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Attempts at Understanding the Most Promising Paradigm of Neonatal Intensive Care: Some Essential Though Less Tangible Aspects of the Marcovich Model

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Abstract: The aim of this paper is reflected in the title. Some essential components of the Marcovich-Method of neonatal intensive care have been identified and are described. They are less tangible than many parameters of conventional neonatal intensive care. Short-term outcome of Dr. Marcovich's work has been outstanding, meriting international recognition.* Research into long-term outcome – especially of the emotional development of Marcovich babies – should be implemented forthwith.

Zusammenfassung: *Überlegungen zum Verständnis des zukunftsträchtigsten Paradigmas der neonatologischen Intensivversorgung: Einige essentielle und weniger offensichtliche Aspekte des Marcovich-Modells*. Das Ziel dieses Artikels ist im Titel ausgedrückt. Einige wesentliche Bestandteile der Marcovich-Methode der neonatologischen Intensivversorgung werden charakterisiert und beschrieben. Sie sind weniger offensichtlich und weniger leicht erfaßbar als viele Parameter der konventionellen neonatologischen Intensivversorgung. Die Kurzzeitergebnisse der Arbeit von Dr. Marcovich waren hervorragend und fanden internationale Beachtung und Anerkennung. Die Untersuchung der Langzeitergebnisse – insbesondere die emotionale Entwicklung der "Marcovich-Babys" sollte deshalb vorangetrieben werden.

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* In the meantime two papers have been published which should be quoted in support of Dr. Marcovich's work: Linderkamp, Beedgen and Sontheimer (1995) and Linderkamp (1995) (see references)

Introduction

In 1977 I got hooked on neonatal intensive care, in S. California – to be precise, on the psychosocial, the psychological, and the psychosomatic aspects of it (cf. Freud 1991b, 1992). I did not like all I saw, so I made it a point of visiting as many NICUs as possible in the hope of findings less (Ideally: no) separation of newborn and mother (Cranston Anderson 1989). That way I probably saw more NICUs in Western Europe, the U.S.A., and Canada than the average physician has occasion to see in the course of his training and work. I collected ideas on what I thought might be improved (an outside psychoanalytic observer has, moreover a different perspective which makes it easier for him to spot possible flaws), which crystallized in the "Whose Baby?-Syndrome" (Freud 1991a).

In 1993 I first heard of Dr. Marina Marcovich, a highly competent neonatologist in the Mautner-Markhof-Kinderspital's NICU in Vienna which I visited twice that year. Here was a Unit with a difference, and I knew at last that I had "arrived". Notwithstanding the presence of some incubators and other familiar high-tech equipment this somewhat small-sized Unit had an unhurried relaxed atmosphere and time for visitors, who were made welcome. I found the truly humane orientation impressive. It seemed based on sound data (Marcovich 1993, unpublished; Klaube and Marcovich 1993) and, like other visitors, I was, of course, very interested in finding out what had led to Dr. Marcovich's remarkable success in short-term outcomes of her prematures.

Trying to understand and conceptualize it, I identified a number of essential parameters. When I had described prenatal attachment and bonding (Freud 1987) I had wondered about the fetus bonding to what he can touch, i.e. to "Tangibles" and to what he can not touch, i.e. "Intangibles", like interaction, continuity, regularity, rhythm, movement, and stimulation (ibid., p. 98). In this paper I am using "Intangibles" for more elusive, less tangible, parameters which more readily spring to mind when we think of medical technology-dominated conventional neonatal intensive care, where "Intangibles" (like e.g. anxiety) are also known. It is just that Dr. Marcovich purposely puts them in the centre. Intangibles are of a different order than Tangibles and, therefore lend themselves less readily to comparison.

Intangibles are interconnected and probably interact synergistically. Singly, or in combination they can be observed in a variety of constellations. I first intended to present them in order of importance but this was not possible, because all of them are important. So I had to fall back on listing them alphabetically which has, however, the advantage of referring to them more easily (This list of Intangibles does not claim to be exhaustive).

Abbreviations
con. NIC = conventional neonatal intensive care
Dr. M. = Dr. Marcovich
MM = Marcovich-Method
NIC = Neonatal Intensive Care
NICU = Neonatal Intensive Care Unit
"he" is used also for "she"

NICUs are connected with anxiety (at least for those have not yet habituated to it, in so far as that is possible). This brings me to the first Intangible, Anxiety Reduction.

