CANADIAN PAEDIATRIC SOCIETY

FN 79-02

Statement

FAMILY CENTERED PERINATAL CARE

Early in this century when the perinatal mortality rate was extremely high, a number of restrictive practices developed in hospitals including the separation and isolation of parents from their newborn infant for extended periods in an attempt to decrease the incidence of infection. Present evidence would suggest, that not only is this unnecessary[1 2], but that certain aspects of modern perinatal care inadvertently interfere with the normal bonding process between the infant and the parents, particularly the mother. Recently this process has been studied[3 4], and disturbances of it have been recognized to have some significant sequelae including an increased incidence of child abuse.

Recent evidence would suggest that the infant has a tremendous capacity for social interaction, particularly in the first few hours and days of life, and that this interaction forms part of the basis for future parent-child relationships. Parents are much more responsive to the infant immediately post-partum and respond to many cues given by the infant in specific behaviour patterns[5 6 7].

Immediately post-partum it has been shown that the infant is extremely alert and does many things which in the past newborns were not thought to be able to do[8 9 10 11]. The infant can see, focus, follow and exhibit specific visual preferences all in the first few hours of life[11 12 13]. The infant is particularly interested in face-like configurations[14] while adults are interested in eye to eye contact and are attracted by the infant's attempts to follow objects visually and it's ability to focus on the parents' face[15 16]. The crying infant when lifted to the mother's shoulder becomes quiet and visually alert and ready for social interaction[17].

In the alert state infants can make rhythmic and synchronous movements and respond to adult speech[18]. The infants soon recognize and prefer their own mother and respond much more rapidly to the female voice than to the male voice[19 20 21]. Rooming-in infants have less crying, more regular sleep, and more visual interaction with their mother than do non-rooming-in infants[22]. After 48 hours the mother will react only to her infant's specific cry and the mother who has roomed-in feels more confident in caring for her baby and seeks less medical advice during the first week at home[23 24]. In the area of vocalization, the infant has specific cries[25] of four major types: hunger, anger, frustration and pain. It has been shown that the pain cry will produce characteristic responses which seems to ensure that the infant will get help quickly.

Increased contact between parents and offspring in the first few hours and days of life re-inforces the parental bond. Those parents who have had extra contact with their infants during the first few days of life exhibit more soothing and fondling of their infants, and more eye to eye interaction in later life[26 27 28 29 30]. The presence of the father during labour and delivery is beneficial in that he can provide both guidance and reassurance to the mother[31]. Mothers encouraged to breast feed early are more successful and tend to breast feed longer[32 33]. Mothers and other siblings often have separation anxieties and require emotional support post-partum. The needs of both can be met by allowing early and close contact with the entire family[31].

Sick or small infants are particularly at risk for interruption of the normal parent-infant bonding process. In this group of infants there is an increased incidence of disturbance of parent-child relationship and studies have shown that there is an increased incidence of child abuse in infants of low birth weight[34]. Parents should be encouraged to become involved with their infants even if it is only to hold hands during the first few days of life. They should be allowed to handle and cuddle their infants, and they should be actively involved in the care of their infants whenever possible. Special efforts should be made to keep the parents well informed if they are unable to remain near the nursery. If possible, rooms near the nursery should be made available where parents may stay for a few days and where they may be with their infants and act as a natural family unit prior to discharge.

Modern perinatal care tends to emphasize physical well being and it is only now that we are becoming attuned to the problems of psycho-social well being in both the infant and the parents. In the light of the increased knowledge of the parent and infant interaction, it would seem appropriate to re-evaluate our care of the newborn and provide some guidelines for the formation of hospital perinatal care policies which are family centered but still provide a safe physical environment which will promote positive parent-infant interaction, while minimising the physical complications. Hospital rules and regulations will have to be considered when formulating such policies. Present physical facilities need not interfere.

The following general guidelines are recommended:

1. Family centered perinatal care begins before delivery with the involvement of both parents in appropriate prenatal education classes.
2. Father should be encouraged to be present during labour and be permitted to attend the delivery.
3. In the immediate post-partum care period the infant should spend some time with the mother in the caseroom and recovery room, if there are no contraindications. Breast feeding may be commenced at this time if desired.
4. It may be desirable to delay some routine procedures frequently done in the caseroom, e.g., eye prophylaxis, administration of Vitamin K, until the infant has returned to the nursery or bassinette.
5. During the post-partum period other family members, particularly siblings, should have early access to and regular visiting with the mother and infant.
6. When sick or small infants are admitted to special care nurseries, early and continuing parental contact is essential. Sibling involvement may also be desirable.
7. Consideration should be given to providing rooming-in facilities for the parents and infants prior to the infant's discharge home from the special care unit.

Foetus and Newborn Committee

Members

References:

1. Barnett, C., Leiderman, P., Grobstein, R., et al: Neonatal Separation: The maternal side of interactional deprivation. Pediatrics 45: 197, 1970.
2. Williams, C., and Oliver T., Jr.: Nursery Routines and staphylococcal colonization of the newborn. Pediatrics 44:640, 1969.
3. Klaus, M., Jerauld, R., Kreger, N. et al: Maternal attachment: Importance of the first post-partum days. New Eng J Med 286: 460, 1972.
4. Klaus, M., Kennell, J., Plumb, N., et al: Human maternal behaviour at the first contact with her young. Pediatrics 46: 187, 1970.
5. Bell, R.Q.: Contributions of human infants to caregiving and social interaction, *in* Lewis M., and Rosenblum, L.A. editors: The effect of the infant on its caregiver, New York, 1974, John Wiley & Sons, Inc.
6. Pryor, K.: Nursing your baby, New York, 1973, Pocket Books.
7. Greenberg, M., and Morris, N.: Engrossment: The Newborn's impact upon the father. Am J. Orthopsychiatry 44: 520, 1974.
8. Wolff, P.H.: The causes, controls and organization of behaviour in the Neonate, Psychological Issues, Monograph No. 17, New York, 1965, International Universities Press, Inc.
9. Emde, R.N., and Robinson, J.: The first two months: Recent research in developmental psycholobiology and the changing view of the newborn, *in* Noshpitz J., and Call, J., editors: Basic handbook of child psychiatry, New York, Basic Books, Inc., Publishers (in press).
10. Wolff, P.H.: The development of attention in young infants. Ann NY Acad Sci 118: 815, 1965.
11. Brazelton, T.B.: Neonatal behavioural assessment scale, Clinics in Developmental Medicine No. 50, London, 1973. Spastics International Medical Publications.
12. Fantz, R.L., Fagan, J.F., and Miranda, S.B.: Early visual selectivity as a function of pattern variables, previous exposure, age from birth and conception and expected cognitive deficit, *in* Cohen, L.B., and Salapatek, P., editors: Infant perception: From sensation to cognition, New York, 1975, Academic Press, Inc.
13. Fantz, R.L. and Miranda, S.B.: Visual processing in the newborn, preterm, and mentally high-risk infant, proceedings of Johnson & Johnson Symposium on Intrauterine Asphyxia and the developing Fetal Brain, Chicago, Year Book Medical Publishers, Inc. (in press).
14. Goren, C.C., Sarty, M., and Wu, P.Y.K.: Visual following and pattern discrimination of face-like stimuli by newborn infants, Pediatrics 56: 544, 1975.
15. Robson, K.S.: The role of eye-to-eye contact in maternal-infant attachment, J. Child Psychol Psychiatry 8: 13, 1967.
16. Klaus, M., Kennell, J.H., and Plumb, N.: Human maternal behaviour at the first contact with her young. Pediatrics 46: 187, 1970.
17. Korner, A.F., and Thoman, E.B.: Visual alertness in neonates as evoked by maternal care. J. Exp Child Psych 10:67, 1970.
18. Condon, W.S., and Sander, L.W.: Neonate movement is synchronized with adult speech: Interactional participation and language acquisition, Science 183: 99, 1974.
19. Birns, B.: Individual differences in human neonates' responses to stimulation, Child Dev 30: 249, 1965.
20. Eisenberg, R.B.: Auditory behaviour in the human neonate: functional properties of sound and their ontogenic implications, Ear, Nose, Throat Audio 9: 34, 1969.
21. Eisenberg, R.B.: Stimulus significance as a determinant of infant responses to sound, *in* Thoman, E.B., editor: The origins of the infant's social responsiveness (in press).
22. Sander, L.W., Stechler, G., Burns, P., and Lee, A.: Changes in infant and caregiver variables over the first two months of life: Regulation and adaptation in the organization of the infant-caregiver system, *in* Thoman, E.B., editor: Origins of the infant's social responsiveness (in press).
23. Formby, D.: Maternal recognition of infant's cry, Dev. Med Child Neurol 9: 293, 1967.
24. Greenberg, M., and Rosenberg, I.: First mothers rooming-in with their newborns: its impact upon the mother. Am J Orthopsychiatry 43: 783, 1973.

25. Wolff, P.H.: The natural history of crying and other vocalizations in early infancy, in Foss, B.M., editor: Determinants of infant behaviour, vol. 4, London, 1969, Methuem & Company, Ltd.
26. Sousa, P.L.R., Barros, F.C., Gazalle, R.V., Begeres, R.M., Pinheiro, G.N., Menezes, S.T., and Arruda, L.A.: Attachment and lactation, XIV Congreso Internacional de Pediatria, Buenos Aires, Argentina, 1974.
27. Kennell, J.H., Trause, M.A., and Klaus, M.H.: Evidence for a sensitive period in the human mother, *in* Parent-Infant interaction, Ciba Foundation Symposium 33 (new series), Amsterdam, 1975, Elsevier Publishing Co., pp 87-101.
28. Sosa, R., Klaus, M., Kennell, J.H., and Urrutia, J.J.: The effect of early mother-infant contact on breastfeeding, infection and growth, *in* Breastfeeding and the mother, Ciba Foundation Symposium, 45 (new series), Amsterdam, 1976, Elsevier Publishing Co..
29. Klaus, M.H., Jerauld, R., Kreger, N.C., McAlpine, W., Steffa, M., and Kennell, J.H.: Maternal attachment: importance of the first post-partum days, N. Engl J Med 286: 460, 1972.
30. Kennell, J.H., Jerauld, R., Wolfe, H., Chesler, D., Kreger, N.C., McAlpine, W., Steffa, M., and Klaus, M.H.: Maternal behaviour one year after early and extended postpartum contact, Dev. Med Child Neurol 16: 172, 1974.
31. Klaus, M.H., and Kennell, J.H.: editors: Maternal-infant bonding, St. Louis, 1976, The CV Mosby Company, pp 95-96.
32. Johnson, N.W.: Breast-feeding at one hour of age, MCN: Am J Mater Child Nurs 1:12, 1976.
33. deChateau, P.: Neonatal care routines, influences on maternal and infant behaviour and on breast feeding, Umea, 1976, Umea University Medical dissertations, New Series No. 20.
34. Klein, M., and Stern, L.: Low birth weight and the battered child syndrome, Am J Dis Child, 122: 15, 1971.