



The Signal

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Perinatal Psychiatry and the Infant Clinician

By

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*Je marche à côté d'une joie
D'une joie qui n'est pas à moi
D'une joie à moi que je ne puis pas
prendre
Je marche à côté de moi en joie*

*I walk next to joy that is not mine,
a joy I cannot take,
I walk next to myself in joy*

*St-Denys Garneau,
Accompagnement (1925-1940)
(Free translation, Editor)*

In recent years, a number of articles and reviews have been published on the clinical syndromes most prevalent in perinatal psychiatry (Cohen & Nonacs, 2005; Bernazzani et al., 2005; Misri & Kendrick, 2007; Pearlstein, 2008; St-André, in press). Much focus has also been set on the developmental impact of these conditions on the infant (Murray, 1992; Goodman, 2003). More and more, perinatal mood

disorders are recognized as clinical conditions frequently affecting future mothers and their infants, and are considered among the most common obstetrical complications. Screening for these is increasingly performed in primary-care and in obstetrical settings, which has permitted developing better-targeted programs for intervening at both the individual and systemic levels with mothers, their infants and their families (Lusskin, Pundiak and Habib, 2007).

The purpose of this short essay is to lay out my personal reflections on some of the challenges currently facing clinicians called upon to treat women with perinatal mood disorders. In particular, I will seek to address the following question: At a time when the utilization of psychotropic medication during pregnancy is becoming progressively more diffused, how do we avoid medicalizing transient symptoms that are better described, conceptualized and treated as manifestations of a developmental crisis?

We know as infant clinicians that there exists no shortcut for transforming the self during the transition to parenthood. This intense period involves reworking attachment relationships, experiencing various losses, deepening marital intimacy, establishing a parental alliance, defining the ideals and goals of becoming a new parent, and reconsidering one's family and cultural heritage. It also entails containing and experiencing the broad range of affects normally encountered with an infant: feelings of joy, awe and wonder, but also feelings of strangeness, ambivalence, and helplessness. The birth of a child and, in turn, one's birth as a parent exposes to the hard light of day that the

mystery of life's pursuit is beyond us – a realization that is both wounding and liberating.

As perinatal psychiatrists, we often prescribe psychotropic drugs to help alleviate symptoms of anxiety and depression at critical moments in the transition to parenthood. Medication is often used to protect mothers from relapsing at a most vulnerable time in their life. The reassuring data on the safety of antidepressants (Ramos et al., 2008) and the transient nature of serotonergic reactions in the newborn (from our group: Ferreira et al., 2007) have rightfully led more physicians to consider psychopharmacotherapy as part of an integrative treatment plan to minimize emotional discomfort during pregnancy and to treat post-natal anxiety and depressive symptoms (Martin & St-André, 2007). Clinical and research data confirm the importance of continuing with antidepressants during pregnancy under many circumstances. Indeed, a high rate of relapse of major depression or anxiety disorder has been observed in women who cease antidepressant use during pregnancy (Cohen et al., 2006). Women have been encouraged, wisely, to fear the ailment more than the cure (Blier, 2006).

It is probably true that, in the past, many women went through pregnancy and the post-natal period with very high levels of untreated mood and anxiety symptoms. Today, however, more and more pregnant women may be prescribed antidepressants and anxiolytics for the symptomatic treatment of transient mood and anxiety symptoms. A recent large-scale epidemiological survey in Québec (Bérard & Oraichi, 2004) revealed that approximately 14% of

Contents

- 5 Molénat: Learning to Think Together about Birth
- 7 Golse: Book review
- 8 President's perspective
- 10 Editor's perspective
- 13 From WAIMH Finland Office

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women were given antidepressants during the gestational period. This finding underscores the importance of carefully questioning the use and impact of psychotropic medication during pregnancy. Although psychopharmacological and psychotherapeutic approaches have been used complementarily for a long time in psychiatry, the liberalization of psychotropic drug prescribing during pregnancy may lead us to emphasize medical modes of intervention at the expense of supportive, language-based and potentially transformative methods of accompaniment for future parents.

Pregnancy and the perinatal period are times of great transformation and psychic reorganization, a process necessarily accompanied by doubt, uncertainty, and a degree of suffering. In today's society and medical culture, which place great emphasis on autonomy, performance, and the preservation of a stable self-image, developmental tensions are often seen as symptoms to be swiftly eradicated. We are fascinated and seduced by quick technological fixes to various daily and existential problems. Indeed, the utopian promises of neurobiology have raised hopes of somehow being inoculated against moments of distress over the life course. Moreover, the conviction shared by families and clinicians alike that suffering should be prevented at all cost marks a radical departure from traditional Judeo-Christian principles. This shift has allowed elevating psychopharmacological intervention to levels unparalleled in the history of medicine.

The real paradox of this situation is that our concern with preventing "useless suffering" has led a number of clinicians to lose interest in the various layers of meaning that suffering can assume, as is the case during the transition to parenthood. I am not making this point as an oblique and nostalgic reference to the "lost splendour" of the psychoanalytic era, which produced its own reductive views of the complexity of human experience. I am, however, expressing concern over the current trend of medicalizing our understanding of complex developmental processes associated with transformation in parenthood. In perinatal psychiatry, it has been

very gratifying over the years to see that more referrals are made for preventive reasons, for example, regarding the risk of recurrent post-natal depression or the exacerbation of an anxiety disorder. In the absence of a bipolar spectrum disorder diagnosis, most of these prophylactic pharmacological consultations tend to be relatively uncomplicated, medically speaking, given the reassuring data about the safety of antidepressants. The real challenge in these consultations often lies in how mothers and fathers elaborate their anticipations regarding the transition to parenthood (St-André, 1993). In collaboration with family members and with other professionals from the mother-infant program, we try helping future parents find a balance of their own between the frantic pursuit of a "pain-free pregnancy" and the complete rejection of psychological or psychopharmacological support for fear of being declared unfit or ill-prepared for parenthood.

