

Sensory Impairments
and the Stroke
Population... 10

Applying Principles of
Neuroplasticity to Everyday
Neurological Rehabilitation... 16

A Model for Bridging
Accommodations from
Classroom to Fieldwork... 20



Practice

April 2024



**Advancing
Health,
Well-Being,
and Quality
of Life**

**Celebrate
OT Month**

to honor our profession
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Advancing Health, Well-Being, and Quality of Life

At AOTA, we are excited to celebrate OT Month in April, and we hope you are, too!

There are many ways you can honor our vital profession and the meaningful differences it makes in clients' lives. Here are just a few.

Explain what occupational therapy is—and how it benefits clients—to friends or family who may not be familiar with the profession.

Promote the occupational therapy profession by sharing stories on social media (ensuring client confidentiality).

Purchase exciting new products from the OT Month 2024 product catalog (<http://www.promoteot.com/>), featuring this year's special theme—Occupational Therapy: Advancing Health, Well-Being, and Quality of Life—and use or wear products with pride!

In this issue of *OT Practice*, many articles highlight the distinct value of the profession and reflect how occupational therapy practitioners (OTPs) use their passion to help people perform the occupations they need and want to do every day.

Artemis Sefandonakis and Piper Hansen explore how the 10 principles of neuroplasticity are essential for OTPs to provide effective interventions and achieve optimal outcomes for their clients (p. 16).

Amy Wheadon discusses how novel, evidence-based pediatric practice programs can enrich occupational therapy treatment methods and offer complementary options that enhance traditional interventions (p. 25).

Kaainaat Ali, Jacob Baquir, and Remy Chu, Jr. explain how their rehabilitation facility in Los Angeles works to empower, educate, and support stroke survivors to not only regain sensation in an affected limb, but also to return to many of their preferred occupations (p. 10).

I hope you enjoy OT month and the chance to promote the profession—not just this month, but all year long.

All the best,



Lisa Gwaltney
Editor, *OT Practice*
lgwaltney@aota.org



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in this issue
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Back issues are available prepaid from AOTA's Membership department for \$16 each for AOTA members and \$24.75 each for nonmembers (U.S. and Canada) while supplies last.

In Memoriam

Ruth A. Hansen, PhD, FAOTA, Professor Emeritus, Eastern Michigan University, passed away December 27, 2023, due to complications associated with cancer. Ruth was the instrumental force for AOTA to move from the medical paternalistic standards perspective of ethics to an understanding of ethics grounded in sound moral reasoning that incorporated a feminist perspective on caring. She was also a strong advocate for the development and hiring of AOTA's ethics office. Ruth, along with Jim Hinajosa, moved the profession forward with the development of some of the first statements of inclusion and non-discrimination (1995, 2004, 2009). She chaired what was then AOTA's Standards and Ethics Commission (SEC) (1988 to 1994) and served on AOTA's Executive Board (1989 to 1995). Prior to serving on the SEC and the Board, Ruth was active in the Michigan Occupational Therapy Association (MiOTA), having served as President.

Ruth received her PhD in Education Leadership at Wayne State University. Her dissertation, "Moral Reasoning and Ethical Decision Making in the Practice of Occupational Therapy," focused on ethical dilemmas in occupational therapy. Following completion of her dissertation, which included the creation of the Occupational Therapy Dilemmas Test (OTDT), she championed moving from a medical paternalistic model to a moral reasoning ethical framework by speaking about this topic at AOTA conferences. Subsequently, she became the Chair of the SEC, and with the commission, developed the Occupational Therapy Code of Ethics into a more holistic, moral reasoning,



and feminist caring perspective. The work that Ruth oversaw is still the basis of the current Occupational Therapy Code of Ethics.

Ruth was Wayne State University's Fieldwork Coordinator in the early 1970s. She later had a faculty position at Wayne County Community College before moving to Ypsilanti, Michigan, and joining the faculty at Eastern Michigan University (EMU). Ruth was Emeritus Professor of Occupational Therapy at EMU, where she was employed from 1976 to March 2004. While at EMU she held the academic positions of Professor, Occupational Therapy, and Occupational Therapy Program Director in the School of Associated Health Professions School. Ruth authored several articles and contributed to *Willard & Spackman's Occupational Therapy* (8th, 9th, and 10th editions). She co-edited *Conditions in Occupational Therapy: Effect on Occupational Performance* (1st and 2nd editions).

Ruth was awarded the AOTA Fellow in 1985 and the Award of Merit, AOTA's highest award, recognizing an occupational therapist who has demonstrated extensive leadership through sustained and significant contributions to the profession, in 1996. She will be greatly missed as a friend, mentor, innovator, leader, and educator.

—Penny Kyler, ScD, OT, FAOTA; Janie B. Scott, MA, OT, FAOTA; and Andrea Gossett Zakrajsek, OTD, MS, OTRL, FNAP

April's Featured CE Course



New Online Course:
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Momentum Moments Innovation and Moving Forward

AOТА's Workforce Capacity team continues collaboration with the AOTA DEI/JAB to build momentum to advance occupational therapy practice. Innovation is central to our profession's ability to move forward and address the evolving needs of our society. A bedrock of innovation is change, which often requires advocacy at many levels—including with individual clients, facility leadership, and community policymakers. We invite you to participate in our monthly Momentum Meetups, open to all members *and* non-members. The next meeting is Thursday, April 25, from 6:00 pm to 7:30 pm ET, featuring a discussion of collaborative advocacy that has recently begun to advance occupational therapy in mental health. Featured discussants will represent the AOTA Mental Health Special Interest Section and Mental Health Advocacy Representatives from state occupational therapy associations. As always, we anticipate a robust discussion of challenges and successful strategies to (re) establish OT in all levels of mental health care. Check out the 2023 Momentum III Summit summary and register for upcoming meetings (<https://bit.ly/471L0aJ>).

SpOTlight on OT

AOTA Practice Manager, Workforce Capacity & Engagement, **Elin Schold Davis**, OTR/L, CDRS, FAOTA, is quoted in this *Washington Post* article about an “advance directive” for driving (<https://wapo.st/3UW23sf>).

Tina Fletcher, EdD, MFA, OTR, co-authored a book, *Success on the Spectrum: Practical Strategies for Engaging Neurodiverse Audiences in Arts and Cultural Organizations*. In this work, the authors offer advice on how to improve experiences in cultural arts for individuals with autism spectrum disorder and other forms of neurodiversity (<https://bit.ly/3OIrB7Y>).

Leslie Hardman, OTD, OTR/L, from Eastern Kentucky University, Department of Occupational Science and Occupational Therapy, was featured on the Lexington, Kentucky NBC Affiliate news segment *WLEX Positively*, discussing her work with inclusive sports and Kendyl and Friends, a community organization whose mission is to provide better and safer inclusive opportunities that allow those with special needs the ability to be more active in their community (<https://bit.ly/3uxICLm>).

A recent *Los Angeles Times* article details how LA has turned to occupational therapists to keep formerly homeless clients from returning to the streets (<https://lat.ms/3w9vXyy>).

Sabrena McCarley, MBA-SL, OTR/L, CLIPP, RAC-CT, QCP, FAOTA, RAC-CTA, was quoted in a recent McKnight’s article about Medicare and Medicaid audits (<https://bit.ly/49oD70m>).

Shelly Muche, MOT, President of the Wisconsin OT Association, Instructor/Department Chair of the Occupational Therapy Assistant Program, Fox Valley Technical College, gave a partial tour of



From left to right: Secretary Amy Pechacek; Secretary Kirsten Johnson; (foreground) Lieutenant Governor, Sara Rodriguez; (background) Governor Tony Evers; Shelly Muche, MOT, President of the Wisconsin OT Association, Instructor/Department Chair of the Occupational Therapy Assistant Program, Fox Valley Technical College.

the campus to Wisconsin Governor, Tony Evers. Shelly said, “Following Governor Evers’ press conference, FVTC Health Division staff were able to give him a tour of our building, highlighting the technology used in our students’ learning. I had the opportunity to share the role and value of occupational therapy in health care, and to demonstrate how I use the Anatomage Table 10 in the OTA Program to enhance our students’ understanding of anatomy, which helps them to be better practitioners.”

2024 AJOT Special Issues

The *American Journal of Occupational Therapy* (AJOT) has published a special issue focusing on Recovery After Neurological Injury (Volume 78, Issue 2 [March/April], <https://research.aota.org/ajot>). Articles highlight the essential role of occupational therapy practitioners in promoting and supporting their clients’ recovery following a stroke, concussion, or traumatic brain injury.

AJOT’s upcoming special issue on Play (Volume 78, Issue 4 [July/August], <https://research.aota.org/ajot>) recognizes how play, which is the primary occupation of children, can be used both as an intervention and as an outcome of occupational therapy. The articles focus on the role of occupational therapy practitioners in promoting play and understanding the complex dynamics that support play across the many environments in which children spend their time.

AOTA news & events

April 1 to April 30 is OT Month! Celebrate by honoring our vital profession and the meaningful differences it makes in the lives of our clients (<https://bit.ly/3Uz8XTZ>).

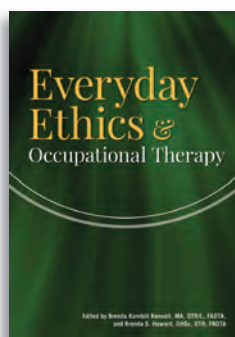
Call for papers/reviewers for the Mental Health Specialty Conference closes April 4 (<https://bit.ly/3UEIaFM>).

Call for papers/reviewers for the Education Summit closes April 11 (<https://bit.ly/3SkXAxm>).

The RA 2024 spring meeting will be held April 18. AOTA Members are invited to watch the live stream (<https://bit.ly/49ubRxt>).

Call for papers/reviewers for the Children & Youth Specialty Conference opens April 23 (<https://bit.ly/3QsEqEO>).

April’s Featured Publication



Everyday Ethics & Occupational Therapy

B. Kennell & B. Howard

Aligned with the AOTA Code of Ethics, this book aims to provide help and resources to occupational therapy practitioners managing ethical problems and prepare students to face daily ethical challenges. **\$64.95 for members**; \$92.95 for nonmembers. Order #900641. Ebook, **\$58.95 for members**; \$84.95 for nonmembers. Order #900642.

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AOTA Continues to Champion OT Advocacy in Commercial Insurance Space

Julie Lenhardt

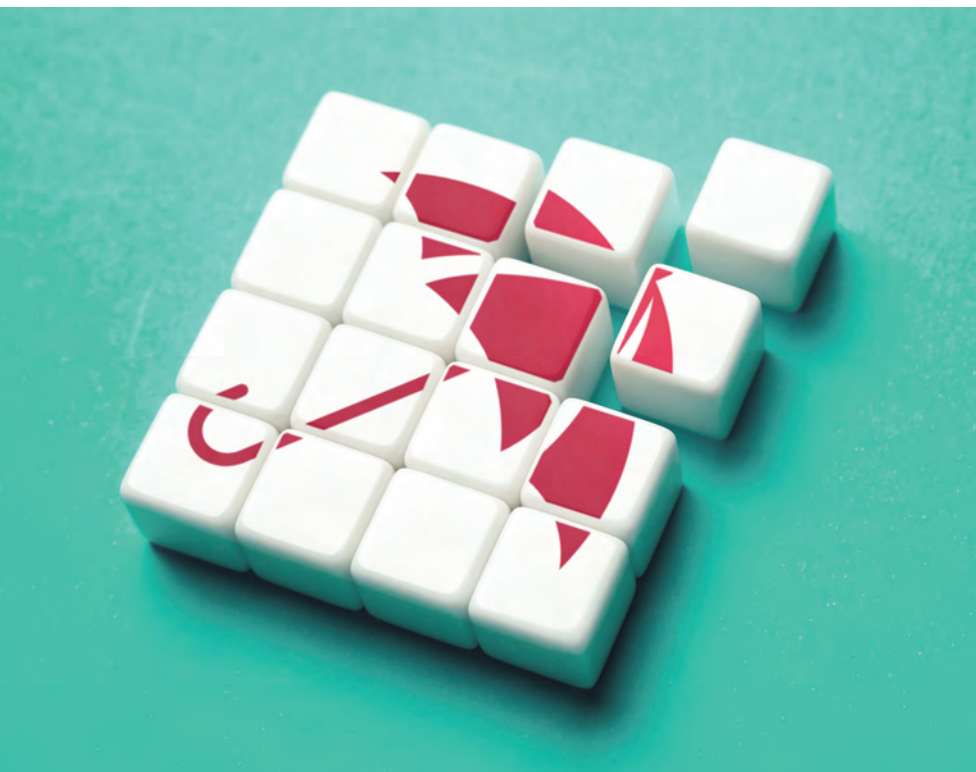
Over the last year, private practice and entrepreneurship in occupational therapy have seen tremendous growth. At the American Occupational Therapy Association (AOTA), we are committed to providing the resources that occupational therapy practitioners (OTPs) need to thrive in the private practice space, whether they are students about to graduate, established practitioners looking to transition, or practitioners who have been in private practice and need to brush up on their knowledge. One aspect of our advocacy efforts focuses on the domain of commercial insurance payment, with AOTA Regulatory Affairs engaging with several employer plans, Medicaid managed care, and Medicare Advantage plans. We know that dealing with insurance can be frustrating and time-consuming. That is why we continue to advocate for better coverage of occupational

therapy (OT) services and the elimination of barriers to care. The past year has been notably active as AOTA and state associations collaborate around payer policies that pose challenges to OT practices.

