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Editor-In-Chief

Ruthie Dearing, MHSA, JD

rdearing@ncope.org

Mentoring in O&P: Passing the Torch and the Heat Gun

"Hey—can you come look at this real quick?"

If there is a more common way to begin a mentoring moment in orthotics and prosthetics, I have not heard it.

Somewhere right now, in a clinic or fabrication lab or back office, someone is asking that same question. A technician is hovering over a stubborn trimline that refuses to behave, or a clinician is puzzling over a patient presentation that does not match the textbook, or a front-office wizard is helping a new hire navigate the dark arts of insurance verification. Someone calls someone else over. And then two heads bend over a task, and something meaningful happens.

We do not call it mentoring.
But it is.

Sometimes the most significant learning moments in O&P begin not with a formal meeting or a scheduled check-in, but with a sheepish grin and a quick, "Mind giving me your eyes on this?"

Who taught you? Whose voice do you hear?

Let me ask you a question—or a few.

- **Who are the mentors who shaped your life?**
- **When you are alone in a room with a challenging patient or a tricky lamination or a frustrated coworker, whose voice do you quietly channel?**
- **When you face something entirely new—something school never covered—who shows up in your mind's eye to guide you along?**

We are all made of echoes.
Some come from giants in the field; some from the technician who taught you how to sharpen a knife properly; some from the office manager who showed you how to talk to people when they are scared, embarrassed, overwhelmed, or in pain.

And many of the lessons that stick the deepest?
Those came from people who never knew they were teaching.

A story from the early days

When I think about mentoring, I often remember a moment—not dramatic, not particularly special—that I did not realize was important until long after the fact.

I was very new in the profession, still figuring out which end of a plaster knife to point toward the cast. I was working beside a technician who had been doing this work longer than I had been alive. He could bend metal like he was peeling an apple—smooth, confident, and without wasted motion.

One day, he noticed me wrestling with a pair of bending irons. I had not asked for help; I did not want to bother him. Still, he wandered over, leaned on the counter, and watched quietly for a moment.

Then he said, "Try making *smaller* mistakes."

That was it.
No lecture.
No correction.
No sigh of disappointment.

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Just: "Try making smaller mistakes."

At the time, I had no idea how wise that was.

Only years later did I understand he was teaching me a universal truth: if you feel safe to experiment—and safe to fail—you learn faster, better, and deeper.

That technician probably never knew he was mentoring.
He was just being himself.

But decades later, his voice still shows up when I am learning something new.

The spirit of O&P: trial and error, safety, and craft

When I completed my dissertation research on the culture of O&P, one finding stood out above all other findings.

The number one-way O&P professionals said they learned—at every level, in every role, across schooling and in practice—was through trial and error.

Let us pause there for a moment.
Trial. And. Error.

This means that skills in O&P are built on a mountain of imperfect attempts—plaster that did not set quite right, carbon layups that were one layer off, alignments that felt great on the bench and terrible once the patient took five steps.

In a profession where learning happens through doing, the *environment* in which doing happens matters more than anything else.
It is impossible—literally impossible—to learn through trial and error without **psychological safety**.

If someone believes that a mistake will be used against them...shamed, mocked, punished, whispered about...they simply will not try. They will play small. They will protect themselves. They will learn slowly, if at all.

Mentorship, then, is less about brilliant advice and more about creating that safe place where someone can take a healthy risk... with appropriate supervision as patients are concerned, of course.

What *The Mentoring Guide* teaches us

The recent book *The Mentoring Guide: Helping Mentors and Mentees Succeed* by Chopra, Vaughn, and Saint is one of the finest, clearest articulations I have seen on the subject. Though it was written with medicine in mind, **wisdom is wisdom.** Much of what works for physicians often translates beautifully into O&P, especially because both fields blend craft, science, relationship, and technical precision.

A few core lessons from the book crosswalk naturally into the world of O&P:

1. There is no single "type" of mentor

People often assume mentoring means a structured, long-term, formal relationship. But *The Mentoring Guide* emphasizes that mentors come in many flavors:

- **Career mentors** (long-term guides)
- **Skills mentors** (teach you how to do one specific task)
- **Peer mentors** (colleagues learning together)
- **Near-peer mentors** (only slightly ahead of you)
- **Situational mentors** (appear for one moment, for one need, and perhaps never again)

In O&P, that might mean:

- The technician who teaches you how to pull plastic correctly
- The clinician who shows you how to talk to an adolescent who hates h/her TLSO
- The front-desk professional who models how to de-escalate a frustrated patient on the phone
- The manager who helps you decide whether to take a certification exam this cycle or next

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Mentoring, cont'd

Some mentors stay for a career.
Some stay for a season.
Some stay for a single conversation.

And every one of them matters.

2. Mentoring is relational, not transactional

One of the loveliest ideas from the book is this: **"Mentoring is a professional friendship."**

Good mentors are curious, generous, and invested—not because they must be, but because they choose to be. The relationship is the container in which growth happens.

3. Mentees have responsibilities too

Mentorship is a two-way street. Mentees must:

- Show up prepared
- Ask good questions
- Following through on agreed actions
- Be honest about needs and challenges
- Express gratitude (a small but powerful practice)

This is a wonderful freeing: it means mentors do not carry the whole load, and neither are mentees passive consumers of wisdom. Mentoring takes engagement from both parties for learning to occur.

4. Most mentoring is informal—and that is okay

The book gives permission for mentoring to be messy.
Unscheduled.
Casual.
Brief.
Organic.

Which, I must say, sounds exactly like orthotics and prosthetics.

Wisdom from Goldsmith: what gets in our way

Marshall Goldsmith's classic *What Got You Here Won't Get You There* is not a mentoring book, per se. But it is a book about human behavior—and human behavior shapes mentoring more than any technique ever will.

Goldsmith reminds us that even highly successful professionals have blind spots.
We all have habits that helped us early in our careers—confidence, self-reliance, speed, perfectionism— that can later become obstacles.

A few takeaways resonate strongly in a mentoring culture:

1. Do not confuse telling with teaching

Being right is not the same as being helpful.
Correcting someone too fast teaches only one lesson: **Do not ask that person for help again.**

2. Listening is a superpower

Goldsmith says: "*One of the most sincere forms of respect is actually listening to what another has to say.*" Mentors who listen well foster psychological safety instantly.

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Mentoring, cont'd

3. Humility is strength

Anyone can give advice. But it takes humility to say:

- "Here is what worked for me—your mileage may vary."
- "I might be wrong, but this is how I see it."
- "What do *you* think?"

Humility turns mentoring into partnership.

Mentoring across roles: everyone teaches, everyone learns

One of the gifts of O&P is that learning happens everywhere.

Technicians mentor clinicians

Anyone who has ever tried to learn fabrication knows that technicians hold entire libraries in their hands. There is no textbook chapter titled *How the plaster should feel when it is ready*. Only experience can teach that.

Clinicians mentor technicians

Clinicians bring context: gait, biomechanics, pathology, patient goals, communication strategies. They show technicians not just *what* to build, or necessarily how, but *why*.

Front-office staff mentor everyone

If you want to learn patience, diplomacy, time management, or emotional triage, sit with front-office professionals for half a day. They navigate more complexity in a single morning than most of us manage in a day. They model grace under pressure.

Assistants mentor learners simply by being steady

Clinical assistants often teach newer staff how to efficiently move through the clinic day with courtesy, timing, and small kindnesses that keep the place running.

Students mentor seasoned clinicians by asking questions

Sometimes a fresh set of eyes reveals assumptions we did not know we were making.

