



Universiteit  
Leiden  
The Netherlands

## Early home visitation in families at risk for child maltreatment

Bouwmeester-Landweer, M.B.R.

### Citation

Bouwmeester-Landweer, M. B. R. (2006, May 18). *Early home visitation in families at risk for child maltreatment*. Retrieved from <https://hdl.handle.net/1887/4396>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4396>

**Note:** To cite this publication please use the final published version (if applicable).

---

# 3

## RISK FACTORS FOR CHILD MALTREATMENT

## 1 INTRODUCTION

The previous chapter was concluded with an overview of paradigms explaining child maltreatment. The theories chosen for this study are those of Belsky and Baartman explaining the ecology of child maltreatment and the notion of parental awareness. In this chapter we will further explore these theoretical concepts. The primary objective of this exploration is to provide insight in the factors influencing and surrounding families at risk for maltreatment, which will eventually help us to decide on the risk factors for child maltreatment to be used in this study.

In paragraph two of this chapter the foundation is laid for the design of this study. After all, the paradigms of choice provide us with an insight in the causes and mechanisms of child maltreatment, and it is with this insight that we begin to understand what should be done in a preventive intervention and to whom this intervention should be offered. As the first issue (what should be done) will be continued upon in the next chapter, the second issue (who should it be offered to) is the principal concern of this chapter.

Therefore in the third paragraph risk factors for child maltreatment are explored from another angle: not that of theory but that of empirical research. This is done through the presentation of a thorough review of risk factors. In literature these risk factors are presented in different ways. As the results of our search will prove, not all publications address the reliability of risk factors, some just present lists. As a conclusion to this chapter a choice is made for the risk factors to be used in this study.

## 2 FROM PARADIGM TO PRACTICE

As was addressed in the previous chapter, a targeted preventive intervention can only be developed by adopting a paradigm to understand and explain the causes and processes of child maltreatment. In this paragraph the paradigm chosen in the previous chapter will be reconsidered in order to determine which factors play a role in which domain of the paradigm. In addressing these different ecological domains a family acts in, as proposed by Belsky, and the notion of parental awareness as proposed by Newberger and Baartman, we continue to look at child maltreatment as a parenting problem and thus focus on physical maltreatment and neglect. The arguments for this delimitation have been provided in the previous chapter. Determining the way risk factors for child maltreatment fit into our paradigm is important, first of all when it comes to the selection of families for the targeted preventive intervention that is to be designed (as will be addressed in paragraph 3). Secondly it is important when the design of the intervention itself is concerned, as will be addressed in the next chapter. In this current paragraph the different domains of Belsky's etiological approach will first be revisited. Secondly, the domain of parental awareness will be explored more in-depth.

### 2.1 The ecological perspective

In one of his early publications Belsky presented a critical review of three theoretical models of child maltreatment, which he called the psychiatric model, the sociological model and the 'effect of the child on caregiver' model (<sup>12</sup>). These models are considered the so-called 'first generation' models; presenting a "single antecedent factor in the instigation and maintenance of abuse or neglect" (<sup>60</sup>, p<sup>642</sup>). Creating his ecological perspective, Belsky integrated these first generation models into one, thereby acknowledging multiple causality in child maltreatment. Upon closer examination, the ontogenic system reflects upon the psychiatric model (parental factors), the microsystem represents the 'effect-of-child-on-caregiver' model (child and interactional factors) and the exosystem reflects upon the sociological model (contextual factors).

Hillson and Kuiper (1994) considered Belsky's ecological perspective to be a 'second generation' model. It was thereby put in line with transactional models (considering potentiating and compensatory factors) and transitional models

(considering causative and protective factors on a continuum of parenting) <sup>(60)</sup>. According to aforementioned authors the breadth of these second generation models results in a lack of explanatory depth. This should be resolved by contemporary or third generation models, which address the processes through which causative factors interact to produce child maltreatment. Hillson and Kuiper considered Milner's social information processing model <sup>(74; 76)</sup> to be one of such 'third generation' models, as well as the stress and coping model of child maltreatment they themselves presented. Belsky acknowledged the important influence of stressors, as is demonstrated in several statements such as "maltreatment seems to arise when stressors outweigh supports and risks are greater than protective factors" <sup>(13, P427)</sup>. The 'stress and coping model' is useful in exploring the mechanisms of stress in the ecological perspective on causes of child maltreatment. Therefore, apart from examining each domain of this perspective, the mechanisms of stress will be addressed as well.

#### 2.1.1 The ontogenic system

Central to the ontogenic system is the personality and developmental history of the parent. Personality traits typical for maltreating parents such as weak impulse control, depression, anxiety and low self-esteem have been described in early publications. As knowledge on the phenomenon of child maltreatment grew, the typical characterization of the maltreating parent as suffering from psychological disorders and deficits has been under debate. Some studies found these personality traits to be present in maltreating parents where other studies did not <sup>(13)</sup>. Either way, parental depression (as covering term) is found to influence the parent-child interaction in a way that is similar to the interaction patterns found in maltreating parents <sup>(46; 106)</sup>. Parental personality has in part been shaped by the developmental history of the parent as Vondra (1990) points out. "Depression, negative affectivity, poor ego-control and ego-resiliency, low self-esteem and a host of other impairments in ego functioning may well have their roots in the early family environment" <sup>(103, P 155)</sup>.

The developmental history of parents and specifically the phenomenon of intergenerational transmission has been the focal point of many studies. Retrospective research on the subject shows rates between 7% and 56% intergenerational transmission <sup>(8)</sup>. A commonly cited estimate, based on a review of

studies, is that of 30% by Kaufman and Zigler<sup>(63)</sup>. The wide variation in findings could be caused by differences in design or definition. Four other reasons for this variation are based in the parental developmental history. First, many studies rely on retrospective reports, and “painful experiences in childhood are often excluded (unconsciously) from memory”<sup>(13, P415)</sup>. Second, the effects of the experienced maltreatment in childhood, such as loyalty towards the own parents, learned (aggressive) behavior and philosophies of (harsh) discipline, may cause a parent to fail to consider their childhood experiences as maltreatment<sup>(15; 59; 101)</sup>. Third, parents may withhold information about their childhood experiences for reasons of shame or guilt<sup>(101)</sup>. Finally; in cases where no transmission is found this may still occur at a later age of the child or in other children, including those not yet born<sup>(13)</sup>. These reasons appear to suggest that intergenerational transmission is inevitable. It should however be noted that the majority of maltreated children do not become maltreating parents<sup>(63)</sup>. Setting aside the search for the exact rate in which intergenerational transmission occurs, it is important to explore the conditions that promote or prevent this transmission as well as the effects upon parental personality and parenting behavior.

Baartman discussed several theories to clarify the process of intergenerational transmission<sup>(8-10)</sup>. One of these theories is the object-relation theory by Winnicott (1958)<sup>(107)</sup>, which addresses the images, a child develops about his or her parents as well as about itself. Every child has to balance the ‘good parent’ and the ‘bad parent’ as well as the ‘good me’ and the ‘bad me’. Winnicott suggests that maltreated children, in order to survive, maximize the image of the ‘good parent’ and are thereby forced to balance this image with a prominently ‘bad me’. As this exclusion of any ambivalence may serve survival during childhood it might be maintained during adulthood. Thus the once maltreated child tries desperately to be a ‘good parent’ and where this effort fails it is caused by a ‘bad child’<sup>(8)</sup>. The inability to accept the possibility of temporal disappointments both regarding the ‘good parent’ as well as the ‘good child’ may be based on a lack of self esteem that is generated by the fundamental rejection which maltreatment implies. “All of us tend to view ourselves as we imagine ‘significant others’ view us, and if our parents as the most significant of ‘others’ rejected us as children, we are likely to define ourselves as unworthy of love, and therefore as unworthy and inadequate human beings”<sup>(87, P192)</sup>.

This lack of self-esteem may be one of the most important factors in intergenerational transmission affecting parental personality, as it influences both parenting (as described above) as well as the process of transmission. Discontinuity in intergenerational transmission appears to be caused by factors such as spousal support, a strong social support network and experiences of success (<sup>13; 89</sup>). These accomplishments may be largely influenced by the degree of self-esteem in a person. Rutter concludes his study on continuities and discontinuities as follows: “it may be that the girls acquired a sense of their own worth and of their ability to control their destinies as a result of their pleasure, success and accomplishments in a few specific areas of their lives. [...] Our evidence suggests that the experience of some form of success or accomplishment may be important, not because it dilutes the impact of unpleasant happenings, but because it serves to enhance confidence and competence to deal with the hazards and challenges of everyday life” (<sup>89, p344</sup>).

### 2.1.2 The microsystem

The microsystem is defined as the immediate (nuclear) family and thus largely concerns the interaction patterns taking place between parents and children. As far as these interactions are initiated by the parent(s) they will be described in paragraph 2.2. As for the child's contribution to these interaction patterns, several factors are commonly determined. An important factor concerns the child's health. Premature or dysmature children display different developmental and behavioral profiles than do full-terms and thus require different parenting treatment (<sup>13; 14; 96</sup>). Two mechanisms leading towards maltreatment are proposed regarding pre- and dysmature children. First, erosion of attachment, as a consequence of frequent parent-infant separations, caused by for instance postnatal hospitalization. This mechanism is mostly found in retrospective design approaches and therefore not very reliable. The other mechanism is concerned with an increased amount of stress in the child rearing of pre- and dysmature children (<sup>3</sup>). In several studies premature children are found to be more lethargic and less responsive than full-terms, stimuli are likely to stress them and in such distressed situations they are harder to comfort. Also they are often physically unattractive and emit high-pitched, arrhythmic and disturbing cries (<sup>13; 14; 49</sup>). Excessive crying (as perceived by parents) is found to increase the risks of maltreating acts such as smothering, slapping or shaking a child (<sup>85</sup>). Frodi (1981) pointed out that it remains unclear whether certain child characteristics precede or are caused by maltreatment (<sup>49</sup>). The

same mechanisms described above for premature children are proposed for handicapped children or children with perinatal health problems (<sup>3; 13</sup>).

Another important factor in the parent-child dyad is the child's temperament. Several studies have found a relationship between difficult temperament in children and parenting problems (<sup>see 14</sup>). However, "it is important to keep in mind that the older the child, the more likely it is that the very care parents have provided in the past influences what comes to be labeled as child temperament" (<sup>14, p171</sup>). In an experiment studying parent-child interaction, Crittenden (1985) found that, when mother's behavior became more sensitive, infant behavior subsequently improved. These findings provide compelling evidence for the relative primacy of maternal behaviors over infant temperament (<sup>35</sup>). As it turns out the parental perception of the child's temperament may be more important than the actual child's temperament in the parent-child interaction, which will be discussed in paragraph 2.2. In reviewing the results of studies on child behavior Belsky concluded that "parents play a larger role in the etiologic equation than do children" (<sup>13, p420</sup>), a conclusion that is supported by the findings of Egeland and Brunnequell (<sup>41</sup>).

Although the support system of parents is commonly situated in the domain of the exosystem it could be argued that the marital relationship is also part of the microsystem. For "the addition of the father to the more commonly studied mother-child dyad does more than create an additional parent-child relationship; it creates a family system comprised of husband-wife as well as mother-child and father-child relationships" (<sup>14, p174</sup>). Indeed research proved a relationship between the quality of the marital relationship and both parenting behavior and child functioning (<sup>14</sup>). As described by Vondra (1990), several studies found a relationship between poor marital quality or even absence of a marital relationship and the presence of child maltreatment (<sup>103</sup>). Accordingly, violence between partners and violence between parent and child are found to often co-occur (<sup>101</sup>). Vondra claims that "troubled, emotionally abusive relationships in childhood (perhaps observed as well as experienced) jeopardize the quality of later adult relationships, particularly the critical marital relationship" (<sup>103, p157</sup>). We thus find evidence that intergenerational transmission can also be found in the marital relationship parents engage in.



### 2.1.3 The exosystem

Belsky described the exosystem as the sum of contextual sources of stress and support <sup>(14)</sup>. These sources may be found in the support (or lack thereof) received from friends, family and professionals, but also in the quality of the neighborhood community a family resides in. Garbarino (1980) described high-risk American neighborhoods as “areas with [...] low levels of neighborly exchange, residential instability and transience, [...] deteriorating housing, poor relations with institutions such as schools and a pervasive pattern of social stress” <sup>(51, p240)</sup>. Other characteristics of American high-risk neighborhoods include a substantial amount of female headed (single-parent) households, a high rate of unemployment, poverty, overcrowded housing, community violence and high crime rates <sup>(52)</sup>. This description demonstrates the lack of (professional) support and the level of stress caused by the mere residence in a high-risk community. The problems in these kinds of communities only increase because “socially impoverished and violence-prone families tend to be clustered together, in part it seems by choice and in part because of deliberate efforts by real estate developers and city planners to concentrate them” <sup>(51, p253)</sup>.

