“ Early detection of risk indicators
in early emotional development.
Interdisciplinary intervention in the first level of care “

Nahir Bonifacino

Dora Musetti

Andrea Plevak

December, 2012

Montevideo. Uruguay

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SUMMARY

Complex psychoanalytical conceptions are taken in this work to an operative field that promotes the dialog with related disciplines in an integrative conception of the individual health. From this perspective the field of psychoanalytic intervention is open to pediatric medicine interest, recognizing the pediatric regular consultation in early infancy as an opportunity for the prevention and promotion of mental health from the first level of health care.

In a first step, this project pointed to the early detection of risk indicators in early emotional development in infants between 2 and 15 months, through the withdrawal indicators detected during the pediatric consultation. For that purpose, pediatricians were offered training in a psychoanalytical perspective of early emotional development and in the use of a tool for the systematic observation of the infant during the pediatric consultation, with the objective of the early detection of withdrawal indicators (ADBB scale, Alarm Distress Baby Scale, A. Guedeney, 2001). Withdrawal constitutes a relevant symptom on the early emotional development that is found in the clinic of the most important psychopathological situations of first infancy. The instrument that is proposed for its detection is accessible and use friendly. It evaluates 8 items related to infant relational pattern and it is validated in different countries (France, Finland, Australia, Portugal, Brazil, and Argentine).

In a second step of the experience, pediatricians were trained to implement simple interventions oriented to promote new resources in parents- infant relationship in the cases of infants with withdrawal indicators. For these interventions it was assumed the relevant position of these professionals who are in the closest relationship with the infant and his parents. This position is reinforced because of the parents' transferential aspects that are involved in this professional relationship that take care of the infant´s health. This study measured the impact of these interventions in the reversibility of withdrawal indicators. The outcome of this group of infants was compared with another one which was assisted by a pediatrician who already had the training from the beginning of the experience.

This work was carried out in two Public Health Center of the Metropolitan area of Montevideo, with the coordination of a psychoanalyst and an Infant Psychiatrist, and with the participation of 10 pediatricians and 3 psychologists. A systematic and video-recorded follow up of an initial population of 95 infants between 2 and 15 months was done along four regular pediatric consultations. Sixty-seven of these infants who were followed up until at least the third video-registration of the pediatric consultation were included in a statistical study. From this group of 67 infants, 30 received their pediatric consultation from a pediatrician who was trained in ADBB from the beginning of the project, and the other 37 were infants from both medical centers which received their pediatric consultations in a traditional way, from pediatricians who were trained in ADBB after the 2nd video-registration of the pediatric consultation. This

methodological proposal was oriented to measure in which way it could impact the interdisciplinary approach that we propose in the infant, for the prevention and the early intervention in early infancy.

The statistical study of the group of 37 infants showed 40% of them with withdrawal in the first ADBB assessment and 57% in the second one, which was done 2 months later. Nevertheless, in the third ADBB assessment which was done after the training to pediatricians and their intervention during the follow up of the infants along the three monthly regular consultations, the percentage of infants with withdrawal indicators decreased to 13.5%.

In the parallel group of 30 infants assisted by a pediatrician who used ADBB from the beginning of the experience, the percentages of infants with withdrawal indicators detected were: 6.7% in the 1st assessment, 13.3 in the 2nd one, 10% in the 3rd one and in a 4th one 3.3%.

It was observed that the training acquired by the pediatricians allows them to a more precise and an earlier detection of risk indicators in infant development and they could do earlier and more efficient interventions that improve the condition of the babies. The data obtained in the parallel group in detection, follow up and intervention with infants assisted by a pediatrician with ADBB from the beginning showed that this training constitutes a new resource for the pediatrician to work since early in promotion of health with the infant and his parents.

I. Antecedents

This work is based on the conception that the infant emotional development is dependent on his potential capacities and also of the infant´s relationship with an environment which promotes and facilitates the unfolding of them (D. Winnicott , 1960). The study and the research about the necessary conditions for the beginnings of the psychic life, has had a relevant place in the psychoanalytic literature. Recognized psychoanalytic authors in different times (Bowlby 1969, Tronik 1975, Emde 1976, Stern 1977, Greenspan 1981, Fonagy 1991, Guedeney 2001, among others), have investigated from different perspectives the impact of early experiences that can interfere in a very strong way in the acquisition of certain psychic process or even lead to an early depression. The beginning of the psychic life can be compromised as a consequence of difficulties in the quality of the early relationships.

