen et al. 2000), predictive reliability has become 30% including pre- and postnatal risk factors but not considering the relationship with the partner and the social support. Maladaptive strategies for coping and a negative prediction of a woman's ability to care for her child are factors linked to postpartum depression (Gotlib et al. 1991; Honey et al. 2001, 2003). Considering antenatal, perinatal and postnatal factors, a number of researchers (Webster et al. 2003) obtained a predictive reliability of 40% for postpartum depression for pregnant women, women after birth and after sixteen weeks from birth. A recent review of the main studies on predictive factors of the prenatal period (Austin and Lumley 2003) pointed to the difficulty in identifying adequate instruments since studies often excluded key factors such as a prior history of depression, a history of abuse/abandonment in infancy and a personality characteristic evaluation. Not to consider these factors reduces the sensitivity of the instruments and can lead to underestimating the predictive reliability of the risk factors in the various research groups (Austin 2003) and identifying both false-positive cases, rather those who will not develop a postpartum depressive symptomatology among women identified as being high risk, and false-negative cases, rather those who will develop postpartum depression among those identified as being at low risk.

Progress in the development of a predictive index for postpartum depression has been hampered by two factors. First, the epidemiological studies from which information on predictive variables have been identified have involved relatively small samples: even when samples of several hundred women have been studied involving large numbers of mental state assessments, the number of cases of depression identified has been relatively small. Second, although several antenatal variables have been found to be systematically related to the development of postpartum depression, the individual and interactive relationships are relatively weak.

Predictive studies involving rather few subjects are inevitably going to prove unsuccessful. Indeed the largest scale prospective predictive study to be carried out revealed that such factors as the absence of social support and a previous history of depression, the most reliable predictors of postpartum depression, do no more than double the odds of the base rate risk. Clearly the positive predictive value of such variables is low. It is therefore unsurprising that even when a predictive index has been derived from a sample of several thousand women it is of limited clinical utility.

In conclusion, being able to identify prenatal risk factors does not solve the problem of the predictability of postnatal depression there are relatively few women who develop depression in postpartum even though many are vulnerable in the prenatal period. It is understood that the same factors can be experienced very differently by each woman and may not have the same repercussions on the psycho-affective state of each. Some factors can be compensated by the absence of others, which thus have a kind of function of protecting against depression in that particular woman. This is the reason why we meet in the clinical practice women who, despite having been subjected to many risk factors, manage on their own, or with the help of their social networks to tackle the various mood swings and changes of identity this period brings. Besides, the presence of even just one risk factor can favour the onset in subjects who are particularly vulnerable. It is important also to bear in mind risk factors of the postpartum period since they can have a significance similar to those identifiable in pregnancy. This, however, does not answer the problem of the predictability of depression which is confirmed as being linked to a series of elements all bound together with individual vulnerability.

**Preventive interventions**

The study of risk factors is the working basis for preventing postnatal depression and can be divided into two different levels.

On the one hand, improving the pregnancy experience and accompanying childbirth in order to prevent the onset of depression, also focusing particular attention on the context of pregnancy in order to reduce as much as possible the external difficulties the woman can encounter while at the same time helping her to symbolize the physical and affective changes linked to the crisis of maternity (primary prevention).

On the other hand, attending precociously to depressive imbalance or its lesser manifestations with the aim of helping the mother to verbalize her distress tending towards a psychological elaboration of her difficulties so as to work through her serious identity crisis and maintain the quality of her early relationship with the child. A drug-based therapy can also be included in the treatment of the depression symptomatology in order to prevent it becoming chronic and also prevent the long-term consequences (secondary and tertiary pre-
vention). This second level of prevention jointly involves the health of the mother and the child since the psychological functioning and the development of the latter can be seriously harmed if the early mother-child interaction is emotionally damaged by postpartum depression.