Anxiety Reduction

Anxiety and stress are severe drains on energy. Dr. M. expressly avoids, if at all possible, anything that might in the remotest be thought to cause anxiety, be it discomfort, unpleasure, stressful, painful or frightening situations. Most essential Intangibles aim at and serve anxiety reduction. By minimizing "nocebos" (Odent 1994), i.e. harmful influences, and by minimizing energy expenditure Marcovich prematures may, by comparison with con. NIC prematures, have, therefore, more energy at their disposal. This may go some way towards explaining the apparent paradox of Dr. Marcovich's initially less well-fed prematures doing better in drawing on and mobilizing from their omen resources strength for unassisted breathing (i.e. they do not have to become attached to a machine). A little later their energy is further conserved by skin-to-skin contact with their mothers or fathers (Ludington 1990), because Dr. Marcovich uses kangarooing extensively (cf. below).

The MM also aims at anxiety reduction in the parents, which conveys itself in any case to their babies. In no other NICU have I found less "White Coat Anxiety" (cf. Pickering and Friedman 1991). It may be relevant to recall that anxiety reduction doubtless also greatly contributed to the success of Odent's setup in Pithiviers (Odent 1984).

Begleitung (Accompaniment) – General Remarks

I have deliberately chosen the German term, because it seems to have a wider connotation range in the context of caregiving, emphasizing that one is in helpful hands. I feel it can accommodate the DOULA concept (Sosa et al. 1980; Klaus, Kennell and Klaus 1993) as well as Kangarooing (Rey and Martinez 1983), the idea of empathy (Greenson 1978), and phenomenology, such as 6th Sense Communication (of which more below).

Begleitung – Parents

As regards premature parents, Dr. Marcovich genuinely and generously encourages maximal active participation in NIC from as early on as possible, which builds up confidence in handling the baby. Promoted relaxed and unhurriedly it is an excellent vehicle for postnatal bonding enhancement, helping especially the mothers to counteract actively their initial depressive feelings.

Begleitung – Nursing Staff

Active parental participation in NIC hinges on the quality of the parent-nursing staff relationship, i.e. on the extent to which competition aspects can be handled. From what I have seen, there was smooth and effortless co-operation between Dr.

Marcovich's nursing staff and the parents; I could discover no trace of conscious or unconscious competition nor of the "Whose Baby?-Syndrome" (Freud 1991). It reflects the high quality of the service that is offered.

Belief in the Child

A most intriguing concept, not restricted to children, but just as valid for infants, newborns, and unborns under the heading of positive cathexis (emotional investment in) of the pregnancy. I am convinced that it contributes to the efficacy of healing – except that, on medical grounds, it may not always work. Belief in the child is epitomized by something Picasso is supposed to have said.

I quote:

> "When I was a child, my mother said to me:
> 'If you become a soldier, you will become a general.
> If you become a monk, you will become the Pope.'
> I wanted to become a painter, and I became Picasso."
> (Author's translation from the German)

Dr. Marcovich inspires belief in the child and would not doubt that it conveys itself to the preemie, which is a help to the parents.

Continuity from the Prenatal

In a somewhat simplified way it could be said that the fetus lives in a pool of sound, touch, movement, and interaction (on several levels). At birth a momentous metamorphosis takes place "which can be quite strenuous, so that smooth transitions were thought desirable (Leboyer 1975). A.W. Liley (1972) had immortalized the fetus as a personality and Dr. Marcovich carries on the tradition by regarding the premature not as a patient who is ill but as a very small unripe Mitmensch (fellow-human being) who is in need of help (Rinnhofer 1995, p. 182). It is understood that prematures need more considerate continuity than full term healthy newborns. Put another way, extreme exterogestation (Portmann 1944) calls for extremely tender care (sanften Umgang).