Key Partnerships

Advocacy with commercial payers presents distinct challenges. Commercial payers frequently impose limitations on therapy service utilization, including frequency and duration of visits, and employ control mechanisms such as prior authorization. However, unlike traditional Medicare, commercial insurance companies are governed at the state level and do not have the same public regulatory or legislative framework, often resulting in less oversight.

In spite of the challenges, AOTA is steadfast in its focus on educating payers about the unique value of occupational therapy and differentiating it from other therapy disciplines where appropriate. AOTA continues to cultivate relationships with payers and collaborate to review existing payer policies and implement positive change. An example of this effort is our continued collaboration with EviCore Healthcare (2023, May 1), a utilization review company engaged with several significant payers, to comprehensively assess its guidelines for occupational therapy. For the third year in a row, and with invaluable assistance from dedicated member volunteers, AOTA has participated in EviCore's review process and recommended updates and edits to its guidelines. Due to the expert input from AOTA's policy volunteers, EviCore's guidelines now are more comprehensive and include clinical considerations for integumentary, lymphatic, musculoskeletal, neurologic, pediatric neurodevelopmental, pelvic, swallowing and feeding, and vestibular diagnoses. Members of AOTA who are interested in taking a look at the current guidelines can find them on EviCore's website (<https://bit.ly/3SVHaf4>).



“At AOTA, we remain committed to addressing regulatory challenges and advocating for policies that support OTPs and ensure optimal care delivery for patients.”

We continue to maintain and initiate similar relationships across the payer continuum, aiming to uphold the standards of OT practice by having a valued seat at the table. For example, AOTA engages with New Century Health (formerly Magellan), alongside counterparts from the American Physical Therapy Association (APTA) and the American Speech-Language-Hearing Association (ASHA), through quarterly meetings. These sessions include updates from both New Century Health and the national associations about therapy review processes, enhancements in peer-to-peer interactions, guideline updates, and more.

And our efforts do not end there. Additionally, AOTA sits on the Professional Affairs Healthcare Advisory Committee (PAHAC) of American Specialty Health (ASH, a third-party vendor for Cigna Healthcare) that meets several times a year to discuss rehabilitation services. Last year, our Regulatory Affairs staff were notified by an AOTA member that Cigna's/ASH's OT policy did not allow for non-musculoskeletal considerations for pediatric neurodevelopmental diagnoses. Through our seat on PAHAC, AOTA raised the issue with ASH leadership and consequently had the opportunity to provide a review of ASH's OT policy. Once again, with the expertise of member volunteers, AOTA provided ASH with recommendations around services provided to clients with nonphysical diagnoses (e.g., autism spectrum disorder, sensory issues, cognitive dysfunction). In another win for occupational therapy, effective September 15, 2023, Cigna updated its policy so that occupational therapy for “physical and/or functional impairment in one or more of the following areas: Sensory and/or motor, Cognitive/psychological, Cardio-pulmonary status and circulation, [and] Skin” is deemed medically necessary and therefore reimbursable.

At the state level, AOTA demonstrates its commitment to advocating for OTPs by continuing its support of the Pennsylvania Occupational Therapy Association (POTA). Last year, AOTA helped POTA advocate with Highmark Blue Cross Blue Shield (BCBS) for an increased daily capitation rate for occupational therapy, making the OT capitation rate fair and equivalent to that for physical therapy. This year, AOTA's state-focused efforts continue as we partner even more closely with POTA, APTA, APTA Pennsylvania, ASHA, and the Pennsylvania Speech-Language-Hearing Association (PSHA) to engage in meaningful conversation with Highmark BCBS about its forward-thinking efforts to implement a value-based reimbursement program for outpatient clinics. There have been complex implications for subjective and objective quality measures including functional outcomes, technology and technical functionality, administrative burden, and other important considerations for Pennsylvania OT practitioners. This collaboration has been a reminder that change can be slow and challenging at times, but the associations' perseverance in maintaining the lines of communication has ensured that the allied health professions are a part of the conversation rather than having these coverage and payment policies dictated to them.

Being Proactive to Get New Codes

By now, AOTA members should know about the new CPT® codes for caregiver education without the patient present. Along with APTA and ASHA, AOTA championed these new codes through the American Medical Association's code development and valuation process, and with the Centers for Medicare & Medicaid Services (CMS) in the 2024 Medicare Physician Fee Schedule. A preliminary review of payer policies has shown that uptake

and reimbursement of the new codes has been limited thus far (at press time), but we are encouraged to see that several state Medicaid plans have included the codes in their fee schedules for 2024. Over the next year, AOTA Regulatory Affairs staff will be focusing efforts on educating payers about the need for and value of caregiver education services, and on advocating for inclusion of the codes in therapy policies.

Staying Engaged and Inspired

At AOTA, we remain committed to addressing regulatory challenges and advocating for policies that support OTPs and ensure optimal care delivery for patients. We remain vigilant in monitoring and advocating with payers across various fronts. However, we cannot emphasize enough that **your** involvement is integral to our advocacy efforts: AOTA relies on the engagement of its members at all levels, from the national to the state level, as well as input from OTPs directly affected by policies. We encourage you to communicate about any policies impacting your daily practice by reaching out to AOTA as well as your state association.

You can contact AOTA's Regulatory Affairs department via email at regulatory@aota.org to share your concerns and contribute to our advocacy efforts, or to volunteer for payment policy review opportunities. Together, we can work toward policies that support the occupational therapy profession and ensure optimal care delivery for all. 🎯

Reference

EviCore Healthcare. (2023, May 1). Clinical guidelines: Physical therapy (PT) and occupational therapy (OT) services (version 1.0.2023). https://d23136htrrhty7.cloudfront.net/s3fs-public/clinical-guidelines/2023-06/eviCore-Physical-and-Occupational-Therapy-Guidelines_V102023_eff05012023_pub03232023.pdf

Julie Lenhardt is AOTA's Manager of Reimbursement & Regulatory Policy.

Occupational Therapy and Congenital Upper Limb Differences

Sarah Tuberty
Amber Jenkins
Laura Faye Clubok
Natalie Grazian
Madelyn Hubbs
Olivia Levchak

April is Limb Difference Awareness month! People with limb differences are a part of the disability community and may experience unnecessary physical, environmental, and social challenges due to stigma. Let's explore definitions, concepts, supports, and adaptations when working with clients with limb differences, students, and colleagues to promote acceptance and belonging.

Limb Difference Terminology

Limb difference refers to the altered appearance and/or function of an upper and/or lower limb. Differences can be *congenital*, indicating that they were present at birth, or they can be *acquired*, meaning the difference occurred after birth. Limb differences vary widely from a partial fin-

ger to bilateral differences at the shoulder level. The *residual limb* refers to the distal aspect of the limb difference. Members of the limb-different community have varying preferences for terms they like to use, such as *nub*, *little hand*, *army*, and *stump*. Word choice is a personal preference. It is paramount to ask for and use preferred terminology.

Limb-Different Culture

Strong and vibrant communities can be found following #LimbDifference, #UpperLimbDifference, #HandDifference, or by following specific conditions such as #PolandSyndrome or #Symbrachydactyly on social media, or by doing an online search for "limb difference." Many people have creatively incorporated their limb differences into various art expressions, such as Cosplay and Halloween costumes, books, songs, and comics.

On the flip side, the stigma of having a limb difference includes staring, bullying, microaggressions, the pressure to be inspirational, repeatedly explaining the difference, and navigating unpredictable reactions. It may be helpful to encourage role playing and developing scripts in responses to these interactions.

Hand Camps and family meetups provide spaces for people of all ages to come together in community, either during the day or overnight. These gatherings, ranging from themed events to family picnics, offer opportunities for peer discussions and practicing daily activities, fostering normalization and enhanced feelings of acceptance (Lake et al., 2021 & Oliver et al., 2019).

Therapy Resources

People with limb differences often use adaptive strategies and different body mechanics in daily activities, leading to overuse syndrome and pain in areas such



as the neck, back, shoulder, and carpal tunnel (Scott-Wyrd, 2018).

Many people with limb differences will use adaptive strategies and one-handed products. Help encourage bilateral use as much as possible and promote the incorporation of stretching and strengthening into daily routines to mitigate over use and pain. Given the diversity of limb differences, there is no universal solution. For connection and education, explore social media groups, websites, and video tutorials. Always work with the client to ensure their needs and desires are being addressed.

Supporting the Limb-Different Community

- Normalize limb difference by talking about it neutrally, like any other human trait.
- Ask individuals about their preferred language for describing their limb difference and use it respectfully.

- Move away from the terms *limb deformity*, *limb defect*, and *limb deficiency*. These are outdated and offensive to the community. Please advocate for *limb clinic* and *limb difference* to be used in your practice settings and in research.
- Advocate to hire, place fieldwork students, and promote inclusion for people with limb differences and disabilities. It is crucial for clients to see themselves represented in our profession. 🗣️

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Olivia Levchak, (limb different, she/her), is an MSOT student at Clarkson University.

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Sensory Impairments

AND THE

Stroke Population



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Stroke affects more than 795,000 people a year in the United States and is a leading cause of disability (Centers for Disease Control and Prevention [CDC], 2022). Nearly half of the people who experience a stroke are left with sensory impairments. These impairments may include difficulty perceiving light touch, pressure, pain, limb position in space, and object recognition without visual feedback (Carey & Matyas, 2011; Carey et al., 2018). Unsurprisingly, such deficits decrease one's ability to participate in everyday activities. Stroke survivors with sensory loss report difficulty with activities such as dressing themselves, using their hands to communicate, using utensils during meals, and manipulating objects (Carey et al., 2018; Serrada et al., 2019). Impaired sensation leaves a stroke survivor less likely to use an affected arm to explore their immediate environment and more likely to require assistance to participate in ADLs. Sensory deficits among this population can also leave them feeling hesitant to participate in various behaviors, including engaging in sexual activities or leisure occupations (Carey & Matyas, 2011; Meyer et al., 2014; Serrada et al., 2019).

Even with adequate motor return to the affected arm, stroke survivors with sensory impairments do not spontaneously use their affected limb. This can result in learned nonuse of the arm, which further prolongs motor recovery and can lead to decreased participation in everyday activities. Stroke survivors also begin to develop negative attitudes toward their affected arm since it is difficult to functionally incorporate it into

their activities (Carey & Matyas, 2011; Meyer et al., 2014; Schabrun & Hillier, 2009; Serrada et al., 2019).