Video-recorded observations of mother-baby interactions (Brazelton, 1975) such as other experimental situations (“still-face” experiences Tronik, 1988) have shown a baby that displays initiatives in the interaction from the very beginning and has a special sensitivity in the relationship with his significant figures. At the same time it was observed that the baby has a very limited range of resources to react to interaction disturbances. On one hand the baby could react to these situations with different ways of protest that have the sense of a call to the adult (cries, shouts), but it was also study a less evident and a minor activity way to react that it is expressed in an inhibited or in a withdrawal attitude.

Withdrawal has been considered as a natural resource used by the baby from his first moments of life in order to regulate the interaction (Brazelton, 1975). But it was also investigated that in repeated interaction disturbances, this resource could become permanent

in the infant's interactional pattern. This situation could compromise the infant´s emotional, motor, cognitive and social development (Guedeney, Médicine Science, 2004: "Comportement de retrait relational du jeune enfant"). Other perspectives highlight the relevance of the subtle interchanges that take place in the early relationship to generate in the infant complex psychic process that are necessary to have the perception of oneself and others as psychic subjects (Fonagy& Target, 2002," Affect regulation, mentalization and the development of the self "). From these theories it is possible to consider that difficulties in the processes of emotional regulation and mentalization could take place as a consequence if the infant is not available for these interchanges

There is a wide range of conditions that could cause permanent withdrawal in the infant, but with independent on its origin withdrawal is always a very relevant risk indicator for emotional development. This phenomenon was observed with organic causes in infants with sickness, malnutrition, with chronic or severe pain, and with auditory and visual handicaps (A. Guedeney. Medicine Science, 2004). It was also observed as a reaction in sustained situations of disturbances in parental care: maltreatment, abuse and attachment disturbances (A. Guedeney, European Psychiatry, 2007). More recent investigations relate infant withdrawal with parental mental health (" Infant social withdrawal and parents´ mental health " , Mantymaa, Puura, Luoma, Kaukonen. Infant Behavior and Development, 2008), and with the influence of maternal depression in the infant emotional life (A. Guedeney. Medicine Science, 2004). Other causes are related to important failures in mother – father – infant interaction. Relating to this point it was considered that withdrawal in the infant is a sign that points to a disturbance in the dyadic relationship that the baby is not able to solve properly (A. Guedeney, Medicine Science, 2004).

There are recent studies that bring data about the consequences that withdrawal has in the infant´s development. In a population of 50 Australian babies, it was observed that those who had withdrawal indicators at 6 months - without any intervention – two years later presented social and cognitive difficulties (" Long term developmental impact of social withdrawal in infants ", Milne, Greenway, Guedeney, Larroque, Australia. Elsevier, 2009).

This research project assumes that withdrawal, as a clinical phenomenon, is one of the essential elements in the major diagnostic categories of pathology of the first infancy: early interactive difficulties –as the one caused by the effect of mother depression –, post-traumatic syndromes, depression, developmental delay, attachment disturbances, autism, anxiety, sensorial difficulties, abuse, etc (A. Guedeney, European Psychiatry, 2007). The progressive nature of its installation in the relational pattern of the baby makes its early expressions hard to detect and easily overlooked in the clinical observation without the help of a specific instrument to detect it.

