



Below are selected publications from late 2020 to early 2021 relevant to NIDCAP.

2020

Angot F, Van Vooren V, Castex C, Glorieux I, Casper C. **Behavioral changes in preterm children during nasogastric tube feeding. Comparative study of manual administration by parents versus mechanical administration via electric syringe pump.** *Early Human Development.* 149, 2020. DOI: <http://dx.doi.org/10.1016/j.earlhumdev.2020.105151>

This randomized, crossover study examined the behavioral changes of preterm infants during nasogastric tube feeding: manual milk administration by parents (MAP) versus electric syringe administration (ESA) over a 30-minute period. Method: Preterm infants less than 33 weeks of age and over 7 days of life were included. A video recording was performed to assess the behavioral response. Fifteen preterm infants with a median gestational age of 30.1 weeks and a median birth weight of 1.210 g were included from March to October 2012. The facility, environment, and state of alertness of the infants were similar in both groups. Signs of well-being were significantly more prevalent in the MAP group versus the ESA group (36.2 (± 8.0) versus 30.7 (± 9.5)), (p = 0.04), particularly “hand-to-mouth, mouth gestures, seeking suction and sucking”. Although not significant, motor withdrawal signs were more apparent and fluctuating in the ESA group. Qualitative analysis of NIDCAP observations confirms this data.

Browne JV, Jaeger C, Kenner C. **Executive summary: standards, competencies, and recommended best practices for infant- and family-centered developmental care in the intensive care unit.** *Journal of Perinatology*, suppl. 1. 2020, 40: 5-10. DOI:10.1038/s41372-020-0767-

An interprofessional and parent committee utilized a systematic review and consensus process to evaluate the evidence for intensive care practice. Infant- and family-centered developmental care was described, practice components identified, and evidence-based standards and competencies articulated. Consensus process results included articulation of *Standards, Competencies and Recommended Best Practices for Infant and Family Centered Developmental Care (IFCDC)*, including components of systems thinking, positioning and touch, sleep and arousal, skin-to-skin contact, reduction of pain and stress for infants and families, and feeding. Successful IFCDC-recommended practices provide opportunities to integrate the family with the interprofessional team, standardize practice, and improve outcomes.

Charafeddine L, Masri S, Sharafeddin SF, Kurdahi Badr L. **Implementing NIDCAP training in a low-middle-income country: Comparing nurses and physicians' attitudes.** *Early Human Development.* 147, 2020. DOI: <http://dx.doi.org/10.1016/j.earlhumdev.2020.105092>

The Newborn Individualized Developmental Care and Assessment Program (NIDCAP) provides a developmentally supportive environment for preterm infants and their families. Few studies evaluated staff perceptions about NIDCAP implementation and its effect on infant and parents and working conditions. A cross-sectional anonymous online survey of 57 NICU staff (29 nurses and 28 doctors) who were present at least one year prior to and during the implementation of NIDCAP training were included. The implementation of NIDCAP in a low-middle income country was perceived as a positive experience for both nurses and doctors. It was thought to have improved infant care and wellbeing, as well as the staff relationship with parents, however working conditions remained a challenge. More studies are needed to address areas of improvement for implementation.

Eskandari Z, Akrami F, Nejad MR, Almasi-Hashiani A, Heidarzadeh M. **Assessing family-centered care in Iranian NICUs from perspective of neonatal individual developmental care.** *Iranian Journal of Neonatology.* 2020, 11(4): 87-92. DOI: <http://dx.doi.org/10.22038/ijn.2020.47189.1808>

This national cross-sectional study was conducted in a total of 23 NICUs from nine universities of medical sciences, in seven provinces of Iran. Family-centered developmental care was assessed in six different domains, including the philosophy of the nursery, family communication, family support, family resources, admission and discharge planning, and decision-making. A total of 29 items, extracted from the Nursery Assessment Manual, were assessed. The mean scores in all domains were weak, and the total score for all domains was 34.18 (95% CI: 33.75-34.60) out of 100. The mean scores were 30 in the philosophy of nursery, 43.47 in family communication, 26.71 in family support, 35 in family resources, 45 in admission and discharge planning, and 25 in decision-making. The lowest score was reported for decision-making, and the highest score was reported for admission and discharge planning. Since family-centered developmental care in Iran is not favorable, the obtained findings suggest the development of a suitable plan to upgrade family-centered developmental care as well as comprehensive NICU care, including developmental care.

