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# Exploring Occupational Therapy's Role in Childcare Settings

## MaKayla Hamling, OTS & Dr. Ranelle Nissen, OTR/L



### Background

Research has found that childcare providers lack training and understanding of interventions to support children with development, socio-emotional regulation, and behaviors (Jeon et al., 2016; Hentschel et al., 2023). When childcare providers were provided with training and educational opportunities, improvements in early development occurred, challenging behaviors were managed, and socio-emotional strategies increased to support children's needs (Jeon et al., 2016; Hentschel et al., 2023; U.S. Department of Health and Human Services, 2015). When occupational therapists collaborate with care providers, it increases their knowledge and understanding of the critical developmental process for the child's future. This collaboration can then emphasize the importance of foundational skills in children and how they develop and use them as they grow. Early childcare providers' early care qualifications are inconsistent despite staff knowing that the brain grows 90% in the first five years (Sarvers et al., 2020 p.12). Staff training improved their knowledge in developmental stages and increased the job satisfaction and self-confidence of the providers (Henschel et al., 2023; Pederson et al., 2022; Kurki et al., 2017). Interprofessional teams use milestones to determine if children are developing at a typical rate as compared to other children the same age. Milestones are markers of a child's development from infancy into childhood that determine if a child is typically developing, delayed, or advanced in the five milestone categories (Misirliyan et al., 2023). Identifying milestones early in children can improve child's outcomes as they transition through life. Approximately 5% to 16.5% of children have sensory processing challenges that will impact their ability to complete daily routines (Ben-Sassen et al., 2009; Ahn et al., 2004; McArthur, 2022). When children become dysregulated, they may show aggression, anxiety, isolation, and self-injurious behaviors that impact their ability to participate in meaningful activities (Buchner et al., 2014). Some everyday environmental stimuli found in daycares can affect a child's ability to self-regulate, including bright lights, sounds (songs, voices, babies crying, etc.), and various smells. A Child's primary occupation for learning in daycare settings is through play. As part of the Individuals with Disabilities Education Act and the Individualized Family Service Plan (IFSP), occupational therapy (OT) practitioners work with parents, family members, caregivers, and other team members to develop and collaborate as a team to provide care to address concerns associated with participating in everyday activities (Clark et al., 2020). As part of early intervention services, OTs can work in childcare facilities to provide skilled therapy services to those who qualify. Children's common daily roles include play, toileting, self-regulation, and dressing.

### Purpose

The purpose of my capstone project will be to explore occupational therapy's role in a childcare setting through educational opportunities, hands-on experience, and exploration. Literature highlights the need for educational opportunities for childcare providers surrounding their roles in supporting children with meeting milestones, addressing behaviors, and the importance of sensory integration.

### Theoretical Foundations

#### Sensory Integration Theory

The sensory integration frame of reference was created in 1972 by Jean Ayres; she focused on the interaction between the person's sensory systems (visual, auditory, vestibular, tactile) and how the body manages the incoming stimuli. With this frame reference, there are four main types of sensory thresholds: sensory seeking, avoiding, sensitivity, and low registration (Ayres, 1972). Each determines the level of sensory input a child can filter before they become dysregulated. When in a state of dysregulation, the child may have difficulty processing what is happening around them. With Sensory Integration, the therapist can assist care providers with adapting the space to fit the needs of the children. Sensory play and exploration help to engage all your senses to support the development of fine motor skills, gross motor skills, language skills, cognitive growth, arousal levels, and social interactions (Cleveland Clinic, 2022). Sensory Integration focuses on sensory-based treatments to promote attention, behavior, and sensory processing skills in the natural environment (Buchner et al., 2014; AOTA, 2023, p. 4). Occupational therapy practitioners can play a role in daycares to assist care providers in addressing sensory exploration and barriers that impact a child's ability to perform daily occupations optimally.

#### Occupational Adaptation Model

The first part of OA is the normative internal human process, where there is a transaction between the person and the environment to promote engagement in activities and change to occur (Grajo, 2018). This part has four main components: person, occupational environment, occupational participation, and press for mastery. The second part of OA is the intervention process, where the OT empowers the client by creating meaningful and trusting relationships to adjust to changes. This part of the model has five key elements to guide interventions: holistic approach and participation approach to assessment, reestablishing important occupational roles, the client is the agent of change, occupations are central and eliciting adaptive responses, and increasing relative mastery and adaptive capacity (Grajo, 2018). With OA, the therapist can support children and providers to guide them toward relative mastery and adaptive capacity during dysfunction.

### Acknowledgment

Thank you to all the families and staff for allowing me to complete my program at Little Saints Daycare. I also want to thank Jill Zaruba, OTR/L, for being an expert mentor throughout this process.

