Maternal psychosis and disfunctions in early interactions:clinical considerations on the case of a mother with schizophrenia and her daughter

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sis and disfunctions in early considerations on the case of a mother with schizophrenia and her daughter

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Abstract -**Schizophrenia and psychotic disorders cause considerable impairment in different areas of functioning such as behaviors, cognition and emotions which lead to difficulties in many domains of everyday life such as work, social engagement and parenting.**

Psychotic parents show a series of interactive and intersubjective difficulties that might compromise the ability to appropriately read and respond to the babies' cues. These features seem to compromise rearing practices and to influence to some extent the social and emotional development of the children, who show atypical behaviors during interactions with their caregivers.

In this work we present some reflections on the case of a psychotic mother and her daughter living in a residential mother-child community. The dyad was observed during free play and assessed when the child was 4 and 14 months.

According to the literature difficulties where found during interactions. Maternal qualities were stable during the two episodes while the child show some improvements.

Clinical considerations are made about the case and implications of residential treatment are discussed.

Keywords – Maternal schizophrenia; psychotic parents; child development; mother-infant interactions

I. INTRODUCTION

1.1. SCHIZOPHRENIA AND PSYCHOTIC DISORDERS

Schizophrenia and psychotic disorders constitute a group of mental diseases that cause individuals evident abnormal functioning due to the presence of delusions, hallucinations, disorganization in speech and thinking, gross or bizarre motor behaviors and negative symptoms [1]. Negative symptoms often appear during prodromic and residual phases and could be more or less severe. They include a decrease in emotional expression, avolition, alogy and a decrease of interest in social interactions [1]. Thus, it can happen that a person that usually has been particularly active in social engagement becomes very passive and withdrawn. These symptoms cause a considerable impairment in different areas of functioning such as work, interpersonal relationships and self-cure. Features of schizophrenia, in particular, involve a wide range of cognitive, behavioral and emotional dysfunctions, none of which is patognonomic of the disorder [1]. The course of the disease shows favorable outcomes in 20% of the cases and a small subgroup of the subjects show complete recovery [1]. Anyway, the majority of patients requires different forms of sustain for everyday life and could be chronically affected by the disease, oscillating between exacerbations and remissions of active symptoms and progressive deterioration [1].

1.2. MATERNAL PSYCHOSIS AND DYSFUNCTIONS IN EARLY INTERACTIONS

A group of studies in infant research shows how important emotional exchanges are for child development, especially during the first months of life. Predictability of everyday interactions and features like turn-taking, maternal sensitivity and responsiveness allow the baby to develop a sense of agency and a series of expectations concerning the possibility to express his/her own needs and feelings to the other person whom is expected to validate them [2] [3] [4] [5] [6]. Especially when very young, babies rely a lot on caregivers, which can provide cure and protection but also work as external regulators of internal feelings, both positive and negative [5] [3] [4] [7] .

If we consider the degree of social and relational impairment caused by schizophrenia and psychotic disorders it is easy to imagine how deleterious the effects of this forms of psychopathology could become in the domain of child rearing practices, where the relationship especially requires all those forms of competencies related to "being with the other", such as affective tuning and emotional validation. Psychotic patients, in fact, often experience difficulties in emotional expression due to the exhibition of inadequate affects or disforic mood that could assume either the form of depression or anger and anxiety [1].

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tend to cry and fuss more with respect to controls, whereas children of depressed and intrusive mothers tend to avoid eye contact and to interact [9].

When compared to mothers with affective disorders mothers with schizophrenia and their children show worse interactive behaviors. The lack of maternal sensitivity and responsiveness seems associated with avoidance of the caregiver [10] [11]. Some studies highlighted how, in groups with severe maternal psychopathology emerged in the postpartum period are more frequent paradoxical forms of involvement, where the caregiver simultaneously shows interactive bids and signs of disengagement (e.g. addressing to the baby vocally while at the same time maintaining inadequate distance of interaction) [12]. In response to these ambiguous requests children from 4 to 6 months tend to divert their gaze from the caregiver, whereas children aged 2-3 months adopt a "glaze" look, observing continuously the adult's forehead [13] [14].

Another deficit often identified in psychotic patients is the one concerning the theory of mind, which leads to the inability to infer others' intentions [1]. Thus, difficulties in reading the babies' cues and in providing adequate response could exacerbate difficulties in everyday life and routines. For example, at bedtime these mothers seem to have more difficulties in perceiving and understanding the anxiety shown by their children; this lack of comprehension prevent in part the adoption of better strategies to manage these situations [15] [16] . Fatigue associated with pharmacological treatment influence in part these difficulties [16].

