

## REFERENCES

- Abu-Saad, H. H., Bours, G. J., Stevens, B., & Hamers, J. P. (1998). Assessment of pain in the neonate. *Seminars in Perinatology*, 22(5), 402-416.
- Ambuel, B., Hamlett, K. W., Marx, C. M., & Blumer, J. L. (1992). Assessing distress in pediatric intensive care environments: the COMFORT scale. *Journal of Pediatric Psychology*, 17, 95-109.
- American Academy of Pediatrics and Canadian Paediatric Society. (2000). Prevention and management of pain and stress in the neonate. *Pediatrics*, 105(2), 454-461.
- Anand, K. S. & Craig, K. D. (1996). New perspectives on the definition of pain. *Pain*, 67, 3-6.
- Anand, K. S. & Scalzo, F. M. (2000). Can adverse neonatal experiences alter brain development and subsequent behavior?. *Biological Neonate*, 77, 69-82.
- Anand, K. S. (1998). Clinical importance of pain and stress in preterm neonates. *Biological Neonate*, 73, 1-9.
- Anand, K. S. (2001). Consensus statement for the prevention and management of pain in the newborn. *Archives of Pediatrics and Adolescent Medicine*, 155(2), 173-180.
- Anand, K. S. (2004). "Expert Report of Kanwaljeet S. Anand." Retrieved from <http://www.nrlc.org/uploads/fetalpain/AnandPainReport.pdf>
- Anand, K. S. (2007). Pain assessment in preterm neonates. *Pediatrics*, 119(3), 605-607. doi: 10.1542/peds.2006-2723
- Anand, K. S. (2008). From the Gate-Control Theory to brain programs for neonatal pain. In G. Buonocore & C.V. Bellieni (Eds.). *Neonatal pain: suffering, pain, and risk of brain damage in the fetus and newborn* (pp.141-147). Italy: Springer-Verlag Italia.

- Anand, K. S., Aranda, J. V., Berde, C. B., Buckman, S., Capparelli, E. V., Carlo, W., ... Walco, G. A. (2006). Summary proceedings from the neonatal pain-control group. *Pediatrics*, *117*(3), s9-22. doi: 10.1542/peds.2005-0620C
- Anand, K. S., Bartocci, M., & Lagercrantz, H. (2006). Cortical pain response in the infant brain: response to Slater et al.'s letter to the editor. *Pain*, *123*, 332-333.
- Andrews, K. & Fitzgerald, M. (1999). Cutaneous flexion reflex in human neonates: a quantitative study of threshold and stimulus-response characteristics after single and repeated stimuli. *Developmental Medicine & Child Neurology*, *41*(10), 696-703.
- Badr, L. K. (2013) Pain interventions in premature infants: what is conclusive evidence and what is not. *Newborn & Infant Nursing Reviews*, *13*, 82–86.
- Badr, L. K., Abdallah, B., Hawari, M., Sidani, S., Kassar, M., Nakad, P., & Breidi, J. (2010). Determinants of premature infant pain responses to heel sticks. *Pediatric Nursing*, *36*(3), 129-136.
- Barker, D. P. & Rutter, N. (1995). Exposure to invasive procedures in neonatal intensive care unit admissions. *Archives of Disease in Childhood*, *72*, F47-F48.
- Bartocci, M., Anand, K. S. & Lagercrantz, H. (2006). Responses to David Bowsher's comment: the hump from cerebral neurovascular events to the subjective feeling of pain in neonates. *Letter to Editor/ Pain*, *26*, 320-321.
- Bartocci, M., Bergqvist, L. L., Lagercrantz, H., & Anand, K. S., (2006). Pain activates cortical areas in the preterm newborn brain. *Pain*, *22*, 109-117.
- Beck, S., Wojdyla, D., Say, L., Betran, A. P., Merialdi, M., Requejo, J. H.,... Van Look, P. F. (2010). The worldwide incidence of preterm birth: a systematic review of maternal mortality and morbidity. *Bulletin of the World Health Organization*, *88*(1), 31-38. doi: 10.2471/blt.08.062554
- Behrman, R. E. & Butler, A. S. (Eds.) (2007). Preterm birth: causes, consequences, and prevention. Washington, DC: The National Academy Press.