These preventive consultations with a developmental focus yield richer, more integrative clinical encounters than strictly "technical" consultations, but at a price. First, they tend to be more time consuming. Second, they can generate a higher degree of anxiety in parents, compared with the more one-dimensional, psycho-educational, biomedical approach. Indeed, though many future parents often find the themes brought up during sessions surprising and creative, others are frustrated – perhaps even rightfully on occasion – that their depressive tendency or their anxiety is not treated as a straightforward medical complaint. Lastly, though trainees often enjoy the challenge of looking at their patients from multiple clinical angles, they sometimes struggle with a sense of disorientation when trying to organize their case formulations to find a therapeutic focus with the family.

Questionnaires such as the EPDS (Cox, Holdenand & Sagovsky, 1987; Guedeney & Fermanian, 1998) have certainly contributed to screening more women, and now even fathers (Ramchandani et al., 2008), for perinatal depression. However, I have noticed in my practice that similar cross-sectional symptomatic profiles of mothers and fathers can reflect different histories and can follow

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different courses. The decision to prescribe psychotropic medication should thus be made after the clinical picture is examined in a diligent, rigorous and longitudinal manner. Hence, we should not be over-reliant on certain clinical scales, however validated.

When referrals are made for established anxiety or mood episodes, a challenge that we face is discriminating real mood episodes from other transient states. Often, mothers and fathers experience a transitory developmental crisis as unacceptable and shameful, perceiving it as a sign of weakness. Over the years, mothers have requested from me antidepressant treatments on the desire to go back to work sooner, to “look happy” despite a flailing relationship, or to regain their previous “performance” level more quickly. Although not the norm, these examples highlight the difficulty that some families have fully accepting the emotional costs of a transformative experience. By definition, a developmental crisis creates the possibility to reach a new level of psychic equilibrium, but this can occur only if time and effort is spent to confront change.

A new line of investigation now impacting how aggressively we treat antenatal depression and anxiety concerns the effects of antenatal stress on infant development. This emerging field has generated a plethora of contributions over the past few years (O’Connor et al., 2002; Talge et al., 2007; Ogren & Lombroso, 2008). This literature has been of great interest to validate clinical intuition about the importance of protecting the emotional well-being of mothers during a most critical time not only for the neural and emotional development of the unborn child but also for its later development during infancy. It has also raised awareness of the importance of epigenetic factors in infant development, which had already been surmised from the transactional perspective on development (Sameroff & Chandler, 1975). Future mothers and fathers who, increasingly, are familiar with the latest internet, press and parent-blog information on infant development often receive these new epidemiological findings with a mix of apprehension, guilt, shame and anxiety. If there is any irony in

the situation today, it is that while parents are better informed than ever about perinatal mood disorders, the appropriate human, community or psychotherapeutic resources to help them are hard to come by.

The emotional accompaniment of future parents is influenced in no small measure by the resource shortage in obstetrics and the lack of time (and compensation) for organizing efficient multidisciplinary discussions centred on perinatal emotional factors. Obstetrical teams are more and more solicited to provide the most cutting-edge technical care to pregnant women. Unfortunately, this can squeeze the amount of time that medical and front-line professionals have at their disposal to address the emotional needs of pregnant women and their partners (Molénat, 2003; Vander Linden & Roegiers, 2004). Together, these factors can potentially lead to the overuse of psychotropic medication at the expense of other modes of intervention such as increased supportive care by obstetrical teams and referral to community groups and psychotherapeutic resources. Though costly and time consuming, these are essential for meeting the emotional needs of pregnant women, their infants and families.

Another issue that arises in perinatal psychiatry relates to role compartmentalization. This is something that occurs not only between disciplines, but also between subdisciplines. For example, many infant physicians circumscribe their work as pertaining exclusively to the parent-infant relationship and, therefore, systematically refuse to prescribe medication to mothers or fathers who suffer from post-natal depression or severe anxiety. In geographic areas where primary care physicians are currently in short supply, as is the case in many regions of Québec, this can lead to the under-treatment of affected mothers and fathers. The same holds true for parents who manage to build only a very tenuous relationship with infant teams but who are reluctant to consult for their own sake outside child psychiatric settings. Needless to say, the problem could be remedied in good part through greater training for child psychiatrists, family physicians and pediatricians in the treatment

of common perinatal psychiatric conditions.

Role compartmentalization is reflected also in the tendency by adult psychiatrists and family physicians to conceptualize and treat post-natal depression as primarily or exclusively an individual problem. Here, too, insufficient training may be at fault, this time in systemic approaches that include the rest of the family, particularly the infant, in the treatment process. The emerging field of women’s psychiatry, for its part, may be facing the same challenges as obstetrics: Minimal training is provided in parental role development, fathering, and the specifics of infant development and psychopathology. Again, more training in infant development, early relationship disorders and infant psychopathology for adult psychiatrists and obstetricians would go a long way to improving the situation. The idea here is not to negate the differences in clinical skills and perspectives that are much needed across the various professionals intervening during the perinatal period. Rather, it is essential that we minimize the significant variations in care that frequently occur as a function of the primary contact clinician that a family encounters.

The variety of treatments now available to address perinatal depression and anxiety has the potential to help parents and infants during a most critical period of development. The challenge of balancing a medical-psychiatric view with a more developmentally based approach has become a capital issue for perinatal and infant psychiatrists. We may have reached a point where the pendulum needs to swing back towards a greater emphasis on accompanying families rather than intervening medically. Our scientific meetings and journals are rich sources of evidence-based data that provide the empirical signposts to guide our practices. However, a broader voice might be needed in our field to discuss clinical, interpersonal and epistemological issues that are a critical component of our work as infant clinicians.