Optimal continuity would be achieved when first postnatal contact (bonding) could occur (Klaus and Kennell 1976) with the biological mother whom the newborn already knows prenatally through her biological rhythms: her heartbeat, "the rhythmical whooshing sound of her bloodflow punctuated by the tummy rumbles of air passing through her stomach (MacFarlane 1977), the noise and rhythm of her breathing and, of course, the sound of her voice (Tomatis 1981). His mother's movements constitute another aspect of his familiar intrauterine environment. Plato already stressed the importance of motion for very tiny infants (full quotation in Freud 1988, p. 221) and John Lind (1981) said: "cessation of movement means deprivation to the fetus".

Away from his familiar environment the newborn may feel like a fish out of water, so he should be "plugged in again" into his mother's biological rhythms (as, e.g. on his mother's belly, – Lennart and Frantz 1992) or he becomes unduly stressed, – not least because it can be assumed that when he is attached to a ma-

chine he will be "nourished" by "still-face" interaction only (Tronick and Adamson 1980) when lying isolated in his incubator.

Ego-Syntonicity

Means in harmony with a person's needs, with his self, with his ego, irrespective of when one thinks ego-formation begins. In this sense Dr. Marcovich respects the premature's ego-syntonicitv and is ready to make allowance for his preference and idiosyncrasies. What she considers of prime importance is that he finds his own best level of functioning. In her Unit one could witness the little "caveman" who would feel most comfortable when he had adapted the paddings inside his incubator to the shape of a cave in which he could rest.

For those not familiar with the term, ego-syntonicitv, the concept was best exemplified by Odent's setup in Pithiviers, where it was understood that mothers were free to give birth in any position they preferred, including water birth (Odent 1984).

Initial Observation Period

Probably because of my great interest in the observation of prematures (Freud 1986) I would have opted for the extended initial observation period as being the key to Dr. Marcovich's success had it not been for my belief in overdetermination. With initial observation periods of up to two hours (Rinnhofer 1995, p. 188) by the neonatologist a Marcovich baby gets a 6-Star reception into this world of which royalty might be envious. Continuity from the prenatal (cf. above) plays an important role: it means that the newborn receives continuing focused attention, i.e. human interaction and warmth (in the widest sense) and, I am sure, there is awareness in him that he is "in good hands": some of the time his head is cradled by the observer's hands, so that touch (also in the widest sense) (cf. Barnard and Brazelton 1990; Gunzenhauser et al. 1990), if not feeling (again, in the widest sense, – cf. especially Veldman 1982) can be perceived by him. The long observation time gives ample opportunity for tuning in to each other while the newborn is adapting to new comfort and can relax. This kind of observation, which allows for comprehensive evaluation of the newborn's resources and resilience, enables the neonatologist to appreciate the extent to which she can count on the premature's aptitude and readiness for co-operation from his own resources. The observer's intuition probably has the last word in coming to a decision about what course of action (if any) would appear to be the most promising one.

Kangaroo Method

Ample use is made of the Kangaroo Method (Rey and Martinez 1983; Ludington 1990; Anderson 1991; Ludington-Hoe et al. 1994), encouraging the parents to relax on deck-chairlike seats from as early on as possible in skin-to-skin contact with their babies. The beauty of this "revolution" in NIC, as Ludington-Hoe and Golant (1993) called it, is that it offers most reassuring continuity of familiar environment to the premature, who must feel "plugged in again" into his mother's biological

rhythms. With skin-to-skin contact the additional communication channel of kinesics becomes available (Montagu 1978), and the premature benefits, moreover, from the mother's movements. Fathers too relish the skin-to-skin contact with their babies and the nurses carry them whenever possible during the parents' absence, not in a carrying sling but in their arms, as a mother would, cuddling and stroking them and gently talking to them in a most natural way, wishing that they too could carry them skin-to-skin.

Need-Fulfilment

Fulfilment of physical comfort needs is taken for granted but the emphasis is on fulfilment of basic psychological needs (another cornerstone of the Marcovich-Method). One is left with the impression that both kinds of needs are, as far as possible, optimally met here, while by contrast conventional NIC is still too much coloured by separation, isolation, and at times immobilization (as e.g. when the premature's limbs are tied down). All Intangibles are need-fulfilling and awareness of psychological needs is usually in the foreground. It can safely be assumed that this does not fall to convey itself to the premature family.

