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Occupational Therapy and Continuous Care: Rehabilitation for Children with Medically Complex Conditions and Severe Burns

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BACKGROUND & SIGNIFICANCE

Background

- Children are resilient, but they are sensitive to lifelong deficits in motor skills, processing skills, cognition, and social emotional behavior (Kingsley & Clark, 2020).
- Approximately 21 million children are diagnosed with life-threatening and life-limiting conditions (Connoer et al., 2017).
- Children with medically complex conditions are at higher risk for hospitalizations and difficulties later in life. They require prolonged medical care to offset the complications they face early in life (Davies et al., 2014).
- While the rate of pediatric admissions dropped in 2020 due to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), roughly 50% of all pediatric hospitalizations were children with pre-existing chronic conditions (Pelletier et al., 2021).
- About 89% of children with complex chronic conditions are discharged home from the hospital requiring ongoing care in the community or at home (Curran et al., 2020).
- Children are 2.4 times more likely than the general population to sustain burn injuries (Wibbenmeyer, 2022).
- Approximately 265,000 children and adolescents experience burn-related injuries each year (Lange & Grajo, 2021).
- Children with medically complex conditions and severe burns work require skilled occupational therapy services to prevent long-term deficits due to their condition and promote participation in childhood occupations (Dungon, 2015; Jasem et al., 2020).

THEORETICAL FOUNDATION

Rehabilitative Frame of Reference

- The rehabilitative frame of reference guides therapeutic intervention for children with medically complex conditions to guide occupational therapy intervention through adaptation, compensation, and environmental modification (Gillen, 2014).

Biomechanical Frame of Reference

- The biomechanical frame of reference focuses on the musculoskeletal deficits these children face. While they require continuous care across the lifespan to address stretching, splinting, casting, and resistive activities for strengthening to maintain and optimize functional performance (Gillen, 2014).

Synthesis of Child, Occupational, Performance, and Environmental-In Time (SCOPE-IT)

- The SCOPE-IT model is a top-down approach considering a child's personal factors and temporal factors in their environment. It focuses on childhood occupations to maximize a child's physical, cognitive, and socio-emotional skills along the expected developmental timeline (Haertl, 2010).

METHODS & ACTIVITIES

Site 1: Madonna Rehabilitation Hospital, Inpatient Pediatric Floor

- Population: Children, adolescents, and adults admitted to the pediatric floor, adult burn patients, and outpatient pediatric patients.
- Advanced Clinical Practice- Measured personal skill development with the use of American Occupational Therapy Associations Professional Development Tool (PDT). Clinical practice included patient care, documentation, and attendance to advanced educational in-services. Continuing Education: completion of continuing education in respiration evaluation and intervention (Massery, 2014) and burn rehabilitation (Roberts, 2019).
- Leadership- Participation in Burn Awareness Week Advocacy and the annual American Burn Association conference.
- Interdisciplinary Communication- Site specific needs assessment

Site 2: ChildServe Medical Daycare

- Population: Children requiring highly skilled medical care due to respiratory, cardiovascular, or neuromuscular deficits.
- Advanced Clinical Practice- administration of the Short Child Occupational Performance Evaluation (SCOPE) an assessment tool to measure occupational performance and therapeutic progress, a competency checklist, and development of an assessment toolkit for the site to analyze appropriate assessments for children with medically complex conditions

CONCLUSION

- Development of advanced clinical practice to improve personal knowledge and skills to treat children with medically complex conditions and severe burns. Increased competence and confidence in evaluation and intervention across the entire occupational process
- Leadership, Advocacy, Interprofessional Communication with the American Burn Association through national burn awareness week and attendance to the national conference.

REVISIONS TO THEORY

Due to the prevalence of adolescent and adult patients, the Person-Environment-Occupation (PEO) model of practice would have been beneficial. PEO addresses personal factors, the occupation or task, and the environment to maximize a client's occupational performance (Law et al., 1996). This model of practice would have been more beneficial for this project as it is not specific to childhood, and it can support meaningful occupations for clients across the lifespan.

IMPLICATIONS FOR OCCUPATIONAL THERAPY

- Implications include the variety of conditions that are considered medically complex conditions, the small gains these children make over long periods of time, and challenges with insurance coverage.
- Due to the significant financial burdens of medical care ongoing research to support clients and families can decrease burden of care by helping children become more independent (Berry et al., 2014).
- With limited access to skilled practitioners and innovative equipment, pediatric burn injuries can cause lifelong deficits if left untreated. The global burn registry is not collecting pediatric-specific care capacity information, and areas with limited resources are impacted the most (Jordan et al., 2022).

RESULTS

Site 1: Madonna Rehabilitation Hospital, Inpatient Pediatric Floor

Professional Development

Ongoing development in communicating evaluation results, time management, documentation, clinical reasoning and problem solving

Advanced Clinical Practice

12 pediatric inpatient client's ranging from birth to 21, 4 adult clients over 21, and 6 pediatric outpatient clients.

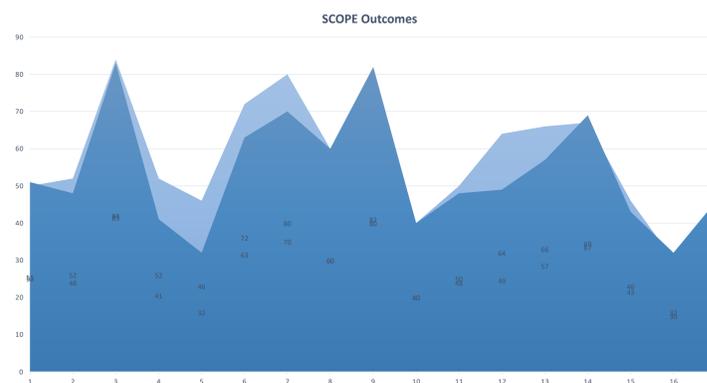
Site 2: ChildServe Medical Daycare

Professional Development

- Completion of the competency checklist and improvement in all skills previously still developing

Advanced Clinical Practice

- SCOPE results demonstrate improvement in 10 out of 17 clients, no change in 2, and a decline in 5. Assessment toolkit including 12 assessments with indication the Pediatric Evaluation of Disability, Goal Attainment Scaling, and the Canadian Occupational Performance Measure are the most appropriate.



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