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Learning to Think Together About Birth: A Major Turning Point in Medical and Psychiatric Culture

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CURRENT SITUATION

There has been a recent trend inside the medical world to integrate the various disciplines related with the development and well-being of the child. The traditional dichotomy between soma and psyche is less and less found, and this change leads to the creation of a new anthropological context : during pregnancy, vulnerable families are now more likely to experience, individually or collectively, medical environments that are sensitized to the emotional challenges relating to childbirth, and able to intervene and prevent transgenerational repetition of such emotional challenges.

Despite this positive evolution in the past twenty years, the pathogenic effects resulting from some professional practices still exist. The excessive compartmentalization of services, the dismissal of the emotional aspect of childbirth, the lack of awareness of the physiological processes involved with childbirth, the emotional impact of birth on both mother and baby, and the lack of attention to the father's role in this process have all been identified as obstacles to the building of adequate family ties, and as potential risk factors for maltreatment. Early mother-infant relationship disorders are often the expression of past conflicts and emotions that have been awakened during pregnancy and the post-partum period. Conversely, the beneficial impact of an individualized intervention during pregnancy is reflected in reduced rate of premature births and more optimal delivery. The benefit of individualized intervention during pregnancy, provided as an integrated multidisciplinary work, is manifested in an improved working alliance with these high-risk families and triggers more secure attachment processes.

Based on these results, the French Ministry of Health gave us a mandate to study the way mental health professionals and the medical staff

should collaborate during the perinatal period. This was not an automatic process, because resistance existed on both sides. Indeed, the psychiatric staff was reluctant to recognize the major role played by the nursing staff in the detection and support of vulnerable parents. As a result, in spite of knowing that pregnancy is a period of "psychic transparency", the potential therapeutic use was left neglected.

A multidisciplinary task force was constituted, and the major issues were identified. A Perinatal Plan for 2005-2007 was prepared, became official on July 5th, 2005, and was aimed at introducing a nationwide change in the organization of perinatal care. For the first time in France, the « emotional security » of pregnant women received the same attention as their « somatic security ». It represented a major shift in both perinatal and psychiatric care. The concept of « emotional security » can also act as a bridge between various child development theories : neurophysiologic, psychoanalytic, attachment, etc. The interest of pediatricians, neonatologists and obstetricians in this field was reinforced by recent studies on prenatal stress. A new method of organization now remains to be defined, so that the emotional needs of the future parents can be taken into consideration in the routine obstetrical follow up .

PROPOSAL

The task force has outlined the following objectives:

1. Open a dialogue early during pregnancy;
2. Offer prenatal interviews with midwives during the first semester;
3. Define the objectives and the content of these interviews, and the necessary training ;
4. Make a quantitative and qualitative assessment of the psychological and psychiatric means available in each field;
5. Make medico-psychological cooperation more accessible in maternity and neonatal clinics;
6. Increase the presence of psychologists in maternity;

7. Improve the professional level of the psychologists in maternity, by providing them a more specific training in perinatal-related issues.
 8. Ensure the continuity of care by strengthening the links between the psychologist at the maternity, and the Child and Adult psychiatry clinics in the community;
 9. Monitor and evaluate the different modalities of psychological /psychiatric interventions through prospective multi-center studies ;
 10. Develop and build a Network Clinical Work, that would reassemble the medical, social and psychological staffs;
 11. Create regional psychological care networks via the CRNs and « distance medical-care » (« télémédecine ») ;
 12. Evaluate the impact of the so-called « indirect » or « second-line » supportive work with the medical staff in the field of « emotional care », and acknowledge them on the administrative level;
- Learn to « think together », in order to develop the continuity and coherence of the multidisciplinary intervention ;
14. De-compartmentalize the training budgets for hospitals, social workers, and the private sector, in order to improve the work with difficult clinical situations;
 15. Actively integrate the private sector in prevention policies by promoting innovative arrangements.
 16. Create a research group responsible for the training of psychologists and psychiatrists on « second-line » tasks and for the promotion of personalized networks for vulnerable families.

INNOVATIVE MEASURES

Three measures were financed at the national level (2005-2008):

Early prenatal interview

A significant budget was assigned to the creation of midwife positions. The opening of a dialogue to enable pregnant women to express their needs and expectations in order to optimize the intervention represents a major change. At first, there was a general reluctance among obstetricians to apply this measure. Physicians

feared that, among other things, collaborations with professionals in the psychological and psychiatric fields would be either insufficient or inadequate.

Gradually though, these physicians became convinced that these interviews could facilitate the management of the difficult cases, by combining the skills from the different professionals.

For a mother-to-be to envisage the opening of a positive dialogue about delivery with a “pregnancy professional” is a great opportunity – especially if the mother has low self-esteem, instead of providing her this service via identification as a social and/or psychological high risk mother. The interview is the cornerstone of the individualized intervention, in spite of the need to allocate time and resources for it. The overall benefit is a gain in terms of efficiency.

The very fact of taking time to sit with the pregnant woman and to interview her, has already a positive therapeutic impact, making her feel that she can express herself without being judged, and that her feelings are being taken into consideration. It helps her to see there is an efficient interdisciplinary communication and to feel the management of her clinical condition makes sense. The end-result of this process is the enhancement of a sense of trust in the medico-psychological system.