It is important and necessary that occupational therapy practitioners (OTPs) assess and address sensation with their clients who have experienced a stroke. Not attending to these deficits can be detrimental to stroke survivors' overall performance and return to meaningful activities. OTPs agree that it is important to assess sensory loss to understand how it is affecting occupational performance, educate their clients, and reassess

evaluation process, the OTPs administer the U.S. version of the Nottingham Sensory Assessment (US-NSA) within 1 to 3 days of each client's admission to the inpatient stroke rehabilitation unit and again at discharge. The US-NSA is a modified version of several previous NSA versions that assesses tactile sensation (light touch, pressure, and pinprick), sharp-dull discrimination, proprioception, and stereognosis. The US-NSA assessment has demonstrated strong inter-rater reliability and concurrent validity in assessing somatosensory

“Even with adequate motor return to the affected arm, stroke survivors with sensory impairments do not spontaneously use their affected limb.”

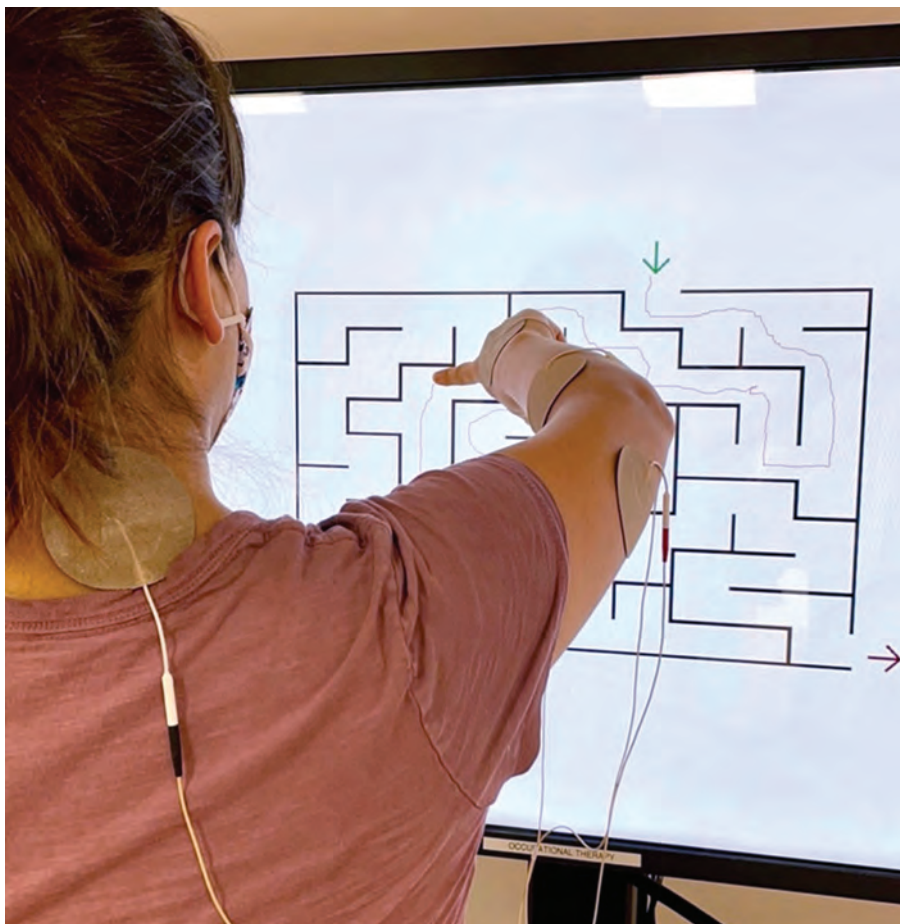
progress and recovery over the course of treatment. Yet, OTPs report not consistently using interventions to address sensory impairments, for reasons such as lack of time, lack of awareness, and lack of access to assessments (Pumpa et al., 2015).

What is Rancho Los Amigos Doing?

At Rancho Los Amigos National Rehabilitation Center (RLANRC) in Downey, California, the OTPs have adopted a protocol to begin addressing sensory deficits of the affected upper extremity for each client admitted to the inpatient stroke rehabilitation unit. As part of the

deficits of the upper extremity for clients who have experienced a stroke (Doyle et al., 2016; Kaestner & Miller, 2015). At RLANRC, the results of the US-NSA inform OTPs' treatment plans and interventions during each client's stay.

Alongside the US-NSA, the OTPs at RLANRC also administer a modified Canadian Occupational Performance Measure (COPM) assessment (Law et al., 2019). The COPM guides OTPs to occupation-based treatment plans for each client while also building rapport. The COPM is administered again at the end of each client's stay, before they are discharged, to determine changes in scores and overall goals with the interventions used.



Client engaged in completing a maze.

To address sensory deficits, the occupational therapy department at RLANRC sought out evidence-based interventions for this population. The Study of the Effectiveness of Neurorehabilitation on Sensation (SENSe) protocol was identified as a sensory-focused intervention targeted toward specific sensory deficits with the stroke population. The SENSe is a tool that retrains various sensory discrimination abilities for stroke survivors, including texture discrimination, limb position, tactile sensation, and weight distribution. Such sensory retraining can help stroke survivors regain sensation in these areas almost immediately after treatment and in the long term (Carey et al., 2011).

Electrical stimulation is a modality that has been used for years to address motor control impairments with stroke survivors. OTPs at RLANRC also use surface electrical stimulation with sensory parameters as an intervention to address sensory impairments with this population. Electrical stimulation that

specifically targets sensory nerves not only improves sensation but also has a positive impact on motor recovery of the affected upper extremity (Schabrun & Hillier, 2009; Serrada et al., 2019; Tu-Chan et al., 2017). The same contraindications and precautions for electrical stimulation use apply to sensory electrical stimulation use. This includes avoiding electrical stimulation use on those who have a pacemaker, have active cancer, or have peripheral vascular disease (Bracciano, 2019, p. 279). Four large electrodes are placed on the person's affected upper extremity, always starting with the nuchal area. While there are no universally agreed upon parameters for sensory electrical stimulation, the OTPs at RLANRC do have set parameters when using this modality. Both channels on the electrical stimulation unit are set to a symmetrical waveform with a high rate. The pulse duration is shortened, with the duty cycle set to a longer *on* time and shorter *off* time. The amplitude on both channels is set to 1 to 2

milliamperes below the first tetanic muscle contraction.

The protocol for sensory electrical stimulation use does not end with just turning the unit on and allowing the person to remain passive. A key factor with this modality is to have the person engage in functional activity while electrical stimulation is applied. In doing so, this modality reinforces safe and functional use of the affected arm in everyday activities, as well as prevents learned nonuse (American Occupational Therapy Association [AOTA], 2018; Carey & Matyas, 2011; AOTA, 2019; Laufer & Elboim-Gabyzon, 2011; Yang et al., 2019).

Case Examples

The following case examples reflect clients who were in the inpatient rehabilitation unit at RLANRC after experiencing a stroke. They were admitted between March 2022 and June 2022. Each case example highlights the positive results from addressing sensory deficits during the client's program using either the SENSe protocol or sensory electrical stimulation, or both. Client names have been changed for confidentiality.

All instances of electrical stimulation use by Kaainaat Ali, doctoral resident, were overseen by her supervisor, Jacob Baquir, OTR/L, who has CBOT Advanced Practice Approval in Physical Agent Modalities.

Maggie

Maggie is a 46-year-old woman who had an infarct on her left temporal lobe. The stroke affected her dominant right arm and her ability to work as an operating room nurse, write, and complete her ADLs independently. At her evaluation, the US-NSA revealed Maggie's right arm had impaired sharp/dull discrimination. Maggie's primary occupational therapist also noticed that Maggie would default to using her left hand for most tasks, despite being right-handed and having some motor control of her right arm.

In the inpatient rehabilitation unit, the primary occupational therapist used sensory electrical stimulation to address Maggie's sensory impairments. With the modality on, the occupational therapist encouraged Maggie to frequently use her right arm in various activities. Some of her activities included doing laundry,



Client engaged in weight discrimination tasks.

writing out recipes, playing the board game Operation, and participating in scavenger hunts around the occupational therapy gym.

Maggie’s discharge US-NSA showed that her sharp/dull discrimination had recovered 100%. She shared that she felt more confident using her right arm the same way she had been using it before her stroke. She also revealed that upon her admission, she firmly believed she would not be able to return to work as a nurse because she thought she could not use her right arm the same way anymore. By her discharge, Maggie felt that returning to work actually seemed possible. She expressed, “My right hand almost moves like my left hand now. I don’t have to only rely on my left hand to get things done.”



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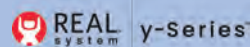
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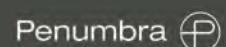
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Client participating in work bench tasks.

Tony

Tony, a 59-year-old man, was admitted to the inpatient rehabilitation unit at RLANRC after experiencing an ischemic stroke that affected his left thalamus, left corona radiata, and left internal capsule. The stroke made it difficult for Tony to use his right arm to return to work in printing, clean his house, check his own blood sugar levels, and independently complete his ADLs. His US-NSA evaluation score revealed that Tony had impaired stereognosis, making it difficult for him to identify objects without visual cues.

Tony's rehabilitation program included both the SENSE protocol and sensory electrical stimulation to retrain his sensation.

A portion of Tony's program used both methods simultaneously to specifically target Tony's texture discrimination, weight distribution, and tactile sensation. With just sensory electrical stimulation on, Tony also engaged in various simulated home management activities, such as putting groceries

away, cleaning windows and tables, and washing dishes. With this modality, he also played basketball and practiced tying his own shoes.

At discharge, Tony's US-NSA stereognosis score did not reach full recovery; however, his score did increase by 25%. During one session, Tony shared with his occupational therapist that, "I am starting to feel things more with my [right] hand. It really is getting better; I just need to practice using it more." By the end of his program, Tony was completely independent with all his ADLs and was able to check his own blood sugar every morning. He looked forward to going home and finally cooking his own breakfast.

Kent

Kent, a 55-year-old male, experienced an ischemic stroke to his right frontal lobe, which affected his nondominant left arm. The stroke left him with a lack of confidence to use his left arm during his ADLs or to return to work as a cashier. During his initial OT evaluation, Kent told his

occupational therapist, "My left arm does not work right, yet" when asked to tie his own shoe. Based on Kent's US-NSA evaluation, he had impaired pressure sensation, sharp-dull discrimination, proprioception, and stereognosis.

The primary occupational therapist used sensory electrical stimulation to address Kent's sensory impairments. With the electrical stimulation on his left arm, he participated in many activities targeting fine motor skills, including playing Connect 4, playing cards, and organizing money. Other activities Kent engaged in were organizing food shelves, folding laundry, and playing darts.

During one of his last sessions, Kent's occupational therapist asked Kent how his left arm felt compared to his first day in treatment. Kent said, "It has gotten a lot better, and I can use it to do much more now." His discharge US-NSA scores for pressure sensation, proprioception, and stereognosis reached full recovery. His score for sharp-dull discrimination increased 37.5% from his initial evaluation. Upon discharge, Kent was independent with all his ADLs and was looking forward to returning to work. He also mentioned that he felt positive in his abilities to now help his sister wash the dishes the next time he visited her.

Implications for Future Practice

It is not a new idea that stroke survivors can experience changes to their sensation. The tools and information to address these changes are available for all OTPs to use. Rancho Los Amigos National Rehabilitation Center has acquired such materials to empower, educate, and support stroke survivors to not only regain sensation in their affected arm, but also to return to many of their preferred occupations.

The center is dedicated to continuing to learn about new evidence-based practices to address sensation, training OTPs in these practices, and supporting and encouraging stroke survivors to safely return to meaningful activities. 📍

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Client participating in bowling activity with simulated sensory electrical stimulation placed on client's right arm.

