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Improving the delivery of developmental care in the NICU: A focus on co-occupational engagement

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Improving the delivery of developmental care in the NICU: A focus on co-occupational engagement

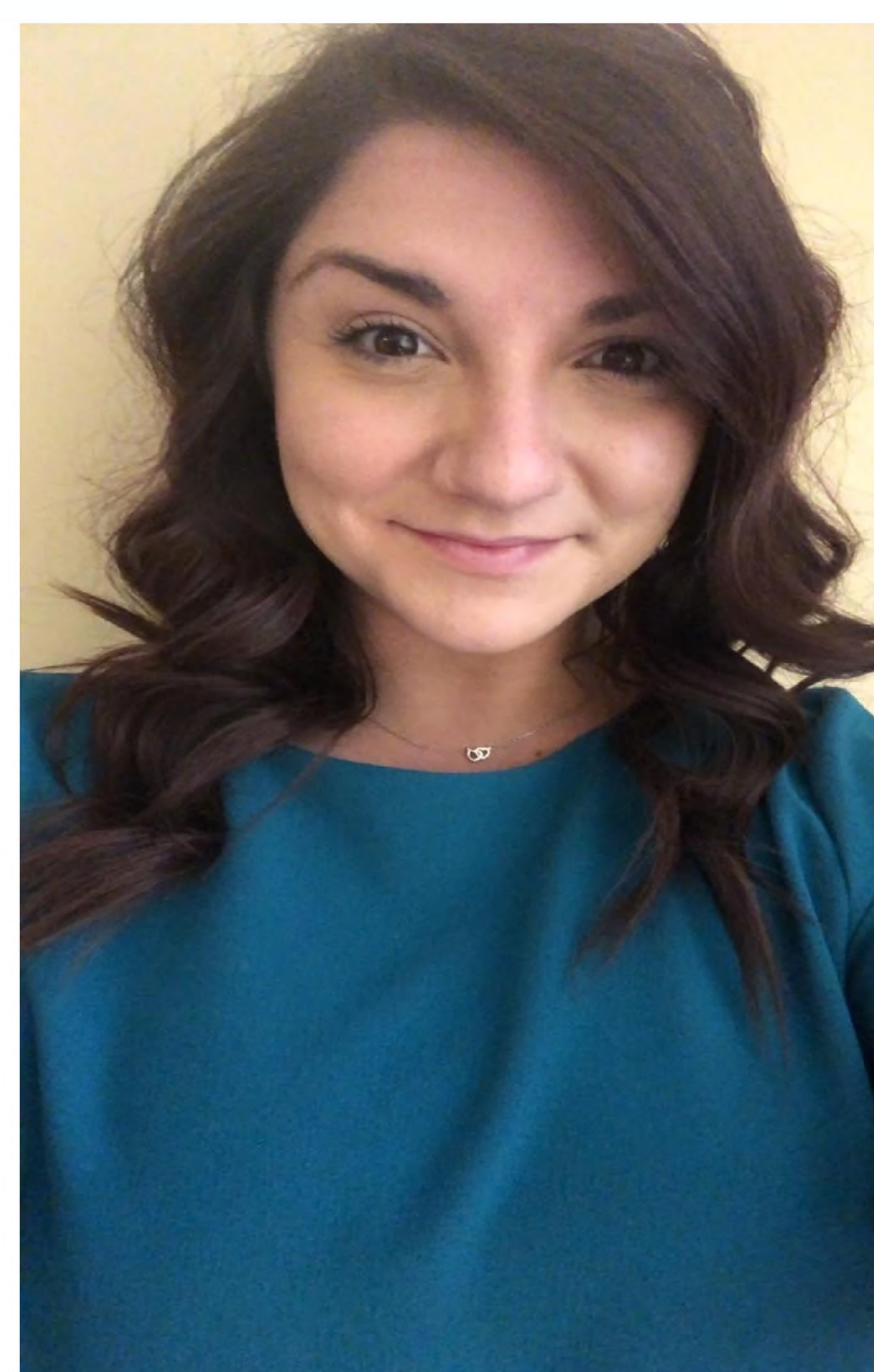
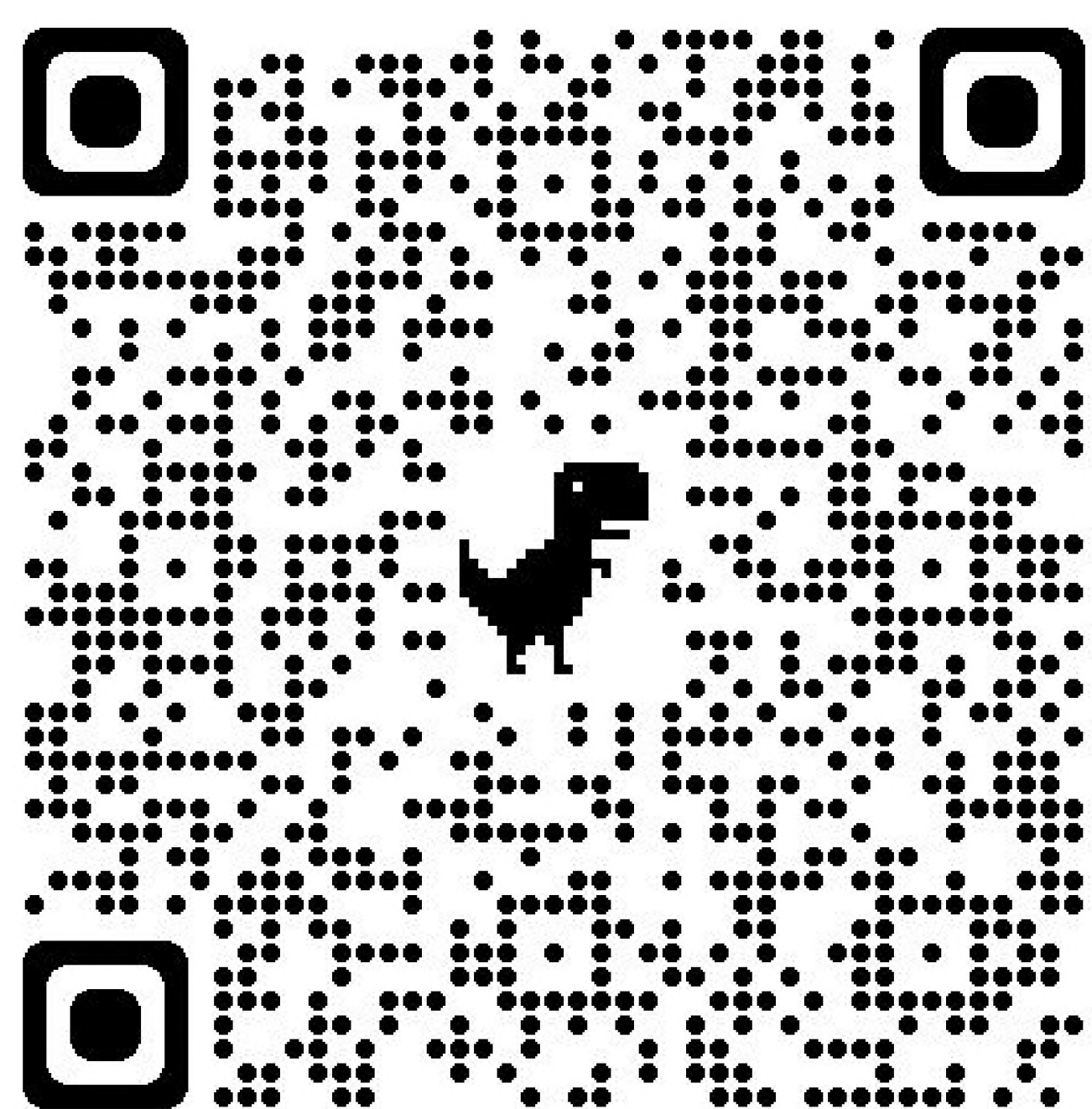
Christina Martella, S/OT, Sheri Ricciardi, CNT, OTR/L, NTMTC , and Kristen Pataki, OTD, OTR/L, ATRIC