Eskandari Z, Seyedfatemi N, Haghani H, Almasi-Hashiani A, Mohagheghi P. **Effect of nesting on extensor motor behaviors in preterm infants: A randomized clinical trial.** *Iranian Journal of Neonatology*. 2020, 11(3): 64-70. DOI: <http://dx.doi.org/10.22038/ijn.2020.42355.1703>

In this randomized controlled trial, 44 clinically stable preterm infants, admitted to the NICU, were recruited and randomly divided into two groups of control and intervention. The routine of the unit was to take care of infants on a flat mattress. The intervention was a U-shaped cloth nest in which the intervention group was bedded for seven days. The control group consisted of infants who were normally cared for without any containment supports (e.g. nests). All infants were videotaped before and on the last day of the intervention. The motor behaviors, as defined in the Newborn Individualized Developmental Care and Assessment Program (NIDCAP) sheet, were analyzed in each of the films. According to the findings, supporting the preterm infant body even by accessible materials could enhance their neurodevelopmental strengths and motor behavior stabilities.

Foladi N, Farahani AS, Nourian M, Faghizadeh E, Mojen LK, Gholami S, Goudarzi F. **Barriers to the implementation of "newborn individualized developmental care and assessment program" from the perspectives of nurses and physicians.** *Iranian Journal of Neonatology*. 2020, 11(4): 14-20. DOI: <http://dx.doi.org/10.22038/ijn.2020.46116.1774>

The study aimed to investigate the barriers to the implementation of NIDCAP from the perspectives of nurses and physicians. This descriptive-comparative included 100 nurses and 21 physicians working in the Neonatal Intensive Care Unit (NICU). Data were collected using a researcher-made questionnaire. The validity and reliability of the questionnaire were determined in this study. According to the findings of this study, environmental-structural barriers were considered the main hurdles to the implementation of NIDCAP. Therefore, it is recommended that hospital administrators make efforts to eradicate the existing barriers by making appropriate decisions in order to improve the quality of this method of care.

Khosravan S, Khoshahang M, Heidarzadeh M, Basirimoghdam M. **Effect of NIDCAP home care follow-up program of preterm newborns on maternal anxiety and stress.** *Annali di Igiene*. 2020, 32(6): 627-634. DOI: <http://dx.doi.org/10.7416/ai.2020.2384> (Italy)

The Newborn Individualized Developmental Care and Assessment Program (NIDCAP) is designed to empower the parents in comprehensively caring for their preterm baby after discharge from the hospital. The present research was intended to study the effects of NIDCAP follow-up on the stress and anxiety of the mothers. In this clinical trial, 20 mothers of preterm babies with the gestational age of 26 to 32 weeks were studied. NIDCAP was

performed during the hospital stay and twice after discharge. The control group received routine care without NIDCAP. Anxiety and stress of the mothers were assessed using the Spielberger and Cohen questionnaires. At baseline, there were no statistically significant differences between the experimental and the control groups. After the intervention, the average score of anxiety was significantly lower among mothers in the experimental group compared to the control group ($p=0.009$). NIDCAP also reduced the stress of the mothers in the experiment group ($p=0.033$). Implementation of NIDCAP and its home follow-up was effective in reducing the stress and the anxiety of the mothers of preterm babies. Implementation of NIDCAP for mothers of preterm babies is recommended to all hospitals of the country.

Lopez-Maestro M, De la Cruz J, Perapoch-Lopez J, Gimeno-Navarro A, Vazquez-Roman S, Alonso-Diaz C, Munoz-Amat B, Morales-Betancourt C, Soriano-Ramos M, Pallas-Alonso C. **Eight principles for newborn care in neonatal units: Findings from a national survey.** *Acta Paediatrica*. 2020, 9(7): 1361-1368. DOI: 10.1111/apa.15121

A European expert group established eight 'Principles of Care' in 2018 that define neurodevelopmental and family-centred care. The implementation of each principle was assessed by a survey sent to level-III Spanish units. A principle was considered to be implemented if all answers to the principle-associated questions were positive. The response rate was 84.5% (65/77). No unit had implemented eight principles. Principle 1 (free parental access) was implemented in 21.5% of the centres; Principle 2 (psychological support) 40%; Principle 3 (pain management) 7.7%; Principle 4 (environmental influences) 29%; Principle 5 (postural support) 84.6%; Principle 6 (kangaroo-care) 67.7%; Principle 7 (breastfeeding) 23% and Principle 8 (sleep protection) in 46%. In units attending ≥ 50 very low birth weight (VLBW) infants, four or more principles had been implemented in 31% vs 13% < 50 VLBW neonates (odds ratio 3.0 CI 95% 0.9-10.1, $p .07$). The principle with the highest implementation was related to newborn body positioning. Pain management was the principle with lowest implementation. More principles for IFCDC tend to be implemented in units providing care for a higher number of VLBW infants.