The presence of contextual risk or protective factors and severity of psychopathology could in part account for the variability of different results reported in the literature [17] [18]. Some studies, in fact, highlighted that the presence of emotional support offered by social networks might influence self-esteem and lead to better rearing practices [17]. Anyway it is still not clear how much these factors influence parental or interactive outcomes [10] [11].

II. THE STUDY

2.1. PROCEDURE

J. is a 37-years old woman with diagnosis of paranoid schizophrenia. She and her daughter, S., entered in a residential therapeutic community (TC) when the little girl was 4 months old. TC accommodate both patients with diagnosis of substance dependence and patients with psychiatric disease. The project foresees a global framing of the dyadic relationship, with assessments focused on maternal and infant individual features and on dyadic aspects. Mothers are assessed in terms of psychic functioning, personality, and attachment representations associated with families of origin. The children are evaluated both directly, through observations, and indirectly, through procedures aimed at assessing attachment and adaptive behavior. Finally, observing the quality of mother-child emotional exchanges allows to reach a global frame regarding interactive and dyadic functioning. Moreover, this last form of assessment allow to examine in depth child development and quality of parenting.

During the stay in TC, the mothers are provided pharmacological treatment and educational and therapeutic interventions, both individual and groupal. The underlying hypothesis of this program is that, given the intense and reciprocal influences between mother and child, intervening on the adult can lead to improvements in parental functioning and in the quality of m-c relationship.

With respect to the assessment phase of the program, every three months, one month after admission, each dyad is videotaped during 20 minutes interactions. At entrance and 10 months later (when the baby was 14 months old) the dyad was videotaped and assessed during 20 minutes free play sessions. Dyadic interactions were evaluated using the 4th edition of the Emotional Availability Scales (EAS- [19]). The construct refers to the ability of emotional sharing by taking part and contributing to a healthy and mutually fulfilling relationship [20]. The EAS are composed of six scales, four for the adult (sensitivity, structuring, nonintrusiveness, nonhostiliy) and two aimed at evaluating child behaviors (responsiveness, involvement of the adult). The EAS could be considered as an operationalization of shared emotional processes which takes into account the contribution of both mother and child [21]. The instrument is multidimensional and it is composed of six scales, four for the adult (sensitivity, structuring, nonintrusiveness, nonhostiliy) and two aimed at evaluating child behaviors (responsiveness, involvement of the adult).

Adult sensitivity refers to the ability of accurately reading and adequately responding to infant signals. It takes into account adequate resolution of conflicts, flexibility, creativity and variety during emotional exchanges.

Adult structuring evaluates how the adult facilitates, support and organizes activities, offering adequate regulation, limits where necessary, but also a coherent frame for the interaction without, anyway, compromising child's autonomy.

Adult nonintrusiveness measures the degree of parental support during play and explorative activities, in other words the ability of the caregiver to "be there" and to introduce interactional bids respecting timing not interrupting the ongoing activity with too many directions, over-stimulation, hyper-protection, and interferences.

Adult nonhostility takes into account the ability of the adult to interact with the child patiently, in a pleasurable and quiet manner, without showing overt or covert forms of hostility.

Child responsiveness to the adult evaluates clear evidence of pleasure and joy shown by the child during interactions with the adult and his/her willingness to adequately respond to interactional bids without compromising his/her autonomy.

Child involvement evaluates how the child demands the presence of the adult during activities without showing anxiety or other forms of negative involvement (such as cries, complaints and so on).

Each scale is given a score on a 7 point Likert scale, where higher ratings stand for more optimal features.

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sensitivity in the caregiver, anxiety in the child).

Scores around 3 indicate emotional detachment, emotions are shut down during interactions, there is a sort of avoidance within the dyad.

Scores below 3 stress the presence of problematic interactions where emotional exchanges are extreme and non-optimal.

Given the fact that the literature highlights evident difficulties in emotional sharing in these dyads, this instrument seemed particularly useful for our purpose.

The scales are flexible with respect to age of the child, kind of relationship and setting. Although they were developed in the US, they have been employed successfully in different nations, among which Italy [22] [23] [24] [25] [26] [27]. The operationalization of emotional availability in the EA Scales showed acceptable psychometric properties, such as validity and reliability [28]. The instrument showed short-term stability in the same setting and across contexts [29] [30]. Long term stability appeared less clear; This is probably due to discontinuity in EA across time [31].