Educators mentor the whole profession

Educators have the responsibility, the privilege of creating the frameworks through which generations understand their craft and begin to pass it along to the future.

In short:

Mentorship in O&P is not hierarchical. It is ecological.

We are all, both mentors and mentees, often many times each day.

A few stories from the field (composite, but true in spirit)

Story 1: The 60-second mentor

A new technician was struggling with a lamination layup. A senior tech walked by, paused, and said, "Try stringing your resin in multiple, varied directions instead of only parallel long strokes. Fewer pools will develop, and the fabric will hug the mold for you."

Sixty seconds.
Advice so simple, it felt silly.
But it changed everything.

That was mentoring.

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Story 2: The "I see you" clinician

A front-office staff member handled a difficult phone call with such kindness that a clinician stopped afterward and said quietly, "You are really good at that. I would love to learn how you do it."

That one sentence changed how that staff member viewed h/his own worth.

That was mentoring.

Story 3: The unintentional teacher

A resident watched a seasoned clinician greet every patient by name—and then greet their spouse or child by name too. Years later, when that resident became a residency mentor, h/she realized that the residency mentors were doing the same thing automatically.

That was mentoring.

Practical Tips: "Try this tomorrow"

For everyone

- **Say "Thanks for asking me."**
  When someone seeks your input, it is an honor—treat it as such.
- **Adopt a signature phrase that creates safety.**
  Examples:
  - "Let us look at this together."
  - "What is your thinking so far?"
  - "It is okay if this is rough—we will sort it out."
- **Share your reasoning, not just your result.**
  People can imitate actions, but they learn from thought processes.
- **Use the phrase "What did you notice?"**
  This query draws out insight without judgment.
- **After a minor setback, ask the learner first, "What went well?"**
  Reminding them that what we do is multi-faceted, and that not every aspect was a failure.

For mentors

- **Give feedback the way you would want to receive it on your hardest day.**
- **Avoid the "this is easy" trap.**
  If it were easy, they would not be asking for help.
- **Leave room for disagreement.**
  It signals respect.
- **Be precise about feedback, positive or corrective.**
  "Nice job" is forgettable.
  "I like how you checked the alignment before you trimmed is gold.

For mentees

- **Ask one good question per day.**
- **Invite correction.**
  "Please tell me if you see a better way to do this."

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Mentoring, cont'd

- **Follow up.**
  If a mentor gives advice, circle back and tell them how it went.
- **Focus on seeking input from *one* primary mentor for a given project or step.**
  The "best approach" is *not* the average of all of the input given by everyone on site.
  Learning one person's approach start-to-finish is extremely valuable.
  One may seek variation on a theme after completing the cycle with a single mentor.

For everyone in a hurry (i.e., all of us)

- **Turn interruptions into micro-mentoring.**
  You do not need 30 minutes.
  You need 30 seconds of undivided attention.
- **Narrate your work for someone nearby.**
  Even one sentence like, "I am using Pe-Lite, not Bocklite, because…" teaches volumes.
- **Remember that people are always watching.**
  You are mentoring even when you do not realize it.

The invisible threads that hold us together

There is a beautiful idea tucked into *The Mentoring Guide* that deserves a moment here:

We are the sum of the mentors we have encountered and the mentees we have influenced.

Think about that for a second.

Every patient you have helped, every cast you have poured, every tense conversation you have smoothed over, every 4 mm set screw you have torqued, every moment you have spent teaching—those moments ripple forward, shaping the profession.

Some mentorship is formal.
Most mentorship is accidental.
All mentorship is consequential.

We inherit a profession from those who came before us, and we shape it for those who will follow.

A gentle call to action

So here is my invitation to you:

1. **Look back**
   Identify one or two mentors—official or unintentional—who shaped you.
   Let yourself feel grateful.
2. **Look around**
   Notice who might be watching you today.
   You might be someone's model, right this minute.
3. **Look forward**
   Ask yourself:
   "What kind of mentor—formal or informal—do I want to be in this season of my career?"

You do not need a title.
You do not need a certification.
You do not need permission.

You just need to care enough to say, "Hey, I have a minute if you want to walk through this together."

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Mentoring, cont'd

In summary

Mentoring in modern clinical practice does not require sweeping gestures, eloquent speeches, or multiyear commitments. It happens in quick glances, small nudges, thoughtful questions, and shared moments of problem-solving.

It happens in the lab.
In the clinic.
At the front desk.
In the parking lot after a long day.
At the conference booth where someone nervously says, "I have long admired your work—may I ask you a question?"

O&P has always been a hands-on, heart-forward profession.
We learn by doing, and we grow by helping each other do better.

So let us keep telling our stories.
Let us keep laughing together.
Let us keep making smaller mistakes in safer environments.
Let us keep being the kind of people whose influence lasts long after we have forgotten the particular day we offered it.

Because the work we do matters.
And the way we pass that work forward matters even more.

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Chopra, V., Vaughn, V. M., & Saint, S. (2019). *The Mentoring Guide: Helping Mentors and Mentees Succeed*. University of Michigan Press.

Goldsmith, M., & Reiter, M. (2013). *What Got You Here Won't Get You There: How Successful People Become Even More Successful*. Hachette Books.

AUTHOR

Joshua B Utay, CPO, Ed.D.

Josh Utay is an orthotist prosthetist who started his career by attending UT Southwestern's P&O Program in Dallas in the late 1990's. His early clinical career consisted of pediatric and adult O&P practice with experience in both institutional and private settings. Josh credits professional mentorship and familial support for his appreciation of the educational processes and the enormous potential that a quality education can unlock.

Armed with a master's degree in education, he became a full time O&P educator in 2012 as a founding faculty member of the O&P Program at Baylor College of Medicine in Houston. Over the next decade, Josh was inspired by the transformation repeatedly witnessed as students became graduates, graduates became certified clinicians, and young professionals became motivational leaders.

Further exploration of the learning process led to a Doctor of Education in 2022 with special emphasis on training clinicians to become effective educators, too. Along the way, Josh volunteered with NCOPE as a self-study reviewer and site visitor for both technician and practitioner education programs. He also has a specific interest in exploring and developing global O&P educational capacities through his efforts with ISPO's Education Committee and Human Study e.V. He may be reached at joshua.utay@gmail.com.

TWO NEW ABC APPROVED PRE-CERTIFICATION COURSES NOW OFFERED AT SPOKANE FALLS COMMUNITY COLLEGE (SFCC) IN SPOKANE, WASHINGTON.

Pedorthics and Orthotic Fitter courses are available individually and independent of the established O&P Technology Program.

Both courses are self-paced with all didactic coursework accessible on-line. Both courses do require **mandatory** in-person training at SFCC in Spokane, Washington.

Pedorthics: 12-week course offered in the Fall quarter beginning on September 21, 2026, and concluding in mid-December. The five day in-person training will be conducted at the SFCC lab in Spokane the week of December 7-11, 2026.

Orthotic Fitter: 4-week course offered in the Winter quarter beginning in January 2027 followed by a 2-day in-person training at SFCC. Start-up dates will be announced later this year.

Upon completion of each course, graduates are required to work under the supervision of a certified practitioner for 1000 hours prior to sitting for the certification exam offered by the American Board for Certification in Orthotics, Prosthetics and Pedorthics (ABC).