The implication of depression for the mother herself and the possible long-term harmful effects on the family as a whole show clearly that prevention, early diagnosis and active treatment of postnatal depression should be a matter of the highest priority. According to Caplan (1964) and Mrázek and Haggerty (1994) prevention can be divided into primary, secondary and tertiary levels as follows:

a - primary prevention: prevents the incidence of mental disorder by counterbalancing adverse factors before they can cause disorder

b - secondary prevention: this refers to early diagnosis and interventions which shorten the length of episodes of the illness, minimise the chances of transmission, and limit the adverse consequences of the disorder. Secondary prevention aims to reduce the prevalence of the condition.

c - tertiary prevention: this refer to measures which limit disability and handicap caused by an illness which may not in itself be fully treatable

Primary prevention can be further categorised (Jenkins et al. 1992) as follows and it depend also by the target population:

- universal measures must be cost beneficial for everyone in the eligible population (e.g. all childbearing women);

- selective strategies are cost beneficial to a subgroup of the population who are considered to be at higher risk (e.g. women with a history of depression);

- indicated approaches can be applied to asymptomatic groups who have risk factors that could justify more costly and extensive interventions (e.g. women who had a very preterm delivery by emergency caesarean section).

Primary prevention

Primary prevention reduces the incidence of disorders by preventing their development, using measures either directed at all childbearing women or at specific subgroups (universal measures). The measures include a more realistic portrayal of parenting in the media, educating school children regarding the practicalities of childrearing, providing training for health professionals about the nature and effects of childbirth-related mental health problems, educating women and their partners about the practical and emotional support necessary for parenting, and providing perinatal care sensitive to psychosocial issues and vulnerability factors (Nielsen Forman et al. 2000, Field et al. 2000, Horowitz and Goodman 2005).

While some individual women can be identified as being at high risk of developing a postpartum illness (Gotlib et al. 1991, Clement et al. 1996), there is also evidence to suggest that groups of women vulnerable to such an illness can be identified before the infant is born (selective strategies) (Fleming et al. 1992, Peindl et al. 2004). For the less severe conditions, there is evidence that psychological treatments (non-directive counselling by trained health visitors, a cognitive-behavioural approach, interpersonal psychotherapy) are effective (Elliot 1989, Prettyman and Friedman 1991, O’Hara et al. 2000, MacKenzie and Grabovac 2001, Clark et al. 2003).

Failing to deal with perinatal mental health problems has adverse consequences such as prolonged maternal morbidity. It has been reported that without treatment 30% of women suffering from postnatal depression are still ill at 1 year post-partum (Pitt 1968). More recent studies in a community-based sample of women of the effects of postnatal depression on infants (Cooper and Murray 1995) have supported this finding. There are effects on the infant and its subsequent development that we can avoid if we are able to do primary prevention interventions (Oates 1986). As Reed (1992) points out, the prevention of mental illness is of importance not only for the people who suffer from mental illness, but also because of the very heavy burdens it imposes on their families. Although recent research suggests that the symptoms and duration of postnatal depression are not noticeably different from that occurring at other times (Sunder et al. 2004) depression after having a baby is unarguably unusual in that its effects are experienced at a time when exceptional physical and emotional demands are being made on the mother in caring for her infant and family. Depression not only affects the quality of a woman’s own life and her experience of mothering, but can cast also a long shadow on the whole family.

Primary prevention must incorporate training for the social and health workers involved in motherhood and parenthood.

All health professionals involved in the care of childbearing women, including hospital staff (obstetrician and midwives), should be given specific training in the psychological needs of perinatal women. Psychiatrists, psychologists, psychiatric nurses and social workers may be less involved in prevention, but they are likely to receive referrals of depressed women from primary care. Primary care workers need to know not only where to refer patients who need more help, but that when they do refer, the woman will be met with perceptive, appropriate and non-stigmatising care (Appleby and Wessely 1988). Primary care workers are there to offer support and advice to the whole family and not just the baby. Women who are found to be suffering from postnatal depression will be offered counselling sessions.

It is fundamental that the workers know the value of preventive strategies including: a) continuity of care of the same subjects by the same workers (continuity of care); b) an empathic, non-directive, empowering approach; c) setting up information/support groups, bringing together new and experienced mothers; d) early antenatal contact: establishing a trusting relationship; providing information about the realities of parenthood, including the possibility of low mood and where to get help; information about the role of the health professionals and about sources of support, e.g. mother and toddler groups, baby-sitting groups and leaflets about postnatal depression; encouragement to talk about self and feelings of pregnancy; introduction to
other expectant mothers if wished; a telephone contact number and times available; e) late antenatal contact: reassurance about postnatal visiting – i.e. supporting the woman, not just checking up on a baby; encouragement to seek practical help and identify sources of support; stressing the value of talking about her feelings to partner, friend or professional; reassurance that each woman is seen as an individual and her wishes respected; listening and attending to any problems; f) postnatal visit: encouragement to talk about her birth experience and early experience of mothering, reassurance of availability; information about sources of support, including baby clinic; telephone contact number and times available.