Social isolation is however not simply caused by the neighborhood a family lives in. Belsky (1993) discussed a number of studies discerning this picture. Maltreating parents do not use community resources that are available, nor do they get involved in community or church-related activities, a finding that is possibly related to the high levels of transience found in maltreating parents. They also tend not to discuss their problems with others <sup>(13)</sup>. Another interesting finding supporting the role of parents in their social isolation comes from Polansky, Gaudin, Ammons and Davis (1985). They found that although neglectful parents described their neighborhood as relatively unfriendly and their neighbors as unhelpful, their (non-maltreating) neighbors painted a decidedly different picture of the neighborhood and its inhabitants <sup>(84)</sup>. Belsky's conclusion was that “isolation and lack of social support is, at least in part, something that maltreating parents actively, even if inadvertently, contribute to, rather than something that simply happens to them” <sup>(13, p422)</sup>. This parental contribution can be explained by the developmental history of parents: “childhood experiences translate into differences in social skills and relationship ‘working models’ that contribute to [...] the quality of and satisfaction with social network support” <sup>(103, p156)</sup>.

In addressing the quality of a social network the difference between social support and social isolation should be considered. These terms are often treated as interchangeable in studies on the subject, which may be unjust. While social isolation implies the absence of a social network, the presence of a social network does not automatically imply social support <sup>(11)</sup>. Relationships may be present, but conflicted or asymmetric, thereby adding to the burden in a family <sup>(103)</sup>. A possible cause for conflicted relationships is found in inadequate parents being “easily frustrated and annoyed and quick to respond to their frustration in a hostile and aggressive fashion” <sup>(40, p203)</sup>. Regarding the asymmetrical reciprocity in relationships, Seagull (1987) described the finding of dysfunctional mothers who, by their own report, provided significantly more emotional support to others than they received <sup>(91)</sup>. Finally, some relationships are preferably not maintained: “considering the very negative rearing of the majority of abusive parents, staying away from their own parents could be indicative of good judgment” <sup>(91, p49)</sup>.

A final aspect of the exosystem being a source of stress or support is parental employment. Several studies pointed out the negative impact of unemployment or underemployment as well as work absorption, work stress and dissatisfaction, upon parenting behavior <sup>(14)</sup>. In considering the body of literature presented on this subject by both Belsky and Vondra (1989) and Baumrind (1994) an important conclusion should be that employment is related to confidence and a certain power in parents, particularly fathers. According to findings described, mothers lose respect for their husbands when they are unemployed <sup>(42)</sup>, which seems to be related to the decline in paternal authority through unemployment as found in another study <sup>(66)</sup>. Particularly in low income families, maternal employment is found to create strain in the father-son relationship <sup>(54)</sup>, supposedly due to the fact that in such families mother’s entry into the work force is regarded as an indication of the inadequacy of father as provider <sup>(22)</sup>. The results of this loss of confidence and power are demonstrated by other findings, describing how income loss increased the arbitrariness and punitiveness of the father’s behavior <sup>(43; 44)</sup>. Although these findings are dated, the majority of them have been replicated in contemporary families by Conger and his colleagues <sup>(see 70, p262)</sup>.

Other more contemporary findings stipulate the relationship between parenting behavior and employment characteristics. For instance poor parents were found to

be more likely to use physical discipline and less likely to monitor their children than were nonpoor parents <sup>(21)</sup>. From other findings Zaslow and Emig (1997) concluded: “parents in jobs that are repetitive and unstimulating and offer little opportunity for self-direction emphasize obedience as a child rearing value. By contrast, when jobs involve greater variety, stimulation and self-direction, parents more often tend to reason when disciplining their children” <sup>(108, p113)</sup>. Aside from different parenting behaviors related to (un)employment, the income loss experienced due to unemployment generates stress in a family, which is found to cause depression and demoralization in parents, in turn resulting in marital conflict and harsh, inconsistent and hostile parenting <sup>(30)</sup>.

There appear to be gender-related differences in the effects of unemployment though, both related to parenting behavior and to parental wellbeing. When compared to single non-parents, mother’s mental health is less affected by job loss than father’s mental health <sup>(6)</sup>. The correlations between unemployment and child maltreatment were found to be larger for fathers than they are for mothers <sup>(53)</sup>. On the other hand, maternal unemployment was found to be a bigger stress factor than maternal employment in low-income families <sup>(73)</sup>. Sidebotham, Heron and Golding (2002) found both paternal and maternal unemployment to be a significant risk factor for child maltreatment. About paternal unemployment they suggested “this may represent a combination of the adverse economic effects of unemployment as well as the stress and impact on the self-esteem of fathers, and the increased contacts that fathers have with their children if they are not at work” <sup>(95, p1253)</sup>. Regarding the different findings on the relationship between maternal unemployment and both child maltreatment and mental health they suggested “a cultural shift towards maternal employment being the norm could in itself affect the way such employment or the lack of it is perceived. This in turn may affect the way unemployed mothers perceive themselves and their relationship to their children” <sup>(95, ibidem)</sup>. It may very well be that this cultural shift takes different paces in different (sub)cultures and social classes, which could be the explanation for the mixed findings described above.

#### 2.1.4 Stress

In the previous sections we have discussed the ecological model for child maltreatment. Clearly each system in this model contains factors that can cause

stress in a family. The model of Hillson and Kuiper (1994) that was introduced at the beginning of this paragraph, attempts to explain the path to maltreatment in the presence of these stressors. Two important concepts in this explanation are the appraisal of stress and the strategies deployed in coping with stress. The first step in appraisal of stress is the evaluation of a given situation: does this situation pose a threat to the personal well being, and if so, can it be averted or controlled. This leads to the second step in appraisal: examination of the resources and coping options available to deal with the stressor, and evaluation of the expected outcomes of activating particular options <sup>(60)</sup>.

Hillson and Kuiper described two types of coping strategies, emotion-focused and problem-focused coping. Emotion-focused coping tends to be deployed after the appraisal of a situation as inevitable, and serves as regulation of the emotional components of the stress response. Coping strategies within this type involve avoidance, minimization, distancing, selective attention, positive comparisons and cognitive reappraisal to change the meaning attached to a situation, but also self-blame and self-punishment. Problem-focused coping on the other hand is directed toward managing or altering the conditions that have caused distress. Strategies within this type can either be targeted at the environment, changing external pressures, barriers, resources and procedures, or they can be inward directed, learning new behaviors, developing new skills and shifting aspiration levels <sup>(60)</sup>.

A relationship is found between certain coping strategies and maltreatment and neglect of children. Behavioral disengagement for instance can be taken to a point of giving up completely, thus withdrawing from basic behaviors such as feeding, clothing, sheltering and supervising children. The same can be said for mental disengagement, immersion in activities that serve to distract from the current stressor to a point where children can become neglected. Maltreating caregivers are thought to use the strategy of focusing on and venting of negative emotions, which may be targeted at the child: "striking a child may be a maladaptive coping response to a situation in which the caregiver perceives himself or herself to be threatened, his or her resources limited, and in a moment of escalating anger, the child is physically attacked in an attempt to restore the caregiver's identity" <sup>(60, p277)</sup>.

The stress and coping model of child maltreatment presented above provides a useful insight in the mechanisms leading to maltreatment in stressful situations. Although this model acknowledges the domains proposed by Belsky, neither in itself nor combined with the ecological model does this model present a sufficient explanation for the question why some parents maltreat their children while other parents do not. We now have two models to work with, one describing the input, the processing and the output of stressors, the other describing the different domains in which these stressors can be found. Still, we cannot answer the question why certain parents process various stressors in a way that should be considered child maltreatment. This problem is visualized in a schematic representation of the etiology of child maltreatment as presented by Belsky and Vondra (1989, <sup>(14, p157)</sup>), in which all stressors discussed above are placed around the notion of ‘parenting’ which eventually generates the outcome: child development. In the previous chapter we cited Baartman who pointed out that the parent is an important actor in this model as parenting is more than just a complex interaction of external factors. Van der Pas also felt something is missing in Belsky’s model when she stated “this makes ‘parenting’ a sitting duck for any stressful situational factor, and contradicts the fact that many parents function well despite dire circumstances” (<sup>(83, p79)</sup>). To answer our question, why certain parents process various stressors in a way that should be considered child maltreatment, we need to move on to the second part of our paradigm: the concept of parental awareness.

## 2.2 Parental awareness

Aside from the sources of stress to be found in the surroundings of a family, child maltreatment is particularly related to the way in which parents interpret their child’s behavior and perceive their relationship to their child. Parental awareness is the term chosen to cover this process. This term was originally introduced by Newberger (1980). As was described in the previous chapter, Newberger saw two dimensions to the system of parental awareness. A perspective-taking dimension, comprising expectations, perception and sensitivity; and a moral dimension, implying parental action - a “process of negotiating conflicting claims” (<sup>(80, p48)</sup>). The elements of these dimensions will be discussed in the following section.

### 2.2.1 Expectations

The expectations parents have of their children can be divided into three separate dimensions. The first dimension concerns the capabilities a child is expected to present. This dimension is closely related to the knowledge a parent possesses of the different developmental stages and tasks, which a child fulfills. If this knowledge is insufficient, parents are at risk of over- or underestimating their child because their expectations are not realistic. The second dimension is related to the expectations parents have of the role a child will play in their life. Especially when a child is conceived to improve a parent's life or for instance the marital relationship of parents, in short to fill inappropriate expectations, the child is at risk of being overburdened. This overburdening can be considered a form of parentification (<sup>9;</sup> <sup>10</sup>). A striking example of this type of expectations is a mother's remark noted by Kempe (1968): "I've waited all these years for my baby and when she was born she never did anything for me. When she cried, it meant she didn't love me; so I hit her" (<sup>58,</sup> <sup>p21</sup>). The third dimension relates to expectations parents have of the person a child will become. These expectations need to be attuned to the child's own wishes and capacities, if not a child risks to be over-demanded. Baartman concluded: "the more a child is supposed to compensate for feelings of failure in parents, the larger the chances that these expectations are not attuned to the inherent qualities of the child and thus the larger the chances of over-demanding a child" (<sup>10,</sup> <sup>p54</sup>).

Several studies have been conducted to research the possible differences in parental expectations. Unfortunately, expectations have not been differentiated as they are above. In his review of literature Milner (1993) found that maltreating parents have inappropriate and inaccurate expectations related to their child's behavior. These expectations are either unrealistically high or too low compared to non-maltreating parents. Lower expectations are specifically related to child development. In other studies maltreating parents are found to have high expectations of child compliance following discipline for minor transgressions. According to Milner, in this case unrealistic expectations "may result in the high-risk parent perceiving a discipline failure when the child repeats the minor transgression, which may result in the child being viewed as oppositional and defiant" (<sup>74,</sup> <sup>p284</sup>). In this example it becomes clear how expectations and perception are closely related to each other and to the parental sense of competence as a parent.

### 2.2.2 Perception

The perception of a child can also be divided into three dimensions. A first dimension relates to the dependency of the child in relation to the parent and the need for care. The perception of the care for a child as a burden and of the child itself as burdensome seems to be related to the parental feeling of incompetence<sup>(10)</sup>. The second dimension is related to the pleasure a parent can experience in perceiving his or her child as a developing person. Baartman found supporting evidence for this dimension in research addressing the reasons for wanting to have children. One of the main motives found in this research is the delight a parent expects to experience from a child, while being a child and growing up. The third dimension concerns affection, both the affection a parent feels towards a child and the affection a child displays towards the parent. All three dimensions can generate either positive or negative experiences. Positive experiences of being significant to another person who is also significant to you. Negative experiences of feeling over-demanded and under-appreciated, and of a child as a disappointment, diverting from what it was expected to be. In itself these negative experiences are normal, especially when significant relationships are involved. The problem arises, according to Baartman, when these experiences become chronically negative, or when parents are unable to handle the feelings of ambivalence that are inherent to the parent-child relationship<sup>(9; 10)</sup>.