For More Information



Stroke: Interventions to Support Occupational Performance

T. Wolf & G. Giles, 2014.
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APPLYING PRINCIPLES OF NEUROPLASTICITY TO EVERYDAY NEUROLOGICAL REHABILITATION

by Artemis Sefandonakis and Piper Hansen

Neuroplasticity refers to the brain's ability to reorganize itself by forming new neural connections throughout life, allowing individuals to adapt to new experiences, learn new skills, respond to their environment, form new memories, and promote recovery after an injury or illness, like that from a neurological incident such as a stroke or a brain injury (Hart et al., 2019; Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Verma, 2023; Wolpaw, 2012).

Neuroplasticity plays a critical role in the recovery process after a stroke (Hart et al., 2019; Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Verma, 2023; Wolpaw, 2012). After a person experiences a stroke, changes to the neural pathways in their brain often lead to functional deficits impacting their engagement in daily activities. However, the brain also undergoes a period of neuroplasticity, during which it attempts to reorganize itself to compensate for any experienced dysfunction (e.g., hemiplegia, visual perceptual changes, sensory impairments) by forming new neural connections, rerouting neural pathways, and adapting to new circumstances (Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Verma, 2023; Wolpaw, 2012). This process of neuroplasticity demonstrates the brain's potential to recover after experiencing a stroke. Occupational therapy practitioners (OTPs) have the responsibility to ensure that the principles of neuroplasti-

city are central ingredients of their client's neurorehabilitation during the recovery process (Hart et al., 2019; Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Wolpaw, 2012).

Neuroplasticity and Occupational Therapy

There are 10 key principles of neuroplasticity, listed and described in Figure 1, Applying Principles of Neuroplasticity in Occupational Therapy (<https://bit.ly/3uN-3VZA>) and Table 2, (2019; Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Verma, 2023) that should be integrated into OT interventions, as neuroplasticity is a standard of stroke rehabilitation (Page & Peters, 2014). By providing their clients with experiences that integrate these principles of neuroplasticity, OTPs challenge each individual's current abilities to promote the development of new neural connections and support the client in achieving their functional goals (Wang et al., 2013).

Case Example

Latona is a 54-year-old woman who experienced a left middle cerebral artery stroke. Following her acute care hospital stay, she transitioned to an inpatient rehabilitation hospital to continue receiving intensive therapy services.

During the initial evaluation, Latona shared that she lives with her husband in a ranch-style home, has a very supportive

family, and supports the family business by completing administrative work. She shared that her most important goals included increasing her independence in self-care activities (i.e., bathing, dressing, and grooming), improving her arm strength needed to complete home management tasks (i.e., cooking, cleaning, taking care of her cat), walking to the community pool, and spending time with her friends and family.

Latona required assistance at the initial evaluation to complete all basic self-care activities (see Table 1) because her performance was limited by not being able to use her right upper extremity (RUE) to grasp and manipulate self-care items (i.e. clothing, lotion bottles, utensils), and by her decreased ability to sustain her attention during tasks, her decreased safety awareness, and mild right-sided neglect. When developing Latona's treatment plan, incorporating the 10 principles of neuroplasticity were prioritized to promote neurological connections and foster the recovery process (see Table 2). Further, the principles of neuroplasticity were especially important when selecting upper extremity interventions, like mirror box therapy and task-specific training, as these interventions incorporate many of the neuroplasticity principles (see Table 2 for specific neuroplasticity principles that these interventions incorporate) to promote neuro-recovery of her RUE.

The principles of neuroplasticity were successfully implemented while ensuring

Table 1. Self-Care and Standardized Assessment Scores at Initial Evaluation

Self-Care Activity	Assistance Level
Eating	Supervision
Oral hygiene	Partial
Upper, lower, and footwear dressing	Substantial
Toilet transfers and toileting hygiene	Substantial
Shower transfers and bathing	Substantial
Assessment	Score
Action Research Arm Test (ARAT)	Five out of 57 (only able to perform gross movements)
Kessler Foundation Neglect Assessment Process (KF-NAP)	Six—mild right neglect/inattention (peripersonal space primarily)
Menu Test	Five out of 12 with errors of accuracy and inhibition limiting successful performance (score of 8+ within functional limitations)

Note. Adapted from the American Occupational Therapy Association, 2022.

that Latona's goals remained central to the plan of care. In addition to improving her independence with self-care activities, Latona was able to integrate her right arm more successfully during meaningful activities, such as grasping a large spoon to pour pancake batter into a pan, opening and closing toothpaste lids, reaching to turn on the tap, picking up her phone off a table, and zipping her jacket.

Through prioritizing the principles of neuroplasticity and completing frequent reassessment, with subsequent modifications to treatment sessions, and from feedback from Latona and her family, Latona was able to become more independent, successful using her right arm, and helped facilitate her safe transition home.

Implications for Practice

OTPs can utilize the principles of neuroplasticity to provide their clients with individualized, occupation-based treatment sessions that promote the development of new neural connections that can lead to improved function in meaningful occupations (Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Wolpaw, 2012). Although neuroplasticity research in occupational therapy is still developing, there are strong indications of the potential to improve outcomes (Hart et al., 2019; Kleim & Jones, 2008; Puderbaugh & Emmady, 2022; Wolpaw, 2012). Ensuring that neuroplasticity principles are reflected throughout the continuum of rehabilitation, OTPs can significantly contribute to helping clients achieve their goals and successful outcomes during inpatient rehabilitation stays (Wang et al., 2013).

Conclusion

Many OTPs may be using the principle of neuroplasticity in their daily practice without even realizing it. As with the case example featuring Latona, OTPs can integrate these principles into their current practice and elevate their occupational therapy toolbox. Understanding the 10 principles of neuroplasticity is essential for OTPs to provide effective interventions and achieve optimal outcomes for their clients. 🧠

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For More Information



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Acknowledgment

Thank you to the expert occupational therapy clinicians Kelsey Watters, CSCd, OTR/L, BCPR, CBIS; and Kerry Ball, OTD, OTR/L, who reviewed the figure linked in this article.

Table 2. Application of Neuroplasticity Within Latona’s Plan of Care

Principle of Neuroplasticity	Clinical Examples of Neuroplasticity Application Used
Use it or lose it	<ul style="list-style-type: none"> ● Encouraged attention to and utilization of any emerging motor movement using both a mirror box and task-specific training sessions at the just-right challenge.
Use it and improve it	<ul style="list-style-type: none"> ● Educated Latona and her family about opportunities to practice using her RUE more often outside of therapy sessions, with daily activities such as eating, grooming, and dressing. ● Encouraged family members to set up the mirror box and/or task-specific exercises by using hand-outs, completing mass practice of grasping and releasing utensils or washcloths, and monitoring Latona’s performance.
Specificity matters	<ul style="list-style-type: none"> ● Helped Latona use her own personal items and practiced activities in context, such as using her own clothing during dressing, transfers on and off the toilet versus simulating toilet transfers on a mat, grasping/releasing utensils and grooming, bringing a spoon to her mouth, or grasping a whisk and stirring rather than stacking cones or placing pegs into a pegboard. ● Integrated familiar movements as part of both mirror box and task-specific training, such as practicing pinching buttons to promote fine motor control when managing clothing fasteners.
Repetition matters	<ul style="list-style-type: none"> ● Encouraged high repetition of common activities by repetitively practicing an ADL task of donning and doffing a shirt, completing multiple toilet transfers, or mass practice of reaching motions into cabinets to grasp cups, clothing, or medication bottles rather than only completing each activity one to two times. ● Provided repetitive activities as homework to complete outside of therapy, with repetition goals for related activities completed in therapy to increase the repetition potential.
Intensity matters	<ul style="list-style-type: none"> ● Fostered opportunities that allowed for high dosage of common activities during an allotted period of time, such as when completing a task-specific training session, such as practicing tying shoes 100 times for 15 to 20 minutes. ● Constructed the therapeutic environment to create a challenge that allowed for high quantities of task-specific training to occur, such as by adding a built-up foam handle onto a spoon to achieve a high quantity of grasp and release of the spoon in the time frame, while allowing for some error to promote learning (e.g., 100 reps in 15 to 20 minutes).
Time matters	<ul style="list-style-type: none"> ● Implemented challenging, repetitive therapeutic interventions to promote neuroplasticity from the onset of rehabilitation. ● Implemented consistent reassessment to monitor progress, track any change, and modify and update interventions on a regular basis to aid in ensuring the appropriate intervention was provided along the recovery process (e.g., readministration of the ARAT on a 7- to 10-day cycle to support ongoing treatment planning that aligned with key challenge areas).
Salience matters	<ul style="list-style-type: none"> ● Determined (collaboratively) personal goals to guide treatment sessions using the Canadian Occupational Performance Measure (COPM; Law et al., 2019) to identify key goals and monitor perception of performance. Executed motivating sessions that were customized to Latona’s goals and needs, including using Latona’s favorite pair of tennis shoes to practice donning and doffing instead of using a simulated shoe tying board, and reaching to grasp for common cooking spices in the kitchen rather than reaching for cones or other items that do not have an importance to Latona.
Age matters	<ul style="list-style-type: none"> ● Addressed the potential effects of age on brain plasticity and recovery potential when developing the plan of care and long-term goals.
Transference	<ul style="list-style-type: none"> ● Created opportunities that focused on fine motor skills, such as pinching coins, with the goal of encouraging plasticity in nearby regions of the brain that would foster grasping a handful of coins or translating them in the palm to use vending machines at the community pool. ● Generated treatment sessions that foster skill translation in similar activities, such as grasping cups during meals with carryover of this skill to reaching for and grasping mouthwash cups at the sink. ● Considered integrating electrical stimulation to enhance neural recovery in nearby pathways, encouraging nearby plasticity.
Interference	<ul style="list-style-type: none"> ● Created therapeutic environments that supported Latona’s movement, such as adjusting the height on higher shelves to avoid lateral leaning when reaching for spice jars. ● Selected activities that encouraged the use of Latona’s RUE both unilaterally and bilaterally, to minimize the chance of not using the affected limb due to increased difficulty, such as folding clothing, zipping a jacket, or maintaining grasp on a makeup bag with her left hand and using her right hand to transfer various items into the bag.

Note. Adapted from Holleran et al., 2014; Kleim & Jones, 2008; Kwakkel, 2006; Puderbaugh & Emmady, 2022; Wang et al., 2013; Verma, 2023; Wolpaw, 2012.

A Model for Bridging Accommodations from Classroom to Fieldwork



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by Hannah Oldenburg, Virginia Green, Tamra Trenary, Julie Olson Rand,
and Leah Sorenson

The number of students with a disability who are entering post-secondary education programs has increased, with approximately 12% of post-baccalaureate level students reporting a disability (National Center for Educational Statistics, 2023; Simon et al., 2022). The American Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973 are federal laws that define disability as a “physical or mental impairment that substantially limits one or more major life activities” (Laird-Metke & Moorehead, 2016, p. 16). Students with disabilities in occupational therapy and occupational therapy assistant programs are protected under these laws, which assure equal access and opportunity for learning for students in each academic program. At any point during the academic program, occupational therapy students may seek accommodations for physical, cognitive, mental, neurodivergent, visual, and hearing related impairments (Laird-Metke et al., 2016). AOTA

As a profession that drives inclusivity, occupational therapy academic program administration, program faculty, and fieldwork stakeholders (e.g., administrators, sites, educators) must create and implement policies and procedures to support and include students with disabilities within the occupational therapy workforce (AOTA, 2023). For students with disabilities who use accommodations in occupational therapy (OT) programs, it is essential for occupational therapy faculty to ensure a fluid and effective bridge of the accommodation plan from

the classroom to the fieldwork experience. Creating an ongoing supportive learning environment enhances students’ ability to become successful occupational therapy practitioners (OTPs). Although students are not required to disclose an accommodation to a fieldwork site or educator, academia can help foster an environment for students to feel safe and supported if they choose to do so, according to the *Occupational Therapy Practice Frame-*

work to have access equal to their peers” (p. 34). Some students may need accommodations within the classroom, whereas other students may just need accommodations for fieldwork—and some students may need both. There are times when the fieldwork experience or environment imposes distinct demands on students that differ from the expectations students experience in the classroom (Ozelie et al., 2022, p. 4; Simon et al., 2022).