Welch MG, Barone J, Porges S, Hane A, Kwon K, Ludwig RJ, Stark RI, Surman AL, Myers MM, Kolacz J. **Family nurture intervention in the NICU increases autonomic regulation in mothers and children at 4-5 years of age: Follow-up results from a randomized controlled trial.** *PLoS One* 2020, 15 (8):e0236930. DOI:10.1371/journal.pone.0236930

A subset of infants and mothers (48% of infants, 51% of mothers) randomly assigned to either standard (SC), or SC plus Family Nurture Intervention (FNI) in the NICU in a prior randomized control trial (RCT) (ClinicalTrials.gov; 2020. NCT01439269) returned for follow-up assessments when the

children were 4 to 5 years corrected age (CA). Both children and mothers in the FNI group had significantly greater levels of RSA compared to the SC group (child: mean difference = 0.60, 95% CI 0.17 to 1.03, $p = 0.008$; mother: mean difference = 0.64, 95% CI 0.07 to 1.21, $p = 0.031$). In addition, RSA increased more rapidly in FNI children between infancy and the 4 to 5-year follow-up time point (SC = $+3.11 \pm 0.16$ loge msec², $+3.67 \pm 0.19$ loge msec² for FNI, $p < 0.05$). These results show that the rate of increase in RSA from infancy to childhood is more rapid in FNI subjects. Although these preliminary follow-up results are based on approximately half of the subjects originally enrolled in the RCT, they suggest that FNI-NICU led to healthier autonomic regulation in both mother and child, when measured during a brief face-to-face socioemotional interaction. A Pavlovian autonomic co-conditioning mechanism may underlie these findings that can be exploited therapeutically.

2021

Aita M, De Clifford Faugere G, Lavallee A, Feeley N, Stremler R, Rioux E, Proulx MH. **Effectiveness of interventions on early neurodevelopment of preterm infants: a systematic review and meta-analysis.** *BMC Pediatrics*. 21(1):210, 2021 04 29. DOI: 10.1186/s12887-021-02559-6

Findings of 12 studies involving 901 preterm infants were synthesized. Three studies were combined in a meta-analysis showing that compared to standard care, the NIDCAP intervention is effective in improving preterm infants' neurobehavioral and neurological development at two weeks corrected age (CA). Two other studies were combined in a meta-analysis indicating that parental participation did not significantly improve preterm infants' neurobehavioral development during NICU hospitalization. For all other interventions (i.e., developmental care, sensory stimulation, music and physical therapy), the synthesis of results shows that compared to standard care or other types of comparators, the effectiveness was either controversial or partially effective. The overall quality of evidence was rated low to very low. Future studies are needed to identify interventions that are the most effective in promoting preterm infants' early neurodevelopment during NICU hospitalization or close to term age. Interventions should be appropriately designed to allow comparison with previous studies and a combination of different instruments could provide a more global assessment of preterm infants' neurodevelopment and thus allow for comparisons across studies.=

Artese C, Paterlini G, Mascheroni E, Montirosso R, Developmental Care Study Group (DCSG) of the Italian Neonatology Society: Cavicchioli P, Bertocelli N, Chiandotto V, Strola P, Simeone N, Calciolari G, Ferrari F. **Barriers and facilitators to conducting Kangaroo Mother Care in Italian neonatal intensive care units.** *Journal of Pediatric Nursing*. 2021, 57: e68-e73. DOI 10.1016/j.pedn.2020.10.028

A survey design was conducted in 86 newborn intensive care

units to determine both obstacles and supports to implementation of Kangaroo Mother Care (KMC). The survey investigated three main specific areas including: a) unit's characteristics; b) unit's policies toward parents; c) unit's KMC practice and policies. Eighty-one NICUs provided KMC. These 81 NICUs had less restrictive parental access policies ($\chi^2 = 7.373$, $p = .007$). More than 70% of the units did not have adequate facilities for parents. KMC daily length was positively predicted ($R^2 = 0.18$, $F = 7.91$, $p = .001$) by repeated sessions and documentation of KMC. The implementation of KMC is characterized by different barriers and facilitators that determine the parent's possibility to provide KMC. Structural factors (e.g., adequate space and facilities) can support families in providing KMC. A unique result of this survey is that KMC documentation in medical records appears critical for improving its practice. Although most of the Italian units provide KMC as a routine practice, improving its practical support would be beneficial to its implementation. A more formalized approach to KMC may strengthen staff habits to consider KMC as a standard care treatment.