The main result is that the woman feels having control on her environment at a time when she is going to give birth to a child and create new family ties. This is particularly crucial, especially when one is aware of how often a mother may feel anxious and incompetent – feelings that, more often than not, lead to the phenomenon of post-partum depression. Is there a better modeling intervention that will enable her to let her own child express his/her emotions, feel that he/she is being heard and that his/her environment is adapted to his/her needs?

This initial stage of creating some basic trust in the pregnant woman, then enables the empathic midwife to ask her “Would you find it useful if I called your doctor or your gynecologist?” This question is aimed at opening up thoughts about ways of « being together » as a couple, as the mother-to-be who at the same time is also asking : « Who am I in the eyes of others when I become a mother, how is my child going to look up to me..? Recognition of each other’s positions,

complementarities, understanding each other’s limits – these are the essential issues we wish to address, because they are those very ones that underlie some of the severe early mother-infant relationship disorders. A training manual for this prenatal interview has been produced at the Ministry’s request, in order to support this turning point in the medical world. This manual can be found on the following sites: www.sfmp.net and www.afree.asso.fr.

Expanding the training networks

Following a prospective study on the outcome of children whose mothers had seen a child psychiatrist during the prenatal period, an original mode of training was set in Montpellier. The training is based on the parallel processes of the organization of the family alliance and of the professional team alliance. The special and astonishing impact of these groups of future parents expressing themselves, offers real opportunities for intervention in the area of perinatal mental health. Their main impact is, we think, through the quick activation of the future parents’ internal attachment working systems. The ultimate goal of this intervention is to promote security and support to the vulnerable pregnant couples, without waiting for difficulties to arise. The prenatal interview is used to tailor the intervention to the individual couple. In complex clinical situations, the fact of having a multidisciplinary team enables to get a comprehensive understanding of the case, with all its medical, psychological and social aspects. Each member of the team then presents his/her intervention, and planning for the next steps is coherent and clear to everyone. During the training sessions, the listeners (professionals with different backgrounds) are prompted to express their views about the case, the goals and means of the intervention, and the expected results. The course of the case will then validate or invalidate their thoughts. Every participant will then listen to the others as they offer their points of view. This training method, that is based on the therapeutic principle of mutual recognition, facilitates identification with the mother, father and child, as well as with each of the professionals who are likely to intervene. It has been very useful in detecting and making efficient use of many

professional resources, and at this point in time, this training is being spread over, in France as well as abroad.

Substantial funding has been offered for psychologist and child psychiatrist positions in maternity clinics.

Academic courses, specific to the field of perinatal mental health, have also been put in place.

Efforts are still needed for the training of nursing staff, as well as for mental health professionals, in order to reach a more coherent approach, in tune with the expectations of the medical and social teams.

A training manual for setting such networks have been provided, upon the request of the Ministry of Health (www.afree.asso.fr)

Conclusion: Widening and harmonizing the cooperation between professionals from the psychological and medical fields

This model of implementation of a perinatal mental health service, integrated into regular medical maternity departments, is, in our view, a dual process where psychiatrists, as well as medical staff, come to understand they need one another to think comprehensively about the pregnant woman, the father and the infant to come. None of them can do it alone....

Confrontation and integration of the various theories at stake is necessary. This has led to the creation of a Society for Perinatal Psychology, open to all the professionals concerned. These are passionate debates, and the work is still in progress.

Together with these improvements we have tried to describe in this short paper, no doubt we still need to make big efforts to comprehend the complexity of the human nature, in a not less complex environment, especially at those times of intense emotional and physical turmoil, such as pregnancy and delivery...in order to be able to help those families who are in difficulty at that specific turning point of their lives...

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Literature Monitor

BOOK REVIEW

“The artificial womb”, by
Henri Atlan (*Editions du Seuil*,
Coll. “Points”, Paris, 2005,
2007)

Reviewed by Bernard Golse, Child
and Adolescent psychiatrist,
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Having recently participated, in two work
forces on the difficult issue of what is called
in France “Gestation for the Other”, I have
realized the extent to which Henri Atlan’s book,
“The artificial womb”, opens for us reflective
paths in bioethics. Physician and biologist,
philosopher, author of many books in cellular
biology, biophysics, and artificial intelligence,
H. Atlan is Professor Emeritus in Paris as well
as in Jerusalem. He is also Director of Studies
in Philosophy of the Biology, and is involved
in a very stimulating thought process on the
development of sciences.

Published in 2005, this book has been reprinted
in 2007, in the midst of a reform in the French
law on Bioethics, with a new preface added
by the author. In this preface, he emphasizes
the fact that development of new techniques
for medically- assisted procreation (MAP),
creates a new situation where “parenthood, in
part biological-based, becomes more and more
a societal construct”. This remark echoes with
the anthropologist Maurice Godelier’s (2007)
statement that “one needs always more than a
man and a woman to make a child”.

Atlan’s book is especially interesting, not
because it explains the scientific techniques
of ectogenesis (full pregnancy outside of the
woman’s body), but because it promotes an
in-depth reflection on the impact of ectogenesis
on some of our basic concepts, as well as on our
social, cultural and religious positions.

Up to now, only the beginning and the end
of the pregnancy can happen outside of the

mother’s body: after in vitro fertilization, the
fertilized egg can develop in vitro until the
stage of the blastocyste (5th day, or D5), and a
prematurely born fetus can live in an incubator
from the gestational age of 24 weeks (W24).
Full ectogenesis therefore requires to fill this
gap between D5 and W24. Atlan thinks it is
only a matter of time, though it is still very
uncertain how long it will take to develop the
necessary biological techniques (10, 20, 50 or
100 years...). In Atlan’s view, as soon as it is
possible, it will happen.