In the period 2006-2009 a pilot study with ADBB scale was carried out by our team in Uruguay with the assessment of 73 infants between 2 and 24 months during the regular pediatric consultation (Bonifacino, Musetti, Plevak, " The pediatric consultation: a first step into infant mental health ", Devenir, Medicina e Higiene, Suiza. No. 2. Vol 23, 2011 ; Bonifacino, Musetti, Plevak, " THE SIGNAL. Newsletter of the World Association for Infant Mental Health. Vol. 19, No. 2. April – June 2011). In this population of infants 25% presented withdrawal signs in

different degree. With the objective of improve their condition the team implemented certain interventions during the following consultations. Five months later when the infants were assessed again with the scale to evaluate the process of follow up and intervention, it was observed that all the ones who had presented withdrawal indicators in the first assessment showed a total or partial improvement in their health condition (from 25% of infants with withdrawal in the 1st ADBB assessment only 6% continued presenting withdrawal in the 2nd one). This study had certain limitations in its methodology which required the new design that we are presenting now to prove in a more precise way that the improvement of the infants ´health condition was an effect of the pediatricians ADBB training and the intervention we proposed and not because of their own development.

II. Objectives

General objective

Early detection of risk indicators in the early emotional development in infants between 2 and 15 months through ADBB scale.

Specific objectives

1. Train pediatricians in ADBB scale and in the implementation of interventions during the regular pediatric consultation aimed to promote in the parents new resources in the relationship with the infant

2. Comparative analysis of the assessment of the infant made by the pediatrician before and after ADBB training

3. Comparative analysis of the outcome of the infant when the pediatrician has and does not have ADBB training

4. Investigate the outcome of the infant when he is assisted from the beginning by a trained pediatrician in ADBB

5. Intensify the application of an interdisciplinary approach and a more integrated perspective of infant health offering pediatricians new resources for the early detection of risk indicators in early infancy so that they could become agents in promotion of health.

III. Methodology

III.1.Participants.This work was approved by the heads of both medical centers in which the study was done. Assessment of 95 infants was done with ADBB in four times along a year. These infants received their regular pediatric consultations in two Medical Health Centers of the metropolitan area of Montevideo, Uruguay. All healthy infants between 2 and 6 months which attended the regular pediatric consultation with the pediatricians involved in the project during its two first months were included. Premature and sick babies were excluded. Personal and family data of each baby were registered in a file (appendix 1). According to ethical standards parents were

invited to participate in the project and were asked to sign an authorization to make the video-registration of the pediatric consultations of their infants and for it use with scientific aims. All the infants who presented withdrawal indicators would receive interventions. The video-recorded registration of the pediatric consultations of all the infants was done by three psychologists. Ten pediatricians were involved in the project. Only one of them had ADBB training from the beginning. The other nine – who were volunteers – received the training after the second video-recorded consultation.

III.2.Instrument. ADBB scale is a simple instrument, as far as time and resources are concerned, which is accessible for different health professionals after a brief training process, and easy to apply in an ordinary regular situation for the baby and his parents such as the pediatric consultation**.** It constitutes a guide for the observation of the baby, integrated by 8 specific items, to be observed by the pediatrician during the pediatric consultation (facial expression, eye contact, general level of activity, self-stimulating gestures, vocalizations, briskness of response to stimulation, capacity to engage in a relationship, capacity of the child to attract attention). This instrument has a good internal coherence (Cronbach is 0.83), and it includes the counter-transferential experience of the professional involved in the evaluation, which provides with a dynamic and clinical profile that enriches the information the tool offers. This characteristic, and its vast possibilities for prevention and education in the field of health during the first infancy, have generated in our team great interest in this instrument.

ADBB scale was validated firstly in France in 2001(" A validity and reliability study of assessment and screening for sustained withdrawal reaction in infancy : the Alarm Distress Baby Scale " , Guedeney & Fermanian, Infant Mental Health Journal, 2001), and since that it has been used with the purpose of doing research and promoting education and a healthy development in the baby and his early relationship with his parents (www.adbb.net). In our region of South America, the scale has been validated in the neighbors countries of Brazil (Lopes, S. Ricas, J. , Cota Mansini, M. " Alarm Distress Baby Scale. Evaluations of the psychometrics properties among 122 Brazilian Children ", Infant Mental Health Journal, 2008) and Argentina (Oliver, M. (2010) Diagnóstico precoz en salud mental pediátrica. Retracción relacional en los primeros años de vida [en linea] Revista UAI nov. 2010, http//issuu.com/vaneduc/doc/revista_uai_noviembre_2010-oliver).