- Belliemi, C. V. & Buonocore, G. (2008). Pain assessment and spectral analysis of neonatal crying. In G. Buonocore & C.V. Bellieni (Eds.). *Neonatal pain: suffering, pain, and risk of brain damage in the fetus and newborn* (pp.67-71). Italy: Springer-Verlag Italia.
- Belliemi, C. V., Cordelli, D. M., Caliani, C., Palazzi, C., Franci, N., Perrone, S.,... Buonocore, G. (2007). Inter-observer reliability of two pain scales for newborns. *Early Human Development*, 83(8), 549-552. doi: 10.1016/j.earlhumdev. 2006. 10.006
- Blauer, T. & Gerstmann, D. (1998). A simultaneous comparison of three neonatal pain scale NICU procedures. *Clinical Journal of Pain*, 14(1), 39-47.
- Blencowe, H. & Cousens, S. (2013). Addressing the challenge of neonatal mortality. *Tropical Medicine & International Health*, 18(3), 303-312. doi: 10.1111/tmi. 12048
- Bonan, K. C., Pimentel Filho Jda, C., Tristão, R. M., Jesus, J. A., & Campos Junior, D. (2015). Sleep deprivation, pain and prematurity: a review study. *Arquivos de neuro-psiquiatria*, 73(2), 147-54. doi: 10.1590/0004-282X20140214.
- Bouza, H. (2009). The impact of pain in the immature brain. *The Journal of Maternal-Fetal and Neonatal Medicine*, 22(9), 722-732. doi: 10.3109/14767050902926962
- Bozzette, M. (1993). Observation of pain behavior in the NICU: an exploratory study. *Journal of Perinatal and Neonatal Nursing*, 7(1), 76-87.
- Skoruppa, S. A. & Lemons, P. K. (1989). The premature infant: toward improving neuro-developmental outcome. *Neonatal Network*, 7(6), 7-15.
- Brummelte, S., Grunau, R. E., Chau, V., Poskitt, K. J., Brant, R., Vinall, J.,... Miller, S. P. (2012). Procedural pain and brain development in premature newborns. *Annals of Neurology*, 71(3), 385-396. doi: 10.1002/ana.22267
- Bruton, A., Conway, J. H., & Holgate, S. T. (2000). Reliability: What is it and how is it measured? *Physiotherapy* 86, 94-99. doi: 10.1016/S0031-9406(05)61211-4.
- Burns, N. & Grove, S. (2005). *The practice of nursing research: conduct, critique, & utilization* (5<sup>th</sup> ed). St. Louis: Elsevier/Saunders.

- Burns, N. & Grove, S. (2009). *The practice of nursing research: conduct, critique, & utilization* (6<sup>th</sup> ed). St. Louis: Elsevier/Saunders.
- Byrd, P., Gonzales, I. & Parsons, V. (2009). Exploring barriers to pain management in newborn intensive care units: A pilot survey of nicu nurses. *Advances in Neonatal Care*, 9(6), 299-306. doi: 10.1097.ANC.06013e3181c1ff9c
- Carbajal, R., Rousset, A., Danan, C., Coquery, S., Nolent, P., Ducrocq, S.,... Breart, G. (2008). Epidemiology and treatment of painful procedures in neonates in intensive care units. *Journal of American Medical Association*, 300(1), 60-70. doi: 10.1001/jama.300.1.60
- Carbajal, R., Veerapen, S., Couderc, S., Jugie, M., & Ville, Y. (2003). Analgesic effect of breast feeding in term neonates randomised controlled trial. *BMJ*, 326, 13. doi: 10.1136/ bmj.326.7379.13
- Carmines, E. G. & Zeller, R. A. (1979). Reliability and validity assessment. California: SAGE publications.
- Chambers, C. T. & Mogil, J. S. (2015). Ontogeny and phylogeny of facial expression of pain. *Pain*, 156(5), 798-9.
- Chawanpaiboon, S. & Kanokpongsakdi, S. (2011). Preterm Birth at Siriraj Hospital: A 9-Year Period Review (2002-2010). *Siriraj Medical Journal*, 63, 143-146.
- Chen, K.-H., Chang, S., Hsiao, T.-C., Chen, Y.-C., Lin, C.-W. (2005). A neonatal facial image scoring system (NFISS) for pain response studies. *Biomedical Engineering Application, Basis & Communications*, 17, 19–26.
- Chen, M., Shi, X., Chen, Y., Cao, Z., Cheng, R., Xu, Y.,... Li, X. (2012). A prospective study of pain experience in a neonatal intensive care unit of China. *Clinical Journal of Pain*, 28(8), 700-704. doi: 10.1097/AJP.0b013e3182400d54
- Chimello, J. T., Gaspardo, C. M., Cugler, T. S., Martinez, F. E., & Linhares, M. B. (2009). Pain reactivity and recovery in preterm neonates: latency, magnitude, and duration of behavioral responses. *Early Human Development*, 85(5), 313-318. doi: 10.1016/j.earlhumdev.2008.12.005