For the first dimension of perception, that of tending to and caring for the child, a large body of evidence is found in literature. Maltreating parents are found to be less attentive to and less aware of their children's behavior, they do not perceive infant cues and are less responsive to temporal changes in their child's behavior<sup>(74)</sup>. In the often cited study of Frodi and Lamb (1980) it is described how maltreating parents were more reactive to both a crying and a smiling infant, which lead to the conclusion that the abusive parent perceives the child as an aversive stimulus regardless of the child's behavior<sup>(50)</sup>. Other studies are confirming this finding when they conclude that high-risk mothers distinguish less than low risk mothers between positive and negative child behaviors in a high stress situation<sup>(74)</sup>. This supports the notion that maltreating parents perceive their child as mostly burdensome. While these findings can be presented as support for the concept of distorted perceptions of the child, they are an indication of a lack of sensitivity towards a child as well.

### 2.2.3 Sensitivity

Baartman defined sensitivity as “sensing and acknowledging as well as taking into account the needs, emotions and experiences of the child” (<sup>10</sup>, p<sup>61</sup>). ‘Taking into account’ means providing adequate responses to the needs of a child, responses that serve the well-being of the child, sometimes referred to with the term ‘sensitive responsivity’. The notion of sensitivity is commonly used in attachment-literature. As a differentiating characteristic of maltreating parents it has received less attention. In the latter case the concept of empathy has been emphasized, a concept related to and partly overlapping with the concept of sensitivity. Feshbach (1989) considered empathy to hold both affective and cognitive elements (<sup>47</sup>). She differentiates between three components: “the cognitive ability to discriminate affective cues in others, the more mature cognitive skills entailed in assuming the perspective and role of another person and emotional responsiveness – that is, the affective ability to experience emotions” (<sup>47</sup>, p<sup>352</sup>). The first two components are related to sensitivity. However, sensitivity also implies an element of action, aimed at the improvement of the child’s well-being. This action then may well be driven by Feshbach’s third component.

Research on the subject of attributions parents make about their children seems to be supportive of the assumption that maltreating parents lack sensitivity or at least empathy. Milner (1993) described how maltreating parents are found to make internal and stable attributions for negative child behavior and external and unstable attributions for positive child behavior. Furthermore, maltreating parents appeared to be more likely to attribute hostile intent to the child’s behavior and they viewed child behavior as more intentionally annoying (<sup>74</sup>). Baartman introduced findings by Kropp and Haynes (1987), which concluded that maltreating mothers performed significantly worse at differentiating diverse emotions in infants (<sup>10</sup>).

### 2.2.4 Conflicting claims

The last mechanism within the concept of parental awareness to be discussed is that of conflicting claims. At the root of this mechanism lies the assignment to honor the needs and interests of both parent and child. As in any significant relationship, in the parent-child relationship personal interests of the child and the parent will not always agree with each other. In a balanced relationship the



prevailing interest of both parties will be switched on a regular basis. The parent-child relationship becomes troubled when parents are unable to maintain this balance. This (in)ability is described by Brunnquell et al (1981) as the 'Level of Personality Integration'. This concept is considered "an amalgam of affective and intellectual elements, each of which contribute to the overall conception of the mother's recognition of her own psychological needs and processes, her ability to perceive those needs and processes in others, and her ability to integrate the two sets of needs and processes" <sup>(26, p689)</sup>. However, the parent-child relationship differs from other relationships through its inequality: principally the child's interest prevails over that of the parent. If parents fail to act upon this inequality it may be because their perspective of the child is clouded. As a result expectations of a child become unrealistic, over-burdening and over-demanding; the child is perceived as demanding, unappreciative and a general burden both through its need for care and its 'childish' nature; and sensitivity fails. When we look for causes of the obscured parental perspective of the child we return to the first sections of this paragraph: preoccupation with stressors in the various systems of Belsky's ecological perspective.

Baartman (1996) linked the concept of personality integration to the ontogenic system when he concluded that parents lacking personality integration can not acknowledge the experiences and emotions of the child because this requires acknowledging one's own experiences and emotions which may be disturbing <sup>(10)</sup>. Even more so in case of the presence of various stressors. We now return to the object-relation theory by Winnicott, which has been introduced in the section about the ontogenic system. If a parent has survived experiences of maltreatment as a child, he or she has often done so by excluding all ambivalence and predominantly perceiving oneself as 'bad' and deserving of ill-treatment. Thus the parent lives with a self-image of worthlessness. Within such an image the parent is unworthy of receiving whatever anyone, including a child, has to offer. Still, although unable to receive attention for their personal needs and interests, these parents feel a need for 'retribution'. Retribution for the fact that, as a child, they never received attention for their personal needs and interests. The inability to receive what is longed for, combined with the unambivalent 'good' versus 'bad' notion, may be at the root of the mechanism of conflicting claims. Because if trying to be a 'good parent' fails (and every parent fails from time to time), it may be

necessary, in order to avoid any ambivalence, to maintain the 'good parent' by creating a 'bad child'. A child unworthy of attention for its personal needs and interests.

### 2.3 Conclusion

In this paragraph we have explored the issues that can be encountered in families when approaching them from the paradigm chosen within this study. We have demonstrated in this examination not only the multicausal complexity of the phenomenon of child maltreatment but also the fact that much of the factors presented within each domain are intertwined.

In the introduction to this paragraph two reasons for our exploration have been given. The first reason was to gain insight in the factors that could help select families at risk, eligible for our preventive intervention, and to understand the importance of these factors in relation to each other. The second reason was to gain perspective on factors to be addressed in our intervention. Regarding this second reason we can now see how the factors in the ontogenic system cannot be removed. The consequences of these factors however can be improved, for instance through psychotherapy. The same can be said for factors in the microsystem. Regarding the exosystem, parents could be stimulated through our intervention to engage in more social relationships and they could be supported to transform and repair difficult existing relationships. An important objective of our intervention could also be the improvement of coping-skills when it comes to stressors resulting from the different ecological systems. The most work to be done in our intervention however lies in the domain of parental awareness. Helping parents to interpret their child's behavior in healthy ways could be accomplished in several ways. Not only by improving parental knowledge of child development but also by affirming parental competence and by pointing out different possible interpretations of the child's behavior. And last but not least, assisting parents in acknowledging and handling their parental feelings of ambivalence, and getting insight in the way these feelings influence their behavior.

Returning to the first reason for this paragraph, we now know which factors to expect in each domain we explored. In the ontogenic system we can expect parental impairments in ego functioning and childhood experiences of maltreatment. In

the microsystem we should look for child-related factors, particularly concerning the child's health, and for indications of a troubled marital relationship. In the exosystem important factors are the community a family lives in, the quality of their social network as they perceive it and engage in it and finally stressors related to unemployment and loss of income, resulting in loss of status and self-esteem. Although more difficult to operationalize, we could also expect problematic coping strategies as well as parental child-related unrealistic expectations, negative perceptions and a lack of sensitivity. What we don't know is how well these factors predict the possibility that parents will eventually digress towards maltreatment. This is the main question in the next paragraph.

### 3 RISK FACTORS AND CHILD MALTREATMENT

In the previous chapter several definitions of prevention have been reviewed and a choice was made for a definition to be used in this study: that of primary prevention specifically applied as an indicated preventive measure. To quote Howze and Kotch, “prevention of anything requires not only knowing what it is one wants to prevent, but also having some means of predicting the circumstances under which that which one wants to prevent is likely to occur” <sup>(62, p405)</sup>. Therefore, the main topic of this paragraph is the prediction of the occurrence of child maltreatment and thus identification of the risk factors that produce maltreatment. We will first consider the meaning of the term risk factor and then continue reviewing the findings published on risk factors.

#### 3.1 Risk factors

When addressing risk factors it is important to first consider the meaning of this term. Baartman, following Hosman <sup>(61)</sup>, distinguished between risk indicators and risk factors. Risk indicators are variables that are proven to hold a connection to the presence of a problem. This connection is however simply a correlation. Risk factors on the other hand constitute a proven explanation for the increase of a problem <sup>(11)</sup>. Along the same lines Black, Heyman and Slep (2001) distinguished between risk factors, such as demographic variables, and causal factors <sup>(17)</sup>. Each factor found can be considered a risk factor (although not each risk factor can be considered a causal factor). Sidebotham pointed out that, as risk factors “may also act as risks for a range of adverse outcomes and not just for child maltreatment” <sup>(92, p41)</sup> they are not specific. Also, as “the majority of families in whom such factors are identified will not go on to maltreat their children”, risk factors are not sensitive <sup>(92 ib.)</sup>. Many studies used the term risk factor regardless of the above considerations, thereby creating a virtually unsolvable problem when conducting a review. In this study we feel that differentiation in the use of terms for risk factors would cause unnecessary complication. This study is not about the specific quality of the relationship between certain risk factors or indicators and the occurrence of child maltreatment, it is about the effects of an intervention in families with an increased risk for child maltreatment. We have chosen to use a broader base for this notion of increased risk than only those risk factors that constitute a proven explanation for the increase of the possibility of child maltreatment. In other words, we feel that a risk factor

should be a factor that at least covaries with the occurrence of child maltreatment. The reason for this choice lies in the complexity of the construct of maltreatment: although we have gained much knowledge on the relationship between various factors and maltreatment we lack the definite insights regarding the influences of mutual interaction between these factors upon the origin of maltreatment. Therefore the covering term risk factor will be maintained throughout this study.

In the following sections a review of risk factors for child maltreatment will be presented. For this purpose several electronic databases have been searched for publications on the subject. This search generated different types of publications. Before addressing the results of the search the differences found will be discussed.

### 3.1.1 Search method

The search for studies of risk factors for child maltreatment has been conducted as follows. A first search was conducted for publications in English that were published between 1966 and 2002 (*Pubmed*), 1967-2002 (*Psychinfo*) and 1982-2002 (*Eric*). For all databases the full range of publications entered was searched. Since databases were started at different points in time there are different timeframes for each database searched. In this search a first step was to search for publications about child maltreatment by using a combination of the descriptors “child abuse”, “child maltreatment”, “child neglect”, “emotional abuse” and “batter\*” (whereby the asterisk functions as a ‘wildcard’ for several conjugations). The second step was to search for combinations of the descriptors “risk”, “protective”, “factor”, “indicator”, “precursor”, “antecedent”, “prodrome” and “predict\*”. In each step the descriptors were combined using the ‘OR’ connector, whereupon the results of both steps were combined using the ‘AND’ connector.

A second search was conducted in *Medline* for the years 1980-2004 using the MESH headings “child abuse”, “child abuse, sexual”, “neglect”, “infant”, “child”, “adolescent”, “battered child syndrome” and “domestic violence”; as well as the text words “neglect”, “emotional abuse” and “child maltreatment” for the first step. For the second step the MESH headings “prognosis” and “risk factors” were used as well as the text words “risk factors”. The results of both steps were combined as in the first search.

To limit the results to relevant publications several exclusion descriptors were defined, related to HIV, literacy, re-victimization, custody and adoption. Also the results were restricted to publications in English, about human subjects and qualified as a Randomized Controlled Trial, a Review, a Meta-Analysis or a Clinical Trial. The two searches combined resulted in 2748 publications. An assessment of relevance was subsequently made, first based on publication title and secondly on publication abstract. Assessment of relevance in abstracts was necessary because many publications were addressing risk factors for ‘problems after the fact’ (i.e. the risk of psychopathology in maltreated children), which often did not become clear based on the title alone. This resulted in a total of 72 publications that were considered relevant to be studied for this chapter.

Although not in a consistent manner an addition was made to the database search presented above. This addition is known as a snowball method: references of the publications found through the search were checked for other relevant publications, which were subsequently included in the description of the results of this review.

### 3.1.2 Types of publications found

The publications found through the above described search can be distinguished from each other in a number of ways. First of all, the majority of studies provided an overview of multiple risk factors, either addressing a range of domains (<sup>for example</sup> <sup>23</sup>), or several factors within one domain, for instance the child-related factors (microsystem) (<sup>for example</sup> <sup>94</sup>). Secondly, risk factors are discussed in several ways. Some studies provided a review of previous studies supporting particular risk factors as adequate predictors of child maltreatment; either by simply referring to significant results (<sup>for example</sup> <sup>25</sup>), or by addressing actual effect-sizes of particular factors (<sup>for example</sup> <sup>45</sup>). Other studies examined the predictiveness of risk factors by researching a population (<sup>for example</sup> <sup>57</sup>).

The populations chosen for these studies also differ, regarding their origin as well as their size and gender composition. Some studies used census tracts, others chose samples based on data from Child Protection Agencies or samples were approached through for instance community services. Group sizes differed from as few as seven subjects (mostly in clinical samples and laboratory experiments) to several

thousand subjects (mostly in census tract research) (<sup>see for example 17</sup>). The way in which populations are studied varied in two ways. Either studies were prospective in nature (50% of all studies providing effect sizes) or they were retrospective (32% of all studies). Some reviews addressed both prospective and retrospective studies (18%). The majority of studies chose samples of mothers only. In those studies where samples of both mothers and fathers were studied parents are not equally represented; again, mothers constitute the majority of the sample.