Another kind of primary prevention can be carried out in the postnatal ward. Ball (1987) has emphasized the need for ensuring that women have sufficient support, rest and peace in which to recover from the stress and excitement of delivery. They also need time and privacy in which to get to know their infant (Klaus et al. 1972) and to feel confident in handling and feeding. Giving women the opportunity to talk about their feelings after delivery is psychologically strengthening in allowing them to integrate and make sense of their birth experience. Staffing levels should be sufficient to allow midwives to spend up to half an hour of “quality listening time” with each mother every day, ensuring that she is given explicit encouragement to talk fully about her feelings and her early responses to mothering (Holden 1990, Tarkka et al. 1999). Empathic listening is not only therapeutic in itself, but can facilitate the early recognition of women with problems in relating to their infants. Encouragement to talk about their feelings in the early postnatal period may help to prevent later emotional problems from developing. Women who experience severe blues symptoms or who seem to be in need of extra support for any other reason should be closely monitored while in hospital, and followed up after returning home.

Interventions in Primary Prevention. There are several treatment options as a primary intervention including counselling, psychotherapy, group treatment, support strategies. Each of these strategies has a place in an overall management plan. The best approach will depend on an assessment of needs and then services available in the community.

Counselling and support groups may be useful for women with some risk factors or adjustment problems. The family doctor or midwives will help to find out which is the best approach and refer women to other health professionals as necessary.

Parenting Antenatal Classes. Parenting antenatal classes are an important setting where detect risk factors for depression, there is the possibility for women to contact other pregnant women and share their experience and granted to their doubts (Sharp 1992). Antenatal efforts to prevent postpartum depression often include psychological strategies aimed at enhancing the support a woman receives postpartum, in some cases targeting just vulnerable women (Matthey et al. 2004). The foci of such interventions are on expectations of motherhood, the importance of social support, education about feelings during pregnancy and postpartum, and community resources to help if mothers become postnally depressed.

The majority of studies (Stamp et al. 1995, Buist et al. 1999, Brugha et al. 2000, Hayes et al. 2001) have failed to find any beneficial effect, Elliot et al. (2000) only found it at 3 months postpartum, which was still during intervention. Attendance to the parenthood classes is one of the main and important factors for determining effectiveness of prevention intervention. That this is likely to be a significant variable was also demonstrated by Gordon and Gordon (1960), they also found beneficial effects for their antenatal intervention, concomitant with good attendance. While, therefore, current evidence indicates that preventive psychosocial interventions are not successful at reducing postpartum distress, there are signs that the variables of attendance (woman and partner) and focusing on increasing partner support, may help in increasing the postpartum adjustment levels of women (Midmer et al. 1995, Zlotnick et al. 2001). Embarking on parenthood is a stringent test for the most emancipated partnership, and sexual equality does not yet extend to equal shares in parenting (Beal 1985, Moss et al. 1987)

It is crucial for partners to attend parenthood classes in order to improve the role the father-to-be can play in postpartum: the importance of partner support has been well documented in the incidence of postpartum depression. The importance of increasing couples’ awareness of each other’s psychosocial concerns, both in pregnancy and after the baby was born, is also demonstrated, and one of the methods to obtain this aim is achieved by discussing their concerns in separate and mixed gender groups (Matthey et al. 2004).

The findings of the studies considering antenatal courses do not very often analyze the woman’s self-esteem, some of these focused on vulnerable mothers only, though none used the level of self-esteem to determine vulnerability status. Self-esteem would appear to be a vulnerable factor for postnatal depression, which is consistent with the findings of Brown et al. (1990). Fontaine and Jones (1997) stated that self-esteem may confer resistance to the development of depressive symptoms during pregnancy and in the early postpartum period. When expectant mothers are low in self-esteem, postpartum adjustment will be facilitated by providing them and their partner with information about the difficulties of the early postpartum weeks, by giving them space to discuss their concerns, both with other women and with their partners, and by increasing their partners’ awareness of their experience of the early postpartum weeks. In this context, it is also important that the staff who organizes the course be able to help women express the emotional state linked to their condition (Honey et al. 2002). The partner’s involvement is also fundamental as he is the main emotional support figure for the woman in this stage of her life just as it is fundamental that the meetings continue in the post-partum phase in order to really share the experience they have just lived through and express the most urgent problems. Naturally, this staff must be adequately trained specifically for this context with a team of specialists on hand to deal with the higher risk cases identified during the group meetings.