For additional information about these two new courses, please contact:

Ken Mandler, L.C.O.
Pedorthics, Orthotic Fitter and Orthotics Technology Instructor-Spokane Falls Community College
3410 W. Whistalks Way
Spokane, WA 99214
509-533-3733
Ken.mandler@sfcc.spokane.edu

Harnessing the Power of Industry Surveys: A Roadmap for O&P Technicians Turning Data into Action for Personal and Professional Growth

In today's rapidly evolving orthotics and prosthetics (O&P) profession, clinicians are constantly challenged to adapt to new technologies, shifting patient expectations, and the ever-present pressure to deliver better outcomes. Amid these changes, industry data becomes more than just numbers on a spreadsheet, it becomes a vital compass for navigating growth, improvement, and competitive advantage.

One of the most powerful sources of such data comes from industry-wide participation in the AOPA Operating Performance and Compensation and Benefits surveys; their impact is felt throughout the entire field. Decisions shaped by these survey results ripple outward, influencing practice policies, compensation structures, and the overall quality of care.

AOPA's Surveys: What Are They and Why Should You Care?

Each year, AOPA conducts comprehensive Operating Performance and Compensation and Benefits surveys. These surveys collect insights from practices and clinicians nationwide, compiling a robust dataset that reflects the realities of O&P business and clinical practice. Please note: AOPA's surveys are administered by an independent third party, ensuring that all individual responses remain strictly confidential and are never shared beyond that party.

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But why should clinicians care about these surveys? The answer is simple: knowledge is power. The data collected provides the basis for informed decisions that affect compensation, benefits, workflow, and clinic culture. By participating in these surveys, clinicians help shape the industry benchmarks that their own careers and workplaces are measured against.

- Clinics can use this data to set salaries, establish benefits, and refine operational procedures.
- The aggregated data supports advocacy work, helps the profession stay competitive, and ensures that evolving standards reflect real-world experiences.
- Broad industry participation improves data accuracy and ensures changes are widely relevant.

The Ripple Effect: How Survey Participation Fuels Industry Growth

Participation in industry surveys is powerful. Every clinic's response contributes to a more accurate and meaningful pool of information, which individual clinics can use to:

- Foster transparency around compensation, benefits, and performance metrics
- Promote healthy competition, encouraging each clinic to meet or exceed industry standards
- Support advocacy efforts with credible, real-world data
- Guide the development of educational programs and clinical best practices

The results influence practice policies and professional development opportunities, ultimately shaping the environment in which every clinician works.

Key Insights from the Latest Surveys

Let's look at some interesting data points from the recent Compensation & Benefits reports that illustrate this chain of influence:

- Vacation Time: Data showing that clinicians and staff receive three weeks of vacation after five years provides a benchmark managers use to update or maintain competitive benefits.
- Remote Work Trends: With 17% of administrative staff working remotely at least 20% of the time, clinics may consider offering similar flexibility, benefiting staff based on industry trends.
- Competitive Compensation: Survey results help set fair salaries for clinicians and specialty roles, using market insights to support transparent, equitable pay policies.

Why Every Clinician Should Engage with the Survey Process

It is easy to think of surveys as tools for managers or owners, but every clinician stands to benefit by engaging with this information. Here is how:

1. Participate to Shape the Industry

2. By responding to surveys, clinicians make their voices heard, providing data that steers the profession toward fairness and innovation. Their collective input shapes standards that define compensation, benefits, and clinical practices for everyone.

2. Stay Informed Through Communication

Ask your manager to share key takeaways from the latest surveys. Many clinics review industry summaries or use data to justify policy changes; being part of these conversations helps you understand how industry trends affect your role.

3. Advocate for Transparency

Encourage an environment where leadership communicates how decisions are made. Knowing that your compensation, benefits, and workplace policies are grounded in national data builds trust and engagement within your team.

4. Drive Practice Improvement

Use information from the surveys to propose changes or improvements. Demonstrating an understanding of industry benchmarks shows initiative and a commitment to excellence.

5. Support Talent Acquisition & Retention

Recruitment and retention strategies are often built on industry data. By participating in surveys, clinicians help ensure their clinic remains attractive to talented professionals.

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Surveys, cont'd

Turning Insights into Action: Practical Steps

- Participate in Surveys: Your input strengthens the quality of industry data.
- Request Summaries: Ask management to share highlights or summaries of key survey findings.
- Discuss Benchmarks: Use available information to advocate fair policies and workplace improvements.
- Pursue Professional Development: Align your career path with trends and opportunities identified by industry leaders.

Real-World Scenarios: The Impact of Survey Data

- Contract Negotiation: Clinics use survey data as a reference for salary discussions, ensuring offers are competitive and fair.
- Policy Updates: Trends like flexible work arrangements or enhanced benefits are implemented in response to industry data, improving workplace satisfaction.
- Retention Strategies: By knowing what benefits matter most, clinics can keep their teams engaged and supported, directly benefiting every clinician.

Conclusion: Elevating the Profession Together

Engaging with industry surveys is more than a bureaucratic task, it's a professional responsibility and an opportunity for collective growth. While individual clinicians may not always have direct access to the data, the decisions and policies crafted from it shape the landscape of O&P practice.

Contributing to these surveys ensures that the realities of front-line clinicians are reflected in industry standards. Staying informed allows clinicians to advocate for themselves and their teams, while trusting that national data guides the evolution of their workplace. By working together—owners, managers, and clinicians—the O&P field continues to advance, creating a dynamic and supportive environment for all.

So, remember: your participation makes a difference. Every response helps build a stronger profession for you and your colleagues

AUTHOR

Coleson Chase, Vice President,
Strategic Accounts, Hanger Products & Services

Coleson Chase has 20+ years of leadership experience across healthcare, non-profit, and Fortune 500 companies. He joined Hanger, Inc. 8 years ago, where he grew through the ranks of SPS, ultimately serving as Vice President and General Manager, SPS for the past 4 years.

Recently, Coleson transitioned to a wider role within the organization as Vice President, Strategic Accounts for Hanger Products & Services (P&S). In this role, he is leveraging his experience and relationships to precede growth across the Products and Services ecosystem. Coleson holds a BBA in Management from the University of Georgia and a Master's in Marketing from Georgia State University. He lives in Canton, Georgia with his wife and three children.

A Minute that Matters: Leadership, Service, and the Responsibility to Use Time Well

I've only just a minute,
Only sixty seconds in it.
Forced upon me, can't refuse it,
Didn't seek it, didn't choose it,
But it's up to me to use it.
I must suffer if I lose it,
Give an account if I abuse it,
Just a tiny little minute,
But eternity is in it.
— *Dr. Benjamin E. Mays*

Those words, penned by Dr. Benjamin E. Mays, have stayed with me throughout my career. I recited this poem when accepting the gavel to serve as president of the American Orthotic and Prosthetic Association (AOPA) in 2023. Dr. Mays was a pioneering civil rights leader and a powerful influence on Dr. Martin Luther King Jr. Dr. Mays understood something fundamental about leadership: it is not defined by titles or tenure, but by what we choose to do with the moments and minutes entrusted to us.

Leadership, at its core, is stewardship of time, people, and purpose. And while each of us is given only a minute at a time, the way we use those minutes shapes not only our own journey, but the lives and futures of others. "Just a tiny little minute," Mays reminds us, "but eternity is in it."

That idea has guided me through every leadership role I have held, whether as a facility owner, lead advocate, graduate-level educator, board member, or now, as Executive Director of AOPA. Each role has required a different set of skills, but all have demanded the same foundational qualities: integrity, humility, courage, and a deep commitment to service.