A final difference between publications lies in the type of maltreatment discussed. Some studies addressed one specific type of maltreatment (of studies providing effect sizes 20% addressed physical maltreatment, 3% addressed emotional maltreatment, 7% addressed neglect and 7% addressed sexual abuse only), other studies addressed all types of maltreatment (27%) or a combination of physical maltreatment and neglect (13%). There is yet another category addressing the *risk for maltreatment* (23%), which is assessed by means of the Child Abuse Potential Inventory (CAPI).

The differences in these publications made it extremely complex to handle and organize the data acquired from the search. It was decided to organize all risk factors in several tables, one for each domain as addressed in paragraph 2. Because the notion of parental awareness can essentially be understood as part of the ontogenic system it is presented as a table in this domain. It should be noted that all types of maltreatment are represented in these tables. An important reason for this choice is the interrelatedness of types. Psychological maltreatment is often viewed as a precursor for physical maltreatment, however, the aftermath of physical maltreatment (for example externalizing problems) could create a precursor for child psychological maltreatment (<sup>19</sup>). Also, there is evidence that neglect is related to the same features that have been associated with physical maltreatment (<sup>90</sup>). Finally there is some evidence for a link between physical maltreatment and sexual abuse (<sup>20</sup>). Therefore we chose not to distinguish between types of maltreatment in the search for risk factors for child maltreatment, even though generally this study does not concern itself with sexual abuse.

### 3.2 Review

An attempt was made to display all risk factors mentioned, regardless of the presentation of actual figures for the relationship to child maltreatment. In doing so, each type of publication was assigned their own column in the table. Effect sizes in the column 'relation and ref.' are displayed as either correlation coefficients ( $r$ ) or Odds Ratios (OR). The correlation coefficient is a scale-free measure to assess the degree to which two variables are related. According to Cohen (1977), in behavioral sciences correlation coefficients ( $r$ ) of 0.10 should be interpreted as a small effect size, those of 0.30 as a medium effect size and those of 0.50 or higher as a large effect size<sup>(29)</sup>. Unfortunately, Cohen has not provided a range to these estimates. An Odds Ratio represents the size of the chance of a certain outcome (in this case maltreatment) given a certain condition (a particular risk factor) compared to the chance of this outcome without the given condition. For example, one study found that the risk of a parent physically maltreating his or her child is 2.27 times larger when this parent has been maltreated as a child than it would be, had this parent not been maltreated as a child. All Odds Ratios presented in these tables are found to be significant and represent the chance of a certain type of maltreatment as opposed to no maltreatment. Non-significant findings about risk factors are only presented in this table in case of contradiction with significant findings in other studies.



**Table 1.** Risk factors in the ontogenic system related to parental developmental history.

Risk factor	Relation and ref.	Type*	Other ref.
Childhood experience of maltreatment	OR 1.05-37.8 <sup>(45)</sup> ; OR 2.27 <sup>(102)</sup> ; OR 1.60 <sup>(37)</sup> ; r .35 <sup>(17)</sup>	PM PM risk PM	<sup>(25; 37; 75; 77; 79; 98)</sup>
Childhood experience of severe maltreatment	OR 2.55 <sup>(37)</sup>	risk	
Childhood experience of sexual abuse	OR 2.00 <sup>(37)</sup> ; OR 10.2 <sup>(18)</sup> ; OR 3.08 <sup>(93)</sup>	risk SA PM/N	<sup>(38)</sup>
Childhood experience of violent sexual abuse	OR 4.00 <sup>(37)</sup>	risk	
Paternal discipline or physical punishment	r .17 <sup>(17)</sup> ; Ns <sup>(17)</sup>	PM PM	<sup>(25)</sup>
Maternal discipline or physical punishment	r .30 <sup>(17)</sup> ; Ns <sup>(17)</sup>	PM PM	<sup>(25)</sup>
Being yelled at daily as a child	OR 3.78 <sup>(19)</sup>	EM	
Childhood relationship to parents (affectionless, less caring, absent)	r .40 <sup>(90)</sup> ; r .31 <sup>(19)</sup> ; r .19 <sup>(19)</sup> ; r .24 <sup>(19)</sup> ; OR 1.61 <sup>(93)</sup> ; Ns <sup>(17)</sup>	N EM EM EM PM/N PM	<sup>(7; 25; 81)</sup>
Witness to parental violence	r .20 <sup>(17)</sup>	PM	<sup>(25)</sup>
History of child guidance or psychiatry	OR 3.65 <sup>(93)</sup>	PM/N	

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

Table 1 shows a strong support for the experience of different types of maltreatment during childhood of either one or both parents, with Odds Ratios varying from 1.05 to 37.8 and a moderate effect through the correlation coefficients. A number of other publications support this finding. Aside from maltreatment other childhood circumstances are related to future maltreatment, in particular the perception of the relationship to one's own parents as absent and affectionless (moderate effects and some supporting evidence). Being removed from home as a child, the experience of parental verbal aggression and of parental spousal violence may also play a moderate role in the ontogenic system.

**Table 2a.** Risk factors in the ontogenic system related to parental personality.

Risk factor	Relation and ref.	Type*	Other ref.
Young maternal age	Ns <sup>(72)</sup> ; OR 3.52 <sup>(23)</sup> ; OR 2.22 <sup>(23)</sup> ; OR 2.26 <sup>(23)</sup> ; OR 2.37 <sup>(23)</sup>	PM PM N SA all	<sup>(34; 37; 75; 100)</sup>
Maternal age < 20	OR 3.17 <sup>(93)</sup>	PM/N	
Paternal age < 20	OR 6.33 <sup>(93)</sup>	PM/N	<sup>(81)</sup>
Parental young age	r .12 <sup>(17)</sup> ; Ns <sup>(17)</sup> ; r .17 <sup>(90)</sup>	PM PM N	<sup>(25; 79)</sup>
Parental older age	r .21 <sup>(90)</sup>	N	
Parental education level	Ns <sup>(18)</sup> ; r .21 <sup>(90)</sup> ; OR 0.59 <sup>(82)</sup> ; Ns <sup>(90)</sup> ; Ns <sup>(17)</sup>	SA N all N PM	<sup>(34)</sup>
Parental education < 13 years	OR .58 <sup>(68)</sup>	all	<sup>(79)</sup>
Paternal low education	OR 3.58 <sup>(93)</sup>	PM/N	
Maternal education	OR 2.61 <sup>(93)</sup> ; OR 2.59 <sup>(23)</sup> ; OR 5.12 <sup>(23)</sup> ; OR 3.09 <sup>(23)</sup>	PM/N PM N all	
Maternal intelligence	Ns <sup>(18)</sup>	SA	<sup>(7; 77)</sup>
Parental substance abuse	r .21 <sup>(17)</sup> ; r .31 <sup>(90)</sup>	PM N	<sup>(7; 25; 34; 75; 79)</sup>
Parental use of any alcohol	OR 1.83 <sup>(68)</sup>	all	
Parental drug abuse	r .19 <sup>(17)</sup> ; Ns <sup>(17)</sup>	PM PM	
Parental alcohol abuse	r .57 <sup>(17)</sup> ; Ns <sup>(17)</sup>	PM PM	
Serious maternal illness	OR 2.06 <sup>(23)</sup> ; OR 2.18 <sup>(23)</sup> ; OR 2.06 <sup>(23)</sup>	PM N all	
Maternal poor physical health	OR 1.5 <sup>(48)</sup>	SA	<sup>(7; 34; 81)</sup>
Maternal poor mental health	OR 35.5 <sup>(48)</sup>	SA	<sup>(1)</sup>
Maternal depressive disorders	r .16 <sup>(90)</sup>	N	<sup>(75)</sup>
Paternal depressive disorders	OR 3.60 <sup>(93)</sup>	PM/N	<sup>(75)</sup>
Postnatal Depression (Edinburgh Postnatal Depression Scale)	OR 3.59 <sup>(28)</sup>	risk	
Depressive symptoms	r .73 <sup>(17)</sup> ; r .27 <sup>(17)</sup> ; r .22 <sup>(17)</sup>	PM PM PM	<sup>(7; 25; 34; 79)</sup>
Maternal psychiatric illness excluding depression	OR 2.34 <sup>(93)</sup>	PM/N	

\* PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

**Table 2b.** Risk factors in the ontogenic system related to parental personality - continued.

Risk factor	Relation and ref.	Type*	Other ref.
Maternal psychiatric symptoms	$r .56^{(18)}$	SA	<sup>(77)</sup>
Paternal psychiatric symptoms	$r .29^{(18)}$	SA	<sup>(75)</sup>
Paternal psychopathology	OR 2.28 <sup>(23)</sup>	N	
Maternal obsessive compulsive disorder	$r .24^{(90)}$	N	
Maternal neurotic symptoms	$r .24^{(19)}$	EM	<sup>(25)</sup>
Parental antisocial disorder	OR 7.5 <sup>(104)</sup>	all	<sup>(34; 75)</sup>
Maternal sociopathy	OR 4.91 <sup>(23)</sup> ; OR 4.38 <sup>(23)</sup> ; OR 6.27 <sup>(23)</sup> ; OR 4.91 <sup>(23)</sup>	PM N SA all	
Paternal sociopathy	OR 2.28 <sup>(23)</sup>	N	
Maternal alienation	OR 2.73 <sup>(23)</sup> ; OR 1.97 <sup>(23)</sup>	N all	
Parental tendency to become upset and angry	$r .49^{(90)}$ ; $r .67^{(17)}$ ; OR 2.81 <sup>(23)</sup> ; OR 1.88 <sup>(23)</sup>	N PM N all	<sup>(25; 34; 38)</sup>
Anger expression (State-Trait Anger Expression Inventory)	$r .69^{(86)}$	risk	
Maternal verbal aggression and hostility	$r .91^{(90)}$ ; $r .37^{(19)}$ ; $r .73^{(17)}$ ; OR 2.26 <sup>(23)</sup>	N EM PM N	<sup>(7; 75)</sup>
Maternal physical aggression	$r .56^{(17)}$	PM	
Parental fear of external threat and control	$r .54^{(90)}$ ; $r .84^{(17)}$	N PM	
Maternal external locus of control	OR 2.16 <sup>(23)</sup> ; OR 1.79 <sup>(23)</sup> ; OR 1.64 <sup>(23)</sup>	PM N all	<sup>(75)</sup>
Maternal negative perception of own coping	$r .47^{(17)}$	PM	<sup>(34)</sup>
Low maternal self esteem	$r .24^{(17)}$ ; $r .20^{(19)}$ ; $r .34^{(90)}$ ; OR 2.71 <sup>(23)</sup> ; OR 2.28 <sup>(23)</sup>	PM EM N N all	<sup>(34; 75)</sup>
Low self esteem as provider of social support	$r .54^{(90)}$ ; $r .54^{(17)}$	N PM	
Maternal social anxiety	$r .14^{(19)}$	EM	<sup>(34; 75)</sup>
Maternal social activities	$r -.25^{(19)}$	EM	
Maternal impulsiveness	$r .65^{(90)}$	N	
Maternal dissatisfaction	OR 2.44 <sup>(23)</sup> ; OR 5.01 <sup>(23)</sup> ; OR 3.15 <sup>(23)</sup>	PM N all	
Paternal identification with traditional sex roles	$r .18^{(18)}$	SA	

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

**Table 2c.** Risk factors in the ontogenic system related to parental personality - continued.

Risk factor	Relation and ref.	Type*	Other ref.
Paternal emotional needs	$r .33^{(18)}$	SA	
Paternal sexual needs	$r .26^{(18)}$	SA	
(Belief in) physical punishment	$r .28^{(17)}$ ;	PM	$(^{25}; 34; 75; 81)$
	$r .56^{(19)}$ ;	EM	
	$r .33^{(19)}$ ;	EM	
	$r .67^{(17)}$ ;	PM	
	$r .25^{(17)}$ ;	PM	
	OR 3.22	SA	

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

In table 2 a large number of paternal and maternal risk factors in the domain of the ontogenic system are assembled. A first factor, parental age, yields some discussion, as some studies found no significant relationship to maltreatment while other studies found an increase of the risk for maltreatment by over three-fold in mothers and over six-fold in fathers. Connelly and Straus (1992) found that these inconsistent findings may be related to the time at which parental age was determined. Their study demonstrated that mother's age at the time of birth of the index child is significantly related to maltreatment while mother's age at the time of the maltreatment incident is not <sup>(31)</sup>. Another reason for the inconsistent findings is proposed by both Connelly and Straus as well as Buchholz and Korn-Bursztyn (1993) to be a confluence of factors such as immaturity, lack of education and low income <sup>(31)</sup>, as well as vulnerability to emotional stresses and lack of support <sup>(27)</sup>. The same ambiguous results are found regarding the risk factor of parental lower education. Again some studies found no significant relationship to maltreatment where others found Odds Ratios up to 5.12 for mothers and 3.58 for fathers. This may very well be related to the same reasons proposed above: lower education may be related to a smaller income, larger difficulties in finding a job and less support. Furthermore problems with definition may cause inconsistent findings, both related to education and related to substance abuse. Because substance abuse or substance dependency is another risk factor yielding mixed results. Minor to moderate relationships are found in some studies whereas other studies found no significant relationships.