Chandebois L, Nogue E, Bouschbacher C, Durand S, Masson F, Mesnage R, Nagot N, Cambonie G. **Dissemination of newborn behavior observation skills after Newborn Individualized Developmental Care and Assessment Program (NIDCAP) implementation.** *Nursing Open*. 2021. DOI: <http://dx.doi.org/10.1002/nop2.904>

To assess nurses' ability to observe newborn behavior after in situ training provided by caregivers with advanced practice certification in the Newborn Individualized Developmental Care and Assessment Program (NIDCAP). Twelve nurses viewed 20-min films showing the behavior of 10 premature newborns before, during and after the usual caregiving. The behavior was rated on an observation sheet with 88 items distributed into six systems. The responses were compared to the reference ratings established by two professionals certified for this program. Despite less accurate observations during care and for some components, the nurses generally showed a satisfactory ability to observe newborn behavior after training by NIDCAP expert professionals. The dissemination of observation skills among caregivers may result in an improved quality of patient care and better communication among professionals in a department of neonatology.

Epstein S, Bauer S, Stern OL. **Preterm infants with severe brain injury demonstrate unstable physiological responses during maternal singing with music therapy: A randomized controlled study.** *European Journal of Pediatrics*, 2021, 180, (5): 1403-1412. DOI:10.1007/s00431-020-03890-3

In this prospective, randomized intervention, 35 preterm infants with severe brain injury who underwent skin-to-skin contact (SSC) with or without maternal singing during Music Therapy (MT) were evaluated for physiological responses, including autonomic nervous system stability (low frequency (LF)/high frequency (HF) power), heart rate, respiratory rate, oxygen saturation, and behavioral state. Higher mean +/- standard deviation

(SD) LF/HF ratio (1.8 +/- 0.7 vs. 1.1 +/- 0.25, $p = 0.01$), higher mean +/- SD heart rate (145 +/- 15 vs. 132 +/- 12 beats per minute, $p = 0.04$), higher median (interquartile range) +infant behavioral state (NIDCAP manual for naturalistic observation and the Brazelton Neonatal Behavioral Assessment) score (3 (2-5) vs. 1 (1-3), $p = 0.03$), and higher mean +/- SD maternal anxiety (state-trait anxiety inventory) score (39.1 +/- 10.4 vs. 31.5 +/- 7.3, $p = 0.04$) were documented in SSC combined with maternal singing during MT, as compared to SSC alone. A unique MT intervention should be designed for preterm infants with severe brain injury and their mothers.

Griffiths N, James-Nunez K, Spence K, Crowle C, Pettigrew J, Loughran-Fowlds A, Samra HA. **The evolution of an interdisciplinary developmental round in a surgical Neonatal Intensive Care Unit.** *Advances in Neonatal Care.* 2021, 21 (1) (pp E2-E10). DOI: <http://dx.doi.org/10.1097/ANC.0000000000000741>

A retrospective audit of developmental round key performance criteria undertaken over a 4-year period (2015-2018). More than 300 developmental consults and 2000 individualized developmental recommendations occurred annually. Parental presence during the developmental round increased by 10%, from 48% to 58%, during the audit period. Literature has supported the use of developmental round interventions; however, minimal data have been reported to date. This article provides retrospective audit data of a developmental round intervention in the sNICU with a focus on data over four years to highlight key areas, including the structure and process, recommended educational standards for team members, and parental engagement, as key markers for developmental round efficacy. Future research should focus on the link between the developmental round intervention and long-term neonatal outcomes.