2.2. Results

Figure. 1 shows the scores of the 6 EAS in each of the two times. As it is noticeable, the dyad shows very low interactive skills. The mother appears insensitive and non-responsive to infant cues (scores 1.5 and 1.5 in sensitivity), she cannot provide suggestions and scaffolding during the play with her baby (scores 2 and 1 in structuring). Aspects related to intrusiveness are difficult to assess, given the minimal amount of interaction (scores 6 and 6 in nonintrusiveness). It is not clear whether the mother presents signs of hostility or negative behaviors; the long periods of silence, however, make the episodes appear deadened (scores 5 and 4 in nonhostility). Given massive avoidance, autoregulation and the presence of confusion in front of her nonresponsive mother S. too gets low scores on the scales (1 and 2.5 in responsiveness; 1 and 3 in involvement). Anyway it is important to highlight an increase in the child scores between the two observations. Following there is a brief description of the episodes and of the impressions that emerged.

2.2.1. Interactions at 4 months old

At their entrance in TC, interactions are very painful to observe. The mother does not show any sign of emotional expression or ability in reading and responding to the baby's cues, even when they are blatant (such as during crying). J. seems to function with an on-off modality where the "on periods" display a series of inadequate activities performed without taking into account the baby's timing or her needs. On the other hand, during the more extended "off periods" the woman seems to become unaware of the little girl and to pursue autonomous and solitary activities (for example, she holds the baby by the arm to keep her sit and then she reads loudly a book, seeming to become oblivious of her daughter and focusing exclusively on

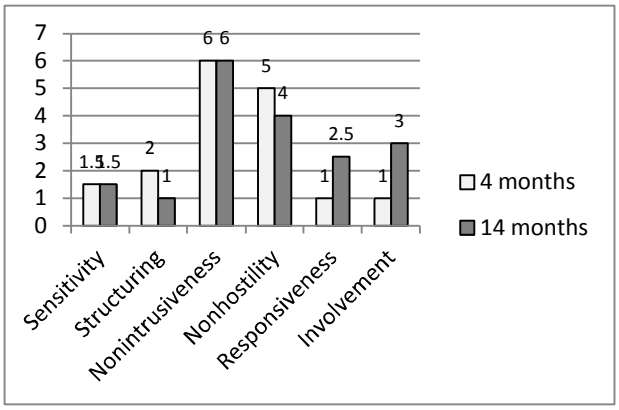

Figure 1. Interactive skills at 4 and 14 months assessed with the EAS.

the object). The interaction completely lacks of variations in themes, synchrony, turn-taking and reciprocity, fundamental features of dyadic exchanges. Moreover face-to-face interactions, multimodal stimulation and a warm and holding physical contact are almost absent. Never-ending silences and facial non-expressivity make the scene appear deadened and anguishing. Proposals of activities are entirely unilateral and do not take into account the baby's cues; these is a very sad moment where S., with her back on the floor, stretches out her arms towards her mum, but the request remains unheard because the woman seems to neglect this signal. Non-approving or non-considering the baby leads to the absence of optimal interactive regulation; S. needs to completely rely on autoregulation and to a certain amount she succeeds quite well in this; there is an episode where the baby, in evident distress, starts crying. In front of the mother's insensitivity and non-responsiveness she brings the hands to her mouth and immediately stops crying. The efforts invested in self-soothing require anyway an exaggerated amount of resources and the absence of a holding figure probably engenders much distress in the little girl, who moves her head and arms slowly and in fits and starts. During this interaction the baby is quite non responding and noninvolving towards her mother. She does not use any kind of vocal or non-verbal cue to call back her mum in interaction, save few sporadic exceptions. She passively alternates "glaze" stares at her and gazes around the room, avoiding to look at the fixed figure in front of her. Probably the matching of maternal insensitivity and inability to scaffold adequate interactions with the baby's noninvolving behaviors and her retreat on autoregulation prevent the dyad to build and share an emotional connection.

2.2.2. Interactions at 14 months old

Initially, the interaction videotaped at 14 months seem to give a sense of hope to the observer: when they enter the play room, J. e S. smile each other. The little girl, that now has started walking, begins to explore the room and looks at the mother, showing some form of social reference; she then sits on her legs. Unfortunately, soon J. starts to show her "on-off" and "non-affective" interactive pattern of facial stillness and withdrawal from interaction. Probably this moment of play demands her many resources, too many, and for long periods she needs to "turn off" and retreat in herself. J. never talks, she yawns sometimes, silence is thunderous. Again the interaction

necessary child. At ne in the en at 14 egulation: she is very quiet, no babbling or vocal bids are used. She explores a lot the room, the furniture and the materials given by the experimenter. Although her mother is almost entirely absent she looks for her in many ways, through gazes and by offering her toys. The fact of being in front of a still figure becomes too distressing at times; in these moments the child shows avoidance towards her non-responding mother; she reaches a corner in the room where she explores the toys turning her back from J. She answers to her mother's psychological distance by distancing herself spatially and physically. Anyway, at a certain point the need of the other emerges shattering; again S. gets close to J., she tries to awaken her, she offers her mum some toys, she then collapse on her legs. Facing the failure of her tries she becomes distressed, she makes a slight noise but she does not cry; taking a toy to her mouth is enough to self-soothe and to hyper-regulate her internal state, again. She sits near her mother and keeps exploring toys, gazing at her at times.