If so, we can, we must, therefore, already now,
think about the multiple implications of this
development of things and techniques, thanks
to Atlan’s clever and subtle analysis. Indeed,
the biological advances that will enable the
creation of artificial wombs, are, and probably
will be, much less revolutionary than were those
that led to the contraceptive pill, the MAP, and
the cloning techniques, because they will need
to deal only with the growth conditions of the
fertilized egg, and not with its creation.

It is beyond the scope of this book review to go
into the details of Atlan’s thought, but several
strong points can be outlined:

When can/should we speak of an embryo, or
when does the gamete become an embryo? Up
to now, the criteria is the successful in utero
implantation. As soon as the uterus is artificial,
we will need to rethink this fundamental
ontogenetic question. To answer the question of
the person, the Anglo-Saxons have invented the
notion of “pre-embryo”, meaning the first post-
fertilization 14 days. The full ectogenesis will
completely change this question of “threshold”
very much artificial, with quite radical religious,
philosophical and legal implications.

What impact will the artificial womb have
on the issues around reproductive cloning?
Indeed, one of the limiting factors in the human
cloning process is the number of procreative
women. With the advance of artificial wombs,
this obstacle becomes much less relevant, and
human cloning will become more feasible...

The access to artificial wombs will open
the possibility of procreation not only with
no pregnancy, but also without women...
Consequently, the meaning and the ethical
implications of abortion, will completely
change. Women will be able to give up

motherhood at whatever stage of the in vitro
pregnancy, without having to kill the fetus. The
whole domain of studying the fetus-mother
interactions will also be radically changed, as
one will be able to compare in vivo and in vitro
pregnancies...

What will be the specific cultural, social and
religious consequences of this new procreation
technique, that will create, no doubt, a deep
fissure in the history of parenthood?

These are only some of the questions treated
by this concise but very dense book, and are
pertinent, not only to reproductive biologist
scientists, but to any citizen who cares about
humanity in general.

It is therefore clear why the first chapter of the
book starts with the mention of Aldous Huxley’s
famous book “The Best World”, because it is
about how a whole social organization changes
with the introduction of a new technique of that
kind.

Thank you again to Henri Atlan for bringing us
these thoughtful insights, that are essential to
the accompaniment of revolutionary techniques,
which, without it, may become very dangerous
on the anthropology level.

The Israeli WAIMH Affiliate is proud of having
among its active and pioneer members, our
colleague, Miri Keren, who represents a double
important filiation, since she is both the heritor
and the spiritual daughter of Sam Tyano, and...
the biological daughter...of Henri Atlan.

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President's Perspective *"WAIMH Comes of Ages"*

Yokohama and the 11th WAIMH congress: What a treat! This congress, perhaps one of the best we have ever organized, has brought together 2000 people in the Yokohama Pacifico Conference Center! And, participants have stayed here working and exchanging information for five full days in a very special ambiance provided by the Japanese way of greeting, of taking care, of Amae, with the ability to attend to every detail with grace. Although I would like to give a full account of the congress, I will just draw attention to a few highlights. Hisako Watanabe and her team, including Yoko Hashimoto, Maruko Iwayama, Haruko Watanabe Choosakul, and Noriko Dalrymple, along with Hiram Fitzgerald and the Program Committee have demonstrated that a WAIMH congress could generate over 2000 participants, and that Japan, always present in WAIMH conferences, has a very lively mental life about infants and parents.

Hiram Fitzgerald has provided WAIMH with an expertise on how to deal with the complexity of a world congress and to make it a place of meeting and exchanges, within a given culture and for that among many other contributions he has deserved the right to stand among our Honorary Presidents.

In this congress people have stayed till the end, participating not only in plenary sessions to hear speakers such as Berry Brazetton and Peter Fonagy, but also to attend sessions detailing infant mental health initiatives throughout Asia; in Sumatra, in Thailand, so severely struck by the Tsunami; in Vietnam, in Indonesia and in China. We now can envision hold a congress in China in the coming years!. We have been pleased

to honor the work of Professor Takeo Doi, who brought the Amae concept to us, and to greet him even if in a video. We have been charmed by Wakako Sanefugi, recipient of the new investigator research award for her work on autism at Kyushu University. And it was good to see Campbell Paul and Brigid Jordan awarded for their liaison work at the Royal hospital in Melbourne, for their activities with the Australian Aboriginals, and for advancing infant mental health throughout Australia.

The main feature of the congress for me was the exceptional level of the clinical presentations, regardless of whether they appeared in posters, teach ins, master classes, workshops or interfaces. Interface presentations, launched and directed by Elisabeth

Fivaz have proven to be the best place to confront different points of view about the content of video-presented vignettes. Such discourse reflects the very essence of WAIMH. We had a great presentation from Matthew Melmed, Executive Director of Zero To Three, who told us how to anchor our agenda in presentations to policy makers in terms of national values. We had an provocative pre congress institute with Arnold Sameroff, who made a brilliant lecture on risk and resiliency; David Olds, who focused on the characteristics of effective prevention programs; and Daniel Stern, who once again went against the main stream and reminded us that case studies still can provide us with deep insight into relationship issues. This idea will be followed up in a special issue of the IMHJ.

WAIMH is very special. WAIMH comprises the world's greatest group of experts in clinical expertise on infant mental health. It is the only truly multidisciplinary association on infant mental health that I know of, keeping together different theoretical frameworks- psychoanalytical, attachment oriented, systemic, behavioral; WAIMH is prevention oriented and has probably the largest expertise on clinical programs in infancy. This unique expertise has to be valued and used more by policy makers. We have to learn how we can have greater impact on social policies, how we can be more engaged as experts, making our expertise available, and learning more how we can "speak for the babies."