Herrera S, Pierrat V, Kaminski M, Benhammou V, Bonnet AL, Ancel PY, Germa A. **Factors associated with non-nutritive sucking habits at 2 years of age among very preterm children: EPIPAGE-2 cohort study.** *Paediatric and Perinatal Epidemiology.* 2021, 35(2):217-226. DOI 10.1111/ppe.12725

The study was based on data from EPIPAGE-2, a French national prospective cohort study of preterm births during 2011 that included 2593 children born between 24 & 31 weeks' gestation. The frequency of non-nutritive sucking habits (NNSHs) at 2 years was 69% in the overall sample, but higher among girls (adjusted risk ratio [RR] 1.12, 95% confidence interval [CI] 1.05, 1.17), children born from multiple pregnancies (RR 1.07, 95% CI 1.00, 1.11), children who were fed by nasogastric tube (RR 1.07, 95% CI 1.01, 1.13), or those who benefitted from developmental care programs (RR 1.10, 95% CI 1.02, 1.19). The NNSHs frequency was lower if mothers were not born in France (RR 0.70, 95% CI 0.64, 0.77), children had 2 or more

older siblings (RR 0.88, 95% CI 0.82, 0.96), or children were breast-fed at discharge (RR 0.90, 95% CI 0.85, 0.95). NNSHs at 2 years seemed associated with cultural background, development care programs, and breast feeding. Whether NNSHs at 2 years among very preterm children are associated with future maxillofacial growth anomalies deserves further attention.

Litmanovitz I, Silberstein D, Butler S, Vittner D. **Care of hospitalized infants and their families during the COVID-19 pandemic: an international survey.** *Journal of Perinatology.* 2021, 41(5): 981-987. DOI:10.1038/s41372-021-00960-8

This research explored changes in family-centered care practices for hospitalized infants and families due to the COVID-19 pandemic. This exploratory descriptive study used a 49-item online survey, distributed to health care professionals working with hospitalized infants and families. The sample consisted of 96 participants from 22 countries. Prior to the COVID-19 pandemic, 87% of units welcomed families and 92% encouraged skin-to-skin care. During the pandemic, family presence was restricted in 83% of units, while participation in infant care was restricted in 32%. Medium-sized (20–40 beds) units applied less restriction than small (<20 beds) units ($p = 0.03$). Units with single-family rooms that did not restrict parental presence, implemented fewer restrictions regarding parents' active participation in care ($p = 0.02$). Restrictions to families were not affected by geographic infection rates or developmental care education of health care professionals. Restrictions during the pandemic increased separation between the infant and family.

Levesque V, Johnson K, McKenzie Amy, Nykipilo A, Taylor B, Joynt C. **Implementing a skin-to-skin care and parent touch initiative in a tertiary cardiac and surgical Neonatal Intensive Care Unit.** *Advances in Neonatal Care.* 2021, 21(2):E24-E34. DOI 10.1097/ANC.0000000000000770

The purpose of this quality improvement project was to increase Skin-to-Skin Care (SSC), parental holds, and parent touch events for infants in our cardiac and surgical neonatal intensive care unit. When traditional SSC was not possible, alternative holds and alternative parent touch (APT) methods were encouraged. Implementation included educational tools and resource development, simulations, peer champions, in-class teaching, and team huddles. Decisions around the type of hold and parent touch were fluid and reflected complex infant, family, staff, and physical space needs. Given its initial scarcity, there was an increased frequency of SSC and variety of holds or APT events. Skin-to-skin care, holds, and APT practices are feasible and safe for term and preterm infants receiving highly instrumented and complex cardiac and surgical care. Future research regarding the intervention's impact on neurodevelopmental outcomes of infants and on parent resilience in the surgical and cardiac neonatal intensive care unit is warranted.

Menke B, Hass J, Diener C, Pöschl J. **Family-centered music therapy—Empowering premature infants and their primary caregivers through music: Results of a pilot study.** *PLoS ONE*. 2021, 16(5): e0250071. DOI:10.1371/journal.pone.0250071

The aim of this pilot RCT was to determine the influence of interactive live-improvised music therapy interventions on both the physiological development of premature infants and stress factors in both mothers and fathers. A total of 50 parent-infant pairs were analyzed for their physiological development at discharge. 47 mothers and 30 fathers completed the questionnaires on parental stress factors. The results suggest that a live-improvised interactive music therapy intervention for preterm infants and their parents has a beneficial effect on the therapy duration before discharge from hospital. Group comparisons showed a significant reduction in the duration of caffeine therapy, the duration of nasogastric/orogastric tube feeding, and the length of hospitalization in the group of infants receiving music therapy. The results show fathers experience the same level of stress as mothers of premature infants. Interestingly, the anxiety levels reported by fathers are lower compared to those reported by mothers. The results suggest that music therapy interventions may directly empower the parents by reducing their stress levels, promoting relaxation and enhancing their well-being. At time of discharge from the hospital, mothers of the treatment group showed a statistically significant reduction in stress, anxiety and postpartum depression. At the same time, they showed an increase in their maternal competencies. Fathers of the treatment group also showed a statistically significant reduction in stress and state anxiety. Several limitations were identified.