Sharing

Sharing has mostly been discussed in the context of sharing medical information, and I intimated that this may at times be the least important aspect of it, whereas it may often be more helpful to the parents that they receive "sympathetic noises" (Freud 1980). Sharing helps absorbing, digesting, and integrating experiences, especially the extremes of joyful and distressing ones. The former can be observed daily on TV when footballers touch or hug each other after a goal has been scored. It is an overflow phenomenon, which is reflected in the birth talk in some cultures (Jordan 1980) and, e.g. in the moving description of how a small Italian community spontaneously welcomes a birth (Klaus and Kennell 1976, p. 39). Sharing, in the sense of accepting, colours unobtrusively much of what is going on in the Marcovich Unit. The family feels that it is fully accepted.

6th Sense Communication

We all know about the hare-like sleep of a (wet)nurse: half asleep and half awake (Ammenschlaf, Bilz 1962), and Spitz (1965) described diacritic and coenesthetic organizations, giving the example, "Any animal knows as a matter of course when somebody is afraid of him, and acts without hesitation on this knowledge". In humans one might refer to communication between the unconscious of one person to the unconscious of another.

The Hampstead Baby Profile's section X, F refers to "The Infant's Reaction to His Perception of Other People's Affective State" (Freud 1971).

A mother of the Hampstead Well-Baby Clinic could never make an appointment with her hairdresser in advance, because her baby would invariably wake up or fail to fall asleep, to prevent a separation. As far as I know, this dimension has never been satisfactorily researched, so that we have to fall back on descrip-

tion. There seems to be a good deal of what might be called non-verbal intuitive communication and understanding between parents, nursing staff, and visitors, "which made for a very relaxed "climate" in the Unit.

Spielraum

This means, literally, "space to play". In reality there was rather little space, but I think every one who entered the Unit felt relieved that there wasn't the usual more restricting atmosphere one would normally expect in a NICU. It reflected the unconventional attitude. One sensed that there was scope for alternatives and for imaginative creativity within the framework of a safe holding environment. The relatively small size of the hospital did not make one feel that one was weighed down by the heavy authority of an institution. It seemed the right setting for trying out something different.

Togetherness

What was, in fact, tried out was a different priority from the usual, i.e. togetherness. One might call it the coping stone of the Marcovich edifice: taking it for granted that the mother-infant unit is inviolate, that the symbiotic aspect of the mother-infant relationship has a special significance at this early stage of postnatal adjustment and that caregiving does not only flow in one direction but represents a mutuality (Anderson 1977). The wheel comes full circle when we recall what a great share the mother's presence has on the reduction of anxiety (Bowlby et al. 1952; Robertson 1958; Cranston Anderson 1989) and it is heartening to know that the DOULA studies have opened up similar perspectives (Sosa et al. 1980; Klaus, Kennell and Klaus 1993).

Outlook

Two sets of questions have remained with me:

1. The first one concerns the Marc. babies themselves: how have they been doing after their relatively early discharge from hospital? Compared with conventionally treated prematures, did they have similar or other post-discharge problems, or hardly any? They are still mostly Under-Fives. How will they do at school? What kind of adolescents will they be? Will they have an easier time forming relationship, and, above all, lasting partnerships as adults? What kind of parents will they be? Clearly, long-term follow-up research is required for testing the Marcovich-Method (cf. the longterm follow-up study of prematures of Hawaii (Werner and Smith 1992)).

My suggestion for such research would be to focus on emotional development because the emotional dimension seems to be the "carrier" for much else (cf. outcome aspects of children referred for so-called learning difficulties to the Hampstead Child Therapy Clinic – now known as the Anna Freud Centre, London – which have been indexed and currently published in the Centre's Bulletin). Once their emotional problems had been sorted out, most of these children were no longer handicapped by cognitive difficulties.

2. The second set of questions about the future of Dr. Marcovich, who must have a professional base again. My impression is that the NICU at the Mautner-Markhof-Kinderspital with its open doors for visitors had probably been just right for her pioneer work in hatching out unconventional, innovative and creative ideas (– in the event, at times too creative for parts of the Viennese Medical Establishment). Had it not been possible for internationally respected investigators being allowed to visit the Hospital Materno Infantil after the discovery of the Kangaroo Method in Boaota (Rey and Martinez 1983) we would not have kangarooing at our disposal in Western industrialized countries now (Whitelaw and Sleath 1985; Cranston Anderson et al. 1986; Whitelaw et al. 19881).