A lot of mental health related risk factors are found throughout the literature, ranging from depressive symptoms to depressive disorder and postnatal depression but also a variety of other psychiatric disorders. Relationships found

range from minor to strong. Amongst a number of personality traits the tendency towards anger and aggression is found in various studies, continuously holding a strong relationship to maltreatment. A last risk factor found in parents is the belief in physical punishment, holding a moderate to strong relationship to maltreatment.

**Table 3a.** Risk factors in the ontogenic system related to parental awareness.

Risk factor	Relation and ref.	Type*	Other ref.
External attributions to child positive behavior	$r .35^{(36)}$ ; $r .61^{(17)}$	risk PM	
Internal attributions to child negative behavior	$r .44^{(36)}$ ; $r .66^{(17)}$	risk PM	(73)
Stable attributions to child negative behavior	$r -.53^{(17)}$	PM	(73)
Unstable attributions to child positive behavior	$r .35^{(17)}$	PM	
Self-blame for failed parent-child interaction	$r -.61^{(17)}$	PM	
Credit to child for successful parent-child interaction	$r -.54^{(17)}$	PM	
Poor parent-child relationship	OR 2.60 <sup>(18)</sup>	SA	
Poor mother-daughter relationship	OR 11.61 <sup>(18)</sup>	SA	
Parent-child symbiosis	$r .42^{(90)}$	N	
Maternal self-reported parenting competence	$r .60^{(17)}$	PM	
Paternal self-reported parenting competence	$r .29^{(18)}$	SA	
Maternal parenting satisfaction	$r -.41^{(18)}$	SA	(81)
Paternal parenting satisfaction	$r -.21^{(18)}$	SA	
Low maternal involvement	OR 2.68 <sup>(23)</sup> ; OR 2.25 <sup>(23)</sup>	PM all	
Low paternal involvement	OR 3.18 <sup>(23)</sup> ; OR 3.54 <sup>(23)</sup> ; OR 3.14 <sup>(23)</sup>	PM N all	
Low paternal warmth	OR 3.24 <sup>(23)</sup> ; OR 2.13 <sup>(23)</sup> ; OR 2.57 <sup>(23)</sup>	PM N all	
Unrealistic expectations of children	$r .45^{(17)}$ ; $r .59^{(17)}$	PM PM	(34; 75; 77; 79)
Underestimation of development	$r .52^{(17)}$	PM	
Overestimation of development	$r .45^{(17)}$	PM	
Maternal verbal reasoning	$r .15^{(19)}$	EM	
Positive verbal behavior	$r -.70^{(17)}$	PM	(75; 81)
Positive non-verbal behavior	$r -.78^{(17)}$	PM	(73)
Initiations of interaction	$r -.87^{(17)}$	PM	
Use of tactile stimulation	$r -.64^{(17)}$	PM	
Frequency of yelling at children	OR 4.41 <sup>(17)</sup>	PM	(81)
Annoyance at child's cry stimuli	$r .36^{(17)}$	PM	(73)
Social interaction with child	$r -.83^{(17)}$	PM	(25; 75)

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

**Table 3b.** Risk factors in the ontogenic system related to parental awareness - continued.

Risk factor	Relation and ref.	Type*	Other ref.
Feelings of irritation after disciplining children	$r .49^{(17)}$	PM	
Feelings of irritation after child's social transgressions	$r .69^{(17)}$	PM	
Feelings of irritation after child's moral transgressions	$r .33^{(17)}$	PM	
Maternal negative commands	$r .34^{(17)}$	PM	( <sup>25</sup> )
Mother-child positive behavior	Ns ( <sup>17</sup> )	PM	
Child positive behavior towards mother	$r -.56^{(17)}$ ; Ns ( <sup>17</sup> )	PM PM	
Child negative behavior towards mother	$r .76^{(17)}$ ; $r -.41^{(17)}$	PM PM	
Child play behavior towards mother	$r -.80^{(17)}$	PM	

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

In table 3 risk factors related to parental awareness are presented. These factors are hard to summarize. Moderate to strong relationships to maltreatment are found for various attributions to, expectations and over- and under-estimation of the child. Parenting competence, satisfaction and warmth are also moderately to strongly related to maltreatment. Finally a number of interaction-related factors are found to have a varying relationship to maltreatment.

**Table 4a.** Risk factors in the domain of the microsystem related to the family.

Risk factor	Relation and ref.	Type*	Other ref.
Low SES	r .16 <sup>(90)</sup> ; Ns <sup>(17)</sup>	N PM	(79)
Family income	OR 3.37 <sup>(18)</sup> ; OR 5.11 <sup>(23)</sup> ; OR 3.02 <sup>(23)</sup>	SA N all	(16)
Welfare or income support	OR 1.45 <sup>(68)</sup> ; OR 3.74 <sup>(23)</sup> ; OR 11.01 <sup>(23)</sup> ; OR 5.14 <sup>(23)</sup>	all PM N all	
Parental unemployment	OR 0.66 <sup>(82)</sup> ; r .82 <sup>(33)</sup> ; OR 2.33 <sup>(95)</sup> ; OR 2.82 <sup>(95)</sup>	all all PM/N PM/N	(7, 25)
Financial worries	OR 6.52 <sup>(28)</sup>	risk	(7, 25; 34; 81; 98)
Car ownership	OR 2.33 <sup>(95)</sup>	PM/N	(7)
Father in local authority care	OR 5.97 <sup>(93)</sup>	PM/N	(25)
Ethnic minority	r .14 <sup>(17)</sup> ; r .17 <sup>(17)</sup> ; OR 4.35 <sup>(23)</sup> ; OR 2.63 <sup>(23)</sup>	PM PM N all	
Non-white race	r .17 <sup>(90)</sup>	N	
White race	r .24 <sup>(90)</sup>	N	
Family size	OR 2.74 <sup>(82)</sup> ; OR 1.8/2.5 <sup>(109)</sup> ; r .13 <sup>(90)</sup> ; r .14 <sup>(17)</sup> ; Ns <sup>(17)</sup> ; r .57 <sup>(90)</sup> ; Ns <sup>(18)</sup> ; OR 3.21 <sup>(23)</sup> ; OR 1.83 <sup>(23)</sup>	all N/ PM N PM PM N all	(34; 81)
Unplanned childbearing	OR 1.7 <sup>(109)</sup> ; OR 2.92 <sup>(94)</sup> ; r .32 <sup>(90)</sup> ; r .22 <sup>(17)</sup> ; OR 3.10 <sup>(23)</sup> ; OR 3.01 <sup>(82)</sup> ; OR 1.88 <sup>(82)</sup> ; OR 3.4 <sup>(18)</sup>	PM PM/N N PM SA all all SA	(81; 98)
Family stability (Family Dynamics Measure)			
Family individuation (FDM)			
Habit of leaving a child home unsupervised			
Stressful life events (Life Events Inventory)	r .44 <sup>(17)</sup> ; r .42 <sup>(17)</sup> ; OR 4.43 <sup>(23)</sup>	PM PM SA	(1; 34; 75)

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

**Table 4b.** Risk factors in the domain of the microsystem related to the family - continued.

Risk factor	Relation and ref.	Type*	Other ref.
Level of family stress	r .81 <sup>(17)</sup> ; r .87 <sup>(90)</sup> ; r .67 <sup>(86)</sup> ; r .77 <sup>(17)</sup> ; Ns <sup>(17)</sup>	PM N risk PM PM	(69; 99)
Daily stress	r .73 <sup>(90)</sup> ; r .49 <sup>(17)</sup>	N PM	(34)
Single parent family	OR 2.26 <sup>(23)</sup> ; OR 2.57 <sup>(23)</sup> ; OR 2.09 <sup>(23)</sup>	PM N all	(25; 75; 79)
Single natural parent family	OR 2.2 <sup>(18)</sup> ; OR 3.1 <sup>(18)</sup> ; OR 3.32 <sup>(18)</sup> ; OR 2.62 <sup>(23)</sup>	SA SA SA SA	(25; 75)
Parental death	r .31 <sup>(18)</sup>	SA	
Second marriage	r .19 <sup>(90)</sup>	N	
Mother not married	r .20 <sup>(90)</sup>	N	
Mother married	r .26 <sup>(17)</sup> ; Ns <sup>(18)</sup>	PM SA	
Marital adjustment in mothers	OR 1.98 <sup>(23)</sup> ; OR 7.19 <sup>(18)</sup> ; OR 2.66 <sup>(23)</sup> ; OR 1.70 <sup>(23)</sup>	PM SA N all	(1; 81)
Unsatisfactory marriage	OR 3.26 <sup>(102)</sup> ; r .20 <sup>(17)</sup> ; OR 2.44 <sup>(23)</sup>	EM PM N	(7; 34; 75; 79; 81; 98)
Marital discord or disagreement	r .56 <sup>(63)</sup>	risk	
Spousal inadequate conflict strategies	OR 1.69 <sup>(102)</sup> ; r .29 <sup>(19)</sup> ; r .25 <sup>(17)</sup> ; OR 6.51 <sup>(18)</sup>	PM EM PM SA	(25; 34; 75; 88)
Spousal physical aggression	r .28 <sup>(17)</sup>	PM	
Spousal physical aggression from ex-partner	r .29 <sup>(19)</sup>	EM	(75)
Spousal verbal aggression			

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

In table 4 a number of family-related risk factors in the domain of the microsystem are presented. Although Socio-Economic Status (SES) in itself may not hold a very powerful relationship to maltreatment, aspects of SES do. Particularly low family income or income from welfare as well as financial worries and unemployment are strongly related to maltreatment, with Odds Ratio's as high as 11. Ethnic minorities may be at a higher risk for maltreatment; however which particular ethnicities should be considered is insufficiently defined. The relationship between family size and maltreatment is not unanimously defined. One study found an OR of 2.5



for physical maltreatment while another study found no significant relationship. Different definitions of what should be considered a large family size may be the cause of these ambiguous results. Some investigators suggest that not so much family size but spacing between children may be the main issue in this risk factor (<sup>24</sup>). Related to family size is the matter of unplanned childbearing. Not only can an unplanned child increase the risk for child maltreatment up to three-fold, but also each additional unplanned child increases this risk with a factor of 1.7 (<sup>109</sup>).

Another important risk factor in the family is the level of stress perceived by family-members. Not only stressful life events increase the risk of child maltreatment but also daily stressors hold a fairly strong relationship to maltreatment ( $r$  up to .73). A last risk factor that is mentioned in a large number of publications concerns the parental relationship. Not only does single parenthood increase the risk of maltreatment, so does an unstable parental relationship. Spousal discord, verbal and physical aggression all hold moderate relationships to maltreatment and significantly increase the risk; over three-fold for emotional maltreatment and more than six fold for sexual abuse.