- Chinn, S. (1991). Repeatability and method comparison. *Thorax*, 46, 454-456.
- Cignacco, E., Hamers, J., van Lingen, R. A., Stoffel, L., Buchi, S., Muller, R.,... Nelle, M. (2009). Neonatal procedural pain exposure and pain management in ventilated preterm infants during the first 14 days of life. *Swiss Medical Weekly*, 139(15-16), 226-232. doi: smw-12545
- Cignacco, E., Mueller, R., Hamers, J. P., & Gessler, P. (2004). Pain assessment in the neonate using the Bernese Pain Scale for Neonates. *Early Human Development*, 78(2), 125-131. doi: 10.1016/j.earlhumdev.2004.04.001
- Cornelissen, L., Fabrizi, L., Patten, D., Worley, A., Meek, J., Boyd, S.,... Fitzgerald, M. (2013). Postnatal temporal, spatial and modality tuning of nociceptive cutaneous flexion reflexes in human infants. *PloS ONE* 8, e76470.
- Craig, K. D., Korol, C. T., & Pillai, R. R. (2002). Challenges of judging pain in vulnerable infants. *Clinics in Perinatology*, 29, 445-457.
- Craig, K. D., Whitfield, M. F., Grunau, R. V., Linton, J., & Hadjistavropoulos, H. D. (1993). Pain in the preterm neonate: behavioural and physiological indices. *Pain*, 52(3), 287-299.
- Cruz, M. D., Fernandes, A. M., & Oliveira, C. R. (2015). Epidemiology of painful procedures performed in neonates: A systematic review of observational studies. *European Journal of Pain*, 20(4), 489-98. doi: 10.1002/ejp.757.
- De Melo, G. M., Lélis, A. L. P. de A., de Moura, A. F., Cardoso, M. V. L. M. L., & da Silva, V. M. (2014). Pain assessment scales in newborns: integrative review. *Revista Paulista de Pediatria*, 32(4), 395-402.
- DeVellis, R. F. (1991). *Scale development: theory and applications*. London: SAGE Publications.
- DeVellis, R. F. (2003). *Scale development: theory and applications* (2<sup>nd</sup> ed. Vol. 26). Thousand Oaks, CA: SAGE Publications.

- DeVellis, R. F. (2012). *Scale development: theory and applications* (3<sup>rd</sup> ed.). Thousand Oaks, CA: SAGE Publications.
- Dijk, M. van, Roofthoof, D. W., Anand, K. J., Guldmond, F., de Graaf, J., Simons, S., ... Tibboel, D. (2009). Taking up the challenge of measuring prolonged pain in (premature) neonates. *Clinical Journal of Pain*, 25(7), 607–616. doi: 10.1097/AJP.0b013e3181a5b52a
- Donia, A. E. & Tolba, O. A. (2016). Effect of early procedural pain experience on subsequent pain reponses among premature infants. *Egyptian Pediatric Association Gazette*, 64, 74-80.
- Eiland, L. (2012). Pain and stress: potential impact on the developing brain. In J. M. Perlman (Ed.). *Neonatology: neurology questions and controversies* (2<sup>nd</sup> ed, pp. 219-236). Philadelphia: Elseveier Saunders.
- Evans, J. C. (2001). Physiology of acute pain in preterm infants. *Newborn and Infant Nursing Reviews*, 1(2), 75-84. doi:10.1053/nbin.2001.25302
- Evans, J. C., McCartney, E. M., Lawhon, G., & Galloway, J. (2005). Longitudinal comparison of preterm pain responses to repeated heel sticks. *Pediatric Nursing*, 31(3), 216-221.
- Fabrizi, L., Slater, R., Worley, A., Meek, J., Boyd, S., Olhede, S., & Fitzgerald, M. (2011). A shift in sensory processing that enables the developing human brain to discriminate touch from pain. *Current Biology*, 21(18), 1552-1558. doi: 10.1016/j.cub.2011.08.010
- Fitzgerald, M. & Beggs, S. (2001). The neurobiology of pain: developmental aspects. *Neuroscientist*, 7(3), 246-257.
- Fitzgerald, M. & Jennings, E. (1999). The postnatal development of spinal sensory processing. *Proceedings of the National Academy of Sciences of the United States of America*, 96(14), 7719-7722. doi:10.1073/pnas.96.14.7719.
- Fitzgerald, M. & Walker, S. M. (2009). Infant pain management: a developmental neurobiological approach. *Nature Clinical Practice*, 5(1), 35-50.

- Fitzgerald, M. (1991). Development of pain mechanisms. *British Medical Bulletin*, 47(3), 667-675.
- Fitzgerald, M. (1993). Development of pain pathways and mechanisms. In K. S. Anand & P. J. McGrath (Eds.), *Pain in neonates: pain research and clinical management* (pp.19-37). Amsterdam: Elsevier Science.
- Fitzgerald, M. (2005). The development of nociceptive circuits. *Nature Review*, 6, 507-520.
- Fitzgerald, M. (2015). What do we really know about newborn infant pain?. *Experimental Physiology*, 100(2), 1451-1457.
- Fitzgerald, M., Millard, C., & MacIntosh, N. (1989). Cutaneous hypersensitivity following peripheral tissue damage in newborn infants and its reversal with topical anaesthesia. *Pain*, 39, 31–36.
- Foreman, S. W., Thomas, K. A., & Blackburn, S. T. (2008). Preterm infant state development. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 37(6), 657-665.
- Francis, K. (2012). *Development of a New Pain Assessment Instrument: Pain Assessment and Care for the Extremely Low Gestational Age Infant Focused Instrument (PACEFI)* (Doctoral dissertation). Boston College, USA. Retrieved from <http://hdl.handle.net/2345/3898>
- Franck, L. S. & Miaskowski, C. (1997). Measurement of neonatal responses to painful stimuli: a research review. *Journal of Pain and Symptom Management*, 14(6), 343-378.
- Gibbins, S. & Stevens, B. J. (2001). State of the art: Pain assessment and management in high-risk infants. *Newborn and Infant Nursing Reviews*, 1(2), 85–96. doi: 10.1053/nbin.2001.24558
- Gibbins, S., Stevens, B. J., Beyene, J., Chan, P. C., Bagg, M., & Asztalos, E. (2008). Pain behaviours in Extremely Low Gestational Age infants. *Early Human Development*, 84(7), 451-458. doi: 10.1016/j.earlhumdev.2007.12.007

