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Posture Care Management in School-Based Settings for Children with Complex Physical Disabilities

Sabrina Rodriguez; Mary Jan Greer, PhD, OTR; Lee Ann Hoffman, OTD, ATP/SMS

BACKGROUND

Postural care management (PCM) is intentional positioning throughout the day to restore, prevent, and protect the body (Castle et al., 2014). External and internal elements impact our posture 24 hours a day (Lange & Minkel, 2018). Children with complex physical disabilities (CPD) exhibit increased sedentary time and difficulty meeting activity guidelines compared to peers (Bradbury et al., 2021). School staff have limited knowledge about PCM, impacting how PCM is being implemented throughout the school day (Hotham et al., 2017; Hutton & Coxon, 2011). Poor positioning can lead to distortion of the body, contractures, and asymmetry, which can impact students' ability to engage in occupations performed in school. Occupational therapists can play a role in increasing PCM implementation in school-based settings by providing education and training to school staff.

PROBLEM

There is a lack of PCM implementation in school-based settings for children with complex physical disabilities (Hotham et al., 2017) (Hutton & Coxon, 2011).

PURPOSE

To develop a PCM education program to increase knowledge and confidence in staff that work with children with complex physical disabilities.

Outcome objectives:

1. Conduct a needs assessment to identify the gap in postural care needs for children with complex physical disabilities.
2. Develop an educational program that contains foundational knowledge of PCM.
3. Implement a PCM program and provide resources to participants.
4. Create, administer, and analyze data from pre and post training surveys/observations to determine the programs effectiveness.

METHODS

Sites:

- Lee Elementary (Coppell ISD) – 2 Special Education Classrooms
- MHMR of Tarrant County – Early Childhood Intervention (Supplemental)

Process:

Needs Assessment

- Use of informal interviews, observations, and staff surveys to identify areas of need and for program development.

Surveys

- Pre/Post Surveys delivered via email
- Microsoft Forms
- Open ended, MC, Likert Scale

Participants

- Staff of Lee Elementary
- 9 invited; 9 participated
- 2 Special Education Teachers
- 6 Special Education Paraprofessionals
- 1 School Nurse

Development

- Created PCM website
- Gathered resources

PROGRAM

General Program Goals:

1. To increase staff knowledge and confidence in PCM.
2. Increase implementation of PCM throughout the school day.
3. Decrease sedentary time in children with CPD.
4. Increase opportunities for mobility in children with CPD.
5. Promote occupational engagement.

Theoretical Frameworks:

1. Person - Environment - Occupation – Performance (PEOP)
2. Human – Activity – Assistive Technology – Context (HAAT)

Sustainability:

- PCM Website provided to staff of Coppell ISD including teachers, administrators, and supplemental staff (occupational therapist, physical therapist).

PCM Program

1. **PCM**
 - Why, What, Who, and How of PCM
2. **Posture**
 - Anatomy of Positioning
3. **Positioning**
 - Developmental Postural Orientations: Lying, Sitting, Standing
4. **Assistive Technology**
 - AT in the Classroom and Hands-on Training
5. **Transfers**
 - Safety, Ergonomics, and Hands-on Training
6. **Mobility**
 - Exercise and Stretching for Different Levels of Mobility

PCM Website:

PCM program information and supplemental education and tools for staff and caregivers.

Program Outcomes:

- **Knowledge and Confidence**
 - Overall increase
- **Internal Barriers**
 - Lack of knowledge, confidence, and increased anxiety
 - Overall decrease
- **External Barriers**
 - Lack of time, training, and unequal staff to student ratio
 - Slight decrease, still prevalent amongst staff
- **Classroom Observations**

Increased sedentary time, decreased engagement, decreased safety during transfers, AT not used effectively ➡ decreased sedentary time, increased engagement, increased safety, increase use of AT and other tools to promote optimal positioning, increased communication between staff and administration

References



Conclusion/Future Directions

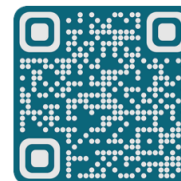
Discussion:

- The program positively impacted staff's perception of their knowledge and confidence in PCM by providing a comprehensive overview and hands-on training.
- PCM program helped decrease negative extrinsic factors such as poor positioning and limited support.
- PCM program promoted a start to decreasing intrinsic factors by demonstrating how to increase opportunities for mobility through exercise and stretching.
- Increasing the opportunity for children with complex physical disabilities to engage in meaningful occupations.

Recommendations:

- Introduce PCM program to caregivers
- Early Childhood Intervention
- Offer resources in Spanish

[PCM Website](#)



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