WAIMH is in good shape, with a strong impetus towards more international development, towards reaching more countries and cultures, and having stronger linkages between affiliate and WAIMH central office. Now the central office will move to Finland. Tampere University will provide WAIMH with excellent office conditions, the same kind of attention which was provided for 16 years at Michigan State University in East Lansing. Palvi Kaukonen and Kaija Puura will lead the office functions from Tampere, with the help of Minna Sorsa, who will follow on the work of Tina Houghton and Dolores Fitzgerald, whom we thank for their work and dedication to WAIMH.

Tuula Tamminen, our past president, was essential in providing WAIMH with a secure base in Europe, in organizing top Executive Committee meetings with no costs to the organization, in bringing to WAIMH a special Finnish flavor of discussing hot topics, bringing emotion and organizing things the Finnish way, gently and efficiently. In the Executive Committee meetings in Tokyo, held just prior to the Yokohama Congress, Miri Keren was elected to the office of president elect and named executive at large. She is well known in WAIMH and in Israel and France. She is a child psychiatrist who runs an infancy clinic in Petah Tikva, a suburb of Tel Aviv. She is an exceptionally gifted clinician, with a psychodynamic and clinical research training, both in France and in the United States, and she is also a clinical researcher, having worked with Sam Tyano and Ruth Feldman

on classifications issues, on feeding disorders, and on adoption, among others. She will organize a regional congress in Tel Aviv in 2009, during which the current board and the new members of the board and EC will meet and work. In between, the WAIMH board will continue to do its work.

With such a dream team as a board and EC, we will continue to achieve our major goals: WAIMH is an original structure, with emphasis on clinical aspects of infant mental health: programs for infant and families, preventive or treatment, based on science: how to design them, assess them and teach them; of course we are very interested in advances in the understanding of early development, which still stands as one of the major remaining mysteries in science. We know that development is articulated through different pathways, that the same conditions may lead to different outcomes, and different conditions may lead to the same outcomes, processes which Von Bertalanffy has named equifinality and multifinality

This is what we want to understand more: what leads to what under which circumstances, what helps promote resiliency, and what are the ingredients of the fascinating interplay between genes and environment. This is why we are so much interested in cultural differences, and in the way they shape psychopathology and therefore guide our ways of intervention.

This is why we are interested in knowing how people do elsewhere, how they care for young children, how they help young parents become caregivers, how they understand and treat difficulties in development. And this is why we are interested in the transcultural validity of our assessment tools and classification systems.

These issues will underlie our efforts to write a Declaration of the Rights of the Infant, which will be written under the auspices of a task group with Bob Emde and circulated within the affiliates. Another major goal is to keep track of key figures and practices in the history of infant mental health and parenting.

So what we have to put forward is

a large set of issues: we have to put into place an implementation plan based on our new bylaws, assessing what impact they will have on our organizational structure and function. The changes in the bylaws were made to increase the input of affiliate societies into the program committees of congresses and into the EC. Now we have to know what the affiliates feel about WAIMH, and what they expect from it and we plan to launch a survey about this with the affiliates. We also have to find ways to increase our membership, to increase our influence, to increase our ability to give research and clinical grants and to help affiliates from developing countries join WAIMH and bring their expertise and knowledge into the conversation about infant mental health.

And so, when we meet in Leipzig, in 2012, we can assess the extent to which our goals have been realized. Kai von Klitzling and Karl Heinz along with German, Austrian and Swiss colleagues from the GAIMH are preparing a very special congress, in a city at the heart of changes in Germany, in the birthplace of Bach, living place of Leibnitz and of the founder of the field of psychology, Wilhelm Wundt. So this will be a place to think about early development and developmental psychology. Always a city on the forefront of the move, connected to the world through the famous fairs, Leipzig will be a great place to discuss the effects of social and political changes on parents and infants, and to discuss the basis of developmental changes. After Leipzig, we will move to Cape Town, in South Africa, with Astrid Berg and Mark Tomlinson organizing the 2012 world congress. After that, the game is open, Edinburgh, Tel Aviv or elsewhere, but having those bids already now is a good sign of our health. And last but not least, let me tell you how proud and happy I am to be the new president of WAIMH and how much I look forward to working with the board and all of the affiliate associations.

*Antoine Guedeney
President of WAIMH*



EDITOR'S PERSPECTIVE

We have now the scientific rationale for advocating early detection and intervention during pregnancy

By
Miri Keren, M.D.
Editor, *The Signal*

Freud (1926) knew that "Intrauterine life and infancy are much more in continuity than the sharp break of delivery make us think". Still, we need scientific studies to prove the importance of human fetal experience in determining developmental patterns, and for the proposal that many illnesses begin in fetal life.

The concept of programming is defined as a process by which a stimulus or an insult during a critical developmental period has a long lasting or permanent influence. Different organs are sensitive to environmental influences at different times, depending on their rate of cell division. Critical periods are defined by epochs of rapid cell division within an organ.

Among fetal experiences, maternal stress turns out to have a special impact. Indeed, glucocorticoids, and especially cortisol, seem to be the main factor in programming the fetal brain and behavior: they are necessary for normal maturation of most regions of the CNS (Matthews, 2002). Cortisol in abnormal levels, may impede formation of neural connections, and reduce neural plasticity. Among the brain structures, the hippocampus has the highest levels of corticosteroid receptors and is thus highly vulnerable to excess levels of glucocorticoids. Sustained elevations of glucocorticoids, such as cortisol in stressful situations, can have deleterious consequences for brain structure and function. Nature has produced a physiological system where fetal exposure to circulating maternal cortisol is moderated by oxidation of the cortisol to its inactive form by placental 11beta-hydrosteroid dehydrogenase type 2. Still, 10-20%

of active maternal cortisol passes through the placenta, and fetal cortisol levels are significantly correlated with maternal levels.