**Table 5a.** Risk factors in the domain of the microsystem related to the child.

Risk factor	Relation and ref.	Type*	Other ref.
Perinatal history (birth weight, gestational age)	Ns <sup>(17)</sup> ; Ns <sup>(72)</sup> ; OR 2.08 <sup>(94)</sup> ; Ns <sup>(72)</sup>	PM PM PM/N PM	<sup>(4; 7; 25; 34; 79; 81)</sup>
Pregnancy or birth complications	OR 2.45 <sup>(23)</sup>	PM	<sup>(7; 79; 81)</sup>
Poor health	OR 1.91 <sup>(94)</sup>	PM/N	<sup>(34; 79; 81)</sup>
Child developmental problems	OR 1.99 <sup>(94)</sup>	PM/N	
Child early separated from mother	OR 4.08 <sup>(23)</sup> ; OR 3.61 <sup>(23)</sup> ; OR 2.80 <sup>(23)</sup>	PM N all	<sup>(25)</sup>
Age	Ns <sup>(90)</sup> ; Ns <sup>(17)</sup>	N PM	<sup>(34; 98)</sup>
Age > 12	OR 2.7 <sup>(18)</sup>	SA	
Sex	Ns <sup>(90)</sup> ; Ns <sup>(18)</sup>	N SA	
Sex (female)	OR 3.0 <sup>(18)</sup> ; OR 2.44 <sup>(23)</sup>	SA SA	<sup>(24)</sup>
Intelligence	r -0.33 <sup>(18)</sup>	SA	
Low child verbal IQ	OR 2.70 <sup>(23)</sup>	N	
Handicapped	OR 11.79 <sup>(23)</sup>	SA	<sup>(4; 25; 34)</sup>
Anxious/withdrawn in early childhood	OR 2.02 <sup>(23)</sup>	N	
Difficult temperament	OR 2.02 <sup>(23)</sup>	all	
Behavior problems	r .37 <sup>(18)</sup> ;	SA	
(number of problems)	r .73 <sup>(90)</sup> ;	N	
(Intensity of problems)	r .62 <sup>(90)</sup>	N	
Parental report of conduct disorder	r .69 <sup>(90)</sup> ; r .75 <sup>(17)</sup>	N PM	
Parental rating of internalizing problems	r .60 <sup>(17)</sup>	PM	<sup>(75)</sup>
Parental rating of externalizing problems	r .74 <sup>(17)</sup>	PM	<sup>(75)</sup>
Parental report of (socialized) aggression	r .54 <sup>(90)</sup> ; r .63 <sup>(17)</sup> ; r .67 <sup>(90)</sup>	N PM N	
Parental report of attention problems	r .64 <sup>(17)</sup> ; r .69 <sup>(90)</sup>	PM N	
Positive behavior	r -.82 <sup>(90)</sup>	N	
Reporting to have no-one to confide in	OR 2.2 <sup>(48)</sup>	SA	
Prior physical victimization	r .25 <sup>(18)</sup> ; OR 11.5 <sup>(48)</sup>	SA SA	
Prior sexual victimization	OR 11.7 <sup>(18)</sup>	SA	
Prior neglect	OR 2.1 <sup>(18)</sup>	SA	

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

In the domain of the microsystem risk factors related to the child are also studied as is displayed in table 5. Health-related risk factors concerning the perinatal history

and complications thereof as well as handicaps or developmental problems are mentioned in several studies; however, the strength of the relationship to maltreatment varies or remains absent. Age and sex seem to be related only to sexual abuse. A number of personality and behavior-related risk factors are found as well. The question remains however, to what extent these factors precede maltreatment and to what extent they are a consequence of maltreatment. Furthermore it should be noted that most of these factors are measured through parental report and thus reflect the perception of a parent. This is consistent with the finding that teachers do not report behavior problems in maltreated children, only sociability problems (<sup>see 90</sup>).

**Table 6.** Risk factors in the domain of the exosystem.

Risk factor	Relation and ref.	Type*	Other ref.
Social isolation and loneliness	r .34 ( <sup>90</sup> ); r .73 ( <sup>17</sup> ); OR 3.09 ( <sup>93</sup> ); OR 1.6 ( <sup>48</sup> )	N PM PM/N SA	( <sup>7, 25, 34, 75, 79, 98</sup> )
Maternal social support	r -.47 ( <sup>17</sup> )	PM	( <sup>81</sup> )
Tangible social support (Interpersonal Support Evaluation List)	OR 4.5 ( <sup>37</sup> ); r -.61 ( <sup>17</sup> ); r -.69 ( <sup>90</sup> ); OR 17.5 ( <sup>37</sup> )	risk PM N risk	( <sup>33</sup> )
Social appraisal (ISEL)	r -.50 ( <sup>17</sup> ); r -.78 ( <sup>90</sup> )	PM N	
Social belonging (ISEL)	r -.77 ( <sup>17</sup> ); r -.80 ( <sup>90</sup> )	PM N	( <sup>81</sup> )
Support from family	r -.42 ( <sup>17</sup> )	PM	
Support from mother	r -.32 ( <sup>17</sup> )	PM	( <sup>32</sup> )
Availability of confidantes	Ns ( <sup>90</sup> )	N	( <sup>33</sup> )
Size of peer network	r .30 ( <sup>17</sup> )	PM	( <sup>25, 33, 34</sup> )
Child rearing support from peers	r -.26 ( <sup>17</sup> )	PM	( <sup>33</sup> )
Size of professional network	Ns ( <sup>17</sup> )	PM	( <sup>34</sup> )
Child rearing support from professionals	r -.29 ( <sup>17</sup> )	PM	
Low religious attendance	OR 2.22 ( <sup>23</sup> ); OR 1.62 ( <sup>23</sup> )	PM all	( <sup>81</sup> )
Dangerous communities	OR 1.5 ( <sup>18</sup> )	SA	
Stress related to community	r .18 ( <sup>90</sup> )	N	
High mobility (>3 house moves within 5 years)	OR 2.81 ( <sup>93</sup> )	PM/N	( <sup>7, 77, 79</sup> )
Council housing	OR 7.65 ( <sup>93</sup> )	PM/N	
Overcrowded housing	OR 2.16 ( <sup>93</sup> )	PM/N	( <sup>7, 81</sup> )

\*PM: physical maltreatment; N: neglect; EM: emotional maltreatment; SA: sexual abuse, risk: based on CAPI.

Finally table 6 presents risk factors for maltreatment as found in the exosystem. Most factors found are in some way or other related to the social support system. Social isolation is mentioned in several studies, holding a moderate to strong relationship to maltreatment. Several types of social support from friends, family and professionals are also found to have a strong relationship to maltreatment when absent. Then there are some factors related to dangerous communities and poor housing quality that hold a relationship to maltreatment.

### 3.3 Conclusion: towards a useful instrument

In tables one through six we have presented a large number of risk factors and, if provided, statistics on their relationship to maltreatment. To sum up the results of our review, in the ontogenic system we found the experience of different types of maltreatment, a negative perception of the relationship to one's parents, and the experience of parental spousal violence as factors related to parental childhood development. Furthermore we found age, education, substance dependence, mental health related issues, aggression and belief in physical punishment as (personality) characteristics of parents. Regarding the notion of parental awareness we found further support for the theory presented in paragraph 2. In the microsystem family-related factors were unemployment and financial worries, family size and unplanned childbearing, stressful events and spousal discord or single parenthood. Child related factors in the microsystem are mostly health-related. Finally in the exosystem we found a number of factors related to (the lack of) various forms of social support.

With this review we have explored the ingredients for an instrument that can be used to select families at risk for maltreatment. The devising of such an instrument has been attempted by others as well. In 1984 Altemeier, O'Connor, Vietze, Sandler and Sherrod designed a 'Prenatal Prediction Checklist' using 20 questions, which singled out 19.5% families at risk in a population of 1400 low-income families. These families were subsequently followed until children were four years of age, to determine the feasibility of the checklist developed. Altemeier et al concluded their checklist had rendered 35% false negatives (the incorrect assumption of low risk status) and 78% false positives (the incorrect assumption of at risk status) after four years. Since these percentages increased over time they concluded that the validity of the checklist lessened after the child's age of two (<sup>2</sup>). After Altemeier et al, others developed checklists as well (<sup>1; 5; 25; 39; 55; 78; 79</sup>). All checklists had between nine and twenty-one questions addressing several risk factors.

Some checklists used single questions per risk factor, others used multiple questions. Except for two checklists (numbers 1 and 8) a combination of demographic and psycho-social risk factors was used. Table 7 displays the risk factors and the number of questions per factor (indicated by one or more asterisks) as used in the various checklists.

**Table 7.** Risk factors in instruments for selection and number of questions per factor.

	1 <sup>(78)</sup>	2 <sup>(39)</sup>	3 <sup>(79)</sup>	4 <sup>(2)</sup>	5 <sup>(5)</sup>	6 <sup>(25)</sup>	7 <sup>(1)</sup>	8 <sup>(55)</sup>
Number of questions:	10	9	20	20	20	13	21	20
Unstable housing		*		*	*		*	
Unemployed/ financial stress			*	*	**	*	*	
Child health problems			***	*		*	*	
Single parent			**	*	*	*		
Parental age			*		*	*	*	
Parental Intelligence/ education		*	*		*			
Family size/ child spacing				*		*		
Child preterm/low birth weight			*			*		
Insufficient prenatal care		*	*					
Stepparent or cohabitee						*		
Previous removal of child				**				
Inadequate vaccinations							*	
Childhood history of maltreatment/violence	*	*	*	*	*	*	*	
Parental mental illness/ emotional problems	*	**	*		*	*	*	****
Inappropriate expectations	*	*	*			*	*	*
Child unwanted/ unplanned	*	*		***	*		*	
Current maltreatment/violence	*	*			**	*	**	
Social isolation	*		*		*		*	*****
Parent-child bonding problems			*			**	***	
Parenting difficulties			*	**				
Problematic bonds in family of origin				**			*	*
Stress/adverse life experience	*						**	**
Alcohol/drug abuse			*		*	*		
Child perceived as difficult	*						*	
Harsh punishment	*			*				
Child state of hygiene			*				*	
Violent temper	*							
Parental physical health problems							*	
Negative pregnancy/ delivery								*
Interaction mother/nurse								*****
Interaction mother/child								*
Atypical accidents with child			*					

Different checklists found different percentages of families at risk, ranging from 4%<sup>(list number 7; 1)</sup> to 39.1%<sup>(list number 5; 3)</sup>. Not all studies present data on the validity of their checklist. Murphy, Orkow and Nicola, using the Kempe Family Stress Checklist (KFSC, number 1 in table 7), found a sensitivity of 80% and a specificity of 89.4%<sup>(78)</sup>. Korfmacher, reviewing several studies using the KFSC, reports sensitivities found to be up to 97%, and a correct classification rate of 93%<sup>(67)</sup>. Agathonos and Browne (checklist 7 in table 7) found a sensitivity of 86.8% and a specificity of 96.3% with an overall correct classification rate of 92.3%<sup>(1)</sup>. Finally Browne and Saqi (checklist 6 in table 7) found a sensitivity of 82%, a specificity of 88% and a correct classification of 86%<sup>(25)</sup>.

These data on the validity of the checklists presented in table 7 lead to the following considerations concerning the reliability of checklists for risk factors, which have been brought up by a number of authors<sup>(see 2; 25; 56; 64; 71)</sup>. As an example, Browne and Saqi developed a checklist generating 12.3% families at risk in a population of 14,238 in Surrey, England. Assuming an actual maltreatment rate of 0.4% they concluded that “the checklist detection rate of 82% compared to 12% false alarms suggests that for every 10,000 births screened it would be necessary to distinguish between 33 true risk cases and 1,195 false alarms. [...] A more difficult problem would be to distinguish the 7 missed cases of potential child abuse from the 8,765 correctly identified non-abusers”<sup>(25, p70)</sup>. Now, whatever the actual maltreatment rate, it would always be produced through reports of maltreatment, which are still, even in countries with mandatory maltreatment reporting, just the tip of the iceberg. Moreover, these maltreatment reports often represent “only abuse with physical injuries, and only that which was discovered by individuals who felt the maltreatment was serious enough to report”<sup>(2, p398)</sup>. This being said, a number of false positives and false negatives will always remain. From an ethical (health-care) point of view the false negatives are the problem. After all, not providing a family in need with preventive support is much worse than providing a family that is not in need with this support. From a scientific point of view the false positives are the problem because they dilute the effects of the program provided. Either way, the fact that any checklist developed will generate a certain percentage of false positives and false negatives should not stop us from trying to design a checklist in the first place.

After these methodological considerations we return to the contents of said checklist. Based on our review of risk factors and considering the choices that were made by our predecessors, what factors should be addressed in a checklist? A first content-related issue is that of socio-demographic versus psycho-social risk factors. About socio-demographic risk factors Smith Slep and O’Leary (2001) concluded: “these [socio-demographic] variables, in and of themselves, are not typically considered to be direct causes of abuse. Instead, they add to risk for abuse through their relations with other potentially causal factors” (97, P97). Furthermore, Kotelchuck (1982) states: “although many popular articles about the etiology of child abuse and neglect point to demographic factors, demographic factors do not distinguish these families, if they are compared to a group carefully matched on race and social class” (71, P77). Perhaps we should therefore refrain from too many (socio-) demographic risk factors.