- Gibbins, S., Stevens, B. J., McGrath, P. J., Yamada, J., Beyene, J., Breau, L.,... Ohlsson, A. (2008). Comparison of pain responses in infants of different gestational ages. *Neonatology*, *93*(1), 10-18. doi: 10.1159/000105520
- Gibbins, S., Stevens, B. J., Yamada, J., Dionne, K., Campbell-Yeo, M., Lee, G.,... Taddio, A. (2014). Validation of the Premature Infant Pain Profile-Revised (PIPP-R). *Early Human Development*, *90*(4), 189-193. doi: 10.1016/j.earlhumdev. 2014. 01.005
- Glass, H. C., Costarino, A. T., Stayer, S. A., Brett, C. M., Cladis, F., & Davis, P. J. (2015). Outcomes for extremely premature infants. *Anesthesia and Analgesia*, *120*(6), 1337-1351. doi: 10.1213/ANE.0000000000000705.
- Grunau, R. E. & Craig, K. D. (1987). Pain expression in neonates: facial action and cry. *Pain*, *28*(3), 395-410. doi: 10.1016/0304-3959(87)90073-X
- Grunau, R. E. (2013). Neonatal pain in very preterm infants: long-term effects on brain, neurodevelopment and pain reactivity. *Rambam Maimonides Medical Journal*, *4*(4), e0025. doi: 10.5041/rmmj.10132
- Grunau, R. E., Holsti, L., & Peters, J. W. (2006). Long-term consequences of pain in human neonates. *Seminars in Fetal & Neonatal Medicine*, *11*(4), 268-275. doi: 10.1016/j.siny. 2006.02.007
- Grunau, R. E., Holsti, L., Haley, D. W., Oberlander, T. F., Weinberg, J., Solimano, A.,... Yu, W. (2005). Neonatal procedural pain exposure predicts lower cortisol and behavioral reactivity in preterm infants in the NICU. *Pain*, *113*, 293-300. doi: 10.1016/j.pain. 2004.10.020
- Grunau, R. E., Oberlander, T. F., Holsti, L., & Whitfield, M. F. (1998). Bedside application of the Neonatal Facial Coding System in pain assessment of premature infants. *Pain*, *76*(3), 277-286. doi: 10.1016/S0304-3959(98)00046-3
- Grunau, R. E., Oberlander, T. F., Whitfield, M. F., Fitzgerald, C., & Lee, S. K. (2001). Demographic and therapeutic determinants of pain reactivity in very low birth weight neonates at 32 Weeks' postconceptional age. *Pediatrics*, *107*(1), 105-112.



- Hall, R. W. & Anand, K. S. (2005). Physiology of pain and stress in the newborn. *NeoReviews*, 6(2), e61-e68.
- Hand, I. L., Noble, L., Geiss, D., Wozniak, L., & Hall, C. (2010). COVERS Neonatal Pain Scale: Development and Validation. *International Journal of Pediatrics*. doi: 10.1155/2010/496719
- Harrison, L., L., Roane, C., & Weaver, M. (2004). The relationship between physiological and behavioral measures of stress in preterm infants. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 33(2), 236-245.
- Hatfield, L. A., Meyers, M. A., & Messing, T. M. (2013). A systematic review of the effects of repeated painful procedures in infants: Is there a potential to mitigate future pain responsivity?. *Journal of Nursing Education and Practice*, 3(8), 99-112. doi: 10.5430/jnep.v3n8p99
- Holditch-Davis, D. & Blackburn, S. T. (2014). Chapter 30 Neurobehavioral development. In C. Kenner & J. W. Lott (Eds.). *Comprehensive neonatal nursing care* (5<sup>th</sup> ed, pp.689-721). N. Y.: Springer publishing company.
- Holsti, L. & Grunau, R. E. (2007). Initial validation of the Behavioral Indicators of Infant Pain (BIIP). *Pain*, 132(3), 264-272. doi: <http://dx.doi.org/10.1016/j.pain.2007.01.033>
- Holsti, L., Grunau, R. E., Oberlander, T. F., & Osiovich, H. (2008). Is it painful or not? Discriminant validity of the Behavioral Indicators of Infant Pain (BIIP) scale. *Clinical Journal of pain*, 24(1), 83-88.
- Holsti, L., Grunau, R. E., Oberlander, T. F., Whitfield, M. F., & Weinberg, J. (2005). Body movements: an important additional factor in discriminating pain from stress in preterm infants. *Clinical Journal of Pain*, 21(6), 491-498.
- Houser, J. (2008). *Nursing research : reading, using, and creating evidence*. Sudbury, Massachusetts : Jones and Bartlett
- Hudson-Barr, D., Capper-Michel, B., Lambert, S., Palermo, T. M., Morbeto, K., & Lombardo, S. (2002). Validation of the Pain Assessment in Neonates (PAIN) scale with the Neonatal