Individual counselling. Individual counselling involves listening and discussing issues in a non-judg-
mental way and helping people develop suitable solutions for their problems. Health workers with appropriate training and skills should be available (Dennis 2004). Counselling is useful for women with risk factors for depression, cost effective in the number of sessions required, they can be conducted by health figures with additional training, and does not necessarily require mental health expertise. There are many different counselling approaches, including the client-centred or non-directive approach (e.g. Rogers 1951) and a study examined the effectiveness of counselling (Holden 1989).

Health workers received three weekly training sessions based on non-directive counselling skills as previous research demonstrated the importance of therapeutic listening and extra support. (Kumar and Robson 1984, Cox 1986, Cutrona and Troutman 1986, Snaiith 2002). The aim of the counselling intervention was to focus on the mother rather than the infant. Weekly appointments with empathic and non-judgmental health workers enabled women to share their feelings, evaluate problems, and decide on appropriate actions.

**Couple counselling or therapy.** These approaches can be useful to help couples work effectively together and adjust to the changes that occur before and after childbirth. Sometimes the additional demands placed on both partners during this period can lead to tension in the relationship. A skilled counsellor or therapist can assist with problem solving, resolving conflicts, increasing intimacy and improving communication.

Couple counselling provides information and support to assist the adjustment to parenthood by exploring expectations of child-rearing, the division of household tasks and changes in the couple’s relationship. No published data is available concerning the effectiveness of couple counselling for postnatal depression.

Couple therapy is a more specialised and structured approach often involving behavioural marital therapy, emotion-focused therapy, and insight-oriented couple therapy (Halfeord et al. 2003). Behavioural couple therapy has demonstrated significant reductions in marital distress (e.g. increased positive communications, thoughts and interactions between partners and decreased relationship conflict), although approximately 40% of couples still report significant marital distress at the conclusion of treatment (O’Leary and Beach 1990). Couple therapy may be a useful adjunctive treatment in the management of postnatal depression since the condition is frequently associated with high rates of marital distress and has a significant impact on partners.

**Infant Massage Classes.** Infant massage by the mother has been popular in many cultures, especially India, and is growing in popularity in the West (Field et al. 1996). Recent studies determined whether attending an infant massage class could help mothers with postnatal depression learn to interact better with their babies (Onozawa et al. 2001, Glover et al. 2002).

With mothers leaving hospital soon after the birth, or feeling isolated on the intensive care ward, such a class can reassure mothers and help with learning or coping. Mothers with postnatal depression often have problems interacting with their infants. Attending a massage class has the potential to be of benefit for early mother-infant interaction as such classes specially encourage mothers to look at and understand their babies, as well as interacting with them in a pleasurable manner. It is of interest that while several different types of non-pharmacological, cognitive-behavioural, counselling and psychodynamic treatments were effective in improving the mothers’ depression as assessed by changes in the EPDS scores (Cooper and Murray 1997), they had little effects on improving the mother-infant interaction. This improving depression, per se, was not enough and although the small size studies on effect of infant massage by mothers with postnatal depression on mother-infant interactions, they suggest that attending an infant massage class substantially improved the relationship between mother and infant and may also contribute to improvements in maternal mood.

**Secondary prevention**

Secondary prevention reduces the prevalence of disorders by early identification and interventions that minimise frequency, duration and severity. This area involves the detection of women who are more vulnerable to mental health problems through screening for antenatal and postnatal risk factors, and the provision of appropriate interventions, such as preventive counselling to modify the negative and harmful effects of postnatal depression (Elliott et al. 2000). For example, pregnant women could be allocated to a midwifery group practice within an existing obstetric service or a community-based general practice providing continuity of care during the antenatal, perinatal and postnatal periods. Midwives or maternal and child health nurses could then utilise a screening measure such as the EPDS (Cox et al. 1987) for early identification of depressive symptoms and refer to the family doctor for further assessment, treatment and case management.