“For students with disabilities who use accommodations in occupational therapy (OT) programs, it is essential for occupational therapy faculty to ensure a fluid and effective bridge of the accommodation plan from the classroom to the fieldwork experience.”

work: Domain and Process (OTPF-4; American Occupational Therapy Association, 2020). To that end, we have developed an intentional framework for addressing accommodation needs throughout OT programs, to reduce barriers and enhance inclusion from classroom learning to fieldwork.

A Collaborative and Proactive Approach

According to Laird-Metke et al. (2016), “A disability accommodation refers to academic adjustments and axillary aids provided to enable students with

Accommodations needed for a student at a fieldwork affiliation require advanced planning with a team approach (Ozelie et al., 2022). It takes a collaborative approach among the Disability Services personnel, academic fieldwork coordinator (AFWC), program faculty, fieldwork site coordinator and educator, and student to ensure successful use of accommodations for classroom and fieldwork (Hughes et al., 2020). When working with students with disabilities, a member of the academic institution’s Disability Services department (typically an access consultant) first confers

Table 1. Accommodation Examples

Barrier	Classroom Accommodation Interpretation	Fieldwork Accommodation Interpretation
Challenge with focus or distractibility	<ul style="list-style-type: none"> Alternative testing with extended time Permission for small groups to relocate to a quiet location 	<ul style="list-style-type: none"> Additional time to complete case notes (can be outside of work time) Quiet place designated for writing case notes Use of noise-canceling headphones/earplugs while writing case notes
Medical appointments conflicts with school schedule	<ul style="list-style-type: none"> Reasonable attendance adjustment (e.g., student may miss class for medical appointments) 	<ul style="list-style-type: none"> Adapting fieldwork schedule or progression of experiences to allow for a routine day off or time for an appointment Consideration of fieldwork sites closer to the student's home or region of medical/health appointments
Acute flare of condition that may disrupt others	<ul style="list-style-type: none"> Permission to leave the classroom to manage condition 	<ul style="list-style-type: none"> Permission to take breaks, when reasonable, to manage condition

Table 2. Student Timeline of Communication and Tasks

Time Frame	Steps to Take
Upon acceptance into program	Register with Disability Services to discuss classroom and fieldwork accommodations.
Weeks prior to Level I fieldwork placement (or as early and feasible)	Discuss with Disability Services to determine reasonable fieldwork accommodations; collaborate with faculty advisor and AFWC on strategies to support learning during Level I fieldwork experiences.
One year prior to Level II fieldwork placement	Discuss with Disability Services to determine reasonable fieldwork accommodations.
During the term or prior term of the fieldwork experience	Connect with the fieldwork coordinator and site supervisor to coordinate accommodation needs.
During fieldwork	Provide feedback to Disability Services and AFWC.

“Proactive planning for fieldwork accommodations is critical because the accommodations can at times dictate the types of settings that are compatible for the student.”

with the student using a specific set of questions to help ascertain the barriers the student experiences in relation to their condition, and to narrow down a list of accommodations for the academic program—and any other campus environment—as well as fieldwork settings. Accommodations are determined on a case-by-case basis; there is not a specific accommodation that is assigned to a particular diagnosis or condition (see Table 1).

Proactive planning for fieldwork accommodations is critical because the accommodations can at times dictate the types of settings that are compatible for the student (Simon et al., 2022). To determine whether a student needs accommodations in the classroom or fieldwork, the access consultant uses an interactive process to analyze the student's self-report of impacts of their condition in the learning environment, along with supplemental information

such as past accommodations and medical documentation. It is important that the academic institution personnel and program faculty collaborate and implement a process to introduce the accommodations and disclosure process to OT students.

Accommodations must be considered reasonable, not simply by the student or the access consultant but also by the OT faculty—and must not negate the essential functions and technical standards of the program or profession. Referencing a program's essential functions and technical standards is important when reviewing the accommodation and expectations of the student as they progress through the program. The essential functions for a student may mirror what is expected of the practitioner staff to ensure safety and quality of patient care.

Timeline and Tasks to Foster Accommodations

One method to help with planning is to be strategic in communicating accommodation resources and the process early and often to students throughout the academic program. Another way to help with the process is for the student to prioritize the accommodations needed during fieldwork, as it is possible not all accommodations will be compatible with all fieldwork sites. It is important to note that the accommodation process can be time consuming, requiring significant back and forth, which is one of the reasons we recommend a proactive process. Table 2 includes an example timeline for student communication and tasks, and Table 3 provides an example timeline for faculty and fieldwork stakeholders.

Table 3. Faculty and Fieldwork Stakeholders Timeline

Time Frame	Steps to Take
Start of program	<ul style="list-style-type: none"> ● Introduce accommodations process; specify what types of conditions qualify for disability accommodations—stating the difference between classroom and fieldwork accommodations.
Weeks prior to the first Level I fieldwork (or as early and feasible)	<ul style="list-style-type: none"> ● Discuss with Disability Services to determine reasonable fieldwork accommodations. ● <i>AFWC</i>: Collaborate with student to share or disclose (if student chooses) the accommodation to fieldwork site, educator, and/or faculty, depending on the Level I fieldwork type.
One year prior to Level II fieldwork	<ul style="list-style-type: none"> ● Remind students to consider whether a fieldwork placement may require accommodations and, if so, to reach out to Disability Services to discuss them.
One year prior to fieldwork	<ul style="list-style-type: none"> ● Connect with Disability Services to develop shared expectations about when students should be requesting accommodations and what types of accommodations are reasonable given the placement types/settings.
After each visit with students	<ul style="list-style-type: none"> ● <i>Disability Services</i>: Provide accommodation requests from students. ● <i>Faculty or AFWC</i>: Engage in dialogue around reasonability and provide feedback to Disability Services.
Upon completion of discussion	<ul style="list-style-type: none"> ● <i>Disability Services</i>: Inform students of the formally approved fieldwork accommodations.
Term prior to start of fieldwork	<ul style="list-style-type: none"> ● <i>Faculty</i>: Communicate fieldwork accommodation needs to site personnel, connect student to site supervisor, and possibly arrange a site visit. Disclosure of the accommodation to the fieldwork site and educator(s) is recommended. <ul style="list-style-type: none"> ○ For Level I, disclose accommodation when feasible or relevant to the Level I program format. ○ For Level II, complete at least 6 weeks prior to starting fieldwork.
During fieldwork	<ul style="list-style-type: none"> ● Seek feedback from the student regarding accommodations use or additional needs.

Note. Timeline used in St. Catherine University graduate OT programs.

We suggest that students begin the accommodations process early to ensure the logistical groundwork can be done in time to provide a barrier-free learning environment, from classroom and laboratory-based courses through fieldwork experiences. For example, the AFWC, course faculty, and advisors may meet collaboratively with the student each term to review or revise accommodations to ensure the program expectations are being upheld while supporting the student’s learning needs. Furthermore, as students progress in the program, team members may evolve. For example, prior to the student’s arrival to fieldwork, the fieldwork site coordinators and educators may be added to the student’s collaboration meetings to review the accommodations, determine whether the accommodations are reasonable, and create strategies to support the student learning on site. Throughout the evolving program, it is important to note that program faculty need to ensure that the disclosure process protects the student’s privacy and confidentiality, and that it provides enough information to support the student in achieving success and inclusion during fieldwork (Hughes et al., 2020). Figure 1 details scenarios demonstrating how to extend student accommodations from the classroom to fieldwork.

Conclusion

Further research is needed on the impact of fieldwork-based accommodations and considerations during fieldwork. However, in the meantime, academic programs can do their best to support students at an early point in the program and throughout all classroom and experiential learning. Academic

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Figure 1. Examples of Bridging Accommodations From Classroom to Fieldwork

Scenario 1: Physical Accommodations

Riley requires classroom lab and fieldwork accommodations for weight restrictions and physical safety due to a chronic spine condition. She also requires time flexibility due to her medical appointments for her ongoing physical health needs. Riley experienced anxiety about how her physical limitations might affect her fieldwork placements and her ability to participate fully in lab courses. Despite her initial worries, she proactively met with both her faculty advisor and her fieldwork coordinator early in the program to disclose her physical limitations and to advocate for her needs. Riley also initiated a visit with the Disability Services office to help ease the conversation among the remainder of her faculty. In her past academic work, she was successful when she felt understood by her faculty and looked for validation that her patients on fieldwork would be safe despite her restrictions. Accommodations for Riley included regular check-ins from her academic advisor, clear weight restrictions pre-approved by her fieldwork sites, and the ability to leave fieldwork 2 hours early on regularly scheduled appointment days. Riley disclosed her accommodation with her Level II fieldwork educator(s) for both lab and fieldwork. The educators were able to reasonably accommodate needing additional days to make up time on site due to medical appointments and events.

Scenario 2: Mental Health Accommodations

Carmen has classroom accommodations for reasonable attendance adjustment and reasonable deadline extensions due to the need for flexibility to attend appointments and the inability to attend class or complete an assignment on time due to potential acute mental health needs. Her faculty advisor has provided her with resources for support, such as the counseling center. Carmen has learned through her coursework that she is most successful with a consistent routine and a strong support system in place. Carmen met with the Disability Services personnel at her university and the AFWC to put accommodations in place to support her while on fieldwork. Accommodations on her first Level II fieldwork placement included half days on Fridays to allow for pre-scheduled regular appointments, a make-up plan in place in the event of needing an unexpected day off, and ensuring all fieldwork was scheduled in the same building for consistency in location/routine. The AFWC collaborated with Carmen and specific fieldwork sites to ensure a Level II placement was in proximity to her home, support system, and medical providers to support her accommodations.

faculty and fieldwork educators need to work together with students to ensure recommended accommodations match student learning needs with practice and professional expectations. By utilizing an intentional framework to address accommodation needs in OT programs, the pathway is clearer for students with disabilities to become OT professionals in the field—one that will be enriched by their inclusion. 🌀

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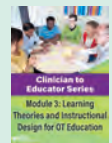


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ExerSHINE Kids POWER Bootcamp Program: Improved Occupational Performance in Neurodiverse Pediatric Clients

Amy Wheadon

Participation in group sports and extracurricular activities is a rite of passage for children. However, there are many pediatric populations—including, but not limited to, neurodiverse children—who may have difficulty participating in more traditional group activities and leisure occupations. Research has shown that regular participation in physical activity and exercise helps to increase endurance, protect against further injury, and enhance emotional and social well-being in children with disabilities (Bloemen et al., 2017; Fernandez et al., 2018). Physical activity participation also provides an avenue for neurodiverse children to build friendships, express creativity, develop a self-identity, and foster a sense of belonging (Duronjic & Valkova, 2010; Taylor et al., 2024).

As a profession, occupational therapy practitioners (OTPs) have a unique understanding of the complex and

dynamic interaction between the person, environment, and occupation to support successful participation in meaningful activities, as outlined in the *Occupational Therapy Practice Framework: Domain and Process (OTPF-4; American Occupational Therapy Association, 2020)*. OTPs can play a significant role in supporting a child's meaningful engagement in regular physical activity, with a target outcome of enhancing social participation and self-efficacy for participating in occupations, placing it well within the scope of occupational therapy for intervention (Bloemen et al., 2017; Fernandez et al., 2018; Guivarch et al., 2017; Hertzog et al., 2019; Hill et al., 2023; Hilton et al., 2020; Taylor et al., 2024).