III. DISCUSSION

As expected exploring the literature regarding schizophrenic and psychotic parents, J. Seems to experience intense difficulties during interactions with her daughter. What appears a key element in this dyad is the lack of a real sense of intersubjectivity and of the acknowledgement of cues and affective experiences of the other [13]. During interactions it is possible to notice a series of high contradictive signals that appear simultaneously at different levels [13]. When interacting with their children, these parents often show inconsistency between their tone of voice, facial expressions and what they say or do, both in dyadic and triadic interactions (Massie, 1980; [13]. This seems to happen even in the case considered here, when the mother could for example invite her child to play with her but at the same time not considering her baby's cues. On the other hand, children of psychotic parents often seem to fail in signaling their needs and affects adequately.

J. chronically fails to capture and respond even to most blatant signals of her daughter, such as crying. This non-responsiveness and the fact of being in presence of someone psychologically absent could be very confusive aspects for the child. It is in fact well known how, since from birth or even before, children are intrinsically driven towards sharing experiences with the others [32].

At 4 months, S. oscillates between averting her mother's gaze and looking at her in a glaze manner. This second behavior seems to recall the "hypervigilant" modality of interaction observed in children of depressed and psychotic mothers, who keep their look oriented towards their caregivers despite inadequate maternal attunement [33] [34]. In a relationship where the caregiver is unpredictable, hypervigilance represent an adaptive strategy, which allows the baby to monitor the parent without actually sharing affects [13]. Thus, since the child spends more time at gazing at the adult than expected, there seems to be an alteration in expected on-off attentive cycles, leading to a role reversal in the typical ongoing of face-to-face interactions, where the parent offers a stable and predictable frame, keeping his/her attention focused towards the baby, whom is then able to oscillate between different attentive states less predictably [35] [6] [36] [13]. In dysfunctional interactions shown by psychotic patients and their children, the latter are the more predictable counterpart, allowing their parents to oscillate between engagement and disengagement. Anyway, the frame provided by the child seems inconsistent, given the fact that the request of involvement suggested by looking at the caregiver is not associated with a real engagement; it is a vacant gaze like the one displayed by S. during her first interaction, where she looks at her mother be she is not really with her [13].

Anyway S. shows some improvements between 4 and 14 moths; she becomes more active, she explores the room, she looks at her mother searching for a feedback, expecting something; this let us think of something good that might have happened within this dyad, maybe some "hit" behaviors. These hit behaviors might have helped nurturing the expectance that something good is available from the other. One might wonder if this mother functioned somehow correctly in her parental role sometimes.

Certainly, the fact that the dyad lives in a place whit other children and other referential figures might have pulled the emerging developmental abilities of the little girl. The literature shows in fact that in families where a parent is affected by mental disease, developmental outcomes depend mainly on the level of family functioning rather than on dyadic interactions with the ill parent [37]. One might hypothesize that the same mechanisms that intervene in these cases are reproduced, at least in part, in therapeutic community, where activities and everyday routines are organized through the collaboration of an integrated multidisciplinary team. All these features might somehow have allowed S. to partially benefit from adequate affect mirroring and responses to her needs offered either by experts or by the other patients. Concerning socio-affective development another positive aspect could be the possibility to rely on peers and other children in everyday life.

Moreover different studies highlighted how behavioral techniques focused on sensitivity and mother-child psychotherapy proved to be more effective in improving maternal sensitivity and child attachment rather than individual psychotherapy [38]. These forms of intervention are also adopted in TC. Of course, a lot is also attributable to S.'s considerable resilience [39]. In fact, even though she relies a lot on individual regulation, this strategy allows her to keep her behavior organized throughout all the interactions and to pursue other developmentally fundamental activities, such as, for example, exploration [2].

Since we reported on a single case, our results are not extendable to wider groups of subjects; however they seem, at least in part, to agree with the ones collected by the literature which highlight difficulties in parental functioning within the group of psychotic patients. Anyway, our results seem also to evidence that stability in maternal interactive difficulties is not necessarily associated with stability in children's interactive

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