Another postnatal strategy would be to increase general practice and community nursing interventions in the first three to six months after delivery to provide monitoring, support, information and referral to specialised treatment services as necessary (Cox 1989, Holden et al. 1996). But the typically gradual onset of postnatal depression means that it is easily distinguishable from the fatigue and emotional liability experienced by most mothers as they recover from delivery and adjust to the demands of the new baby. Early contacts with mothers are still more commonly oriented towards physical rather than emotional well-being, and some clinicians may still believe that emotional disturbances at this time are predictable and self-limiting; depressed women may also find it difficult to confide. According to Goldberg (1992) patients whose distress is not detected by their doctor are usually complaining of somatic symptoms and may have real physical illness which do not account for their present symptoms. Collusion can occur between doctor and patient and it may result from the fear that if they admit how they are really feeling that they will be referred. For many people there is a stigma attached to psychiatric referral (Langer and Abelson 1974, Doherty 1975) and women with small babies run the added risk that they may be perceived as inadequate mothers.

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The detection of women at risk because of previous episodes, close monitoring, early detection and swift intervention will do much to minimise maternal morbidity and limit the adverse effects on the infant and the family. Psychosocial interventions in pregnancy in those women with numbers of risk factors for postnatal depression have suggested that modified antenatal classes (Elliott 1989) or mother’s social support are effective in reducing the numbers of women suffering from postnatal depression and improving aspects of maternal and infant well-being. This knowledge, together with the framework of medical contact during the pregnancy in the puerperium, offers an opportunity, unique in mental health, not just to be able to anticipate episodes of psychiatric disorder but also to detect those at risk, intervene and perhaps prevent it.

Tertiary prevention

Tertiary prevention involves early identification and treatment to limit the disability caused by an established disorder, even though the condition has not been prevented. (Holden 1990; Wisner and Wheeler 1994, Beeghly et al. 2002). Strategies may include prophylactic medication and individual or couple psychotherapy for women with a prior history of affective disorder and their partners immediately after birth or at the first sign of symptoms. Other tertiary strategies include admission to specialist day programmes or inpatient facilities, involvement in group programmes (e.g. treatment, support or self-help groups), parent-infant interaction programmes, and linking mothers with supportive trained workers and volunteers who make regular home visits.

Tertiary prevention requires all the available services of the health structure to be integrated in order to launch a process for depressed women which is as little traumatic as possible also for the child and the whole family. Integrated organisation of the available health services facilitates patient treatment, improves diagnostic capacity, allows, when necessary, moving from one level of therapy to another and the selection of treatments and strategies suited to the woman’s clinical requirements. Local mental health services should also participate in this network in order that early detection be possible and to intervene effectively to maintain a link with the local structures, avoiding disintegration of the family and giving top priority to the needs of the child.

Individual psychotherapy. Psychotherapy aims to resolve problems while addressing the underlying factors or patterns that increase a person’s vulnerability to developing such problems. There are many different models of psychotherapy that suit different people and/or different problems. Psychotherapy is usually conducted by trained mental health practitioners, such as clinical psychologists or psychiatrists. The local community should be able to advise women about what services are available.

Psychotherapy aims to identify patterns in cognitions, emotions and behaviour, explore links between past and present experiences and encourage understanding of the meaning of events from an individual viewpoint. Psychotherapy also aims to decrease presenting complaints while acknowledging factors that increase a person’s vulnerability to developing problems. Effective psychotherapy can reduce current symptomatology, improve functioning in relationships, and teach relapse prevention strategies to limit the severity and impact of recurrence. Limited access to psychotherapy is related to over-extended public services and the cost of private practitioners.

There are many different models of psychotherapy including Cognitive Behavioural Therapy, Psychodynamic Therapy, Interpersonal Psychotherapy.

Psychotherapy that targets depressive symptoms (Cognitive Behavioral Therapy; Beck et al. 1985, Seligman 1995; and Interpersonal Therapy: Klerman et al. 1987, Klerman 1989) or specific current psychological problems related to the depression is more effective than long-term analytic psychotherapies (Elkin et al. 1989). There are suggestions that Cognitive Behavioural Therapy and Interpersonal Therapy are useful in treating postpartum depression (Brierley et al. 1988, Cooper and Murray 1997). However, few studies have been published in peer-reviewed journals. Research is required to determine the comparative effectiveness of pharmacological and psychological treatments, using trained practitioners and standardised programs.