Inspiration Through Self-Reflection

I embraced high-intensity exercise when I was in graduate school, working toward my master's degree in occupational therapy. My daily workouts improved my overall endurance, cardiovascular health, and muscle strength, but that is not what sparked my motivation to commit to regular exercise. Running and weight lifting also enhanced my focus, organization, and participation in daily occupations. Exercise became a daily tool that I successfully used for my own regulation, emotional health, and connection with others. Working out in a group also provided me with a sense of community and belonging, which contributed to my well-being and self-confidence.

When I became a pediatric occupational therapist, I tapped into my past personal experiences to design intervention activities for my pediatric clients by incorporating high-intensity exercise into treatment sessions; exercises were embedded within child-friendly, engaging, and meaningful themes. My clients were willingly doing

Group space—merging outpatient OT with a group fitness vibe—welcoming for all age groups, including teens.



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Conquering obstacles by challenging shoulder stability and core, and providing vestibular input.



Just right challenge to facilitate regulation and success in a group setting

exercises such as burpees, plank taps, and mountain climbers, but within the context of the activity, these children became “monkeys, jumping from tree to tree, working together to collect as many bananas as possible, and then delivering the bananas to the top of the mountain.” These engaging and meaningful activities targeted improved performance components (i.e., core strength, shoulder stability, motor planning, endurance, sensory processing, proprioception, vestibular input) and also facilitated improved regulation for enhanced social participation as well as increased engagement in leisure and play occupations.

Combining my knowledge as an occupational therapist with my passion for exercise enabled me to create, research, and refine the ExerSHINE Kids POWER Bootcamp Program. This structured, unique group program bridges the gap between exercise, regulation, group dynamics, and occupational performance, using a contemporary and eclectic approach to support all aspects of a child’s participation in leisure occupations.

The Program

The ExerSHINE Kids POWER Bootcamp Program is a structured, manualized group program focused on using fast-paced, high-intensity exercises to improve overall performance in daily occupations. The ExerSHINE Kids POWER Bootcamp Program acknowledges the invaluable strength and motor

skills that are developed through physical exercise; however, the overarching purpose of this novel program is to enhance functional performance and successful participation in leisure occupations in neurodiverse children with sensory processing challenges.

The ExerSHINE Kids POWER Bootcamp Program employs the hybrid and collective use of benefits of exercise, principles of sensory integration, and group dynamics to:

- harness the neurochemical release from high-intensity exercise;
- target strength, balance, motor planning, sensory processing, self-regulation, and praxis; and
- facilitate social participation and promote functional independence in daily occupations by incorporating principles of group dynamics.

The acronym POWER stands for Performance and Occupation-based Workouts for Exercise and Regulation. Physical exercise unequivocally builds strength, balance, motor skills, and coordination. High-intensity exercise can also target sensory processing skills for improved focus, increased social participation, and improved performance in daily occupations.

Sensory and motor skill challenges in neurodiverse children can impact both access to group activities and successful participation in leisure occupations. When OTPs are trained in sensory

integration, they have the knowledge and expertise to recognize the significant impact of poor sensory processing skills and poor self-regulation on participation in social activities. Therefore, a foundational understanding of sensory integration and the impact of sensory processing and self-regulation on higher level skills and occupational performance is an important component required to successfully implement this program.

Meaningful child-friendly themes, graded activities, visual supports, and “just right” challenges are interwoven in the ExerSHINE Kids POWER Bootcamp Program, with a goal of increasing engagement, supporting each child’s self-awareness, and facilitating independent use of exercise as a regulation strategy for improved occupational performance across all settings. The program also employs implicit group learning, where social skills are organically supported; children experience and work through social situations “in the moment” through therapist-guided exposure and support in a safe and welcoming space. Exercising in a group also fosters a sense of belonging, camaraderie, and community, which positively enhances social participation, peer interaction, and cooperation. The ExerSHINE Kids POWER Bootcamp Program strives to increase and instill confidence, empowerment, and pride in the children who participate while providing a group atmosphere where neurodiverse children can feel a sense of belonging.

Case Examples

Connor: Improvements at Home and School

Connor is an 8-year-old male who participated in 2 consecutive 8-week sessions of the ExerSHINE Kids POWER Bootcamp Program. He had never received OT services, despite significant sensory processing challenges that were reportedly impacting participation in several areas of occupation, including independence with the morning ADL routine, focus in school, and leisure activities.

Connor’s mother was interested to see if a group class could help her son. Following 16 weeks of the ExerSHINE Kids POWER Bootcamp Program, she noted that Connor was independently getting dressed and starting his daily routine. In addition, his teachers indicated marked

improvements regarding focus and participation in the classroom. Connor now receives regular OT services in addition to participating in ExerSHINE Kids classes and programs. He utilizes exercise and movement more independently as a regulation strategy and continues to make steady progress.

Lucas: Benefits of Ongoing Participation

Lucas is a 14-year-old autistic male who has participated in the ExerSHINE Kids POWER Bootcamp Program since its inception in 2016. As a 7 year old, Lucas required one-on-one support for participation in this small group program due to challenges following directions, increased sensory reactivity, and delayed motor skills. Lucas's mother reported that he had difficulty making friends, was struggling with daily routines at home and at school, had high levels of anxiety, and was unable to participate in structured sports activities. Currently, Lucas is in high school, where he runs cross country, plays the clarinet in the band, and takes honors classes. He stated that he learned how to embrace distance running as a successful regulation strategy. Lucas has also made lasting friendships with three other teens who have participated in ExerSHINE Kids. Lucas's mother attributes this progress in large part to his participation in ExerSHINE Kids, stating, "The skills he has learned and has taken with him from this program have given him the best chance for success. You have given Lucas a safe space, a place where he always felt like he belonged, where he felt seen and where he could be himself."

Program Benefits in Clinical Settings

Children of all ages and ability levels have demonstrated visible improvements in strength, sensory processing, social participation, and increased independence in daily occupations while participating in the ExerSHINE Kids POWER Bootcamp Program. Observable changes have also been reported by several outpatient clinics that are currently using ExerSHINE Kids consistently as a therapeutic group program. One outpatient clinic reported, "This program is really helping the community, and I'm grateful for it. I've seen so much improvement in kiddos' core strength, balance, motor

planning, and regulation. One parent told me her son independently used a regulation strategy from the program during his swim lesson when he got overwhelmed."

A 2019 clinical trial of the ExerSHINE Kids POWER Bootcamp Program measured changes in specific sensory processing skills and overall improvements in daily occupations. Results suggested improved sensory processing and enhanced occupational performance with ADLs, social participation, and leisure activities. Consistent with sensory integration theory, this research suggests that providing a child with sensory input in a structured, organized way will facilitate increased independence and success with daily occupations (Wheaton & Fedoruk, 2020). Each of these areas will be further explored in subsequent clinical trials.

Conclusion and Implications for Practice

Contemporary OT practice involves a combination of evidence and innovation. In pediatric practice, novel, evidence-based programs continue to enrich OT treatment methods and offer complementary options that enhance traditional intervention. Practitioners in occupational therapy can be instrumental in utilizing physical activity (exercise), including the ExerSHINE Kids POWER Bootcamp Program, to facilitate improvement in performance components (i.e., strength, motor skills, sensory processing skills) with the explicit purpose of enhancing overall social participation and supporting children's meaningful engagement in occupations. After 10 years of the ExerSHINE Kids POWER Bootcamp Program producing positive client outcomes, OTPs can now become trained and certified to use ExerSHINE Kids in their own practices. Pediatric OTPs who have already embraced this concept and who use this structured program can attest to the benefits of high-intensity exercise as an additional and contemporary treatment approach that will mutually benefit pediatric clients, their caregivers, and the OT profession. 🧠

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The Post-Professional Occupational Therapy Doctorate

Should I, or Shouldn't I?

Renée Rains
Miles Pfaff

Current occupational therapy practitioners (OTPs) who are considering returning to the academic setting to pursue a post-professional occupational therapy doctorate (PP-OTD) may be driven by a variety of goals. For those who have a desire to enter academia and for those currently teaching in graduate level OT programs without a doctoral degree, the decision is clearer. The 2023 Accreditation Council for Occupational Therapy Education (ACOTE®) Standards (effective July 31, 2025) outline requirements of a doctoral degree for all full time faculty (OTPs) teaching in entry-level doctoral programs and for a majority of full time faculty that are OTPs teaching in master's

programs (ACOTE®, 2023). For those unsure about their long-term professional goals, the question, “Should I, or shouldn't I?” can feel daunting. Opportunity cost, financial considerations, online program expectations, mental health challenges, post-degree outcomes, and perceived benefits are all factors we identified when considering returning to school while continuing to work full-time in our practice settings.

This article investigates these factors from our unique lived experiences as two practitioners in different professional and personal life stages who made the decision to return to school with the goal of transitioning to academia. Prior to entering the PP-OTD program at the University of Kansas Medical Center (KUMC), Miles Pfaff was a pediatric practitioner and director in a clinic setting in Washington state. Renée Rains was a pediatric practitioner engaged in school-based and private practice settings in Colorado. Miles had been practicing for 6 years and was expecting his first child; Renée had been practicing for 23 years and had a child in college.

Opportunity Cost

Opportunity cost is defined as “the value of the next-best alternative when a decision is made; it's what is given up” (Caceres-Santamaria, 2019, p. 1). There are many opportunity costs, varying from person to person and depending on each situation. Examples may include forgoing time spent with family when working on homework on a Saturday, forgoing a vacation to pay tuition, or restructuring priorities resulting in less streaming TV binge time.

Miles: My worry was that the work would compromise time with family. However,



“Understanding one’s ability to cope with the stressors linked to working full time while engaged in a PP-OTD program warrants careful consideration when creating the advising plan for an anticipated degree completion timeline.”

through spending lunch hours and time I would have otherwise spent reading or watching TV in the evenings, it was very doable.

Renée: Opportunity costs that I considered heavily were precious time I might lose with my daughter, family, and friends, as well as vacations that would need to be put on hold. The realization that these were temporary costs eased my concerns.

Financial Considerations

In an informal sampling and review of seven programs that offer a PP-OTD, we found an average credit requirement of 35 hours with fees starting at \$671, and up to \$2,137 per credit hour (American Occupational Therapy Association [AOTA], 2024). If a student loan is needed, the 2023–2024 school year interest loan rate for graduate or professional borrowers was 7.05% for Direct Unsubsidized Loans and 8.05% for Direct PLUS Loans (Federal Student Aid, n.d.). It is also prudent to consider the returns on this educational investment: Will there be a salary increase upon graduating? Morrow et al. (2020) found that PP-OTD graduates reported an increase in salary along with expanded career options and professional networks.

Miles: Although knowing the cost of the program was large, calculating how much I needed to set aside from each paycheck made it a simpler decision to consider. Knowing my goal was not necessarily to see an increase in salary but rather for personal growth and knowledge that would assist me in becoming a professor one day was helpful, too.

Renée: As a seasoned practitioner, I was not expecting immediate recoupment of costs. My goal to transition to academia drove my decision to obtain my doctorate. Taking advantage of KUMC’s graduate teaching assistant program neutralized my tuition costs, which reduced my financial stress as a single parent.

Online Program Expectations

Those entering a PP-OTD program with remote learning components may have concerns about the level of support they will receive. It may surprise them to hear that e-learning in occupational therapy began in the 1980s (Belarmino & Bahle-Lampe, 2019). Mentoring through remote platforms, or *e-mentoring*, is a key aspect of an online doctoral experience. Doyle et al. (2016) found that e-mentoring improves the ability of mentees to “provide professional presentations, take on professional association roles or responsibilities, and seek out other mentors” (p. 314). Jacobs et al. (2016) found a positive impact on professional growth and learning when e-mentoring includes multimodal (video platform, phone, and email) forms of communication between student mentee and faculty mentor.

Miles: The online experience was better than I ever could have hoped. Each professor was exceptionally understanding, and there was a perfect blend of asynchronous and synchronous learning.

Renée: My experience with online learning was positive. I had the flexibility to continue working full time while pursuing my program in the evenings and weekends. My faculty mentors were flexible with the platform and the frequency that I connected with them.