III.3.Procedure. A longitudinal prospective, observational and descriptive study was done, with a non probabilistic sample of two medical health centers with pediatric assistance, taking into account their features to be analyzed together. A video–recorder registration of 95 babies between 2 and 15 months was done in four times along a year during the first ten minutes of the pediatric consultations (1st one with babies between 2 and 6 months, the 2nd one was made two months later, the 3rd one was made three months after the second one and after the pediatrician training; and the 4th one was made three months after the 3rd one, with babies between 9 and 15 months).

The pediatrician with ADBB training used this instrument in his consultations from the beginning of the study. In the cases in which withdrawal indicators were detected and once that possible organic causes were rejected, he implemented interventions taking into account ADBB score. The other nine pediatricians who did not have ADBB training at the beginning of the study, made their traditional consultations in the two first times, and they registered in the clinic history of the baby

the data that they considered relevant about his health condition. This methodology was aimed to obtain a baseline about the resources that pediatrician had in his traditional training to detect withdrawal as a risk indicator in early emotional development.

Five months after the beginning of the study and after the 2nd video–registration of the pediatric consultation, these professionals received training in a psychoanalytical approach of early emotional development and in ADBB scale. From that moment they used this instrument for the assessment of the baby through the four video–registrations of the pediatric consultations.

The training was done in an initial journey with ADBB theoretical assumptions: 1) early emotional development, 2) affective deprivation and its consequences, 3) withdrawal as a relevant symptom in emotional development, and 4) early detection of risk indicators in early emotional development in infants between 2 and 24 months through ADBB scale. Later monthly meetings with the pediatricians and the psychologists who made the video–registrations were done in each medical center. During these meetings the pediatricians assessed the babies with ADBB by their own from the first consultation video-registered.

In a complementary way pediatricians were offered with resources to implement simple interventions, to be done during the following consultations of the babies in which withdrawal indicators were detected and after possible organic causes were rejected. These interventions were done taking into account ADBB score and were aimed to promote in the parents new resources in parent–infant relationship. There were: 1) Point to the parents the capacities that the baby displays, 2) draw the parents' attention to the initiatives of the baby, 3) identify infant gestures that were aimed to seek contact with the parents, 4) promote verbal interchanges with the baby in cases in which verbal expressions were reduced or inexistent, 5) refer depressed mothers or without family support to a community centers in the neighborhood so that they can participate in mother–baby workshops.

III. 4. Data collected. A statistical study of the characteristics of the population was done taking into account personal and family data of each infant which were registered in the file. The 95 infants were assessed with ADBB in four times with two evaluation units: 1) one of them was done by the pediatricians, and 2) the other one was done by a psychoanalyst and a child psychiatry, ADBB experts who had already received ADBB training before the study.

IV. Results

A statistical study with qualitative and continue variables in a tabular way in frequency tables is presented. In the case of continue variables summary measures are also presented. For the study of association between variables Chi Square test was used or exact of Fisher in the cases that it was required. Wilcoxon test was used for the study of differences between the different times of video-recorder related to the scale. The difference statistically significant between continue variables was done through Student t test for independent samples. In all the cases the umbra of statistical significance correspond to $\alpha = 0.05$.

Characteristics of the infants, data of percentage of withdrawal detected in both groups (infants assisted by pediatricians with and without ADBB at the beginning), and their longitudinal study will be presented:

A) In the group of infants assisted by pediatricians without ADBB at the beginning, 37 infants were studied in three times during a year, 49% (18) of them were from Cerro Medical Health Center and the other part 51% (19) was from La Costa Medical Health Center. 73% (27) of them were male, with 2.7 boys by girls. Statistically significant differences related to sex variable with precedence center were not found, value p= 0.151 (appendix 2). The information related to infants age in months and the number of infants prospective studied in each video-record was the following one:

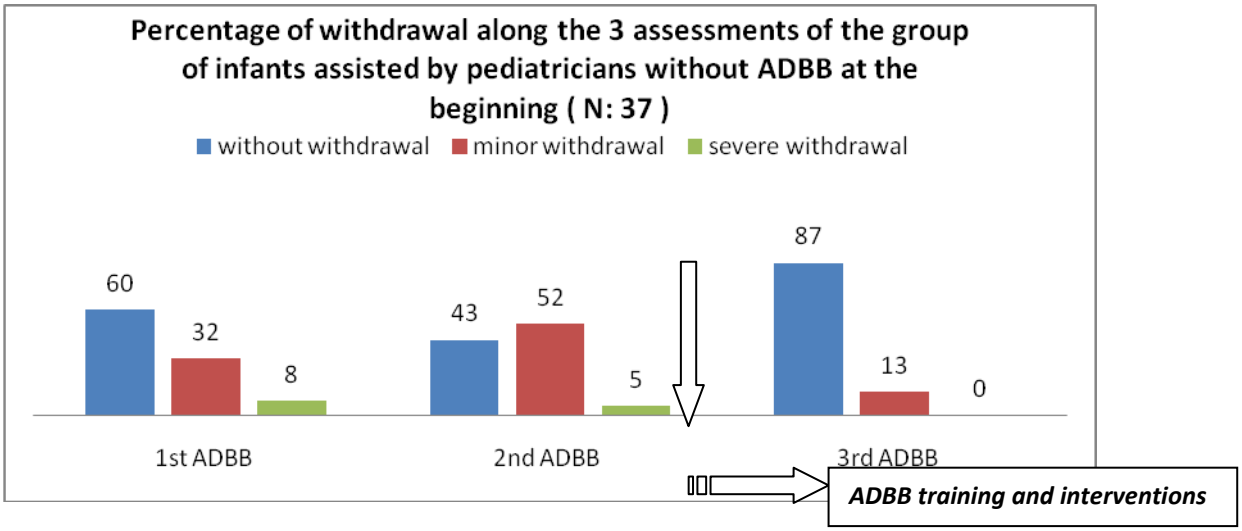
	n	Media ± EE	Min.	Max.
1st filming	37	3.7 ± 0.2	1.2	5.2
2nd filming	37	5.9 ± 0.2	3.3	8.1
3rd filming	37	9.7 ± 0.4	5.3	14.0

Before ADBB training only 2 of the 37 infants were considered in risk by the pediatricians according to the clinical histories. The two infants were referred to community centers to participate in mother-infant workshops. Both cases were detected as severe withdrawal by the ADBB experts. After ADBB training, in this same population 3 infants with severe withdrawal and 12 with minor withdrawal were detected by the pediatricians through the video-registration of the consultations. The other 22 infants did not present withdrawal indicators neither for the pediatricians recently trained nor for the experts. A statistically significant difference between ADBB training and withdrawal detection (value p = 0.000) could be established.

The longitudinal study of this group of infants was done until the 3rd consultation. The 4th one only could be done to 20 infants in 37, so that it could not be included in the statistical study. In the three video-registrations, the experts as well as the pediatricians recently trained classified the infants in the same ADBB ranges according to: without withdrawal (score 0 - 4), minor withdrawal (score 5 – 10) and severe withdrawal (score > 10), without statistical significant differences between the pediatrician after ADBB training and the expert (value p = 0.260 in the 1st one, value p = 0.417 in the 2nd one, and value p = 0.417 in the 3rd one). Statistical significant differences between the medical centers in relationship with the number of infants in each diagnostic category were not found (value p =0.505 in the 1st video-registration, value p =0.485 in the 2nd one, and value p =0.677 in the 3rd one).

In the 1st video-registration 60% (22) of the 37 infants did not present withdrawal, 32% (12) presented minor withdrawal and 8% (3) presented severe withdrawal. In the 2nd one, infants without withdrawal decreased to 43% (16), while increased to 52% (19) minor withdrawal. And 5% (2) of the infants presented severe withdrawal. Nevertheless in the 3rd video-registration - after the training and the interventions - in the total of 37 infants, 87% (32) did not present withdrawal and the other 13% (5) presented minor withdrawal. (Figure 1)

Figure 1:

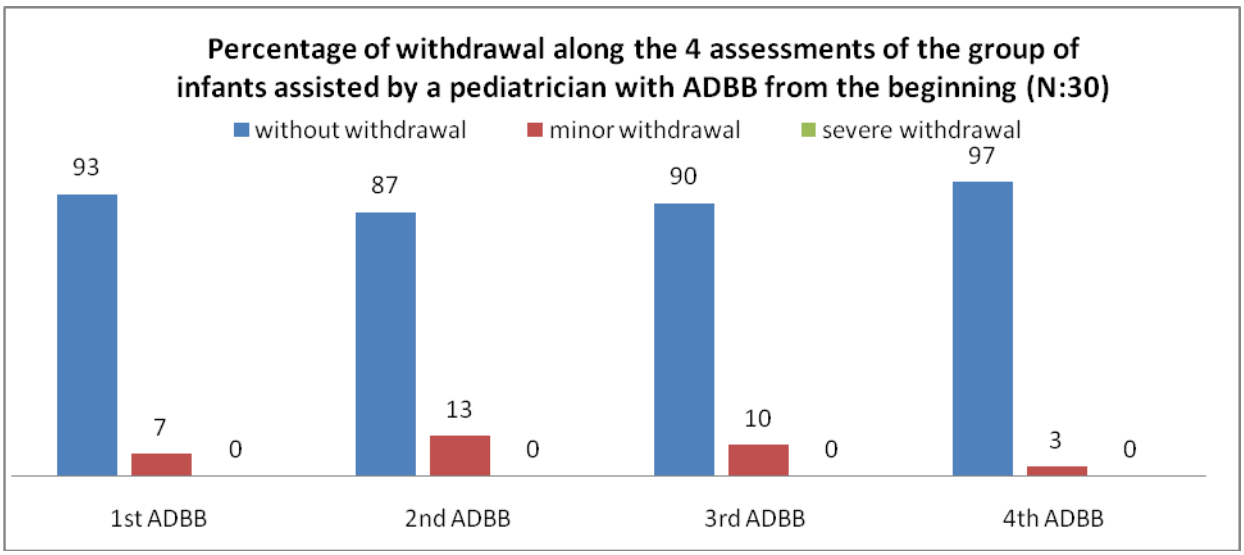


B) In the group of infants assisted by a pediatrician ADBB expert from the beginning, 30 infants were studied in four times during a year, all of them from La Costa Medical Health Center. 60% (18) of them were male, with 1.5 boys by girls. (Appendix 3)

The ages of the infants in months in the 4 video-registrations were:

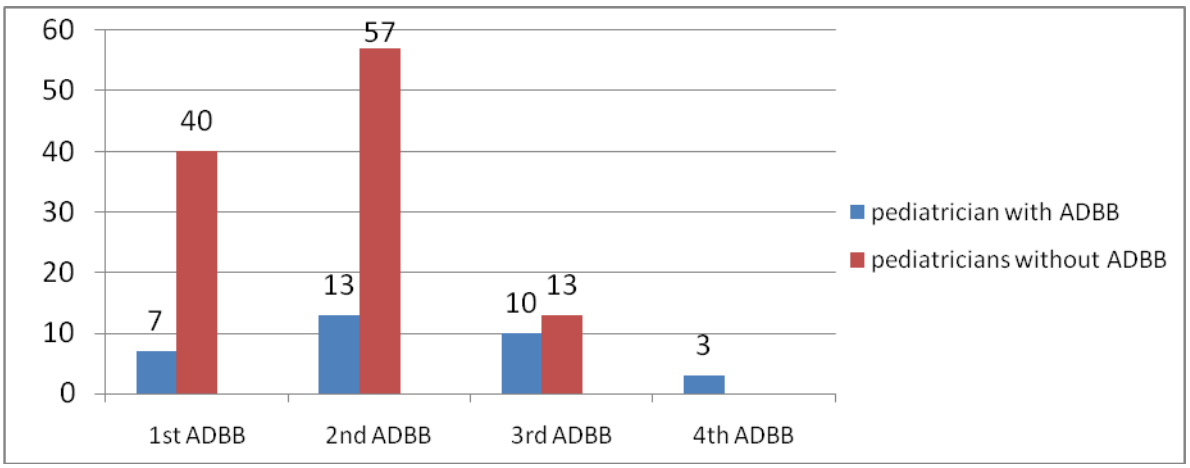
	1st filming	2nd filming	3rd filming	4th filming
Media ± EE (months)	3.2 ± 0.2	5.5 ± 0.2	7.7 ± 0.3	9.8 ± 0.3
Minimun age in months	2,00	4,00	5,2	7,2
Maximun age in months	5,3	8,1	11,0	12,2