Consequently, in parallel to the increasing knowledge about the influences of various factors on the developing fetal brain, the issue of the impact of maternal stress on the fetus has become very relevant for adult as well as for child mental health clinicians.

The definition of a stressful event during pregnancy is obviously much more complicated in humans than in experimental animal studies. First, one needs to take into account pregnancy-related anxiety, i.e. the anxiety inherent to the state of pregnancy (mainly health issues, usually focused on her fetus, but also around herself, and around the fear of delivery itself), to which each woman relates in various ways, depending on her defense mechanisms, own maternal representations, self-image and marital relationship. Huizink et al (2000) have developed a pregnancy-related anxiety questionnaire, for studying the link between stress during pregnancy and developmental outcome in infancy (2003).

In addition, life hassles and extraordinary events may superimpose upon the pregnancy-related anxiety level. Again, the definition of what is a stressor for an individual pregnant woman may be quite difficult, because of the pre-pregnancy different levels of resilience and vulnerability. To address this issue of individual variability, Mohler et al (2006) have developed a Prenatal Emotional Stress Index.

Another issue is the timing and the chronicity of the stressor. Davis et al (2007) studied 247 women with singleton full term pregnancies. These were evaluated on their psychological state (anxiety, depression, and

perceived stress) and saliva cortisol at three points, the 18th, 24th and 30th weeks of gestation. At 8 weeks post partum, the infant's temperament was assessed. Endogenous maternal stress hormones during the third trimester of pregnancy (30-32 wks) only, predicted impaired cortisol regulation, behavioral inhibition and fearfulness in response to novelty in their 8 weeks-old infants (very similar to findings in animal studies, Weinstock, 2001). It is of note that the effect of prenatal maternal cortisol and depression on infant temperament remained significant after controlling for postpartum maternal depression. In contrast, Lederman (2004) found that women who were in the first trimester of pregnancy at the time of the World Trade Center bombing in New York delivered infants significantly earlier than women at later stages of pregnancy. According to the authors, the impact of the stressful event on the fetus depends on whether it occurs before or after the placenta produces the enzyme 11 beta-hydroxy-steroid dehydrogenase, which converts noxious cortisone to benign cortisone. This is probably not the only mediating factor, since in a sample of pregnant women exposed to earthquake, the same result of earlier delivery, but when the exposure occurred during the second trimester, was found by Glynn (2001). It seems that the time of onset of the production of the enzyme is only one factor among others, such as the intensity of its expression, as Diaz (1998) has found that the expression of the enzyme is dramatically reduced in the last period of pregnancy which allows glucocorticoids to interact with their receptor systems and to influence brain development.

Furthermore, the impact of a stressful event may impact on different developmental functions, at different periods of the pregnancy. Laplante et al (2004) studied 58 pregnant women exposed to an ice storm in 1998 and

followed their offspring up for 2 years: the more severe the level of prenatal stress exposure, the poorer was the toddler's language ability, regardless of the timing of the event. The cognitive functioning was worse when the stressor occurred in the first two trimesters, especially in the earliest period.

These findings altogether suggest significant complexity. A precise definition of the nature of the measured stress is therefore crucial to the interpretation of the findings. For instance, is there a different impact of endogenous individual stress compared with exogenous, collective stress (such as war, natural disaster)? Not a less important issue, is the chronicity of the stressor. To our best knowledge, there is no comparative study of the impact of chronic stress and acute stress during pregnancy on the fetus and the child's later development.

The definition of endogenous stress is also complex. Field et al (2003) studied 166 pregnant women with high and low anxiety during the second trimester, and showed that the high anxiety group had high scores on depression and anger, and raised prenatal norepinephrine and low dopamine levels. High scores on depression and anger were found both pre- and postnatally. The authors concluded that maternal stress, anxiety and depression may be confounded, and that postnatal anxiety and depression must be controlled in follow-up studies on the impact of stress from pregnancy to childhood.

The Avon Longitudinal study (O'Connor et al, 2002, 2003, 2005) from pregnancy to 10 years (N=6,493) showed that children whose mothers experienced high levels of anxiety (though mostly not clinical) in late pregnancy exhibited higher rates of mothers' report of emotional/behavioral problems (though mostly not in the clinical range) at 4 years and at 6 years, and predicted individual differences in cortisol at age 10 years. Leech et al (2006) followed 636 mother-child pairs from month 4 of pregnancy to age of 10 years, and found that prenatal exposure to maternal anxiety and depression, together with poor support in pregnancy, predicted clinical childhood anxiety and depression at age 10, independently of an effect of

postnatal maternal depression.

The findings described above have strengthened the notion that prenatal stress has a significant, but not linear, nor necessarily clinical, effect on the development of the fetus, the newborn, and the child. Still, the underlying mechanisms of the association between prenatal stress and infant development are unknown. There are a number of plausible hypotheses:

- Prenatal stress may reduce uterine placental blood flow since cortisol and catecholamines are known to affect vessel tone (Teixei et al, 1999). Reduced supply of oxygen and nutrients to the fetus mobilizes a response of the fetal Hypothalamus Pituitary Adrenal (HPA) axis, that is operative from mid-pregnancy on.
- Maternal stress may lead to increased production of placental CRH that further activates the fetal HPA axis.
- Maternal cortisol is directly transported across the placenta and 10-20% of it enters the fetal circulation, in spite of the protection of the enzyme.

One of the hypothesized pathways of prenatal maternal stress, from pregnancy to adulthood, based on the above data, is the following: Maternal stress during pregnancy may cause, in the fetus, to an alteration in programming and development of the HPA axis and the limbic system. This, in turn, would in the child and adult, lead to dysregulation of the HPA and/or alteration in limbic functions, with possible long term outcomes of anxiety, depression, memory impairment, and sensitization to post-traumatic stress disorder. Still, the issue whether prenatal stress has specific psychopathological effects or it induces a general susceptibility, is still in debate (Huizink et al, 2004).