Infant Pain Scale (NIPS). *Neonatal Network*, 21(6), 15-21. doi: 10.1891/0730-0832.21.6.15

- Jacobson, S. F. (1997). Chapter 1 Evaluating instruments for use in clinical nursing research. In M. Frank-Stromborg & S. J. Olsen (Eds). *Instruments for clinical health-care research* (pp.3-19). London: Jones and Bartlett Publishers, Inc.
- Johnston, C. C. & Stevens, B. J. (1996). Experience in a neonatal intensive care unit affects pain response. *Pediatrics*, 98, 925-930.
- Johnston, C. C., Fernandes, A. M., & Campbell-Yeo, M. (2011). Pain in neonates is different. *Pain*, 152, S65-73.
- Johnston, C. C., Stevens, B. J., Franck, L. S., Jack, A., Stremmler, R., & Platt, R. (1999). Factors explaining lack of response to heel stick in preterm newborns. *Journal of Obstetric, Gynecology, & Neonatal Nursing*, 28(6), 587-594.
- Johnston, C. C., Stevens, B. J., Yang, F., & Horton, L. (1995). Differential response to pain by very premature neonates. *Pain*, 61(3), 471-479.
- Jorgensen, K. M. (1999). Pain assessment and management in the newborn infant. *Journal of Perianesthesia Nursing*, 14(6), 349-356.
- Julius, D. (2001). Molecular mechanisms of nociception. *Nature*, 413, 203–210.
- Koch, S. C. & Fitzgerald, M. (2013). Activity-dependent development of tactile and nociceptive spinal cord circuits. *Annals of the New York Academy of Sciences*, 1279, 97-102. doi: 10.1111/nyas.12033.
- Korvenranta, E., Linna, M., Häkkinen, U., Peltola, M., Andersson, S., Gissler, M.,... Group, P. (2007). Differences in the length of initial hospital stay in very preterm infants. *Acta Paediatrica*, 96(10), 1416-1420. doi: 10.1111/j.1651-2227.2007.00471.x
- Krechel, S. W. & Bildner, J. (1995). CRIES: a new neonatal postoperative pain measurement score. Initial testing of validity and reliability. *Paediatric Anaesthesia*, 5(1), 53-61.

- Kyser, K. L., Morriss, F. H., Bell, E. F., Klein, J. M., & Dagle, J. M. (2012). Improving survival of extremely preterm infants born between 22 and 25 weeks of gestation. *Obstetrics & Gynecology*, 119(4), 795–800. doi: 10.1097/AOG.0b013e31824b1a03
- Law, M. & Letts, L. (1989). A critical review of scales of activities of daily living. *The American Journal of Occupational Therapy*, 43, 522– 528.
- Lawrence, J., Alcock, D., McGrath, P., Kay, J., MacMurray, S. B., & Dulberg, C. (1993). The development of a tool to assess neonatal pain. *Neonatal Network*, 12(6), 59-66.
- Liaw, J. J., Yang, L., Chou, H. L., Yin, T., Chao, S. C., & Lee, T. Y. (2012). Psychometric analysis of a Taiwan-version pain assessment scale for preterm infants. *Journal of Clinical Nursing*, 21(1-2), 89-100. doi: 10.1111/j.1365-2702.2011.03770.x
- Linderkamp, O., Janus, L., Linder, R., Skoruppa, D. B. (2009). Time table of normal foetal brain development. *International Journal Prenatal and Perinatal Psychology and Medicine*, 21(1/2), 4-16.
- Lucas-Thompson, R., Townsend, E. L., Gunnar, M. R., Georgieff, M. K., Guiang, S. F., Ciffuentes, R. F.,... Davis, E. P. (2008). Developmental changes in the responses of preterm infants to a painful stressor. *Infant Behavior and Development*, 31(4), 614-623. doi: 10.1016/j.infbeh.2008.07.004
- Lundeberg, S. & Lundeberg, T. (2013). Pain in infants and children—Physiological background and clinical aspects. *Acupuncture and Related Therapies*, 1(4), 46-49. doi: <http://dx.doi.org/10.1016/j.arthe.2013.05.002>
- Marko, T. & Dickerson, M. L. (2017). *Clinical handbook of neonatal pain management for nurses*. New York, NY: Springer Publishing Company.
- Marx, C. M., Smith, P. G., Lowrie, L. H., Hamlett, K. W., Ambuel, B., Yamashita, T. S., & Blumer, J. L. (1994). Optimal sedation of mechanically ventilated pediatric critical care patients. *Critical Care Medicine*, 22(1), 163-170.