Mental Health Challenges

Our review of PP-OTD programs found that an average of 35 credits are required for degree completion for those with a master’s degree. We also identified differing degrees of flexibility with requirements for semester credits, in-person attendance, and degree completion timelines (AOTA, 2024). According to Akojie et al. (2019), one of the prominent obstacles that students face is balancing school with the daily demands of work and family. Additionally, in literature exploring the student experience with online doctoral programs, isolation and loneliness is a main theme (Akojie et al., 2019; Parker et al., 2020). Understanding one’s ability to cope with the stressors linked to working full time while engaged in a PP-OTD program warrants careful consideration when creating the advising plan for an anticipated degree completion timeline.

Miles: Making studying enjoyable has always been helpful to me. Setting aside time on a Saturday morning to go to my favorite coffee shop and treating myself to coffee and breakfast helped to make it less of a burden. Keeping a to-do list and seeing when tasks were checked off the list was also key.

Renée: It was important to me to have a plan regarding my mental health. I created schedules for work, assignments, and reading. I reached out to my circle of family and friends to set up check-ins and treated myself to monthly massages. I also scheduled time to study outside instead of being in my home office all night.

“Using the mentorship of faculty and colleagues in the program provides academic and emotional support and can increase feelings of success.”

Post-Degree Outcomes and Perceived Benefits

The outcomes of completing a PP-OTD program can include growth in leadership skills, introduction to scholarly work, increased self-confidence, improved self-empowerment, expanded career opportunities, new educator skills, increased salary, and a renewed commitment to the profession (Case-Smith et al., 2014; Morrow et al., 2020; Provident et al., 2015). Leniston and Mountford (2021) discuss the benefits of becoming an institutional entrepreneur as a motivation for obtaining higher education, which would be a good match for practitioners who have a desire to engage in interdisciplinary collaboration at a higher level.

Miles: My goal in pursuing a PP-OTD degree was to better myself as a clinician and to help pave the way to becoming an educator. Earning this degree was the logical next step because it taught me how to design and facilitate courses so I would be qualified to help others learn our profession.

Renée: My primary professional and personal goals included gaining the skills required to become an instructor in an academic setting. I also wanted to elevate my use of evidence-based practice and obtain skills in how to engage in and disseminate scholarly work. I am pleased that I accomplished these goals.

Conclusion

Decision-making factors we identified for pursuing a PP-OTD degree include opportunity cost, financial considerations, online program expectations, mental health challenges, post-degree outcomes, and perceived benefits. We both successfully navigated our PP-OTD programs through careful time management and financial planning to offset the time and monetary costs associated

with becoming full-time students while maintaining our full-time positions. Additionally, we recommend creating schedules that allow for mental health breaks, time with family and friends, and time for assignment completion. Using the mentorship of faculty and colleagues in the program provides academic and emotional support and can increase feelings of success. Finally, reflecting on and having clear professional and post-degree goals is essential and can be motivating during times of stress. The decision to return to the academic setting, regardless of an individual's goals, is uniquely personal. However, it is our hope that this review of literature paired with our individual experiences as practitioners in differing life stages can be a helpful guide to others who are considering this decision. 📖

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A Site-Specific Care Guideline for Autistic Children, Youth, and Adolescents

Kevin Durney

A common challenge across all practice settings is the need to balance consistent, evidence-based processes with the variability inherent in client-centered care provided by practitioners with diverse perspectives and experiences. This challenge takes on new dimensions in the context of a large and expanding children's hospital as a result of multiple factors, including high referral volumes, client diversity (e.g., age, diagnosis, acuity), team size, and setting variability (e.g., hospital, satellite clinic, community partner organization).

As an occupational therapist providing outpatient services at several satellite locations of an urban children's hospital, last year I was presented with an opportunity to help address this challenge by collaborating in the creation of service-specific clinical

care guidelines. Based on my clinical experience and professional interests, department leaders assigned me to a small team responsible for reviewing and applying the best available evidence to the creation of a recommended clinical pathway to guide occupational therapy (OT) services provided to autistic clients.

Although my colleagues and I recognized the value of this project, we initially felt overwhelmed by its scope. The project parameters had been designed to guide medical processes and did not translate easily to the context of occupational therapy. Whereas defining the scope of a care guideline by diagnosis makes obvious sense in medical disciplines, that choice seemed to lack the specificity necessary to effectively guide clinical decision making in occupational therapy. Although, for example, the potential treatment options available to a cardiologist are significantly narrowed by the diagnosis of a specific heart valve defect, the diagnosis of autism does far less to focus the trajectory of OT interventions. Features of autism and other developmental disabilities vary from client to client, change throughout childhood and adolescence, and affect occupational performance and engagement in unique ways.

Through reflection on our own clinical decision making, my colleagues and I recognized that desired client and family occupational outcomes were far more relevant to guiding our overall process than diagnosis alone. We began by outlining our information gathering process. We used the evaluation structure outlined in the *Occupational Therapy Practice Framework: Domain and Process* fourth edition (OTPF-4) (American Occupational Therapy Association [AOTA], 2020) for general organization, and added site-specific details related to obtaining and documenting client and family information. Because we had recently completed a department-wide



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“The AOTA Practice Guidelines provided an easy and accessible way to stay up to date with current research evidence and new avenues for professional growth.”

competency on the Canadian Occupational Performance Measure (COPM) (Law et al., 2019), we included the use of this tool at the end of the initial information gathering stage to identify client and family goals and priorities for intervention.

My colleagues and I quickly realized that the evaluation process we had mapped out was hardly unique to autistic clients, and we shared our work with the OT teams creating clinical pathways for other diagnostic populations. Although we were pleased with our progress, we were aware that the most daunting task lay ahead—evaluating research evidence to inform intervention recommendations. Although each of us had been assigned to work on the autism care guideline based on our knowledge and clinical experience, we hardly considered ourselves experts on the broad scope of current autism intervention research. Long removed from academic coursework, our professional education had been primarily informed by internal trainings and external courses rather than direct analysis of published research findings.

Feeling a bit out of our depth, we again turned to AOTA resources for guidance. We had recently reviewed both AOTA’s *Occupational Therapy Interventions for Children Ages Birth–5 Years* (Kingsley & Frolek Clark, 2020) and *Occupational Therapy Practice Guidelines for Children and Youth Ages 5–21 Years* (Cahill & Beisbeir, 2020) as part of our ongoing journal club and recalled that many of the included articles examined interventions delivered to autistic individuals. The AOTA Practice Guidelines revealed a clear path forward. We had worked through our care process up to the identification of client- and family-centered occupational participation and performance goals—and these

documents picked up right where we left off! Rather than starting with a broad database search, we were now able to review expert recommendations based on systematic reviews of the literature, which were already predominately organized according to targeted occupational outcomes.

At this point, my colleagues and I decided to split up and focus on intervention evidence related to different overarching areas of occupation to ensure that we were thorough in our review. Because we included the COPM to identify client- and family-centered goals, it seemed practical to use the same system of categorization to direct decision making along our clinical pathway: self-care (e.g., ADLs, rest, sleep), productivity (e.g., IADLs, education), and leisure (e.g., play, social participation).

We divided the evidence review process into these three occupational categories, and used the AOTA Practice Guidelines to ensure the inclusion of quality studies supporting interventions within the scope of occupational therapy. We finally felt confident in our ability to produce a site-specific care guideline that integrated the best available research evidence. After reviewing the clinical recommendation in the AOTA Practice Guidelines, my colleagues and I agreed that the scope of occupational therapy practice with autistic clients extended well beyond the intervention approaches we were most familiar with. The demands of managing a full clinical caseload made it difficult to consider intervention options outside of those we had learned about directly through coursework, fieldwork, training, mentorship, and formal continuing education. The AOTA Practice Guidelines provided an easy and accessible way to stay up to date with current research evidence and new avenues for professional growth.

My colleagues and I also reviewed AOTA’s *Occupational Therapy Practice Guidelines for Individuals With Autism Spectrum Disorder* (Tomchek & Patten Koenig, 2016). Although these guidelines had been published 4 years earlier, unique inclusion criteria with a specific focus on autism yielded additional articles and intervention approaches for inclusion in our care guideline. We combined intervention recommendations from each of these three sources to provide a robust summary of the best available research evidence for inclusion in our site-specific care guideline. My colleagues and I felt confident that the integration of these clinical recommendations with our team’s individual clinical reasoning and experiences—and the preferences of clients and their families—would support a consistent and quality care process with autistic clients.

When our site-specific care guideline was complete, occupational and physical therapy leadership scheduled a half-day retreat for all teams to review our draft documents. We presented our proposed clinical pathway for autistic clients, and my colleagues and I recognized further work was required to translate our findings into practice. We developed an action plan that included the creation of training modules, application activities, and continuing education guides to support our colleagues’ integration of recommended practices into their individual clinical processes. We also recognized the potential value of our site-specific care guideline in clarifying the scope and process of occupational therapy with autistic clients at our organization for referring providers and other hospital personnel. To support dissemination outside of our department, my colleagues presented a poster describing our process and findings at a hospital-wide research event.

Contributing to the creation of this clinical care guideline had already enhanced our confidence in providing consistent and evidence-based care to autistic clients and their families. Through the process of reviewing and organizing clinical recommendations from AOTA Practice Guidelines, my colleagues and I discovered new intervention approaches and completed continuing education courses to expand our knowledge. We began meeting regularly to discuss successes and challenges encountered when incorporating these new approaches into our practice. We now have a common framework that enables us to better support one another and feel unified in efforts aimed at ongoing quality improvement. The creation of training modules and application activities holds the potential to sustain this momentum and support ongoing revision in response to evolving evidence and departmental growth and change.

We view our site-specific care guideline as iterative rather than as a static document. We are currently focused on addressing an identified discrepancy between existing intervention research and advocacy efforts led by autistic individuals. Whereas autistic individuals have long advocated for supports and services aimed at cultivating strengths and enhancing self-determination, inclusion, and participation, intervention recommendations based on existing evidence continue to focus primarily on remediating “deficits.” My colleagues and I are working to find ways to represent autistic perspectives along with research findings within our clinical care guideline to enable practitioners to make informed decisions that consider both scientific and experiential knowledge. We believe this process has brought us closer to our continuously evolving goal of providing care that is neurodiversity affirming, strengths based, and supported by the best available research evidence. 🧠

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Chronic Pelvic Pain in Women

Susan Cahill

An estimated one in seven women in the United States experiences chronic pelvic pain, and treatment requires a multidisciplinary approach (Dydyk & Gupta, 2023). Hawkey and colleagues (2022) completed a qualitative study to examine the effects of chronic pelvic pain and endometriosis on 17 women between the ages of 21 and 48. Study participants identified common challenges, including sexual intimacy, pregnancy, parenting, and work. Some participants described being unable to take medications to alleviate pain because of other responsibilities (e.g., needing to finish the workday, needing to pick up a child from day care). Some also felt that their career advancement opportunities were limited because of the need to manage their conditions. Many participants struggled with getting a diagnosis and underwent unnecessary medical tests and treatments. Pain during sexual intercourse and men-

strual pain caused embarrassment for some participants and were normalized by health care providers and other women, which in some cases led to delayed intervention.

Brooks and colleagues (2020) completed a scoping review to examine predictors of mental health outcomes for women with chronic pelvic pain and to identify effective psychological interventions. The reviewers searched 10 databases and included articles published up until 2018. Fourteen articles identified predictors of mental health outcomes, and 14 articles focused on effective psychological interventions. Anxiety, depression, stress, pain catastrophizing, and harm avoidance were associated with higher pain severity. Constant pain, compared to intermittent pain, was associated with higher levels of stress. Poor coping skills were associated with poor mental health outcomes. Positive coping skills and strong personal relationships were associated with better mental health outcomes. Cognitive behavioral interventions aimed at managing and reframing thoughts, regulating emotions, and coping were effective in reducing pain and improving mental health. Other interventions associated with reduced pain included sleep and pain management, problem solving, pacing activities, mindfulness, progressive muscle relaxation, breathing exercises, pain education, and physical activity.