A Minute for Family: Where Leadership Begins

Before all other titles, I am a daughter, wife, and mother. My family means everything to me. I cherish simple joys, acts of kindness, serving others, and the sense of connection we feel when we belong to something larger than ourselves. As a child, my dad taught my brothers and me the importance of living and leading with a level head, a full heart, and a strong gut. As a Hungarian freedom fighter who immigrated to this country to escape communism after the 1956 Hungarian Revolution, he taught us the value of the shirt on your back, the true meaning of democracy, the importance of walking a faith-filled journey and how to lead a life with purpose.

A Minute for O&P Facility Ownership: Leading Where it is Most Impactful

Those who know me know Charlie as well. I am the proud wife of one of the hardest-working CPOs in our profession, Charles Kuffel, MSM, L/CPO, FAAOP. Charlie was a recipient of the Distinguished Practitioner Award from the American Academy of Orthotists & Prosthetists in 2016. About 20 years ago, we founded Arise Orthotics & Prosthetics in Minnesota. Like so many of our colleagues, we built our practice with equal parts passion, perseverance, and purpose.

We are honored to be the parents of Veronica, Zach, Nick, and Gabe. Our four children form the foundation of both our personal and professional worlds. Quite literally, they appear as the four roots of the tree in our Arise logo. As did my father, they remind me daily that leadership begins at home, and that balance, empathy, and resilience are not abstract concepts, they are lived experiences.

Owning and operating an O&P facility has taught leadership at ground level. It teaches how reimbursement policies affect real patients, how staffing challenges impact care delivery, and how regulatory decisions ripple through businesses large and small. It teaches you to listen first, act thoughtfully, and remain accountable, not just to outcomes, but to people. I have applied these learned lessons to all leadership positions I have held.

A Minute for State Advocacy: Where Change Often Begins

A great deal of progress in advocacy can be accomplished within our own states. I have seen this firsthand in Minnesota, where I have been honored to collaborate with a team of dedicated O&P professionals to achieve results that have improved access to orthotics and prosthetics care for the patients we are privileged to serve.

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For 15 years, my work on the boards of the Minnesota Society of Orthotists, Prosthetists & Pedorthists (MSOPP), and the Wiggle Your Toes amputee non-profit, taught me that patience, persistence, and perseverance can indeed effectuate real change. During that time, a devoted group of passionate individuals worked together to pass into law three out of four state legislative bills. These individuals worked with the managers of the MN State Medicaid program to revise O&P coverage, prior authorization, and reimbursement policies, and to implement the So EveryBODY Can Move (SEBCM) legislation. To date, the work of these MN groups has resulted in some of the most comprehensive access to O&P care laws within the United States.

State advocacy requires dedication, coalition-building, and an understanding that meaningful change is often incremental. Advocacy is where relationships matter deeply, where local voices carry significant weight, and where leaders must be willing to invest time and resources without immediate recognition.

These experiences have greatly shaped my leadership style. They have taught me that advocacy is not episodic, it is sustained. And, that success depends on empowering others with the tools, information, and confidence to engage.

A Minute for Federal Advocacy: Bridging Policy and Practice

One of the most defining aspects of my leadership journey has been the ability to bring my two worlds together: my legal education and my passion for O&P care. Becoming a federal lobbyist for AOPA is one of the greatest achievements of my professional career. Through my nonprofit legislative advocacy work at both the state and federal levels, with AOPA, the Amputee Coalition, MSOPP, Wiggle Your Toes, and SEBCM, I have seen how policy decisions made far from the clinic can profoundly affect patient access and provider sustainability.

Federal advocacy requires strategic thinking, an understanding of regulatory language, patience with complex systems, and the ability to translate real-world impact into compelling policy narratives. It also requires credibility, earned through consistency, collaboration, and respect for the federal advocacy process.

These experiences confirm that AOPA must remain a trusted voice with regulators and legislators, and that advocacy is about partnership, education, and a continued commitment to demonstrating O&P values.

A Minute to Teach and Mentor: Investing in the Next Generation

I am very proud to have taught many O&P graduate students at Concordia University, in St. Paul, Minnesota. For ten years I helped to educate the brightest minds about ethics, compliance, and business practice management in O&P. Teaching these individuals profoundly shaped my leadership abilities. When you stand before students, you are reminded that leadership is not about preserving power, but about passing it on. Leadership is not about the now, it is about the future.

Mentorship requires patience, vulnerability, and honesty. It requires leaders to share not only successes, but failures, and the lessons learned along the way. When I work with the next generation of practitioners, I emphasize the same core elements that guide AOPA's vision and mission: service, advocacy, education, and equality.

Education and training are a great responsibility that our O&P educators carry, and one that we all take part in when we impart our wisdom to students, residents, and new practitioners. The future of our profession depends on how well we prepare the students, residents, and new practitioners who will become our future leaders.

A Minute to Lead at a National Level: Serving the Whole Profession

In 2023, standing before the AOPA community as its fourth female president in more than one hundred years was both humbling and profound. During my one-year term as president, it was an honor and privilege to apply my leadership experiences to guide the association to serve its members and advance the profession.

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And now, as I serve as AOPA's Executive Director, I am committed to building upon the strong work of the AOPA Board and staff, to execute thoughtfully on our strategic priorities, and to remain deeply connected to our members and the broader O&P community. A big part of doing this successfully will be maintaining old connections and working to make new ones. I will continue to visit and connect regularly with members, keep an open-door approach, and invite direct communication, even when challenges arise. Leadership is not distant; it is accessible. Leadership is also personable.

If my years and experiences have taught me one thing, it is that strong leaders surround themselves with stronger leaders and I accomplished this lesson. Members of the AOPA Board and staff comprise many of the brightest minds and hardest workers in the O&P profession. I am grateful for each of my colleagues. I depend on their expertise, their dedication, and their commitment to sustain the vision, mission, and strategic priorities of the AOPA.

A Minute Grounded in Purpose: The AOPA Vision and Transitional Leadership

AOPA's vision is clear: *A world where orthotic and prosthetic care transforms lives*.

This vision guides our mission, one centered on advocacy, research, education, and equality across our profession. It is a vision that resonates deeply with me, not only professionally, but also personally.

As leadership transitions from one individual to another, symbols and values matter. When Dave McGill handed me the AOPA gavel, I felt grounded in the fact that his focus had always been exactly where it should be, on patient care. After a long day's work in the clinic, we seek to celebrate the fitting of a device and restoration of mobility for the patient, not the profit margin. That patient-centric mindset matters most. It is a value I am committed to carrying forward as I lead in my current role as executive director.

Transitional leadership is about continuity of values, clarity of purpose, and the thoughtful evolution of building upon a strong foundation laid by those who came before us.

A Minute to be Accountable: Using Time Well

Dr. Mays warned that we "must give account if we abuse" our minute. Leadership demands that accountability. Leadership asks that we use our time intentionally, serve with humility, and act with resolute conviction.

I am deeply grateful for the opportunities I have had to serve, to lead, and to remain connected to this extraordinary community. I encourage you to embrace any leadership opportunities that come your way. Giving of your time, talents, and treasures will not only strengthen you personally and professionally, but it will also construct profound impacts on those receiving these gifts.

While each minute we have has "only sixty seconds in it," what you do with your minute may have impact far beyond as "eternity is in it." So, dare to dream big, know "it's up to you to use it," and enjoy each opportunity to make the most of your minute.

AUTHOR

Teri Kuffel, JD, Executive Director,
American Orthotic and Prosthetic Association (AOPA)

Before becoming Executive Director in July of 2025, Teri served eight years on the AOPA Board of Directors, including as President from 2022 to 2023. Prior to becoming President, she served on various AOPA committees. Her leadership proficiencies in advocacy and policy earned her AOPA's Ralph R. "Ronney" Snell, CPO, FAAOP, Legislative Advocacy Award in 2015.