- Martakis, K., Hünseler, C., Thangavelu, K., Kribs, A., & Roth, B. (2016). Pain-related reactions among premature infants with gestational age less than 26 weeks: an observational cohort study. *Neonatology*, *110*(4), 261–266.
- McCourt, M. F. (2014). Chapter 29 The late preterm infant. In C. Kenner & J. W. Lott (Eds.), *Comprehensive neonatal nursing care* (5<sup>th</sup> ed) (pp.679-688). N. Y.: Springer publishing company.
- McGrath, P. J. (1998). Behavioral measures of pain. In G. A. Finley & P. J. McGrath (Eds.), *Measurement of Pain in Infants and Children, Progress in Pain Research and Management* (pp. 83-102). Seattle: IASP Press.
- McGrath, P. J., Johnson, G., Goodman, J. T., Schillinger, J., Dunn, J., & Chapman, J. A. (1985). CHEOPS: A behavioral scale for rating postoperative pain in children. In H. L. Fields, R. Dubner, & F. Cervero (Eds.), *Advances in Pain Research and Therapy* Vol. 9. (pp. 395-402). New York, Raven Press.
- McIntosh, N., van Veen, L., & Brameyer, H. (1994). Alleviation of the pain of heel prick in preterm infants. *Archives of Disease Childhood & Fetal-Neonatal Edition*, *70*(3), F177–F181.
- Medlock, S., Ravelli, A. C. J., Tamminga, P., Mol, B. W. M., & Abu-Hanna, A. (2011). Prediction of Mortality in Very Premature Infants: A Systematic Review of Prediction Models. *PLoS ONE* *6*(9), e23441. doi: 10.1371/journal.pone.00234
- Milesi, C., Cambonie, G., Jacquot, A., Barbotte, E., Mesnage, R., Masson, F.,.... Picaud, J. C. (2010). Validation of a neonatal pain scale adapted to the new practices in caring for preterm newborns. *Archives of Disease in Childhood, Fetal and Neonatal Edition*, *95*(4), F263-266. doi: 10.1136/adc.2008.144758
- Milesi, C., Cambonie, G., Jacquot, A., Barbotte, E., Mesnage, R., Masson, F.,.... Picaud, J. C. (2010). Validation of a neonatal pain scale adapted to the new practices in caring for preterm newborns. *Archives of Disease in Childhood, Fetal and Neonatal Edition*, *95*(4), F263-266. doi: 10.1136/adc.2008.144758

- Mishel, M. H. (1998). Methodological studies: instrument development. In P. J. Brink & M. J. Wood (Eds). *Advanced design in nursing research* (pp. 238–284). Newbury Park, CA: Sage Publications.
- Mitchell, A., Brooks, S., & Roane, D. (2000). The premature infant and painful procedures. *Pain Management Nursing, 1*(2), 58-65.
- Mooney-leber, S. M. & Brummelte, S. (2017). Neonatal pain and reduced maternal care: Early-life stressors interacting to impact brain and behavioral development. *Neuroscience, 342*, 21-36.
- Morison, S. J., Holsti Grunau, R. E., Oberlander, T. F., & Whitfield, M. F. (2001). Relations between behavioral and cardiac autonomic reactivity to acute pain in preterm neonates. *Clinical Journal of Pain, 17*(4), 350-358.
- Morison, S. J., Holsti, L., Grunau, R. E., Whitefield, M. F., Oberlander, T. F., Chan, H. W., & Williams, L. (2003). Are there developmentally distinct motor indicators of pain in preterm infants?. *Early Human Development, 72*, 131-146.
- Noia, G., Cesari, M. S., Ligato, D., Visconti, M., Tintoni, I., Mappa, C.,... Caruso, A. (2008). Pain in the fetus. In G. Buonocore & C.V. Bellieni (Eds.). *Neonatal pain: suffering, pain, and risk of brain damage in the fetus and newborn* (pp.45-55). Italy: Springer-Verlag Italia.
- Pattinson, D. & Fitzgerald, M. (2004). The neurobiology of infant pain: development of excitatory and inhibitory neurotransmission in the spinal dorsal horn. *Regional anesthesia and pain medicine, 29*(1), 36-44.
- Peters, J. W., Koot, H. M., Grunau, R. E., de Boer, J., van Druenen, M. J., Tibboel, D., & Duivenvoorden, H. J. (2003). Neonatal Facial Coding System for assessing postoperative pain in infants: item reduction is valid and feasible. *Clinical Journal of Pain, 19*, 353–363.
- Polit, D. F., Beck, C. T., & Owen, S. V. (2007). Is the CVI an acceptable indicator of content validity? Appraisal and recommendations. *Research in Nursing and Health, 30*, 459–467.