Background Information

Prematurity is a serious public health concern in the United States, resulting in about 380,000 babies born premature each year and requiring hospitalization². Even with advancements in medical research and technology, many neonates that survive experience short-term and/or long-term developmental complications. Due to the potential developmental impairments caused by premature birth, the earliest interventions used by occupational therapists take place in the neonatal intensive care unit (NICU), and work to address the needs of the infant and their caregiver. The role of the parent being the primary caregiver is interrupted in the NICU by the advanced care the infant is being provided. These parental role alterations that NICU caregivers experience can negatively impact the parent-infant relationship and ultimately negatively impact overall parental engagement³. Even with increased literature showing the need for developmental care through co-occupational engagement with NICU families, it is not systematically integrated into everyday practice. This capstone project aimed to create a systematic way to improve Occupational Therapists' approach to delivering high quality developmental care through co-occupational parent engagement within the Neonatal Intensive Care Unit at University Hospitals Rainbow Babies & Children's.

Brief bio

I am currently a third year Occupational Therapy Doctorate student at Cleveland State University. During my academic career I have worked with the NICU population, school-based pediatrics, adults with developmental disabilities, and adult home health care. I hope to work in pediatrics with a focus on developmental disabilities as I begin my occupational therapy career.



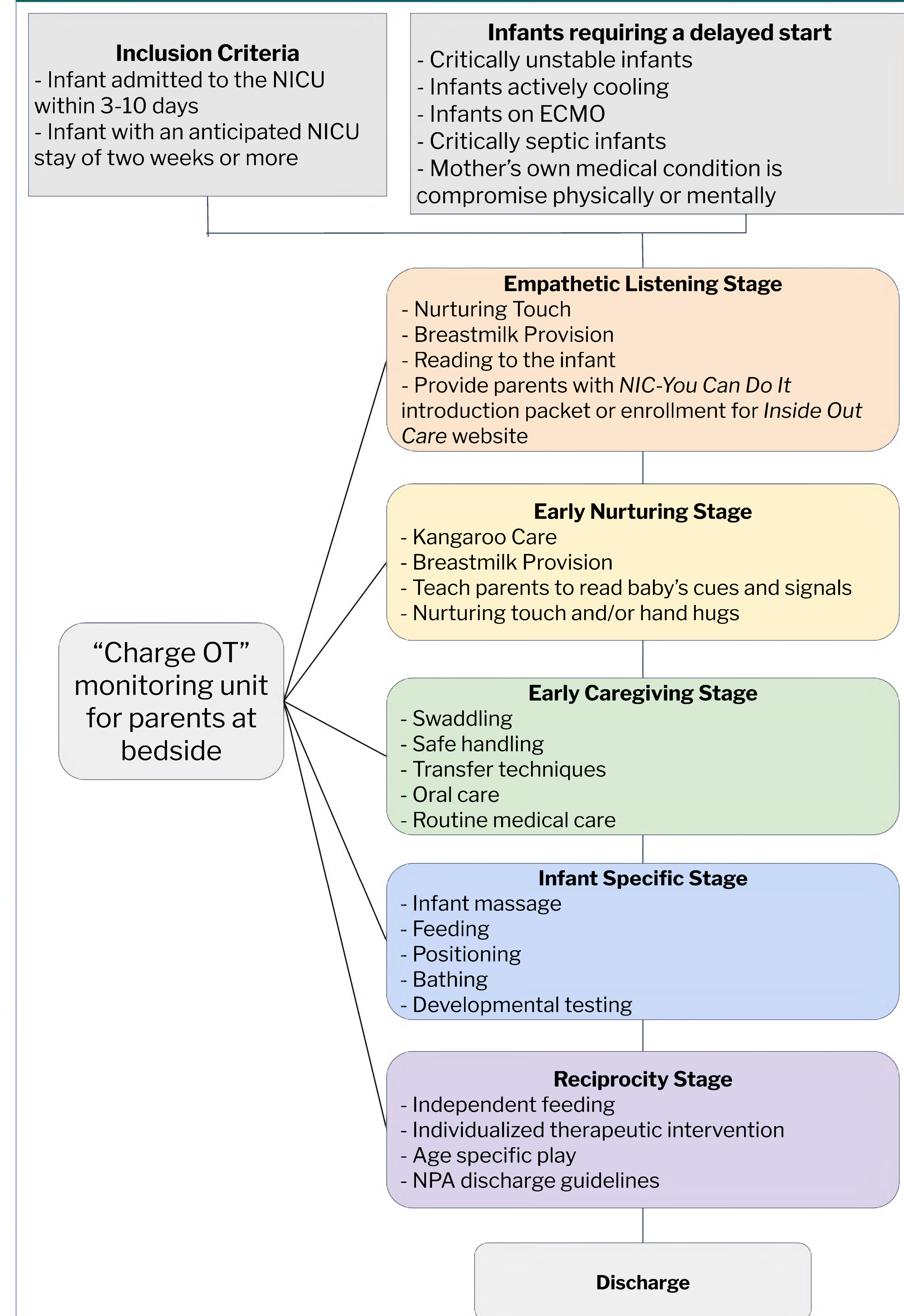
Capstone Activities

- Collaborated with capstone site mentor and occupational therapy staff to develop a procedure for delivering developmental care to NICU families.
- Created physical handouts of the *NIC-You Can Do It* developmental care program to provide to families.
- Collaborated with the creator of the *Inside Out Care* website to add developmental care modules for parent access.