Teri is a newly appointed director to the Amputee Coalition's board and previously served for 15 years on both the boards of the Minnesota Society of Orthotists, Prosthetists and Pedorthists and Wiggle Your Toes, an amputee nonprofit organization. She also taught for 10 years in the master's program in Prosthetics & Orthotics at Concordia University in St. Paul, Minnesota. Teri earned her Juris Doctor from Mitchell Hamline School of Law in St. Paul, Minnesota.

As a founding co-owner of Arise Orthotics & Prosthetics, Inc. in Spring Lake Park, Minnesota, Teri has more than 25 years of experience in the business practice management of orthotics and prosthetics.

Built by the Bench: People, Plaster, and Retention in O&P

My career as a prosthetic technician has an unorthodox origin story: as a child, I watched the 2004 movie *I, Robot*, starring Will Smith, an embarrassing number of times. I became fascinated with robotics and imagined myself building futuristic limbs and machines, replacing, and improving what was missing. That interest did not survive my first real exposure to coding, but the desire to work with something mechanical, yet human, never went away. Prosthetics felt like a cyborg-adjacent compromise that kept the spirit of that childhood obsession alive.

I shadowed at an orthotics and prosthetics (O&P) clinic for a single day and was immediately drawn to the mix of traditional craftsmanship, problem-solving, and medical device design. Watching a technician make devices by hand, troubleshoot fit issues, and contribute to something that would become part of someone's body felt meaningful in a way I had not anticipated. The experiences that day planted a seed, and while I did not know exactly what role I wanted within the field, I knew I wanted to be a part of it.

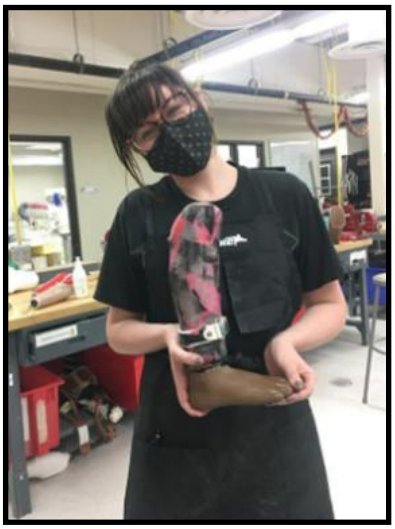
Now, after 5 years of experience in the O&P industry, I have worked in both central fabrication and hospital settings and have fabricated a wide variety of device types. I am comfortable looking back over the course of my career offering opinions on what kept me within the field where others may have felt pushed away and left.

Education as Exploration, not a Straight Line

When I entered the University of Minnesota Twin Cities in the fall of 2016, I was unsure whether I wanted direct patient contact. Thinking about keeping options open, I initially pursued a bachelor's degree in biomechanical engineering. Because I was unaware of the separate roles within the O&P profession, I chose a field that had related topics to my end goal of prosthetics. While I gained valuable scientific knowledge, it became clear that the program was not the right fit because the curriculum focused heavily on smaller-scale aspects of the body—cells, tissues, heart valves—and rarely addressed the kind of large-scale, multi-system problems that originally triggered my interest in prosthetics.

After two years and what felt like an endless stream of math, chemistry, and physics courses, I transferred into the Kinesiology Program at the University. That shift felt less like changing direction and more like finally aligning with my end goal. Courses such as biomechanics, motor learning and control, and motor development across the lifespan helped me understand not just how bodies move, but why they move the way they do.-That perspective fundamentally shaped how I approach fabrication work: every device exists within a complex, adaptive, human system, not in isolation.

Most of my classmates at the University had little exposure to O&P, so many of my projects turned into shared learning experiences. I introduced prosthetic concepts into broader discussions, like injury risks for athletes with a lower-limb prosthesis compared to those without a device. In March 2020, during my final semester, I left for spring break and never returned to campus. Like many other students, I finished my degree during COVID lockdown, graduating with a PowerPoint slide instead of a walk across the stage. That anticlimactic ending reinforced a lesson I keep relearning: progress in this field rarely ends the way you expect.



In fall 2020, I enrolled in the Prosthetic Technology AAS program at Century College, and my experience there was anything but typical. My prosthetics class consisted of only four students, including myself, all at different points in the program. While that was unusual, it created opportunities for highly individualized instruction and direct access to tools and equipment. Something that would not be available to larger class sizes or allow special projects that still stand out as defining moments in my early career.

One such project, almost as foreshadowing, involved fabricating a pediatric Syme's prosthesis with a window smaller than my palm (shown left). Another project involved taking a check socket made by fitter students, transferring alignment, and fabricating a definitive prosthesis to allow practice fitting. An experience as close to "real world fabrication" within the program and not commonly offered for students. I still have a video of that patient walking on the leg I made, and on difficult days, I watch it to remind myself why I chose this profession. Seeing a device move so naturally with someone's body, knowing I played a role in that, cemented my commitment to this line of work.

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COVID restrictions severely limited our lab time; in total, we spent only about three and a half class days on hands-on fabrication. That limitation could have been discouraging, but our instructor adapted quickly, and we learned in other ways. Weekly Zoom calls that featured industry professionals were scheduled including leaders from Ottobock Canada's custom silicone lab, representatives from Click Medical discussing the then-new RevoFit BOA system, demonstrations of transfemoral foam cover shaping, and presentations from Curbell on manufacturing the same thermoplastics we were using every day.

At the time, it felt like theory-heavy topics trying to compensate for lost lab hours. Now, working in the field, I see how important that exposure and connection-building was. I have since met several of the presenters at conferences and still find myself referring to the notes I took during those presentations.

Weekly discussion posts became another unexpected highlight of our new program. Topics ranged from osseointegration to microprocessor knee training and experimental nerve surgeries aimed at reducing phantom limb pain. Those conversations fostered intellectual engagement and underscored O&P as an evolving field rather than a static set of techniques. That mindset has been invaluable as I have progressed in my career.

Industry Culture and the Reality of Fabrication

One of my earliest professional experiences provided a clear picture of the work environment I wanted to avoid. To earn my AAS degree, I completed a three-week unpaid residency at a central fabrication lab supporting multiple clinics nationwide. Despite the scope of its operation, the lab employed only two technicians, both visibly overwhelmed.

A few days into my residency, a practitioner entered the lab holding an elbow mold and asked how quickly a brace could be fabricated. The lead technician, already juggling multiple sockets, estimated a week and a half. The practitioner responded bluntly, "That's not good enough."

That interaction stuck in my mind leaving a sour feeling. It was my first real exposure to the hierarchical culture that has long affected the O&P profession where technicians are often treated as secondary contributors rather than skilled professionals. I knew immediately that I could not build a career in an environment where collaboration was not valued, and clinicians did not appreciate the expertise possessed by technicians.

My first true O&P position was at a central fabrication facility specializing in prepreg ankle-foot-orthoses (AFOs) and knee-ankle-foot-orthoses (KAFOs). Prepreg carbon fiber fabrication often felt repetitive, and I joked that my job was mostly cutting and placing expensive stickers. Still, it was an excellent introduction to how industry operates: production turnaround expectations, communication with clinics, coupled with the unpredictability of workflow.