This has become a matter of urgency: Dr. Marcovich should be reinstated before her highly motivated, skilled and devoted nursing staff disperses. The small size of her Unit and the spirit of her nursing team were, in my opinion, probably the foremost catalysts for the amazing short-term outcome results in her prematures. Last but not least, the enthusiasm of the families under her care (some of them having insisted to be transferred from other hospitals (cf. Rinnhofer 1995)) was another important contributing factor for her success. They did not hesitate to take to the streets of Vienna in support in September 1994, just as parents in London demonstrated in the East End ten years ago to have Dr. Wendy Savage, who had been wrongly dismissed, reinstated in her job (Savage 1986), – which just goes to show that once the ghost is out of the bottle it can't be put back again (meaning that the spirit of really worthwhile discoveries is there to stay). Thank you for your attention.

References

Cranston Anderson G (1971) The Mother and Her Newborn: Mutual Caregivers. J. O. G. N. Nursing 6(5):50–57

Cranston Anderson G, Marks EA, Wahlberg V (1986) Kangaroo care for premature infants. Amer. J. Nursing, pp. 807–810

Cranston Anderson G (1989) Risk in mother-infant separation postbirth. Image J. Nursing Scholarship 21(4):196–199

Cranston Anderson G (1991) Current knowledge about skin-to-skin (Kangaroo) care for preterm infants. J. Perinatology 11(3):216–226

Barnard KE, Brazelton TB (1990) Touch: the foundation of experience. I.U.P., Madison, CT

Bilz R (1962) Ammenschlaf-Experiment und Halluzinose: Beitrag zu einer biologisch orientierten Psychopathologie. Der Nervenarzt 33(2):49–60

Bowlby J, Robertson J, Rosenbluth D (1952) A two-year-old goes to Hospital. Psychoanal. Study of Child 7:82–94

Freud WE (1971) The baby profile, part II. Psychoanal. Study of Child 26:172–194

Freud WE (1980) Notes on some psychological aspects of neonatal intensive care. In: Greenspan SI, Pollock GH (eds.) The course of life, vol. 1. Adelphi, Maryland, pp. 257–269

Freud WE (1986) Beobachtungen des Psychoanalytikers auf Neonatologischen Intensiv-Stationen. Humana Information III/86:11-26 Humana Milchwerke Westfalen, Herford, Germany

Freud WE (1987) Prenatal attachment and bonding. In: Verny TR (ed.) Pre- and Perinatal Psychology. Human Sciences Press, New York, pp. 91–106

Freud WE (1988a) Prenatal attachment, the perinatal continuum and the psychological side of neonatal intensive care. In: Fedor-Freybergh PG, Vogel MLV (eds.) Prenatal and perinatal psychology and medicine: encounter with the unborn. Parthenon Press, Lancaster, pp. 217–234

Freud WE (1988b) The concept of cathexis and its usefulness for prenatal psychology. In: Fedor-Freybergh PG, Vogel MLV (eds.) Prenatal and perinatal psychology and medicine: encounter with the unborn. Parthenon Press, Lancaster, pp. 165–175

Freud WE (1991a) Das "Whose Baby?-Syndrom: Ein Beitrag zum psychodynamischen Verständnis der Perinatologie". In: Stauber M, Conrad F, Haselbacher G (eds.) Psychosomatische Gynäkologie und Geburtshilfe. Springer, Berlin, pp. 123–137

Freud WE (1991b) Wie ich zu den Frühgeborenen kam und Kommentar zu drei Krakauer Beiträgen. Kind und Umwelt 70:1–9

Freud WE (1992) Wie ich psychoanalytischer Frühchen-Forscher wurde. Zwischenschritte 11(1):86–89

Greenson RR (1960) Empathy and its Vicissitudes. In: Greenson RR (ed.) Explorations in Psychoanalysis. I.U.P., New York, NY, pp. 147–161

Gunzenhauser N (ed.) (1990) Advances in Touch. Johnson & Johnson Pediatric Round Table, vol. 14