- Polit, F. D. & Beck, C. T. (2008). *Nursing research: generating and assessing evidence for nursing practice* (8<sup>th</sup> ed). Philadelphia: Lippincott.
- Polit, F. D. & Hungler, P. B. (1999) *Nursing research: principles and methods*. Philadelphia: Lippincott.
- Pölkki, T. Korhonen, A., Axelin, A., Saarela, T., Laukkala, H. (2014). Development and preliminary validation of the Neonatal Infant Acute Pain Assessment Scale (NIAPAS). *International Journal of Nursing Studies*, 51, 1585–1594.
- Pölkki, T., Korhonen, A., Laukkala, H., Saarela, T., Vehvilainen-Jukunen, K. & Peitila, A. M. (2010). Nurses' attitudes and perceptions of pain assessment in neonatal intensive care. *Scandinavian Journal of Caring Sciences*, 24, 49-55. doi: 10.1111/j.1471-6712.2008.00683.x
- Ponder, B. L. (2002). Effects of pain in the human neonate. *American Journal of Electro-neurodiagnostic Technology*, 42, 210-223.
- Raeside, L. (2011). Physiological measures of assessing infant pain: a literature review. *British Journal of Nursing*, 20(21), 1370-1376.
- Ramenghi, L. A., Wood, C. M., Griffith, G. C., & Levene, M. I. (1996). Reduction of pain response in premature infants using intraoral sucrose. *Archives of Disease in Childhood*, 74, F126–F128.
- Ranger, M. & Grunau, R. E. (2014). Early repetitive pain in preterm infants in relation to the developing brain. *Pain Management*, 4(1), 57-67.
- Reissland, N., Francis, B., & Mason J. (2013). Can healthy fetuses show facial expressions of "pain" or "distress"? *PLoS One*, 8(6), e65530. doi: 10.1371/journal.pone.0065530
- Richmond, J. P. & Wright, M. E. (2006). Development of a constipation risk assessment scale. *Journal of Orthopaedic Nursing*, 10, 186-197.
- Rohan, A. J. (2014). The utility of pain scores obtained during “regular reassessment process” in premature infants in the NICU. *Journal of Perinatology*, 34,532-537.

- Rushforth, J. A. & Levene, M. I. (1994). Behavioral response to pain in healthy neonates, *Archives of Disease in Childhood*, 70, F174–F176.
- Schiller, C. J. (1999). *Clinical utility of two neonatal pain assessment measures*. (Unpublished Master's Thesis). University of Toronto: Toronto.
- Schollen, J. (2005). Can cry in the newborn be used as an assessment of pain? *Acta Paediatrica*, 94(10), 1432-1436. doi: 10.1111/j.1651-2227.2005.tb01803.x
- Sellam, G., Cignacco, E. L., Craig, K. D., & Engberg, S. (2011). Contextual factors influencing pain response to heelstick procedures in preterm infants: what do we know? A systematic review. *European Journal of Pain*, 15(7), 661.e661-615. doi: 10.1016/j.ejpain.2011.01.002
- Sellam, G., Engberg, S., Denhaerynck, K., Craig, K. D., & Cignacco, E. L. (2013). Contextual factors associated with pain response of preterm infants to heel-stick procedures. *European Journal of Pain*, 17(2), 255-263. doi: 10.1002/j.1532-2149.2012.00182.x
- Simons, S. H. & Tibboel, D. (2006). Pain perception development and maturation. *Seminars in Fetal & Neonatal Medicine*, 11(4), 227-231. doi: 10.1016/j.siny.2006.02.010
- Slater, R., Boyd, S., Meek, J., Fitzgerald, M. (2006). Cortical pain responses in the infant brain. *Pain*, 123, 332.
- Slater, R., Cantarella, A., Franck, L., Meek, J., & Fitzgerald, M. (2008). How well do clinical pain assessment tools reflect pain in infants? *PLoS Med*, 5(6), e129. doi: 10.1371/journal.pmed.0050129
- Slater, R., Cantarella, A., Gallella, S., Worley, A., Boyd, S., Meek, J.,... Fitzgerald, M. (2006). Cortical pain responses in human infant. *The Journal of Neuroscience*, 26(14), 3662-3666.
- Slater, R., Cantarella, A., Yoxen, J., Patten, D., Potts, H., Meek, J., & Fitzgerald, M. (2009). Latency to facial expression change following noxious stimulation in infants is dependent on postmenstrual age. *Pain*, 146(1-2), 177-182. doi: 10.1016/j.pain.2009.07.022