The risk factor of poor support during pregnancy is very important to remember, since its association with childhood problems in the clinical range has been shown (above).

To our best knowledge, protective factors have not been systematically studied; for instance, is there a link between the level of pregnancy-related anxiety and stress in pregnancy in the mother and her general attitude towards her pregnancy?

The main clinical implication of knowing that prenatal maternal stress may have a long-term impact on the child's mental health is the need to detect clinical levels of stress, anxiety, depression early in pregnancy. Obviously, universal prevention is unrealistic, therefore the preventive effort should be selective, targeted to women at-risk for significantly stressful pregnancies. Exogenous as well as endogenous sources of stress should be identified. Raphael-Leff (1993) suggests the following categorization of stressful pregnancies:

1. Conflicted pregnancies (unplanned, untimely, acute ambivalence, possibly such as hyperemesis gravidarum (El Mallakh, 1990).
2. Emotionally-overloaded pregnancies (post-infertility pregnancy, family history of perinatal complications, maternal borderline disorders/ psychiatric history).
3. Complicated pregnancies (physical illness of mother, lack of emotional support, socioeconomic factors, adverse life events).

The decision to give pregnancies a priority in preventive medicine is a social one. The more scientific data we can gather on the impact of external factors on fetal brain development, the stronger will be the advocacy for early detection and intervention.

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WAIMH Office in Kauppi Campus, Tampere, Finland



FROM THE WAIMH FINLAND OFFICE

The forests of Finland are glowing with autumn tints – yellow, red and brown. The days are sunny and chilly or grey and rainy; the days are getting shorter and shorter. After a couple of weeks Finland will be waiting for snow – although nowadays it might take until late January because of global warming.

Here, in the middle of Finnish lakes and forests, is the new, modern WAIMH Finland Office. With wonderful memories of the Yokohama Congress in mind it was easy and inspiring to continue our work for the transfer of the office functions from Michigan to the Kauppi campus – the campus of the University of Tampere and Tampere University Hospital, Finland.

As the Executive Director of WAIMH, I feel deeply honored to serve WAIMH and the wellbeing of infants all around the world. The former, long-serving Executive Director and current Honorary President of WAIMH, Professor Hiram Fitzgerald, has for sixteen years led the office with such a great wisdom, superb efficiency and wonderful innovativeness that it is impossible for one person ever to equal this. After his long and splendid term we will need at least two people to do the tasks he did alone. I'm happy I had the opportunity to orientate myself to the WAIMH office work while serving as an Associate Executive Director for three years. As Executive Director now I will get support and supervision on the one hand from Hiram Fitzgerald and the WAIMH Michigan Office

colleagues and, on the other hand, great help and warm cooperation from my coworkers Kaija Puura and Minna Sorsa in the WAIMH Finland Office and also, of course, from the Past President of WAIMH Tuula Tamminen.

The transfer of the office is proceeding smoothly. The WAIMH Finland Office is already well organized for preparing the Signal, starting to take care of the membership and affiliate issues and in building up WAIMH congresses together with our Program and Local Committees. What we still have on our agenda are the WAIMH web pages and the financial and administrative issues. The WAIMH Michigan Office is currently generating new technical

President Antoine Guedeney, Past-President Tuula Tamminen and President-Elect Miri Keren.



**Composition of the WAIMH Executive Committee
(Annual meetings, also email meetings. Manages the business,
affairs and property of WAIMH)**

- At large member / President
- At large member / President Elect
- At large member / Secretary - Treasurer
- At large member
- President's Executive-at-Large
- Affiliate Council Chairperson
- Affiliate Council Elected Representative
- Executive Director, Ex Officio

solutions and a new modern layout for our web pages before transferring their maintenance to Finland. In addition to these reforms, WAIMH is also to have a new beautiful and modern logo, too. Hiram and WAIMH Membership Secretary Dolores Fitzgerald and WAIMH Administrative Assistant Tina Houghton and also our new President Antoine Guedeny and our President Elect & Editor of Signal Miri Keren are coming to Tampere in November. We are going to have office transfer meetings and to work hard in order to complete the transition process.

Current important issues for all of you are firstly, the membership renewals and secondly, the forthcoming election of new Board members. Please remember to visit our web site and renew your membership for 2009. Remember also to recommend WAIMH membership to your colleagues in the field of infant mental health. Increasing our membership would enrich our resources to work globally for infants and their families' psychosocial wellbeing.

In recent years the WAIMH Board has worked on renewing its organizational structure. The Board prepared a proposal for a new structure intended to increase the role of Affiliates. The new model includes an Affiliate Council, a Board of Directors and an Executive Committee and you – the members of WAIMH – voted

in favor of the proposal. At the end of this column you will find the new organizational bodies of WAIMH as described by Hiram Fitzgerald at the Board Meeting in Tokyo last summer. The election of the new Board members is due to take place during the coming winter. I hope you will start to think about good candidates.

WAIMH is undergoing many transitions – structure, President, Central Office, Executive Director, web pages and even our logo. All this means lots of work and readjustment, but it also means continuity and regeneration. It is typical for “baby people” to do all of this with shared enthusiasm and joy – as you can see in the picture of our three Presidents in Yokohama, August 2008.

From the gloom and beauty of the northern autumn,

Pälvi Kaukonen

Executive Director of WAIMH

Department of Child Psychiatry

*University of Tampere and
Tampere University Hospital*

Executive Director Pälvi Kaukonen.