The pediatrician ADBB expert detected: 7% of minor withdrawal in the 1st video-registration, 13% in the 2nd one, 10% in the 3rd one and 3% in the 4th and last one. The absence of infants with severe withdrawal is highlighted. (Figure 2)



In the comparison of the behavior of both groups of infants along the different assessments it exist a statistical significant difference for the three ranges of withdrawal: in the 1st video-registration (value p = 0.006) and in the 2nd one (value p = 0.001). Nevertheless in the 3rd video-registration which was done after the pediatricians training and after their intervention during the following consultations, both group of infants reached a similar behavior and it was not observed statistical differences between them (value p = 0.480). (Figure 3)

Figure 3: Comparative percentage of withdrawal in different degree between the groups of infants assisted by pediatricians with and without ADBB from the beginning.



V. Discussion

The study shows that ADBB training broadens the look of the pediatricians and benefits them for the detection of withdrawal indicators in the first infancy. A significant difference is observed in the ability of these professionals for withdrawal detection pre and post training. It was noticed that in the traditional consultation this symptom could be detected by the pediatrician only if it is presented in an evident way, which implies severe withdrawal (ADBB score > 10) with more risk for infant health. Nevertheless, the early expressions of withdrawal (ADBB score 5-10) are overlooked by the pediatrician with the traditional training and so he could not intervene. The two firsts assessments of the 37 infants assisted by the pediatricians without the training at the beginning, showed that when there is not the possibility of early detection, the percentage of infants with withdrawal tends to increase. Since the infants participants of the study were in good health conditions, it is possible to consider that withdrawal had its origin in emotional causes which refer to misunderstandings or difficulties in the primary bonds.

The 3rd assessment of these infants – which was done three months after the 2nd one – shows the impact of the pediatrician training in their health condition: a) a very significant decrease of percentage of withdrawal is evident, and b) this positive effect also reaches the infants who had severe withdrawal, in which a partial improvement was achieved. So it is observed that when the pediatrician could take into account the early emotional development and has tools for the early detection, he is enabling to generate resources to reverse the situation before it constitutes a pathological category.

In the parallel group assisted by the pediatrician ADBB expert from the beginning, the percentage of infants with withdrawal is reduced and all of them present minor withdrawal. This data could be interpreted by the randomized of the sample or due to the pediatrician, who had the training for the detection of withdrawal from the first assessment and intervened accordingly. In spite of not being possible to make a statistical differentiation between both possibilities, we tend to consider that ADBB training allowed this professional to work in promotion of health with the infant and his parents even in the consultations before the beginning of the study. According to this hypothesis, a relevant data of this group of infants is the absence of severe withdrawal.

In the comparison of the behavior of both groups of infants significant differences in the percentage of withdrawal in the two firsts assessments were found. Nevertheless it is interesting to observe that with the training the pediatricians achieved to reverse this situation and in the 3rd assessment both groups of infants balance and reach similar percentages of withdrawal. As we do not have the 4th assessment of these 37 infants of the pediatricians without ADBB at the beginning, we are not able to assess the permanence of the positive effects of the interventions in this group. However, it is possible to make this observation in the group of infants of the pediatrician ADBB expert, in which not only this permanence is evident but also the tendency to decrease the percentage of withdrawal. In next researches it could be interesting to study in which measure the reversibility of withdrawal in infants could be related to parents' mental health.

This work has certain limitations. One of them is the impossibility to include the follow up of one group of infants until the 4th assessment in the statistical analysis. Even when we tried different resources to reach these infants, their families could not be found to continue the study. Another difficulty was caused by holidays and health strikes of the pediatricians or the people who coordinated the consultations, which interfered to make the video–registrations according to schedule.