- Slater, R., Fitzgerald, M., & Meek, J. (2007). Can cortical responses following noxious stimulation inform us about pain processing in neonates? *Seminars in Perinatology*, *31*, 298-302. doi: 10.1053/j.semperi.2007.07.001
- Smart, A. (2006). A multi-dimensional model of clinical utility. *International Journal for Quality in Health Care*, *18*(5), 377-382. doi: 10.1093/intqhc/mzl034
- Sparshott, M. (1997). *Pain, distress and the newborn baby*. MA: Wiley-Blackwell.
- Stevens, B. J. & Gibbins, S. (2002). Clinical utility and clinical significance in the assessment and management of pain in vulnerable infants. *Clinics in Perinatology*, *29*, 459-468.
- Stevens, B. J. (1998). Composite measures of pain. *Measurement of pain in Infants and Children, Progress in Pain Research and Management*, *10*, 161-178.
- Stevens, B. J., Gibbins, S., Yamada, J., Dionne, K., Lee, G., Johnston, C., & Taddio, A. (2014). The Premature Infant Pain Profile-Revised (PIPP-R): Initial Validation and Feasibility. *Clinical Journal of Pain*, *30*(3), 238-243. doi: 10.1097/AJP.0b013e3182906aed
- Stevens, B. J., Johnston, C. C., & Grunau, R. V. E. (1995). Issues of Assessment of Pain and Discomfort in Neonates. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *24*(9), 849-855. doi: 10.1111/j.1552-6909.1995.tb02570.x
- Stevens, B. J., Johnston, C. C., & Horton, L. (1994). Factors that influence the behavioral pain responses of premature infants. *Pain*, *59*(1), 101-109.
- Stevens, B. J., Johnston, C. C., Franck, L., Petryshen, P., Jack, A., & Foster, G. (1999). The efficacy of developmentally sensitive interventions and sucrose for relieving procedural pain in very low birth weight neonates. *Nursing Research*, *48*(1), 35-43.
- Stevens, B. J., Johnston, C. C., Petryshen, P., & Taddio, A. (1996). Premature Infant Pain Profile: development and initial validation. *Clinical Journal of Pain*, *12*(1), 13-22.
- Stevens, B. J., Johnston, C. C., Taddio, A., Gibbins, S., & Yamada, J. (2010). The premature infant pain profile: evaluation 13 years after development. *Clinical Journal of Pain*, *26*(9), 813-830. doi: 10.1097/AJP.0b013e3181ed1070



- Stoll, B. J., Hansen, N. I., Bell, E. F., Shankaran, S., Laptook, A. R., Walsh, M. C.,... Higgins, R. D. (2010). Neonatal outcomes of extremely preterm infants from the NICHD Neonatal Research Network. *Pediatrics*, *126*, 443-456. doi: 10.1542/peds.2009-2959
- Streiner, D. L. (2003a). Being inconsistent about consistency: when coefficient alpha does and doesn't matter. *Journal of Personality Assessment*, *80*(3), 217-222.
- Streiner, D. L. (2003b). Starting at the beginning: an introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment*, *80*(1), 99-103.
- Sweet, S. & McGrath, P. J. (1998). Physiological measures of pain. In G. A. Finley & P. J. McGrath (Eds.), *Measurement of Pain in Infants and Children, Progress in Pain Research and Management* (pp. 59–82). Seattle: IASP Press.
- Valeri, B. O. & Linhares, M. M. (2012). Pain in preterm infants: effects of sex, gestational age, and neonatal illness severity. *Psychology & Neuroscience*, *5*(1), 11-19. doi: 10.3922/j.psns.2012.1.03
- Verriotis, M., Chang, P., Fitzgerald, M., & Fabrizi, L. (2016). The development of the nociceptive pain. *Neuroscience*, *3*(338), 207-219.
- Vinall, J. & Grunau, R. E. (2014). Impact of repeated procedural pain-related stress in infants born very preterm. *Pediatric Research*, *75*(5), 584-587.
- Vinall, J., Miller, S. P., Chau, V., Brummelte, S., Synnes, A. R., & Grunau, R. E. (2012). Neonatal pain relation to postnatal growth in infants born very preterm. *Pain*, *153*, 1374-1381.
- Walden, M. (2014). Pain in the newborn and infant. In C. Kenner & J. W. Lott (Eds.). *Comprehensive Neonatal Nursing Care* (5<sup>th</sup> ed) (pp. 571-586). N. Y.: Springer Publishing Company.
- Walden, M., Penticuff, J. H., Stevens, B., Lotas, M. J., Kozinetz, C. A., Clark, A., & Avant, K. C. (2001). Maturation changes in physiological and behavioral response of preterm neonates to pain. *Advanced in Neonatal Care*, *1*(2), 94-106.

- Walker, L. O. & Avant, K. C. (2005). *Strategies for theory construction in nursing*. New Jersey: Upper Saddle River.
- Waltz, C. F., Strickland, O. L., & Lenz, E. R. (2005). *Measurement in nursing and health research*: New York : Springer.
- Warnock, F. & Lander, J. (2004). Foundations of knowledge about neonatal pain. *Journal of Pain and Symptom Management*, 27(2), 170-179. doi: 10.1016/j.jpainsymman. 2003.06.006
- Williams, A. L., Khattak, A. Z., Garza, C. N., & Lasky, R. E. (2009). The behavioral pain response to heel stick in preterm neonates studied longitudinally: description, development, determinants, and components. *Early Human Development*, 85, 369-374.
- Woodbury, C. J. (2008). New insights into neonatal hypersensitivity. In G. Buonocore & C. V. Bellieni (Eds.). *Neonatal Pain: Suffering, Pain and Risk of Brain Damage in the Fetus and Newborn* (pp. 131-139). Italy: Springer-Verlag Italia.
- Xia, C., Yang, L., Zhao, P., & Zhang, X. (2002). Response to pain by different gestational age neonates. *Journal of Huazhong University of Science and Technology (Medical Science)*, 22(1), 84-86.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่  
Copyright© by Chiang Mai University  
All rights reserved