In a treatment study (Cooper and Murray 1997), 194 postpartum depressed women assessed with the SCID were randomised to one of four conditions: routine primary care; non-directive counselling (based on Holden’s approach); modified CBT (based on problems managing infants and providing structured mother-infant interaction guidance and dynamic psychotherapy (based on the mother’s experience of attachment). There were no significant differences between intervention conditions at nine-month and eighteen-month follow-up, nor between intervention and control groups by the nine-month follow-up.

Postpartum depression is often linked to conflicts of parenthood and for this reason a short psychotherapeutic approach can be particularly useful (Cramer 1974) which should be implemented just in postpartum, the typical period of rapid emotional change and identity readjustment. Such an intervention is particularly suited because the condition of crisis the woman is in gives her more openness to accepting help and breaks down much of her resistance. Intervention can be suggested to the mothers alone or to the mothers accompanied by their children, thus within a sort of specific mother-child therapy, or accompanied by their partners too. Psychotherapy should also be available to fathers who request a consultation alone.

Group treatment. A variety of group approaches are available including self-help, social support, psycho-educational and psychotherapy groups (Harlan 2002)

Self-help groups are conducted by people who have experienced the same problems (Foyster 1995, Jones et al. 1995).

Social support groups consist of mothers and their babies with two psychologists as group leaders, their primary goal to bring women into contact with other women having similar experiences so they could share
problems and conflicts and talk about solutions (Fleming et al. 1992, Chen et al. 2000). These groups are held over a definite time period (e.g. 10 weeks) and women normally need an initial assessment prior to the first session.

Psycho-educational groups provide educational information on postnatal depression, strategies for coping with difficult child-care situation and eliciting social support using cognitive-behavioural techniques for women screened positively for probable postnatal depression (Honey et al. 2002, Lumley and Austin 2001).

Medication. Medication can be useful for treating depression and may be accompanied by counseling, psychotherapy, or other support services. The therapeutic problems in a drug-based therapy vary according to whether the onset of the symptomatology occurs during pregnancy or after giving birth.

a) Depression disorders which begin during pregnancy. The use of anti-depressants is debatable when symptoms of depression appear in the first three months of pregnancy since there is much evidence of anomalous foetal development caused by fluoxetine, fluvoxamine, amitriptyline, clomipramine, nortriptyline and imipramine. This evidence shows that the issue is in constant evolution; it should, however, be very much borne in mind in order to better rationalise treatment. The presence of a depressive symptomatology in the last three months of pregnancy makes an anti-depressant treatment necessary which at this stage no longer represents a risk for foetal development although it does in terms of toxicity; the tricyclics can in fact cause symptoms of abstinence and lethargy, hypotonia, cyanosis, breathing irregularities with respiratory acidosis, hypothermia and urinary retention as well as symptoms of overdose. The data relating to the SSRIs (e.g. fluoxetine, sertraline, paroxetine, fluvoxamine) are still not exhaustive – they are sometimes used instead of the tricyclics for greater safety against an accidental or voluntary overdose although their use during pregnancy should be minimal. Treatment must be agreed on with the neonatologist and the paediatrician. Fluoxetine is the most studied drug, and a recent review of literature shows that the weighted average of foetal risk is 2.4%, the same as that for the general population (Addis and Koren 2000). Near the birth time, however, doses of these drugs should be cut to their efficiency minimum or, where feasible, terminated gradually. If there is a serious risk of relapse into depression, they can be given again after the birth examining case by case whether or not to breastfeed since a variable quantity of the drug is excreted with the mother’s milk.

