

Regulation of State in the Newborn

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The Newborn's self-organization capacity is closely related to state control and behavioural patterns dependant or independant from the environment contribute to this end. Important individual differences exist in the several aspects of newborn's behaviour, as, for instance, the postural adjustment to the person who holds him (7). The following behavioural patterns are involved in state control: "consolability with intervention", "cuddliness", "self-quieting activity" and "hand to mouth facility". "Consolability with intervention" assesses the number and quality of stimuli the examiner needs to apply for the newborn to reach a quiet state. By his positive or negative reactions, or even by the absence of reactions, when he is picked up, a notion of his "cuddliness" is

	<u>MEAN SCORES IN EACH ASSESSMENT</u>		
	<u>OF NEWBORN INFANTS</u>		
	<u>1st DAY</u>	<u>3rd DAY</u>	<u>28th DAY</u>
"CUDDLINESS"	4.52(± 1.16)	5.90(± 1.16)	5.70(± 1.56)
"CONSOLABILITY WITH INTERVENTION"	6.63(± 1.59)	6.61(± 1.89)	6.14(± 1.95)
"SELF-QUIETING ACTIVITY"	6.58(± 1.88)	6.37(± 1.87)	6.22(± 2.36)
"HAND-TO-MOUTH FACILITY"	6.15(± 2.26)	6.83(± 2.23)	4.88(± 2.54)

obtained; "self-quieting activity" concerns the number of times the infant uses certain activities to reach a quiet state, such as tabing his hand to his mouth and hand sucking. "Hand to mouth facility" concerns the capacity of the newborn infant to take his hand to his mouth, and the

Fig. I

number of times as well as the sucess of this activity are considered (3).

The study was carried out on sixty newborn infants born in the Maternity Ward of Hospital Escolar de Santa Maria in Lisbon. Application of the Brazelton Neonatal Behavioural Scale was performed according to the rules of scales' standardization.

The scale was administered on 3 occasions: 1) between 2 and 6 hours of life; 2) on the 3rd day of life; 3) on the 28th day of life. The 2 first assessments were carried out in the hospital and the 3rd the mother's home.

In addition to a general descriptive analysis, a statistical study was carried out using fundamentally non-parametric tests.

<u>DIFFERENCES IN EVOLUTION OF ITEMS IN THE THREE ASSESSMENTS</u>								
	<u>FRIEDMAN</u>				<u>WILCOXON</u>			
	<u>1st-3rd-28th DAYS</u>	<u>1st-3rd DAYS</u>	<u>1st-3rd DAYS</u>	<u>1st-3rd DAYS</u>	<u>3rd-28th DAYS</u>	<u>3rd-28th DAYS</u>	<u>1st-28th DAYS</u>	<u>1st-28th DAYS</u>
	χ^2	P<	Z	P<	Z	P<	Z	P<
<u>"CUDDLINESS"</u>	17.5	0.001	-	-	-	-	3.8	0.001
<u>"CONSOLABILITY WITH INTERVENTION"</u>	12.4	0.01	-	-	-	-	-	-
<u>"HAND-TO-MOUTH FACILITY"</u>	13.1	0.01	2.11	0.05	3.76	0.001	-	-

Fig. II

Evolution of mean scores in the different behavioural items occurred in the following way: 2 of the items, "consolability with intervention" and "self-quieting activity" preserve a relatively constant mean during the first month, whereas the other two evolve in different directions. (Fig. I).

Three of the items - "cuddliness", "consolability with intervention" and "hand to mouth facility" - show significant differences between the 3 assessments (Fig. II).

Concerning "cuddliness", it was observed that the infants respond significantly better from the 1st to the 28th day of life. In the item "hand to mouth facility", a significant improvement was observed from the 1st to the 3rd day, and a significant decrease was observed from the 3rd to the 28th day.

Analysis of correlations in this dimension of the newborn's behaviour reveals that the items are grouped in two clusters, that is, "consolability with intervention" correlates consistently in the 3 assessments with "self-quieting activity".

The fact that the newborn infants respond progressively better to the caresses is very probably related to his growing capacity for self-organization as state control. On the other hand, it is our view that the evolution of the item "hand to mouth facility" which improves between the 1st and 3rd day and is less frequent from the 3rd to the 28th day, may be due to the fact that, by the end of the 1st month of life, the infant already has other means to obtain a better control and self-organization in response to stress (10).

As for the way in which newborn infants self-quieten, either on their own ("self-quieting activity"), or with the help of another person ("consolability with intervention"), a relative stability was observed during the 1st month of life.

This observation may mean that these behaviours have more to do with the newborn's temperament, being less vulnerable to environmental influences (11). The same stability was also found in other studies, concerning other aspects of the newborn's behaviour.

Early knowledge, on behalf of mother-infant health workers, of these pattern of newborn behaviour, may have a predictive value and may facilitate intervention in order to better reveal to the mother the characteristics of her infant.

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