When I pushed my way into the company's growing prosthetics department, I faced a steep learning curve. Many of the combustible materials and techniques taught in school are not commonly used in modern fabrication. Due to the cost of materials, carbon fiber and fiberglass were absent from my formal training but were now standard in almost every socket. My educational training also did not teach how to use many of the modern components commonly used today, such as Ossur Icelock systems, Bulldog pin-&-lock systems, or any teaching about the posterior-mount running legs available on the market. All of my practice Below Knees in school had wooden ankle blocks for SACH feet. To date, I have yet to see one in the field!

On reflection, it seemed that everything we learned was stuck in the past. While we were getting bits of helpful information on how to laminate and hand skills, a major disadvantage was the lack of teaching about components and materials, another large part of the field. I learned quickly (and sometimes painfully) that mistakes are inevitable. But even more important was learning which mistakes could be fixed, which could be ignored, and which required starting over entirely.

I passed the ABC Prosthetic Technician Certification exam after working for two and a half years. By that point, I had fabricated prepreg AFOs of all types, KAFOs, and even created upper limb devices and prepreg prosthetics on top of more "standard" prosthetic devices. I was focused on learning as much as I could, wherever I could but despite my personal growth, I felt stuck. I was training newly hired staff while managing my own workload without any financial gain. The prosthetics department showed little sign of expansion, and time for cross-training in plaster or pulling thermoformable plastics was not available. My skills and credentials felt undervalued, and while I did not want to leave O&P, I knew that continued growth in this environment was at a dead end.

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Why I Continued Working as a Technician

In November 2023, I began working at Gillette Children's Specialty Healthcare, a local children's hospital, as an orthotic technician. From the beginning, I was encouraged to be adaptable. I was paired for training with a jack-of-all-trades technician, which meant every day brought something new to learn and expand my knowledge.

My work assignment started in the plaster room and I struggled heavily. Orthotics required far more modification than my previous work and my lack of formal orthotics technical training made the work more challenging. Then as I became more efficient, I was added to the hospital's internationally recognized spine team. Fabricating emergencies and post-op spinal braces quickly became my favorite work. With these projects, I could follow patients through multiple stages of treatment and see tangible progress over time. Seeing the effect of my corrections on devices illustrated the reasoning behind the modifications and propelled my skill to the next level of understanding.

As the orthotics department shifted toward digital workflows, I learned alongside my trainer and soon became responsible for modifying most of the lower extremity orthotics digital models. When the cranio remolding orthosis (CRO) technician left, I stepped into that role as well. Later, when CROs transitioned to outsourced 3D printing, several technicians worried about job security. I felt that pressure too, but it reinforced my belief that versatility is one of the technicians' strongest assets.

More recently, I applied for a prosthetics position within our lab to replace a technician with 30 years of experience. That learning curve was the steepest and the resulting skepticism from my peers was understandable. Management paired me with a prosthetic practitioner who had once been a technician herself. Having that support made all the difference in meeting this challenge. Then, I had the opportunity to apply all my previous work experience on a project with our prosthetics' lead. This project involved a shoulder disarticulation device (shown left), complete with a custom 3D-printed shoulder cap and custom shaped foam cover over the componentry. The recognition I received, praise from my peers, a smile from the patient, all made me feel valued, even though I was just beginning my prosthetics journey with the children's hospital.

Over the years, I have contemplated why so many technicians leave the role only a few years after graduating and beginning their careers. From my experience, this decision rarely focuses solely on a lack of interest in the O&P profession. More often, the decision seems to center on how technicians are regarded within the systems and roles in which they work. When technicians are viewed as interchangeable labor rather than skilled professionals, when their insights are ignored, their workloads are unsustainable, or their growth is limited, it becomes easy to feel stuck or invisible. There are still workplaces that limit measurement of "career growth" to unusual circumstances or by time worked in the position. In these environments, leaving can feel less like a choice and more like self-preservation. This reaction is especially true if the wages are reminiscent of the "unskilled labor" approach numerous practices consider for the technician position.

Another factor is stagnation reinforced by simply following and executing instructions. Fabrication can become repetitive if there is no opportunity to gain experience with new techniques, to rotate through specialties, or to participate in problem-solving exercises and discussions. Without variety or a sense of progression, even techs who genuinely love working with their hands may burn out quickly. Often, talented technicians leave a practice not because of a lack of skills or abilities, but because they are no longer challenged or supported by mid-level and senior management.

What has kept me working in the technician role is the opposite experience. I have been encouraged to adapt, cross-train, and step into unfamiliar areas—even when that meant being uncomfortable or slower initially to produce. I stayed because my input and involvement were valued. I was trusted to grow into larger responsibilities and not confined to a narrow task list. Feeling respected as a collaborator, not just a producer, has made a measurable difference in my commitment to this career.

I have come to believe that technicians who continue to work long-term often redefine what success looks like. Advancement does not mean leaving the lab or moving away from fabrication into a management position. From my perspective, growth means becoming more versatile, more knowledgeable, and more confident in abilities to contribute meaningfully across disciplines. The technician's role is not a temporary stop on the pathway to seeing patients, it is a profession that evolves for each of us as we continue to grow and learn.

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So, What Can You Do?

I believe that keeping technicians within the O&P field is a task that all of us need to become involved in, regardless of our role within the industry. That consequence starts with the education and training of students to become O&P technicians. Instructors need to tell and reinforce to students that being a technician is a professional career, not an entry-level position while you train to be an assistant, fitter, or practitioner. With this change in approach and attitude, higher numbers of technicians will continue to work and grow in a practice or fabrication center. During my time at Century College, the technician faculty continually strives to correct hierarchal ideas and reinforce the belief that technicians can have a fulfilling career in O&P without seeing patients. If this attitude was believed and supported by all throughout the O&P profession, more highly skilled technicians will be retained in our profession.

Practitioners can help support technicians and bolster retention by treating technicians as peers and collaborators, rather than as back-office workers. We all want to provide the best care for our patients, and an "us versus them" mentality often makes every day work unpleasant and difficult. Technicians can offer expert knowledge of materials and fabrication techniques, areas in which many clinicians have less exposure during their master's programs and undervalued within the industry. I enjoy tackling complex cases, bouncing ideas to other technicians and practitioners alike. Discussions of our unique experiences in the field can help us work together more effectively to better meet a patient's needs.

Leaders of technical and fabrication teams can meaningfully impact technician retention by cultivating a culture of teamwork, collaboration, and mutual respect. This behavior includes safeguarding technicians from boundary violations by clinicians and affirming the value of the technicians' expertise beyond the fabrication form. The advanced skills and knowledge required to produce custom orthoses and prostheses efficiently and accurately should be acknowledged through fair compensation.

Ultimately, some technicians will leave because the role and past experiences do not offer sustainability, recognition, or room to grow intellectually. Since I found an environment that does offer sustainability, recognition, or room to grow, I have continued to work as a technician. As the O&P field continues to change—through digital workflows, outsourcing, and innovative technologies, the technicians who remain will be those who are supported in learning, trusted in their expertise, and included as essential members of the care team. And I intend to be one of them!

AUTHOR

Brooke Manz, CTP

Brooke Manz is an orthotic and prosthetic technician at Gillette Children's Specialty Healthcare. She graduated from the University of Minnesota with a B.S. in Kinesiology in 2020, received her AAS in Prosthetic Technology from Century College in 2021, and became an ABC Certified Prosthetic Technician in 2022. After graduation, Brooke began working at a central fabrication center making custom prepreg carbon orthotics and prosthetics. In the fall of 2023, she joined the OPS team at Gillette Children's Specialty Healthcare and jumped in headfirst into every area of fabrication offered. In her time away from work, she may be found knitting hats or socks in a coffee shop, paddle boarding with family members at the cabin, or exploring the local food scene with friends.