Use of benzodiazepines during the first three months of pregnancy is generally inadvisable due to suspected teratogenicity which can cause specific malformations such as hare lip and oral cleft or worse for example pulmonary, cardiac or renal malformation or various kinds of dysmorphisms. Recent studies have assessed the relationship between taking BDZs in the first three months and the development of congenital anomalies (Dolovich et al. 1998) noting a significant rise in the risk of such malformations as hare lip and oral cleft. In the second and third trimester occasional use can be made of benzodiazepines where there is a severe anxiety symptomatology with grave insomnia. The dose, however, and/or duration of the treatment must be decided on case by case. Administering BDZ in the last stage of pregnancy has been associated with the onset of symptoms of overdose in the child who, at birth, can have the so-called ‘floppy infant syndrome’ which includes muscular hypotonia, hypothermia, difficulty in feeding and a low Apgar count, as well as manifesting a sort of suspension syndrome similar to that of adults, characterized by tremors, irritability and hyperactivity in the suction reflex (McElhatton 1994). In addition, use of benzodiazepines can cause hyperbilirubinemia in a newborn through competitive inhibition of the conjugation of bilirubine, making pulmonary ventilation necessary at birth. Women often take self-prescribed benzodiazepines because common credence classes them as “non-hazardous”. They should not be taken systematically during breastfeeding because the amount excreted with the milk causes sedation in the child. Sporadic use requires careful monitoring of the newborn and cooperation between psychiatrist and paediatrician.

b) Depression disorders which onset after birth. Many women who are depressed in puerperium are reluctant to take anti-depressant drugs but are more open to psychological therapy (Whitton et al. 1996, Appleby et al. 1997b). No specific guidelines exist for dealing with postpartum depression though the general tendency is to intervene with lower quantities of drugs (lower doses, shorter treatment durations) compared to the depression that onsets in other moments of life (Llewellyn and Stone 1998). Inadequate treatment, however, lays the woman open to the risk of the depression becoming chronic, of the symptomatology becoming organized in a form of chronic dysthymia, of aggravating the negative effects on the child and on marital relations, and involves the danger of not containing the self-destruction impulses of depression. In cases of severe depression where the risk of suicide is very high, when there are medical complications, or when the treatment is not followed well and the function of family support is low, the woman should be hospitalized in a place specialised in the treatment of depressive disorders, where possible without breaking off the relationship with the child. Whether to use anti-depressants in mothers who are breastfeeding should be pondered very carefully since a variable amount of the drug is excreted with the milk. Presently, the tricyclics, which are the most commonly known drugs, are still held to be the least hazardous and the blood concentrations of sucking babies whose mothers are being treated with it are non toxic (Wisner and Perel 1996). The long-term results of the use of tricyclics in a group of children are also somewhat comforting since they show no signs of toxicity nor of any development of congenital alterations (Yoshida et al. 1997). SSRIs do have certain advantages during breastfeeding since they have a high protein link and thus a relatively low amount of substances can pass through the mother’s milk (Dodd et al. 2000); fluoxetine, however, needs close surveillance because of its long half-life which can keep the newborn in a state of continued exposure. In short, antidepressant drugs can be used with moderation during breastfeeding and it is not necessary to
break off breastfeeding, especially if the woman experiences it with overly invasive feelings of guilt and lack of self-esteem. Pregnant women with bipolar disorders should be informed about the risk for relapse as they enter the postpartum period; medication prophylaxis during the immediate postpartum should be considered, although data to support this practice are available only for treatment with lithium. Since many women prefer to breast-feed, information about the use of mood stabilizers during breast feeding is also needed (Yonkers et al. 2004).

Among mood stabilizers the use of salts of lithium is incompatible with breastfeeding since the plasma of the newborn has high doses of it, and evidence of toxic effects. Anticonvulsants such as valproic acid and carbamazepine are relatively compatible with breastfeeding although data refer mostly to women with epilepsy in long-term treatment (Brent and Wisner 1998).

The idea of using hormonal treatment (oestrogens and progesterone) in postpartum depression goes back a couple of decades or so (Dalton 1980): it has more recently been compared with antidepressant therapy and treatments with placebos with debatable results and no leads for therapy have emerged in this sense.