We do not know similar studies aimed to ADBB training to pediatricians and to measure its impact in the infant health. Previous experiences with the scale offered training to infant mental health professionals in order to detect withdrawal in pediatric consultations. Neither have we known longitudinal studies, in which ADBB had been used as a tool for the intervention in the first level of care. This situation prevents us from making comparative analysis with other researches in these topics.

VI. Conclusions.

This study highlights the relevance of the psychoanalytical approaches related to early emotional development to work in interdisciplinary programs of prevention, early detection and intervention, and promotion of health in the first infancy at the first level of care.

Beyond its traditional clinical setting and in a dialog with the pediatric medicine, the psychoanalysis offers new knowledge which enables pediatricians to a more integrated conception of infant health. The experience allows us to conclude that this training which includes ADBB scale is a new and useful tool for detection and intervention during the regular pediatric consultation.

Acknowledgements: We would like to thank the contributions of the professors and fellows of the 15th Research Training Program of the University College London in August 2009. The study was supported by the International Psychoanalytic Association (IPA) and by the Association de promotion de la recherche sur l'attachement (APRA). We also thank the ideas of Psychoanalyst Marina Altmann in the first step of this project, the reliability of the head of the medical centers where this study was done, and the commitment of the pediatricians. María José Alcántara, Paula Miños and Lorena Valdéz were the psychologists who work with us for the video-recording of the consultations. We appreciate the participation of the infants and their parents very much. Miryam González corrected the paper for language.

Key words: *early emotional development, withdrawal, early detection, intervention, interdisciplinary studies.*

Appendix:

(1) The following data items were registered on a standardized form and used in the analysis for all the infants who were included in the study: date of birth, gender, rank of birth, gestational age, weight at birth, neonatal pathology, parents` age, educational level and occupation; family structure, type of day care.

(2) Description of the infants who were assisted by the pediatricians without ADBB at the beginning: 72.9% were first or second son or daughter in the family, with average weight at birth of 3228 $\pm$ 81gr and minimum and maximum values of 2240 and 4250gr. Infants from Cerro Medical Center average weight at birth was 3067 $\pm$ 123gr and from La Costa Medical Center it was 3381 $\pm$ 97gr without significant statistical differences related to variable weight at birth according to precedence center, value $p = 0.053$. Average of gestational variable was 39.27 $\pm$ 0.23 weeks. Mothers' age was 26.37 $\pm$ 1.18 years old (minimum and maximum of 16 and 44 years) and fathers' one was 30.21 $\pm$ 1.52 years old (minimum and maximum of 17 y 53 years old). Related to parents' educational level the data was: 8.6% of the mothers and 9.1% of the fathers had technical studies. 60% of the mothers and 33.3% of the fathers had incomplete secondary studies. 17% of the mothers and 36.4% of the fathers had primary school and 5.7% and 15.2% of them did not finish primary studies. 21.6% of the mothers and 81.1% of the fathers said they work. In 21.6% of the families both parents work. Related to family structure, 81.1% of the infants lived with their biological parents, 8.6% with single mothers and 5.7% had divorced parents. 82.4% of the infants did not go to kindergarten or another community services for their care. 4 infants went to community centers to participate in mother-infant workshops.

(3) Description of the infants who were assisted by the pediatrician with ADBB training at the beginning: 80% were first or second son or daughter in the family, with average weight at birth of 3208 $\pm$ 114gr and minimum and maximum values of 1200 y 4085gr. Average of gestational variable was 38.7 $\pm$ 0.3 weeks. The age of mothers was 26.5 $\pm$ 1.3 years old (minimum and maximum of 15 and 40 years old) and fathers´ age of 31.4 $\pm$ 1.6 years old (minimum and maximum of 17 y 55 years old). Related to parents' educational level the data was: 3.3% of the mothers had incomplete university studies, 13.3% of the mothers and fathers had technical studies. 16.7% of the mothers and 6.7% of the fathers had secondary studies, and 26.7% of the mothers and 10% of the fathers did not finish them. 26.7% of the mothers and 10% of the fathers had finished primary school and 6.7% of the fathers did not finish it. 13.3% of the mothers and 96.7% of the fathers said they work. Related to family structure, 83.3% of the infants lived with their biological parents, and 16.7% had divorced parents. Only 3.3% of the infants went to kindergarten.

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