Beyond the Device: How Adaptive Sports Builds Community, Confidence, and Lifelong Possibility

For many individuals with disabilities, the path to independence and confidence does not end when rehabilitation concludes or a piece of adaptive equipment is fitted. In several cases, it is only the beginning. True progress often happens outside clinical settings—on mountains, lakes, rivers, and trails—where individuals test their abilities, build confidence, and rediscover joy.

Across the country, adaptive sports programs are helping bridge the gap between clinical care and lived experiences. At the Adaptive Sports Program New Mexico (ASPNM), that bridge is built every season through inclusive recreation opportunities that support physical, emotional, and social well-being for people of all abilities.

For more than 40 years, ASPNM has expanded access to outdoor recreation across the state for individuals with disabilities. Serving individuals across the lifespan, ASPNM welcomes participants from early childhood through older adulthood, with the belief that access to movement, community, and joy should never expire. Working across eight counties in New Mexico, the organization supports people with diverse physical, cognitive, and sensory disabilities, ensuring opportunities to connect, grow, and thrive at every stage of life.

Adaptive sports are often viewed through the lens of equipment or accommodation, yet their true impact reaches far beyond gear or technique. For many participants, adaptive sports create a pathway to confidence, identity, and belonging. Adaptive sports offer a place where limitations are not the focus, but-possibility is.

One ASPNM athlete shared:

> "When I started participating with ASPNM, I was already legally blind and did not know how to ski. Now, five years later, though my vision loss has progressed, I was able to ski my first black diamond slope this season! The instructors I have skied with have taught me so much, and I am able to do things I did not think were possible because of them."

For numerous individuals, participation becomes about reclaiming parts of themselves that felt lost after injury or diagnosis. Another athlete reflected:

> "I enjoyed being able to ski and the great experience it provided. It helped tremendously with my mental health by helping me to get out and see I can still do things I loved before my injury. If it was not for the program I would not ever been able to ski and enjoy life again."

And finally:

> "The purest joy I saw on the mountain this season was watching someone who can't walk show me how he flies."
> – ASPNM Volunteer

These stories echo throughout the NM Adaptive Sports programs. Families frequently describe how adaptive sports have created space for growth, confidence, and connection that extends far beyond the activity itself.

> "The adaptive program boosts my special needs child's self-esteem. It improves her physical and mental health. I love to see my child participate and not be withdrawn. It empowers her and makes her feel like she is just like anyone else and can-do things she typically could not."

For many families, living with disability can feel isolated, especially when support systems are limited or hard to access. ASPNM offers something different—a place where families feel seen, supported, and welcomed into a community that understands their challenges and celebrates their victories. One parent put it simply: "We wouldn't ever be able to do this if it weren't for ASPNM."

At the heart of ASPNM's work is a dedicated group of volunteers serving communities across the state. These individuals come from a wide range of backgrounds and receive ongoing, specialized training to support athletes safely and thoughtfully. Alongside a small, but capable staff, they enable ASPNM to provide over 1,000 adaptive lessons and experiences annually, ensuring that all programs are accessible, minimize risk, and maintain exact standards of quality. One volunteer reflected:

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> "Volunteering with ASPNM was a way for me to make a hobby that I have done my whole life feel new again… This program brings together an amazing group of people that spread so much joy around to everyone it touches."

Another described how the experience reshaped their perspective on ability:

> "ASPNM has really redefined what is possible. When proper training and equipment are in place, disabilities are dissolved and the true spirit and athleticism of the athlete shines through."

For professionals in orthotics and prosthetics, adaptive sports offer a vital reminder that mobility extends far beyond clinical outcomes. Outside the clinic, individuals encounter real-world challenges—and opportunities—that shape confidence and quality of life.

As one volunteer shared:

> "I work in a hospital all day where we put such an emphasis on what people shouldn't do, and it was refreshing to work in a space where they could be as free as they wanted to be."

At its most essential component, ASPNM's work is about access—ensuring that geography, income, or disability do not determine who gets to participate. Programs are offered at **no cost to disabled veterans**, and for all other participants, fees are intentionally kept as low as possible. Thanks to the generous financial commitment of local and national agencies, foundations, community partners, and individual donors, **scholarships are available with no questions asked**, ensuring that financial barriers never stand in the way of participation.

These partnerships allow ASPNM to extend its reach across New Mexico, collaborating with schools, healthcare providers, and community organizations to bring adaptive sports to communities that might otherwise not be included. By meeting people where they are—geographically, financially, and personally—the organization creates pathways to inclusion that endure.

After more than four decades of service, the impact of ASPNM is measured not just in participation numbers, but in the lasting changes experienced by those who take part. Participants come from many backgrounds and life circumstances, yet they share a common experience: access to opportunities that support confidence, independence, and connection.

As one athlete put it simply:

> "I feel more alive when I am skiing."

This impact reflects the core mission of the Adaptive Sports Program New Mexico: to enhance the lives of individuals with disabilities through adaptive sports and outdoor recreation. By focusing on access, consistency, and community-based support, ASPNM creates opportunities for people to participate meaningfully, build confidence, and remain active throughout their lives. In doing so, the organization demonstrates that adaptive sports are not merely recreational programs, but essential pathways to participation, health, and connection. For more information, please visit ASPNM.org.

AUTHOR

Camille Romero

Executive Director of the Adaptive Sports Program New Mexico (ASPNM)

Camille Romero serves as Executive Director of the Adaptive Sports Program New Mexico (ASPNM), where she helps lead statewide efforts to expand access to adaptive recreation for children, adults, and veterans with disabilities. A member of the ASPNM staff since 2015, she has supported the organization's steady growth by broadening year-round programming, strengthening partnerships, and increasing opportunities for athletes across New Mexico to ski, snowboard, climb, paddle, and explore the outdoors with confidence and independence. With nearly two decades of experience in the nonprofit sector, Camille is committed to reducing barriers to participation and creating inclusive spaces where people of all abilities feel welcome. She works closely with staff, volunteers, and community partners to ensure ASPNM's programs remain accessible, sustainable, and responsive to the needs of athletes and families throughout the state. In her free time, Camille enjoys skiing, tennis, pickle ball, golf, Pilates, hiking, and traveling.

Level 3 Apprenticeship for P&O Technicians in the United Kingdom

Before I explain the journey to design and create our qualifications, I think it is important to explain the theory of apprenticeships at the University of Derby in England.

Apprenticeships have existed for many years but in 2014 the UK Government revamped qualifications and funding procedures. Any UK company with a salary bill of over £3M must pay 0.5% of this bill into a government training fund called The Apprenticeship Levy. In 2026, the name of this fund will change to the Growth and Skills Levy. Companies can access this fund to pay for the training costs of their apprentices. All apprenticeships must adopt an apprenticeship standard that is written by industry groups called Trailblazers to verify that the correct skills and knowledge are taught. The other important fact is that apprentices are employed and paid by their employers to learn, i.e. meaning they do not accrue any student debt during their education and training.

As you may know, an apprenticeship is a way of training an individual to provide academic knowledge and practical skills for successful workplace performance. The apprentice usually attends an academic training establishment such as a university or college for part of the week, and the rest of the week is spent in the workplace learning practical skills and fabrication techniques.

