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**Keeping Up with the Preemies:
Early Interventions in Occupational Therapy for Children Born Premature
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Presented in Partial Fulfillment of the Master of Science in Occupational Therapy degree at Thomas Jefferson University

Objectives:

1. **Identify** areas of occupational performance that may be impacted by premature birth.
2. **Understand** current themes of interventions for promoting development after premature birth.
3. **Apply** evidence-based practice to interventions for children born prematurely.

PICO: What is the evidence to support the use of early interventions in the scope of OT to promote development in children born prematurely?

Methods	
Databases: PubMed, CINHAL, ERIC	
Search Terms: Premature infant[Mesh Terms], premature infan* [Title/Abstract], preterm infant[MeSH Terms], preterm infan*[Title/Abstract], occupational thera*[Title/Abstract], occupational therapy[MeSH Terms], Early intervention[MeSH Terms], rehabilitation[MeSH Subheading], neuromotor development[Title/Abstract], child development[MeSH Terms]	
<p>Inclusion:</p> <ul style="list-style-type: none"> • Preterm infants (born < 37 weeks) • Interventions provided early on in development (birth to five years) • Interventions include techniques and methods to improve child development • Published between January 1st, 2006 - January 1st, 2016 • English language • Evidence Levels I - III 	<p>Exclusion:</p> <ul style="list-style-type: none"> • Primary outcome pertaining to the parent/caregiver • Outcomes measured beyond five years of age • Pharmacological intervention • Systematic reviews • Children with congenital diagnoses (ASD, CP, etc.)
Critique: Two researchers reviewed and appraised each article in full text using the Critical Review Form to assess strength and quality of articles. Law M., & MacDermid, J.C. (2014). <i>Evidence Based Rehabilitation: A Guide to Practice</i> , 3rd Ed. Thorofare, NJ: Slack Inc	
Identified 431 articles from databases and search, after duplicates and screened for eligibility, a total of 13 articles were included in our synthesis.	

Results			
Theme 1: Use of Sensory based Approaches n=4	Theme 2: Use of Social Emotional Approaches n=10	Theme 3: Use of Motor Approaches n=8	Theme 4: Use of Caregiver Involvement as Intervention n=12
<p>Strong evidence exists for using sensory approaches with trained caregiver-infant activities to promote development:</p> <ul style="list-style-type: none"> • Massage Techniques • Rocking • Eye contact • Auditory Input 	<p>Strong evidence supports the use of social/emotional interventions to promote development by using:</p> <ul style="list-style-type: none"> • Techniques to enhance caregiver-infant bonding • Infant-directed play with caregiver • Education to enhance infant engagement during play 	<p>Mixed evidence exists to support the use of promoting motor development in children born prematurely.</p> <ul style="list-style-type: none"> • Statistical significance for: <ul style="list-style-type: none"> ○ Motor Learning ○ Positioning/Support • Clinical Significance for massage & unstructured play 	<p>Strong evidence supports the use of caregiver involvement to promote development. Interventions includes:</p> <ul style="list-style-type: none"> • Training/education for caregivers supports carryover in the home • Continual “check-in” with caregivers on their confidence and needs for carryover of intervention into their daily lives • Family-centered care

Systematic Review References

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