Following the arrangement of factors we have used previously we discuss our choices in the domain of the ontogenic system first of all. In this domain experiences of different types of childhood maltreatment as well as parental spousal aggression should be addressed. In these experiences we include sexual maltreatment as (in table 1) it becomes clear that there are relationships between childhood experiences of sexual abuse and eventual intergenerational transmission of not only sexual abuse but physical maltreatment and neglect as well. Possibly the type of childhood relationship to parents should be integrated into these questions as it can be related to particularly emotional maltreatment and neglect. As will become clear in chapter 5 we have chosen ‘the sense of security’ with one’s parent to represent this concept. With regards to other characteristics of the parents, parental young age is included as a risk factor in spite of mixed findings because young age is related to other factors such as lower education and smaller income (31) and because young age magnifies the influences of a number of other risk factors (27). Furthermore, substance abuse, a tendency towards aggression and the belief in physical punishment as an acceptable child rearing method should be addressed as well as the presence of mental-health related problems. The latter are found to be very diverse in our review, ranging from depressive symptoms to anti-social disorders. To capture this wide range of problems we feel a less distinctive, more covering term is appropriate and therefore summarize these risk factors with the term ‘dysphoria’. Finally regarding the notion of parental awareness we conclude

that many of the risk factors found through our review are related to either the way parents perceive their child or the way they perceive themselves as parents, or both. Therefore we feel that parental awareness is best addressed through the perception of the child by the parents as well as their confidence in their own parenting competence.

In the microsystem findings can essentially be divided into three groups of risk factors: a number of demographic factors related to finances and family size, the presence and quality of the parental relationship and child-related factors. Based on previous considerations we feel the demographic factors are of smaller importance than those related to the parental relationship. Single parenthood or spousal violent interaction should therefore be addressed. As was discussed in paragraph two of this chapter many other stresses in the family can result in marital conflict. Addressing this risk factor could thus reveal an indication of underlying problems. Regarding the child-related risk factors in the microsystem, we concluded earlier that many factors found may in fact not be causes but rather consequences of maltreatment. We therefore limit our choice to the perinatal history of the child.

Finally, in the exosystem we found that most risk factors are related to the lack of social support from different sources. There are some risk factors related to the quality of housing and the community. However, we consider the quality of housing to be more related to demographic characteristics of families. As for the quality of the community we consider communities in the Netherlands to be much more homogeneous than they are in for instance the United States, where much of the research discussed here originates. Overall, we consider these risk factors to be of a more socio-demographic/socio-economic nature and we agree that “socioeconomic issues may be less related to child abuse than family structure and support (or lack of support)” (105). Therefore we place the most emphasis on social support. However, we do feel that different aspects of support, for instance from family, friends and the neighborhood, should be highlighted. The checklist that has been developed based on these choices will be presented in chapter 5. In that same chapter we will discuss the way it was deployed in practice as well as the results it generated.



In this chapter we have outlined our paradigm on a more operational level: we have explored the ecological systems proposed by Belsky, integrating the notion of parental awareness into this ecology, in order to identify the way different risk factors interact around the family creating a path towards maltreatment. In the third paragraph of this chapter we presented a review of risk factors identified through various studies to hold some relationship to child maltreatment. Combined, the exploration and the review support each other, enabling us to assemble a checklist for the selection of families at risk for child maltreatment that is embedded both in theory and in empirical research. This checklist constitutes one of the two cornerstones of our study. The other cornerstone is the design of our preventive intervention. In the next chapter this design will be presented.

## 4 REFERENCES

1. Agathonos-Georgopoulou, H. & Browne, K. D. (1997). The prediction of child maltreatment in Greek families. *Child Abuse Negl.*, 21, 721-735.
2. Altemeier, W. A., O'Connor, S., Vietze, P., Sandler, H., & Sherrod, K. (1984). Prediction of child abuse: a prospective study of feasibility. *Child Abuse Negl.*, 8, 393-400.
3. Ammerman, R. T. (1990). Predisposing child factors. In R.T.Ammerman & M. Hersen (Eds.), *Children at risk, an evaluation of factors contributing to child abuse and neglect* (pp. 199-221). New York: Plenum Press.
4. Ammerman, R. T. (1991). The role of the child in physical abuse: a reappraisal. *Violence Vict.*, 6, 87-101.
5. Armstrong, K. L., Fraser, J. A., Dadds, M. R., & Morris, J. (1999). A randomized, controlled trial of nurse home visiting to vulnerable families with newborns. *J.Paediatr.Child Health*, 35, 237-244.
6. Artazcoz, L., Benach, J., Borrell, C., & Cortes, I. (2004). Unemployment and mental health: understanding the interactions among gender, family roles, and social class. *Am.J.Public Health*, 94, 82-88.
7. Ayoub, C. & Jacewitz, M. M. (1982). Families at risk of poor parenting: a model for service delivery, assessment, and intervention. *Child Abuse Negl.*, 6, 351-358.
8. Baartman, H. E. M. (1991). Kafka's brief aan zijn vader; over het opgroeien als verworpen kind [Kafka's letter to his father; on growing up as a rejected child]. In W.Bereger, J. Kersemakers, R. van Uden, & J. Wellen (Eds.), *Geweld in relaties, overwegingen en ervaringen* [Violence in relationships, considerations and experiences] Baarn: Ambo.
9. Baartman, H. E. M. (1996). Als mishandelde kinderen ouder worden [When maltreated children grow up]. *Tijdschrift voor Orthopedagogiek*, 35, 392-406.
10. Baartman, H. E. M. (1996). *Opvoeden kan zeer doen, over oorzaken van kindermishandeling* [Childrearing can be painful, about the causes of child maltreatment]. Utrecht: SWP.
11. Baartman, H. E. M. (1997). Risicogezinnen en predictie en preventie van kindermishandeling [Families at risk and the prediction and prevention of child maltreatment]. *Tijdschrift voor Orthopedagogiek*, 36, 243-255.
12. Belsky, J. (1978). Three theoretical models of child abuse: a critical review. *Child Abuse Negl.*, 2, 37-49.
13. Belsky, J. (1993). Etiology of child maltreatment: a developmental-ecological analysis. *Psychol.Bull.*, 114, 413-434.
14. Belsky, J. & Vondra, J. (1989). Lessons from child abuse: the determinants of parenting. In D.Cicchetti & V. Carlson (Eds.), *Child Maltreatment, theory and research on the causes and consequences of child abuse and neglect* Cambridge: Cambridge University Press.
15. Berger, A. M., Knutson, J. F., Mehm, J. G., & Perkins, K. A. (1988). The self-report of punitive childhood experiences of young adults and adolescents. *Child Abuse Negl.*, 12, 251-262.

16. Bergner, R. M., Delgado, L. K., & Graybill, D. (1994). Finkelhor's Risk Factor Checklist: a cross-validation study. *Child Abuse Negl.*, 18, 331-340.
17. Black, D. A., Heyman, R. E., & Slep, A. M. (2001). Risk factors for child physical abuse. *Aggression and Violent Behaviour*, 6, 121-188.
18. Black, D. A., Heyman, R. E., & Slep, A. M. (2001). Risk factors for child sexual abuse. *Aggression and Violent Behaviour*, 6, 203-229.
19. Black, D. A., Heyman, R. E., & Slep, A. M. S. (2001). Risk factors for child psychological abuse. *Aggression and Violent Behaviour*, 6, 189-201.
20. Boney-McCoy, S. & Finkelhor, D. (1995). Prior victimization: A risk factor for child sexual abuse and for PTSD-related symptomatology among sexually abused youth. *Child Abuse Negl.*, 19, 1401-1421.
21. Bradley, R. H., Corwyn, R. F., McAdoo, H. P., & Coll, C. G. (2001). The home environments of children in the United States part I: variations by age, ethnicity, and poverty status. *Child Dev.*, 72, 1844-1867.
22. Bronfenbrenner, U. & Crouter, A. C. (1983). Work and family through time and space. In C. Haynes & S. Kamerman (Eds.), *Families that work: Children in a changing world* Washington, DC: National Academy of Sciences.
23. Brown, J., Cohen, P., Johnson, J. G., & Salzinger, S. (1998). A longitudinal analysis of risk factors for child maltreatment: findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. *Child Abuse Negl.*, 22, 1065-1078.
24. Browne, K. D., Davies, C., & Stratton, P. (1988). *Early prediction and prevention of child abuse*. Chichester: John Wiley & Sons.
25. Browne, K. D. & Saqi, S. (1988). Approaches to screening for child abuse and neglect. In K.D. Browne, C. Davies, & P. Stratton (Eds.), *Early prediction and prevention of child abuse* (pp. 57-85). Chichester: John Wiley & Sons.
26. Brunnuell, D., Crichton, L., & Egeland, B. (1981). Maternal personality and attitude in disturbances of child rearing. *Am J Orthopsychiatry*, 51, 680-691.
27. Buchholz, E. S. & Korn-Bursztyn, C. (1993). Children of adolescent mothers: are they at risk for abuse? *Adolescence*, 28, 361-382.
28. Cadzow, S. P., Armstrong, K. L., & Fraser, J. A. (1999). Stressed parents with infants: reassessing physical abuse risk factors. *Child Abuse Negl.*, 23, 845-853.
29. Cohen, J. (1977). *Statistical Power Analysis for the Behavioral Sciences*. Hillsdale New Jersey: Lawrence Erlbaum Associates.
30. Conger, R. D., Conger, K. J., Elder, G. H. J., Lorenz, F. O., Simons, R. L., & Whitbeck, L. B. (1992). A family process model of economic hardship and adjustment of early adolescent boys. *Child Development*, 63, 526-541.
31. Connelly, C. D. & Straus, M. A. (1992). Mother's age and risk for physical abuse. *Child Abuse Negl.*, 16, 709-718.
32. Cooley, C. (1995). Neglectful mothers, their mothers, and partners: the significance of mutual aid. *Child Abuse Negl.*, 19, 885-895.

33. Coohy, C. (1996). Child maltreatment: testing the social isolation hypothesis. *Child Abuse Negl.*, 20, 241-254.
34. Cowen, P. S. (1992). Abuse protection: child. In J.C.M. McCloskey & G. M. Bulechek (Eds.), *Nursing Interventions; effective nursing treatment* Philadelphia: Saunders.
35. Crittenden, P. M. (1985). Maltreated infants: Vulnerability and resilience. *Journal of Child Psychology and Psychiatry*, 26, 85-96.
36. Dadds, M. R., Mullins, M. J., McAllister, R. A., & Atkinson, E. (2003). Attributions, affect, and behavior in abuse-risk mothers: a laboratory study. *Child Abuse Negl.*, 27, 21-45.
37. de Paul, J. & Domenech, L. (2000). Childhood history of abuse and child abuse potential in adolescent mothers: a longitudinal study. *Child Abuse Negl.*, 24, 701-713.
38. DiLillo, D., Tremblay, G. C., & Peterson, L. (2000). Linking childhood sexual abuse and abusive parenting: the mediating role of maternal anger. *Child Abuse Negl.*, 24, 767-779.
39. Egan, T. G., Monaghan, S. M., Muir, R. C., Gilmore, R. J., Clarkson, J. E., & Crooks, T. J. (1990). Prenatal screening of pregnant mothers for parenting difficulties: final results from the Queen Mary Child Care Unit. *Soc.Sci.Med.*, 30, 289-295.
40. Egeland, B., Breitenbucher, M., & Rosenberg, D. (1980). Prospective study of the significance of life stress in the etiology of child abuse. *Journal of Consulting and Clinical Psychology*, 48, 195-205.
41. Egeland, B. & Brunnequell, D. (1979). An at-risk approach to the study of child abuse: some preliminary findings. *J.Am.Acad.Child Psychiatry*, 18, 219-235.
42. Elder, G. H. J. (1974). *Children of the Great Depression*. Chicago: University of Chicago Press.
43. Elder, G. H. J., Liker, J. K., & Cross, C. E. (1984). Parent-child behavior in the Great Depression: Life course and intergenerational influences. In P.B. Baltes & O. G. Brim (Eds.), *Lifespan development and behavior* New York: Academic Press.
44. Elder, G. H. J., Nguyen, T. V., & Caspi, A. (1985). Linking family hardship to children's lives. *Child Development*, 56, 361-375.
45. Ertem, I. O., Leventhal, J. M., & Dobbs, S. (2000). Intergenerational continuity of child physical abuse: how good is the evidence? *Lancet*, 356, 814-819.
46. Factor, D. C. & Wolfe, D. A. (1990). Parental psychopathology and high-risk children. In R.T. Ammerman & M. Hersen (Eds.), *Children at risk, an evaluation of factors contributing to child abuse and neglect* (pp. 171-198). New York: Plenum Press.
47. Feshbach, N. D. (1989). The construct of empathy and the phenomenon of physical maltreatment of children. In D. Cicchetti & V. Carlson (Eds.), *Child Maltreatment, theory and research on the causes and consequences of child abuse and neglect* Cambridge: Cambridge University Press.
48. Fleming, J., Mullen, P., & Bammer, G. (1997). A study of potential risk factors for sexual abuse in childhood. *Child Abuse Negl.*, 21, 49-58.
49. Frodi, A. M. (1981). Contribution of infant characteristics to child abuse. *American Journal of Mental Deficiency*, 85, 341-349.
50. Frodi, A. M. & Lamb, M. E. (1980). Child abusers' responses to infant smiles and cries. *Child Dev.*, 51, 238-241.