**Mother and baby units.** It is unlikely that any but the very largest health authorities would have sufficient numbers of women requiring admission to justify the setting up of a specialist mother and baby unit. Psychiatric mother and baby units have existed in Great Britain since the 1950s. Among the earliest were the units in Banstead, Shenley and London (The Cassel Hospital). Since that time, many others have opened and some have closed. Following the British example there are now units in some European countries (Cazas et al. 2004) in Canada, USA and in Australia (Buist et al. 2004, Fisher et al. 2004), but they are not common worldwide. The now widely accepted belief that separation of mother and infant because of illness may have adverse effects on the mother-infant relationship and be harmful to the child has returned to prominence Bowlby’s work in the 1950s. His research and its humane approach have led to the widespread practice of keeping mothers and infants together in hospital (“rooming in”), as well as the opening of psychiatric mother and baby units. These are small units for women, with their babies, who suffer mainly from puerperal psychoses, severe postpartum depression and relapses into psychoses on giving birth. Treatment is drug- and psychotherapy integrated and the patients are aided by staff specialized in the support and maintenance of the relationship with the child. Indeed the closeness with the child is a positive factor for a mentally disturbed mother since it prevents the rupture of a link that would be very difficult to rebuild later, it is a constant reminder of the function of maternity, it can allow the woman to adopt reparatory behaviour towards the child which show that feelings of guilt and inadequacy typical of depression can be taken on directly as can interacting with the child aided in managing the relationship. After the period of hospitalization, the structure maintains a therapeutic role for the women and their families with for example out-patient clinics which can provide counselling to the parents, self-help groups for women and support for the mother-child relationship through various methods of intervention (Poiso et al. 2002).

In the main the mother baby units are run by specialist general adult psychiatrists (perinatal psychiatrists). Most function as both secondary and tertiary referral units and often provide in-patient care for patients from without their own catchment area. Some of these centres are linked with specialist community mental health teams and provide comprehensive and integrated care for patients within their own catchment area as well as a liaison service to the maternity hospitals. Others function in a purely tertiary manner and referring community mental health teams are responsible for the patients where once they leave.

**In conclusion**

It can be maintained that one of the main problems of postpartum depression is recognising it, since women and their families do not seek help for it: indeed postnatal depression is presently perceived more as something to be kept hidden than a recognised socially acceptable disorder, despite information on it is being widespread. This means that also one of the goals of prevention policies must especially focus on support during pregnancy and at birth and on the methods of recognizing the symptomatology described above. This screening can take place prior to childbirth or at the onset of depression in puerperium in order to provide effective prevention by professional staff with multidisciplinary skills, trained and supervised by expert clinicians. Furthermore, places for consultation, exchange and listening have to be set up for women and their families so that they can share the emotional and relational difficulties with expert staff in order that they do not crystallize and become a clinical level depression disorder. This means that alongside the medical preparation for birth and childbirth, the psychological aspects of maternity overall also have to be taken into consideration to provide the woman with support and accompaniment in tackling the identity crisis that comes with parenthood. Within primary and secondary prevention, therefore, it is necessary to develop measures for reinforcing the strategies of the woman for coping, strengthening the protective factors and attempt to contain the weight of a number of known risk factors in order to reduce the incidence of depression.

When the depression manifests itself clinically the psychological intervention must focus on promoting specific skills for managing and tackling the depression in such a way that it can be worked on and the woman can draw a positive lesson from the traumatic experience lived through.

In this sense, it is useful to refer to the concept of resilience deriving from the psychology of development. The word “resilience” means literally the capacity to tackle problem situations and redefine one’s identity after various kinds of traumatic events (Rutter 1987). Resilience is a composite personality trait in which various factors converge (cognitive, emotive, family, social, educative, experiential, maturative) which act jointly to mobilize personal resources respect to a traumatic event. This should not be confused with resistance, characterised by passivity, nor with invul-

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nerability, which refers to an absolute impermeability to the negative consequences of stress (Kinard 1998). Resilience implies a dynamic process of self-reconstruction through actively working on the very elements of the traumatic event. Working on the maternal identity crisis and getting over the depression experience should be the aim of a preventive intervention over various levels of complexity.

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By definition postnatal depression impairs the mother in her daily life. Often this means that her relationship with her baby will be affected. A profile of mother-infant disturbance in the context of postnatal depression has emerged, with affected parenting manifested in either a withdrawn, disengaged parenting style or an intrusive, hostile one. The importance of detecting and responding to these cases is underlined by the growing knowledge of adverse effects on the psychological, cognitive and intellectual development of the children (Murray and Cooper, 1997, Sharp et al. 1995 and Hay et al. Postpartum depression (PPD), also called postnatal depression, is a type of mood disorder associated with childbirth, which can affect both sexes. Symptoms may include extreme sadness, low energy, anxiety, crying episodes, irritability, and changes in sleeping or eating patterns. Onset is typically between one week and one month following childbirth. PPD can also negatively affect the newborn child.