Samami and colleagues (2023) completed a systematic review to identify pain-focused psychological interventions for women with endometriosis. The reviewers searched 10 databases and included 10 studies published between 2007 and 2023. Participants in the studies were between 14 and 50 years old. Cognitive behavioral interventions (e.g., development of coping skills and problem-solving techniques, stress management), mindfulness interventions (e.g., body scanning, breathing techniques), interventions to develop healthy habits, yoga, progressive muscle relaxation, and psychoeducation were identified. These interventions were



“OTPs should consider how pain interventions can be incorporated into clients’ daily routines and closely monitor the effects of their interventions on clients’ reported levels of pain.”

provided by a range of professionals from different disciplines.

Occupational therapy practitioners (OTPs) can work as part of a multidisciplinary team to address chronic pelvic pain in women. Before addressing this issue, an OTP should develop a comprehensive occupational profile to understand how pain affects engagement in daily activities and occupations as well as the client’s mental health. OTPs should consider how pain interventions can be incorporated into clients’ daily routines and closely monitor the effects of their interventions on clients’ reported levels of pain. 🔄

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The Research Update column brings awareness to occupational therapy-related research, raises awareness of occupational therapy as a science-driven profession, and encourages knowledge translation. To pitch a Research Update idea, sign on to CommunOT and complete the interest form (<https://bit.ly/3w34Sgw>).

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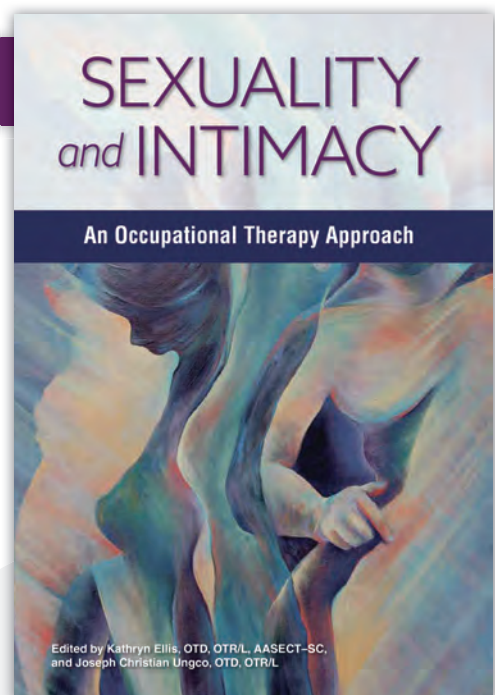
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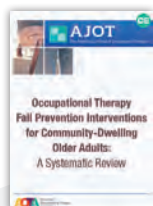
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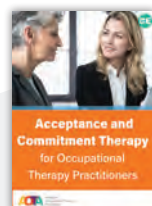
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Get the recognition that you deserve, while improving outcomes for your clients. Learn how to screen and evaluate clients to provide the best interventions. These courses will equip you to perform a functional vision evaluation and develop first response rehabilitation interventions for those clients who are having difficulty engaging in occupations. Total credit: .8 AOTA CEUs, 8 Contact Hours, 10 NBCOT PDUs. Order #OL8909

First Response for Low Vision Rehabilitation Essentials Courses. These courses are a requirement for the First Response for Low Vision Rehabilitation micro credential. Order #OL8908

Occupational Therapy and LGBTQIA+ Health: Let's Start the Conversation by Colton Sayers, OTR/L, CNS. This course will provide OT students, faculty, and practicing clinicians' greater knowledge and understanding of the unique characteristics of LGBTQIA+ individuals to enhance meaningful lives and participation in valued occupations. Earn .25 AOTA CEUs (3 NBCOT PDUs/2.5 Contact Hours). Order #OL8917

Suicide Awareness by Stephen Nawotniak, OTR/L, NYCPS. This basic course has been designed to assist occupational therapy practitioners in understanding more about the risks, warning signs of suicide, and how to respond and act in an appropriate manner. Earn .1 AOTA CEUs (1.25 NBCOT PDUs/1 Contact Hour). Order #OL8412

Back to Our Roots: Mental & Behavioral Health in African American Communities by Sabrina Salvant, EdD, OTR/L, FAOTA. This course will explore the historical factors that are deeply rooted in all African American psyche, beliefs, values, and behaviors related to mental and behavioral health, help seeking behaviors, as well as medication and treatment compliance. Earn .1 AOTA CEUs (1.25 NBCOT PDUs/1 Contact Hour). Order #OL8914

Cultural Humility in Occupational Therapy Practice by William Tarleton, DrOT and Sarah Corcoran, OTD, OTR/L. This course will educate participants on the principles of cultural humility and introduce them to strategies to implement those principles into practice. Earn .15 AOTA CEUs (1.88 NBCOT PDUs/1.5 Contact Hours). Order #OL8413

Upcoming AOTA Events

Discover a variety of events and live webinars to earn contact hours.

Registration Coming Soon!

May 20-21, 2024
AOTA Specialty Conference: **Women's Health** Livestream

June 24-25, 2024
AOTA Specialty Conference: **Entrepreneurship** Livestream

September 13-14, 2024
AOTA Specialty Conference: **Adult Rehabilitation** Cleveland, OH

October 25-26, 2024
AOTA Specialty Conference: **Mental Health** Oak Brook, IL

November 8-9, 2024
Education Summit Charlotte, NC

December 13-14, 2024
AOTA Specialty Conference: **Children & Youth** Seattle, WA

April 3-5, 2025
AOTA INSPIRE 2025 Philadelphia, PA

Visit aota.org/events/calendar for an up-to-date list of professional growth opportunities.

Continuing Education Opportunities



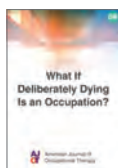
Everyday Ethics: Core Knowledge for Occupational Therapy Practitioners and Educators, 4th Edition

by Deborah Yarett Slater, OT, MSOT, FAOTA. This important CE course provides an overview of key ethical theories, the Occupational Therapy Code of Ethics and Standards of Conduct, a Framework for Ethical Decision Making with case analysis and the role and function of agencies which regulate the occupational therapy profession. Earn .2 AOTA CEUs (2.5 NBCOT PDUs/2 Contact Hours). Order #OL4953



AJOT CE: Cognition Mediates Playfulness Development in Early Childhood: A Longitudinal Study of Typically Developing Children

This article explores the development of playfulness and its relation to cognitive functioning from infancy to toddlerhood. Design: Longitudinal study with data collected at ages 6 mo, 18 mo, and 24 mo. Earn .1 AOTA CEUs (1.25 NBCOT PDUs/1 Contact Hour). Order #CEAJOT116



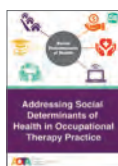
AJOT CE: What If Deliberately Dying Is an Occupation?

This article aims to open a dialogue within the field of occupational science and occupational therapy about this sensitive and potentially controversial issue. Earn .1 AOTA CEUs (1.25 NBCOT PDUs/1 Contact Hour). Order #CEAJOT121



Addressing Sexuality with Community Dwelling Older Adults

by Keeley Cowley, OTD/S. This course will serve as an introduction to understanding the importance of sexuality for older adults, the impact of the natural aging process, and how individual practitioners can address sexuality-related concerns within practice. Earn .1 AOTA CEUs (1.25 NBCOT PDUs/1 Contact Hour). Order #OL8372



Addressing Social Determinants of Health in Occupational Therapy Service

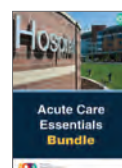
by Sierra Clair, Dr.OT, OTR. In order to successfully address clients' social determinants of health, practitioners must first recognize their impacts on daily practice and determine which of the

various levels within OT practice offers the best solution. This course will serve as an introduction to understanding social determinants of health, their impacts on clients, and how individual practitioners can address them on micro, meso, and macro levels. Earn .1 AOTA CEUs (1.25 NBCOT PDUs/1 Contact Hour). Order #OL8320

Coming Soon!

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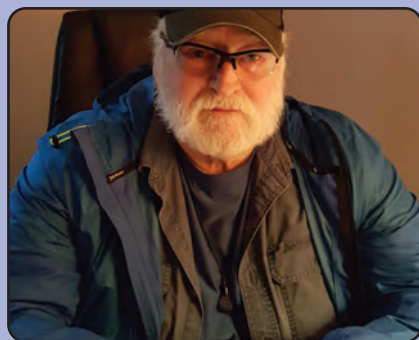


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August 23-25, 2024

Atlanta, GA
September 6-8, 2024

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September 20-22, 2024

Boise, ID
September 27-29, 2024

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Middleton (Madison Area), WI
April 26-28, 2024

Cranberry Twp (Pittsburgh Area), PA
May 3-5, 2024

Spokane, WA
May 10-12, 2024

Louisville, KY
June 7-9, 2024

San Francisco, CA
July 16-18, 2024

For a full list of dates & locations visit MyofascialRelease.com

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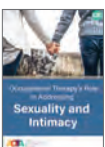
Continuing Education Opportunities



The Impact of Visual Issues on Child Development

by Yu-Pin Hsu, EdD, MS, OT, SCLV; Robin Akselrud, OTD, OTR/L; Linda Gerra, EdD; and Bernie Pestio-

Noguero, OT. This course provides an overview of the visual system and describes the varied impact of visual impairment on children's achievement of developmental milestones and their function in daily activities. Approaches are presented for assessing vision and visual skills through information gathering, observation, and basic assessment of visual function. Earn: .15 CEU's (1.88 NBCOT PDU's/1.5 Contact Hours). Order #OL5163.



Occupational Therapy's Role in Addressing Sexuality and Intimacy

by Tiffany Lee, OTD, and Jacqueline Marquez, OTD. The

topic of sexuality and intimacy is often under-addressed by health care professionals, despite its importance to clients. According to the Occupational Therapy Practice Framework, engagement in sexual activity is not only an ADL, but can be a key aspect of social

participation in the context of familial and peer/friend roles. The purpose of this course is to provide an opportunity for OT practitioners to increase their knowledge and confidence when advocating for an occupation that is often overlooked. Earn: .1 AOTA CEU (1.25 NBCOT PDU/ 1 Contact Hour). Order #OL5165.



Occupational Therapy in the Inpatient Rehabilitation Setting for Patients with COVID-19

by Melissa R Brottman, OTD, OTR/L, CPAM, et al. This course highlights

effective interventions and assessments and will help you to understand the importance of a team approach to rehabilitation, how to start a COVID program, and various special considerations for patients continuing to recover from this disease. Earn: .15 AOTA CEU (1.88 NBCOT PDUs/1.5 Contact Hours). Order #OL8309.



Occupational Therapy's Role in Trauma-Informed Schools

by Sharon M. McCloskey, EdD, MBA, OT/L, CTP; Meghan Suman, OTD,

OTR/L, BCP, SCSS. The purpose of this course is to familiarize you with the typical

response to trauma in the brain, and sequelae of experiences and behaviors that can occur when the thinking brain is deactivated, and the emotion brain takes the lead in response to future perceived threats. Also discussed is the need to address trauma through the inclusion of trauma-informed approaches within the school and school system. Earn .1 AOTA CEU (1 contact hour; 1.25 NBCOT PDU) Order #OL8376.



Assistive Technology, Universal Design for Learning, and School-Based Practice

by Pamela Stephenson, OTD, OTR/L, BCP, FAOTA; Mindy Garfinkel, OTD,

OTR/L, ATP. This course provides a foundational understanding and definition of assistive technology and universal design for learning. Information on how these can be embedded into school-based practice is also provided. In addition, the course outlines the role of legislation in supporting the use of technology in school contexts. Earn .15 AOTA CEUs (1.5 contact hours/1.88 NBCOT PDUs). Order #OL8408.

Employment Opportunities



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