51. Garbarino, J. (1980). An ecological approach to child maltreatment. In L.H. Pelton (Ed.), *The social context of child abuse and neglect* New York: Human Sciences Press.
52. Garbarino, J., Kostelny, K., & Grady, J. (1993). Children in Dangerous Environments: Child Maltreatment in the Context of Community Violence. In D. Cicchetti & S. L. Toth (Eds.), *Child Abuse, Child Development and Social Policy* (pp. 167-187). Norwood New Jersey: Ablex Publishing Corporation.
53. Gillham, B., Tanner, G., Cheyne, B., Freeman, I., Rooney, M., & Lambie, A. (1998). Unemployment rates, single parent density, and indices of child poverty: their relationship to different categories of child abuse and neglect. *Child Abuse Negl.*, 22, 79-90.
54. Gold, D. & Andres, D. (1978). Developmental comparisons between 10-year-old children with employed and nonemployed mothers. *Child Development*, 49, 75-84.
55. Grietens, H., Geeraert, L., & Hellinckx, W. (2004). A scale for home visiting nurses to identify risks of physical abuse and neglect among mothers with newborn infants. *Child Abuse Negl.*, 28, 321-337.
56. Guterman, N. B. (1999). Enrollment strategies in early home visitation to prevent physical child abuse and neglect and the "universal versus targeted" debate: a meta-analysis of population-based and screening-based programs. *Child Abuse Negl.*, 23, 863-890.
57. Hall, L. A., Sachs, B., & Rayens, M. K. (1998). Mothers' potential for child abuse: the roles of childhood abuse and social resources. *Nurs. Res.*, 47, 87-95.
58. Helfer, R. E. & Kempe, C. H. (1968). Introduction. In R.E. Helfer & C. H. Kempe (Eds.), *The battered child* Chicago: University of Chicago Press.
59. Herzberger, S. D. & Tennen, H. (1985). The effect of self-relevance on judgments of moderate and severe disciplinary encounters. *Journal of Marriage and the Family*, 47, 311-318.
60. Hillson, J. M. C. & Kuiper, N. A. (1994). A stress and coping model of child maltreatment. *Clinical Psychology Review*, 14, 261-285.
61. Hosman, C. M. H. (1983). *Psychosociale problematiek en hulpzoeken. Een sociaal-epidemiologische studie ten behoeve van de preventieve geestelijke volksgezondheid* [Psychosocial problems and help-seeking. A sociological-epidemiological study for the preventive mental health]. Lisse: Swets en Zeitlinger.
62. Howze, D. C. & Kotch, J. B. (1984). Disentangling life events, stress and social support: implications for the primary prevention of child abuse and neglect. *Child Abuse Negl.*, 8, 401-409.
63. Kaufman, J. & Zigler, E. (1987). Do abused children become abusive parents? *Am.J. Orthopsychiatry*, 57, 186-192.
64. Kaufman, J. & Zigler, E. (1992). The prevention of child maltreatment: programming, research and policy. In D.J. Willis, E. W. Holden, & M. Rosenberg (Eds.), *Prevention of child maltreatment: developmental and ecological perspectives* (pp. 269-295). New York: Wiley.

65. Keuning, M., Schulze, H. J., Stams, G. J., Groenewegen, I., & Schuengel, C. (2002). Marital conflict strategies predict child abuse potential in Dutch families from low socioeconomic backgrounds. *Zeitschrift für Familienforschung*, 14, 153-166.
66. Komarovsky, M. (1940). *The unemployed man and his family*. New York: Dryden Press.
67. Korfmacher, J. (2000). The Kempe Family Stress Inventory: a review. *Child Abuse Negl.*, 24, 129-140.
68. Kotch, J. B., Browne, D. C., Dufort, V., & Winsor, J. (1999). Predicting child maltreatment in the first 4 years of life from characteristics assessed in the neonatal period. *Child Abuse Negl.*, 23, 305-319.
69. Kotch, J. B., Browne, D. C., Ringwalt, C. L., Dufort, V., Ruina, E., Stewart, P. W. et al. (1997). Stress, social support, and substantiated maltreatment in the second and third years of life. *Child Abuse Negl.*, 21, 1025-1037.
70. Kotchick, B. A. & Forehand, R. (2002). Putting Parenting in Perspective: A Discussion of the Contextual Factors that Shape Parenting Practices. *Journal of Child and Family Studies*, 11, 255-269.
71. Kotelchuck, M. (1982). Child abuse and neglect, prediction and misclassification. In R.H.Starr (Ed.), *Child abuse prediction, policy implications* Cambridge: Ballinger Publishing Company.
72. Leventhal, J. M., Egarter, S. A., & Murphy, J. M. (1984). Reassessment of the relationship of perinatal risk factors and child abuse. *Am.J.Dis.Child*, 138, 1034-1039.
73. McLoyd, V. C., Jayaratne, T. E., Ceballo, R., & Borquez, J. (1994). Unemployment and work interruption among African American single mothers: effects on parenting and adolescent socioemotional functioning. *Child Dev.*, 65, 562-589.
74. Milner, J. S. (1993). Social information processing and physical child abuse. *Clinical Psychology Review*, 13, 275-294.
75. Milner, J. S. (1998). Individual and family characteristics associated with intrafamilial child physical and sexual abuse. In P.K.Trickett & C. J. Schellenbach (Eds.), *Violence Against Children in de Family and the Community* (pp. 141-161). Washington, DC: American Psychological Association.
76. Milner, J. S. (2003). Social information processing in high-risk and physically abusive parents. *Child Abuse Negl.*, 27, 7-20.
77. Monaghan, S. M., Gilmore, R. J., Muir, R. C., Clarkson, J. E., Crooks, T. J., & Egan, T. G. (1986). Prenatal screening for risk of major parenting problems: further results from the Queen Mary Maternity Hospital Child Care Unit. *Child Abuse Negl.*, 10, 369-375.
78. Murphy, S., Orkow, B., & Nicola, R. M. (1985). Prenatal prediction of child abuse and neglect: a prospective study. *Child Abuse Negl.*, 9, 225-235.
79. Murry, S. K., Baker, A. W., & Lewin, L. (2000). Screening families with young children for child maltreatment potential. *Pediatr.Nurs.*, 26, 47-54, 65.
80. Newberger, C. M. (1980). The cognitive structure of parenthood; the development of a descriptive measure. In R.L.Selman & R. Yando (Eds.), *Clinical-developmental psychology*.

*New directions of child development: clinical developmental research, No. 7* San Francisco: Jossey-Bass.

81. Oates, R. K., Davis, A. A., Ryan, M. G., & Stewart, L. F. (1979). Risk factors associated with child abuse. *Child Abuse Negl.*, 3, 547-553.
82. Paavilainen, E., Astedt-Kurki, P., Paunonen-Ilmonen, M., & Laippala, P. (2001). Risk factors of child maltreatment within the family: towards a knowledgeable base of family nursing. *Int.J.Nurs.Stud.*, 38, 297-303.
83. Pas, A. J. M. v. d. (2003). *A Serious Case of Neglect: the Parental Experience of Child Rearing; Outline for a Psychological Theory of Parenting*. Delft: Eburon.
84. Polansky, N. A., Gaudin, J. M., Ammons, P. W., & Davis, K. B. (1985). The psychological ecology of the neglectful mother. *Child Abuse Negl.*, 9, 265-275.
85. Reijneveld, S., van der Wal, M. F., Brugman, E., Hira Sing, R. A., & Verloove-Vanhorick, S. P. (2004). Infant crying and abuse. *Lancet*, 364, 1340-1342.
86. Rodriguez, C. M. & Green, A. J. (1997). Parenting stress and anger expression as predictors of child abuse potential. *Child Abuse Negl.*, 21, 367-377.
87. Rohner, R. & Rohner, E. (1980). Antecedents and consequences of parental rejection: A theory of emotional abuse. *Child Abuse Negl.*, 4, 189-198.
88. Rumm, P. D., Cummings, P., Krauss, M. R., Bell, M. A., & Rivara, F. P. (2000). Identified spouse abuse as a risk factor for child abuse. *Child Abuse Negl.*, 24, 1375-1381.
89. Rutter, M. (1989). Intergenerational continuities and discontinuities in serious parenting difficulties. In D. Cicchetti & V. Carlson (Eds.), *Child Maltreatment, theory and research on the causes and consequences of child abuse and neglect* Cambridge: Cambridge University Press.
90. Schumacher, J. A., Smith Slep, A. M., & Heyman, R. E. (2001). Risk factors for child neglect. *Aggression and Violent Behaviour*, 6, 231-254.
91. Seagull, E. A. W. (1987). Social Support and Child Maltreatment: a review of the evidence. *Child Abuse Negl.*, 11, 41-52.
92. Sidebotham, P. (2003). Red Skies, Risk Factors and Early Indicators. *Child Abuse Review*, 12, 41-45.
93. Sidebotham, P. & Golding, J. (2001). Child maltreatment in the "children of the nineties" a longitudinal study of parental risk factors. *Child Abuse Negl.*, 25, 1177-1200.
94. Sidebotham, P. & Heron, J. (2003). Child maltreatment in the "children of the nineties": the role of the child. *Child Abuse Negl.*, 27, 337-352.
95. Sidebotham, P., Heron, J., & Golding, J. (2002). Child maltreatment in the "Children of the Nineties": deprivation, class, and social networks in a UK sample. *Child Abuse Negl.*, 26, 1243-1259.
96. Sigmond-de Bruin, E. M. (2001). *Follow-up in very preterm and very low birthweight children at ten years of age*. Universiteit Leiden.
97. Slep, A. M. & O'Leary, S. G. (2001). Examining partner and child abuse: are we ready for a more integrated approach to family violence? *Clin.Child Fam.Psychol.Rev.*, 4, 87-107.

98. Solomon, T. (1980). History and Demography of Child Abuse. In J.V.Cook & R. T. Bowles (Eds.), *Child Abuse; Commission and Omission* (pp. 63-68). Ontario: Butterworth and Company.
99. Stevens-Simon, C., Nelligan, D., & Kelly, L. (2001). Adolescents at risk for mistreating their children. Part I: Prenatal identification. *Child Abuse Negl.*, 25, 737-751.
100. Stier, D. M., Leventhal, J. M., Berg, A. T., Johnson, L., & Mezger, J. (1993). Are children born to young mothers at increased risk of maltreatment? *Pediatrics*, 91, 642-648.
101. Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). *Behind closed doors, violence in the American family*. New York: Anchor Books.
102. Tajima, E. A. (2000). The relative importance of wife abuse as a risk factor for violence against children. *Child Abuse Negl.*, 24, 1383-1398.
103. Vondra, J. I. (1990). Sociological and ecological factors. In R.T.Ammerman & M. Hersen (Eds.), *Children at risk, an evaluation of factors contributing to child abuse and neglect* (pp. 149-170). New York: Plenum Press.
104. Walsh, C., MacMillan, H., & Jamieson, E. (2002). The relationship between parental psychiatric disorder and child physical and sexual abuse: findings from the Ontario Health Supplement. *Child Abuse Negl.*, 26, 11-22.
105. Weissman, A. M., Jogerst, G. J., & Dawson, J. D. (2003). Community characteristics associated with child abuse in Iowa. *Child Abuse Negl.*, 27, 1145-1159.
106. Windham, A. M., Rosenberg, L., Fuddy, L., McFarlane, E., Sia, C., & Duggan, A. K. (2004). Risk of mother-reported child abuse in the first 3 years of life. *Child Abuse Negl.*, 28, 645-667.
107. Winnicott, D. W. (1958). *Collected papers*. London: Havistock.
108. Zaslow, M. J. & Emig, C. A. (1997). When Low-Income Mothers go to Work: Implications for Children. *Future Child*, 7, 110-115.
109. Zuravin, S. J. (1991). Unplanned childbearing and family size: their relationship to child neglect and abuse. *Fam.Plann.Perspect.*, 23, 155-161.