In 2017, a Prosthetic & Orthotic Trailblazer group was commissioned to write two apprenticeship standards: a Level 3 standard for Technicians and a Level 6 standard for Clinicians. The trailblazer group was made up of industry stakeholders and members of the government National Health Service (NHS}. These two standards were published in 2018, and Higher Education Establishments were invited to submit a proposal to teach these standards. The University of Derby won this proposal in 2019, and staff were advertised for and employed in 2020.

As a teaching team, we started with a blank piece of paper but were guided by the apprenticeship standard, which detailed the guidelines for teaching apprentices. These guidelines were grouped into Knowledge Skills and Behaviours abbreviated as KSBs. As a teaching team, we worked to build the framework for teaching the KSBs. We also met with-professional stakeholders to ensure that what we designed was what the profession needed and wanted. We also worked with the Learning Design Team at the University who took the written teaching content and turned it into digital content for use in the virtual learning environment. For the Level 3 apprenticeship, we wrote five (5) modules to be taught over a 12-month period. The titles of the modules are listed below:

Anatomy (20 credits)

Health & Safety (20 credits)

Biomechanics (20 credits)

Healthcare systems (20 credits)

Materials and processes (40 credits…a double module)

The academic portion of the apprenticeship is taught online with the apprentice logging online from either workplace or home. Under the established guidelines, each apprentice must complete 7.5 hours of “Off The Job” (OTJ) training each week. The Off the Job time is logged in each apprentice’s logbook using a platform titled PebblePad. Academic content for the apprentices is taught using a platform titled Blackboard Ultra, along with a range of live lectures during each module. These live lectures are each an hour long and are recorded so that apprentices may review and study as needed.

The apprentices also attend the University for a one-week period, focusing on Clinical Skills education. During the Clinical Skills, the practical assessments for the first two modules are undertaken. Clinical skills week has teaching sessions that allow the apprentices time to work with P&O patients. Each module has two marked assessments, one practical and one written, that must be completed. These assessments are reviewed and marked to give the apprentices a final grade for the course.

As part of the apprenticeship contact between the employer and the University, the 7.5 hours per week is developed with each apprentice and can take place in the workplace or the home, whichever works best for the apprentice. As the academic teaching is conducted online the students may be based throughout the UK since there is no need to travel to the University campus on a weekly basis. This practice also allows employers to recruit apprentices from local areas, alleviating the challenges of finding employees (i.e. technicians) in high-cost or rural areas.

As lecturers, we need to remember that the apprentices are full-time students who are also fulfilling a job role. We need to remember that their weeks are busy, and our support of them in their academic studies is of paramount importance. Learning in a virtual environment rather than a normal classroom, means that we need to assess and monitor each apprentice, providing support and guidance when it is needed. As well as attending live lectures, which are recorded and uploaded to Blackboard for students unable to attend, one on one guidance/counselling sessions are available when requested. For some students, these sessions may be required if the apprentice is struggling to fully understand a subject; or for others, the-sessions are scheduled as a regular weekly appointment.

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The apprenticeship qualification teaches both Prosthetics and Orthotics. The majority of students will be based in a workshop that provides only one of these disciplines. During the 12-month apprenticeship, each apprentice will carry at least 15 days of placement in the secondary discipline. Depending on the size of the employer, this training may be conducted within the same company, or the apprentice will spend placement time with another local employer or the NHS.

Within the UK, individuals can work for the National Health Service, a government employer, or for a company that provides P&O services to the NHS or secondly for an employer that specialises in private patients who self-fund the costs of their treatment.

All our apprentices are chosen by the employers and offered employment. The apprentices come from a variety of different backgrounds and there is no age limit. Over the past 4 years, we have taught individuals from high schools, from a different profession, staff working in the departments who wish to upskill and retired members of the military. Over the past 4 years, we recruited 42 apprentices, but at the same time we had 7 apprentices who lft the course during their studies. The reasons given by apprentices for leaving:

- Found the academic work too difficult
- Left P&O employment
- Health reasons

Over the 4 cohorts our gender mix has been

- 70% Male
- 30% Female

The UK is divided into four nations: England, Scotland, Wales, and Northern Ireland with-education devolved to each of the four nations. The apprenticeship levy only applies to apprentices living in England so any apprentice not based in England can enrol in our courses at the University of Derby. However, tuition funding must come directly from the employer of the apprentice. We also hope to recruit international students to enrol in the courses offered at the University.

At the end of 12 months, after the apprentice has completed the academic modules, each is prepared for a final assessment which is called End Point Assessment (EPA). In this two-part assessment, the first part is a 90-minute observation assessment where the apprentice carries out normal manufacturing duties. The second part is a 60-minute professional interview where the apprentice will be asked questions about the KSBs covered during the apprenticeship. The EPA is carried out in the apprentice's own workplace to provide a very familiar working environment. Both parts of the EPA are assessed separately and then combined to give an overall result. The assessment results are defined as Distinction, Pass, or Fail. If the apprentice fails either part of the End Point Assessment, he/she will be offered a resit within 3 months.

The cost of the Level 3 apprenticeship is £6000 ($8,200), and the University is paid quarterly during the apprentice's time completing the education and training courses. If an employer recruits an apprentice under the age of 18 years, the employer receives a payment of £1000 ($1,365) when the apprentice successfully completes the courses. In the UK, Prosthetics and Orthotics is classified as an employment position in demand. With this designation, the government offers employers a training grant of £4500 ($6,150) for every apprentice of each employer who is enrolled in the P&O apprenticeships at the University.

Any apprentice who has successfully completed the Level 3 qualifications can use this entry requirement to complete the Level 6 qualification if he/she has the support of their employer. This means that a school departer can progress through both qualifications to become a Prosthetist/Orthotist with the added experience of having been a qualified technician.

The major goal of this training and qualification route was to create a nationally recognised training programme for P&O technicians. A secondary goal is to provide employers with a training programme designed to attract individuals into the prosthetic and orthotic profession. After having three cohorts complete the required qualifications, I believe we are achieving these two goals.

A workforce study carried out by our professional body, the British Association of Prosthetics and Orthotics (BAPO) said in 2023 that the UK prosthetic and orthotic technical workforce needed at least another 1100 technicians to be recruited and working in the UK. Through our work at the University, we may only be providing a small percentage of the needed technicians. Hopefully, as news of the Level 3 apprenticeship spreads and employers begin to understand how apprenticeships work and how to fit them into their workforce, we will see this workforce void eliminated. For more information, please contact: i.adam@derby.ac.uk

AUTHOR

Ian Adam
Senior Lecturer, University of Derby, United Kingdom

Ian left high school in the summer of 1984 and started an apprenticeship as an Orthotic Technician with Greater Glasgow Health Board. He completed his apprenticeship in October 1987 and qualified with and received a Higher National Certificate (HNC) in Mechanical and Production Engineering, an HNC is one level below a university degree.

Ian began work in the Orthotic Department at the Royal Hospital for Sick Children in Glasgow, where he completed the practical part of his apprenticeship. Being interested in P&O Education and as a member of the British Association for Prosthetics and Orthotics (BAPO), Ian became involved with P&O Technician projects.

In 2010, Ian worked with the NHS Education Scotland to develop an upskilling programme for P&O Technicians. In 2014, Ian designed a Professional Development Award (PDA) for the Scottish Qualification Authority (SQA) for P&O Technicians. Ian joined the University of Derby in 2020 as a lecturer to design and write a Level 3 Apprenticeship for P&O Technicians. In 2025, Ian was promoted to Senior Lecturer. Ian is a member of BAPO and ISPO and has presented on prosthetic-orthotic technician education at conferences in the UK, Germany, Japan, Australia, and the United States. He will be presenting on this topic in Thailand in 2026.