Jordan B (1980) Birth in four cultures. Eden Press Women's Publications, Montreal

Klaube A, Marcovich M (1993) Die sanfte Betreuung sehr kleiner Frühgeborener. Kind, Ernährung, Umwelt, pp. 12–17

Klaus MH, Kennell JH (1976) Maternal-infant bonding: the impact of early separation or loss on family development. C.V. Mosby Co., St. Louis

Klaus MH, Kennell JH, Klaus P (1993) Mothering the mother: how a DOULA can help you have a shorter, easier and healthier birth. Addison-Wesley, Reading, MA

Leboyer F (1975) Birth without violence. Wildwood House Ltd., London

Lennart R, Frantz K (1992) Delivery self-attachment. Video

Liley AW (1972) The foetus as a personality. Austr NZ J Psychiatry 6:99–105

Linderkamp O (1995) Minimization of intensive care for tiny preterm infants. In: Bitzer J, Stauber M (eds.) Psychosomatic Obstetrics and Gynaecology. Monduzzi Editore, Bologna, pp. 243–247

Linderkamp O, Beedgen B, Sontheimer S (1995) Das Konzept der sanften Behandlung Frühgeborener von Marina Marcovich. Eine kritische Bewertung. Int J of Prenatal and Perinatal Psychology and Medicine 7(1):73–84

Ludington SM (1990) Energy conservation during skin-to-skin contact between premature infants and their mothers. Heart & Lung 19(5):445–451

Ludington-Hoe SM, Thompson C, Swinth J, Hadeed AJ, Anderson GC (1994) Kangaroo Care: research results, practice implications and guidelines. Neonatal Network 13(1): 1–9

Ludington-Hoe SM, Golant SK (1993) Kangaroo Care. The best you can do to help your preterm infant. Bantam Books, Bantam Doubleday Dell Publishing Group

MacFarlane A (1977) The psychology of childbirth. Fontana/Open Books, London

Montagu A (1978) Touching: the human significance of the skin. 2ed edn. Harper & Row, New York

Odent M (1984) Birth reborn. Souvenir Press, London

Odent M (1994) Launching CENEP. Primal Health Research 2(2):1–6

Pickering TG, Friedman R (1991) The white coat effect: a neglected role for behavioral factors in hypertension. In: Mccabe PM, Schneiderman N, Field TM, Skyler JS (eds.) Stress, coping and disease. Hillsdale, NJ, pp. 35–49

Plato (1970) The laws. Book VII, § 12 (Education), 271–277. Penguin Classics, New York, NY

Portmann A (1944) Biologische Fragmente. B. Schwalbe & Co., Basel
Rey ES, Martinez HG (1983) Manejo rational del nino prematuro. Proceedings of the Conferencias I Curso de Medicina Fetal y Neonatal, Bogota, Colombia, pp. 137–151
Rinnhofer H (1995) Hoffnung für eine Handvoll Leben: Eltern von Frühgeborenen berichten. Harald Fischer Verlag, Erlangen
Robertson J (1958) Young children in hospital. Tavistock Institute of human relations, London
Savage W (1986) A Savage enquiry: who controls childbirth? Virago Press, London
Sosa R, Kennell JH, Klaus MH, Robertson S, Urrutia J (1980) The effect of a supportive companion on perinatal problems, length of labor and mother-infant interaction. New England J Med 303(11):597–600
Spitz RA (1965) The First Year of Life. I.U.P., New York, NY
Tomatis AA (1981) La nuit uterine. Editions Stock, Paris
Tronick E, Adamson L (1980) Babies as people: new findings on our social beginnings. Collier Books, New York, NY
Veldman F (1982) Life welcomed and affirmed. The St. Cloud visitor, vol. LXXI, No. 24
Werner E, Smith RS (1992) Overcoming the odds: high risk children from birth to adulthood. Cornell Univ. Press, Ithaca, London
Whitelaw A, Sleath K (1985) Myth of the marsupial mother: home care of very low birth weight babies in Bogota, Columbia. Lancet 25:1206–1208
Whitelaw A, Heisterkamp G, Sleath K, Acolet E, Richards M (1988) Skin to skin contact for very low birthweight infants and their mothers. Archives of Disease in Childhood 63:1377–1381