### Methods

#### Observations

- Numerous hours spent observing and interacting with children in each room to build trust and analyze routines, behaviors, etc.

#### Staff Education/Educational Handouts

- Three staff and parent educational handouts were created. To increase knowledge on a variety of topics.
  - Handouts**
    - Coping strategies
    - Sleep
    - Picky vs Problem eating
  - Toolkit**
    - For staff only, provided suggestive activities for each room based on observations, milestones, and sensory results.

#### Data Collection

- Qualitative and quantitative information was gathered from the screening process. Data was collected in three areas: Neurodevelopmental milestones, sensory, and reflexes.
  - Neurodevelopmental (NDT) milestones
    - A NDT checklist was created to screen for age-appropriate neurodevelopmental milestones in the areas of medical screening and daily living activities.
  - Sensory Profile
    - Parents completed the Sensory Profile and returned to the site for analysis.
  - Reflexes
    - A reflex checklist was created for the purpose of the site. Five reflexes were screened.
      - Moro
      - Galant
      - Landau
      - Asymmetrical Tonic Neck Reflex
      - Symmetrical Tonic Neck Reflex

### Results

- Sensory Profile**
  - Total of 27 SP-2 were returned
  - 24 (89%) resulted in being just like the majority of others in all 13 subcategories
  - 1 resulted in being a seeking/seeker and 2 SD for movement
  - 2 were inconclusive
  - Overall, according to the SP-2 there are no sensory concerns at this time.

#### Reflexes

- 31 children tested
- Moro was integrated in all 31 children tested.
- Galant was retained in 1 individual and integrated in the other 30.
- Landau was retained in 5 individuals and integrated in the other 26 children.
- Asymmetrical tonic neck reflex was retained in 3 individuals, integrated in 28.
- Symmetrical tonic neck reflex was retained in 6 children and integrated in 24, with 1 child's results being inconclusive.

	Reflexes										Inclusive
	Moro		Galant		Landau		ANTR		STNR		
	Retained (+)	Integrated (-)	Retained (+)	Integrated (-)	Retained (+)	Integrated (-)	Retained (+)	Integrated (-)	Retained (+)	Integrated (-)	
Roommates											
Swaddlers	1		1	1			1	1			
Cruisers	4		4	3	1	1	3			4	
Tots	4		4		4		4			3	1
Little Learners	7		7		7		7	3	4		
Preschool	14	1	13	1	13	1	13	1	13		
After School	1		1		1	1			1		
Total	0	31	1	30	5	26	3	28	6	24	1

#### Neurodevelopmental Milestones

- A total of 30 children were tested; one was left out due to age.
- Average for all ages tested resulted in 81.5% completion of their age category.

Neurodevelopmental Scores per Child					
Age	Percentile	Age	Percentile	Age	Percentile
5 months	70%	2 years, 9 months, 9 days	72%	4 years 2 months, 8 days	91%
10 month, 15 days	100%	2 years, 9 months, 15 days	73%	4 years 4 months 7 days	100%
10 month, 15 days	100%	2 years, 10 months, 4 days	73%	4 years 5 months, 29 days	100%
10 months, 100%		2 years, 10 months, 27 days	64%	4 years 6 months, 13 days	92%
1 year, 3 months, 29 days	100%	3 years, 2 months, 24 days	73%	4 years 6 months, 15 days	92%
1 year, 10 months	53%	3 years, 9 months	71%	4 years 6 months, 25 days	100%
2years, 11 days	50%	3 years, 5 months, 2 days	85%	4 years 8 months, 10 days	100%
2 years, 7 months, 10 days	72%	4 years, 7 days	91%	4 years 8 months, 20 days	100%
2 years 7 months, 25 days	86%	4 years, 12 days	100%	4 years 9 months, 3 days	73%
2 years, 9months, 1 day	72%	4 years, 1 month, 9 days	100%	5 years, 4 months, 6 days	92%



#### Staff Education/Educational Handouts

- One head teacher stated that the coping strategy suggestion handout has been helpful both in the room and at home.
- The sleep handout was referred to multiple times and aided in developing the new naptime rules and regulations in the handout.
- The director mentioned that this project has been "helpful in getting a fresh perspective of how each child is developing and providing new and fun opportunities for the children to partake in."
- The Tots' head teacher stated that "this project has helped me focus on what her room needs to focus on developmentally to continue to build necessary foundational skills."
- Overall, the staff enjoyed the new ideas and fresh set of eyes to look at how each child is developing across all areas.