- Piloted and participated in 10 week trial implementation of the program.
- Developed dot phrases for therapists to document the progress of the program in the electronic medical records.
- Utilized feedback from therapists to modify program implementation for sustainability.
- Piloted and integrated the role of a "charge OT" to improve program implementation.
- Presented on program implementation to key stakeholders in Rainbow Babies & Children's NICU.
- Provided therapy staff with recommendations for program sustainability moving forward.

Key references

1. Craig, J. W., Glick, C., Phillips, R., Hall, S. L., Smith, J., & Browne, J. (2015). Recommendations for involving the family in developmental care of the NICU baby. *Journal of perinatology : official journal of the California Perinatal Association*, 35 Suppl 1(Suppl 1), S5-S8. <https://doi.org/10.1038/jp.2015.142>
2. March of dimes. (2019). Premature babies. Retrieved from <https://www.marchofdimes.org/complications/premature-babies.aspx>
3. Novak, J. L., & Vittner, D. (2021). Parent engagement in the NICU. *Journal of Neonatal Nursing*, 27, 257-262. <https://doi.org/10.1016/j.inn.2020.11.007>
4. O'Brien, K., Lee, S., Bracht, M., Caouette, G., Ng, E., McMillan, D., Ly, L., Dow, K., Taylor, R., Monterrosa, L., Canning, R., Sankaran, K., Bingham, W., Soraisham, A., el Helos, S., Alvaro, R., Narvey, M., da Silva, O., Osioviich, H., ... Lee, S. K. (2018). Effectiveness of Family Integrated Care in neonatal intensive care units on infant and parent outcomes: a multicentre, multinational, cluster-randomised controlled trial. *The Lancet Child & Adolescent Health*, 2(4), 245-254. [https://doi-org.proxy.ulib.csuohio.edu/10.1016/S2352-4642\(18\)30039-7](https://doi-org.proxy.ulib.csuohio.edu/10.1016/S2352-4642(18)30039-7)
5. Puthussery, S., Chutiyami, M., Tseng, P., Kilby, L., & Kapadia, J. (2018). Effectiveness of early intervention programs for parents of preterm infants: a meta-review of systematic reviews. *BMC Medical Education*, 18(223). <https://doi:10.1186/s12887-018-1205-9>

Program Implementation



Acknowledgements

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