Vitale FM, Chirico G, Lentini C. **Sensory stimulation in the NICU environment: Devices, systems, and procedures to protect and stimulate premature babies.** *Children*. 2021, 8(5): 334. DOI:10.3390/children8050334

The purpose of this review was to investigate the effects of NICU noise pollution on preterm infants and parents. The authors focused on the systems and projects used to control and modulate sounds, as well as on those special devices and innovative systems used to deliver maternal sounds and vibrations to this population. The results showed beneficial effects on the preterm infants in different areas such as physiological, autonomic, and neurobehavioral development. Although most of these studies highlight positive reactions, there is also a general acknowledgment of the current limitation: small and heterogeneous groups, lack of structured variable measurements, systematic control groups, longitudinal studies, and normative values. The mother's presence is always preferred, but the use of music therapy and the devices analyzed, aim to soften her absence (not replace her presence), through familiar and protective stimuli, which was a very powerful aid during the COVID-19 pandemic.

Kato Y, Takemoto A, Oumi C, Hisaichi T, Shimaji Y, Takaoka M, Moriyama H, Hirata K, Wada K. **Effects of skin-to-skin care on electrical activity of the diaphragm in preterm infants during neurally adjusted ventilatory assist.** *Early Human Development*, 2021, 157, <https://doi.org/10.1016/j.earlhumdev.2021.105379>

This study aimed to evaluate the effect of Skin to Skin Care (SSC) on electrical activity of the diaphragm (Edi) and vital signs in premature infants who are intubated and under neurally adjusted ventilatory assist ventilation. This was an observational cross-over study. Data were measured in three periods: before (pre-SSC period), during (SSC period), and after (post-SSC period) SSC. Stable 30-min data in each period were extracted. Thirty-four SSC procedures were performed in 14 preterm infants with a median gestational age of 25.3 weeks (interquartile range, 24, 26.4) and a birth weight of 659 g (566, 694). The median postnatal age was 41 days (31, 53) at the study with a median postmenstrual age of 31.3 weeks (30.4, 32.5). Median values of Edi peak, Edi minimum, respiratory rate, SpO₂, and heart rate were measured in each condition. The Kruskal–Wallis test with Bonferroni multiple comparisons was used to compare each parameter in each period. Median Edi peak and Edi minimum values were significantly lower during SSC compared with pre- and post-SSC, without any change in respiratory rate, SpO₂, or heart rate. The conclusion was that respiratory efforts as evaluated by Edi are significantly reduced during SSC in ventilated preterm infants.

Castro Dias C, Costa R, Miguel Pinto T, Figueiredo B. **The Infant Behavior Questionnaire – Revised: psychometric properties at 2 weeks, 3, 6 and 12 months of life.** *Early Human Development*, 2021, 153. <https://doi.org/10.1016/j.earlhumdev.2020.105290>

Temperament characteristics are key elements for infants' development. The Infant Behavior Questionnaire – Revised (IBQ-R) is one of the most used measures to assess temperament in infants aged between 3 and 12 months. Its reliability and factor structure have not yet been examined in infants younger than 3 months. The aim was to analyze the reliability of the IBQ-R at 2 weeks and the IBQ-R factor structure from 2 weeks to 12 months of life. A longitudinal repeated measures design was used. Three hundred mothers completed the IBQ-R when their infants were 2 weeks, and 3, 6 and 12 months. At 2 weeks the proportion of “non-applicable” responses was higher in duration of orienting, high intensity pleasure, approach and smiling and laughter scales. The Cronbach's alpha for the IBQ-R dimensions ranged between 0.62 and 0.63 and the McDonald's omega ranged between 0.67 and 0.80, all dimensions exhibited a mean-scale correlation above 0.15, and more than half of the scales revealed a scale-dimension correlation higher than 0.30. The same factor structure was found at 2 weeks, and at 3, 6, and 12 months. The IBQ-R may be applied in the first weeks of life and its factor structure remains stable when applied across different ages throughout infancy.