#### Observations

- Swaddlers
  - This is a crucial age for learning. Many of these children are learning how to sit, crawl, walk, etc. Some sensory exploration was available; however, it could be increased.
- Cruisers
  - This is a crucial age for learning foundational skills. Lots of learning occurs at this age, such as walking, stairs, putting in activities, etc. Lots of sensory play was included throughout the day.
- Tots
  - Many of the children have sensory needs to be addressed. Some children like to avoid any sensory play-based activities, while a few seek out gross motor activities.
- Little Learners
  - This group has a lot of play-based time throughout the day with a variety of structured and unstructured activities. Some noted concerns for all children were pencil grips, hand strength, and scissors skills.
- Preschool
  - This group has a lot of play-based time throughout the day with a variety of structured and unstructured activities. Some noted concerns for all children were pencil grips, hand strength, and scissors skills.

### Implications for OT

#### Implications for OT

- This capstone experience demonstrated the importance of detecting early development delays and concerns that inhibit a child's ability to perform activities of daily living.
  - Occupational therapists play an essential role in educating staff and parents on a variety of daily living skills/needs. Giving tips and tricks for ways to incorporate fun play-based skills essential for foundational skills.
  - The main occupation for children is play. Occupational therapists can use a variety of play-based activities to promote participation in daily activities such as play, toileting, self-regulation, and dressing (Case-Smith, 2020)
  - My capstone experience has shown me the importance of foundational skills, the importance of retained reflex testing, and sensory play and exploration as children age.
- Conclusion**
- I was able to work hands-on with the children, staff, and families throughout the entire process.
  - The results of my program development indicated that staff have a well-rounded understanding of occupational therapy and the importance of incorporating a wide variety of play activities.
  - The toolkit provides important resources and tools for the site if the teachers choose to utilize them. However, over the years, staff will need to update the information to provide best-practice principles for up-to-date, evidence-based practices.
  - I will be able to utilize the knowledge gained from my experience to continue to building a greater understanding of foundational skills essential for future practice.

**TIPS FOR EATING PICKY VS PROBLEM**

**Picky Eater**

- Less than 10 foods
- May take a break from a favorite food, but then return to eating it after a break
- Will eat at least 1 food from each food group
- Will eat some foods from their plate
- Can be bribed

**Problem Eater**

- Less than 10 foods
- Will not return to a food that they enjoyed prior to eating it after a break
- Will refuse 1 or more food groups
- Usually requires their own meal
- Can not be bribed

**More to food than just food**

When thinking about food, you need to include all the senses:

- taste
- texture
- looks
- sounds
- smell

**Food play and exploration**

Food play and exploration can increase child's comfortability with foods and textures

**Ideas**

- General sensory bins
- Point with pudding or foods
- Rice sensory bin
- Knoodle (play-doh)

**Concerns** if you have concerns about your child being a picky or problem eater, talk to your pediatrician.

References

**COPING STRATEGIES**

**1 WHAT ARE COPING STRATEGIES**

Coping strategies are a variety of tools that can be used when you feel big emotions and feelings. They are sometimes calm down or relaxation tips.

**2 WHAT CAN THEY HELP WITH**

- Anxiety
- Stress
- Emotional Regulation

**3 HOW TO TEACH**

Teaching kids coping strategies should be done in a fun environment, when they are calm. Do NOT try to teach them during meltdowns or tantrums. Practice, practice, practice! Incorporate these strategies into, already, fun with the session. Kids learn best when adults show them how to do something, get down on the floor and play.

**4 FEELINGS**

- Identify emotions
- Identify or not
- Label
- Identify
- Match color to feeling
- Match emotion to feeling
- Match emotion to feeling

**5 EXAMPLES OF STRATEGIES**

- Deep breathing exercises
- Coloring
- Music/Instrumental
- Stretching
- Identify feelings
- Listening to music
- Identify feelings
- Identify feelings
- Identify feelings
- Identify feelings

**6 DEEP BREATHING**

Problems deep breathing by modeling how to take a deep breath. Hold it for 5 seconds or 10 seconds. Then exhale slowly, blowing out a candle. Practice, practice, practice! Encourage them to take a deep breath when they are feeling big emotions. Encourage them to take a deep breath when they are feeling big emotions. Encourage them to take a deep breath when they are feeling big emotions.

**7 RESOURCES**

Progressive Muscle Relaxation (PMR) is a technique that helps you relax your body and mind. It involves tensing and then relaxing your muscles in a specific order. This helps you become more aware of your body and learn to control your muscles. It can help you feel calmer and less stressed. You can find many resources online for PMR, including videos and printable guides.

**8 RESOURCES**

There are many resources available for coping strategies, including books, videos, and worksheets. Some examples include:

- "The Color Monster" by Anna D'Amico
- "The Feelings Book" by Janice VanCleave
- "The Emotion Helper" by Linda Ward Beech
- "The Mindfulness Book" by Mindy Newland
- "The Calm Book" by Mindy Newland

