ACHIEVEMENTS IN OCCUPATIONAL THERAPY

2 THE PROBLEM SOLVERS
OT and engineering students find common ground in the creation of 3-D printed assistive devices.

4 CONFIDENCE MATTERS
Understanding the physical and emotional changes of weight loss may help improve patients’ health.

7 LIFE AFTER HIGH SCHOOL
ROAD Ahead Study supports high schoolers with autism as they transition into adulthood.

8 OCCUPATIONAL JUSTICE
DiverseOT empowers incarcerated women to take control of their lives.

12 STRONGER TOGETHER
Professor supports breast cancer survivors through group intervention.
Dear Colleagues,

We are delighted to send you this special issue of *Inside Sargent* highlighting the Department of Occupational Therapy at Boston University’s College of Health and Rehabilitation Sciences: Sargent College. This collection of articles offers a glimpse of our faculty and students’ exciting research and academic activities during the past several years.

Our faculty are dedicated to excellence in entry-level and post-professional education and to building the body of knowledge related to occupation, participation, and health. We are pleased that our new entry-level Doctor of Occupational Therapy (OTD) program is now fully accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) and excited that our first class of students just completed and presented their capstone experience, the final component of their professional preparation. We look forward to their innovative contributions to clinical practice, advocacy, education, and research.

Our online Post-Professional OTD program has continued to grow and is now drawing students from around the world. Despite the distance between them, the students form a close, supportive network as they work together to design creative and carefully tailored responses to the needs of their clinical, educational, or community settings. Many of our graduates have gone on to leadership positions in practice and faculty positions in academic occupational therapy programs.

We hope that many of you had the opportunity to hear Professor Ellen Cohn, director of our entry-level OTD program, deliver the AOTA Eleanor Clarke Slagle lecture in New Orleans in April. Her talk described best what we strive for in all of our programs: to produce confident and competent graduates who will contribute to the growth of knowledge about occupation, participation, and health and whose practice represents the very best that occupational therapy has to offer.

I’m extremely proud of the sustained commitment of both faculty and students to advance the profession and build the knowledge needed to support meaningful participation in daily life for all people, populations, and communities. I hope you enjoy learning about some of their achievements in this special issue.

Wendy Coster
Professor and Chair, Department of Occupational Therapy
or people with arthritis, everyday tasks like holding a can of soda or applying makeup can be painful—even impossible. Orthotics, easy-grasp utensils, and other assistive devices can make life easier for those with physical limitations, but their one-size-fits-all approach and high cost can be prohibitive. Now, the rise of 3-D printing offers occupational therapy practitioners and their clients an alternative for creating inexpensive, customized devices.

It’s a technological approach that Karen Jacobs, a clinical professor of occupational therapy, is embracing. Jacobs’ office on the fifth floor of Sargent College is filled with vibrant mementos collected over a 40-year career in occupational therapy. Books on musculoskeletal disorders and ergonomics (including those she wrote) and myriad awards and commendations—many from the American Occupational Therapy Association where she served as president from 1998 to 2000—line her crowded bookshelves. Colorful snow globes, stuffed animals, and student artwork fill in the gaps. Among the many artifacts is a slightly newer mark of Jacobs’ innovative spirit: a sleek silver and blue 3-D printer. Given her focus on ergonomics, Jacobs has become a fan of the technology’s ability to have a positive impact on those who need help with activities of daily living.

“We are always looking for assistive technology, or adaptations,” says Jacobs. “The introduction of the 3-D printer allows us to better match what a person needs through the design of an individualized item.”

To connect her students’ therapeutic training with 3-D technology expertise, Jacobs had only to look across the street. She partnered with Rebecca Khurshid, an assistant professor of mechanical systems engineering, to recruit engineering students for a four-week project. In fall 2018, Jacobs took the first-year doctor of occupational therapy students from her Analysis and Adaptation of Occupation course over to the College of Engineering, where the students from the two schools tackled a challenge: design an assistive device for a hypothetical client with a fine motor limitation like arthritis—and print it.

The occupational therapy students developed case studies and proposals. They then worked with the engineering students at two of BU’s maker spaces: the Engineering Product Innovation Center, which has twelve 3-D printers, and the Binoy K. Aceto ’21 Walker that will use low-cost sensors to help prevent falls.

Client with a fine motor limitation like arthritis—and print it.

Karen Jacobs (right), Rebecca Khurshid (center), and Amy Aceto ’21 collaborate with the occupational therapy students to enjoy a better understanding of another profession they could work with in the future.” She recalls the students’ first meeting, when they were asked to explain their fields to each other. The first response: “As engineers, we solve problems.” The Sargent students laughed. “We do that too,” they said.

Karen Jacobs (right), Rebecca Khurshid (center), and Amy Aceto ’21 demonstrate a 3-D printed soda holder designed to assist a person with arthritis. Sargent and engineering students collaborated on the design and production of the device.

“We are always looking for assistive technology, or adaptations. The introduction of the 3-D printer allows us to better match what a person needs through the design of an individualized item.”

Karen Jacobs
In 2017, Danny Shin, an occupational therapist in inpatient care at a hospital, was working with one of his patients, a man with a movement disorder. The patient was doing particularly well, Shin (’22) recalls. “He never fell with me, ever, in the hospital.” And yet, as soon as he returned home, the man took a tumble.

What happened? Shin wondered. “Physically, he was fine. He was safe to be home.” Had the patient felt comfortable in a hospital setting, but lost that confidence when his environment changed? Or had he instead become overly confident and pushed past his limits? There was also a change, Shin reasoned, that self-confidence wasn’t a part of the equation at all.

Shin has been studying that relationship between self-confidence and walking at Sargent where he’s pursuing a PhD in rehabilitation sciences. He’s conducting that research in the lab of Simone V. Gill, an associate professor of occupational therapy. Gill has spent a decade at BU studying the ways obesity affects walking patterns and contributes to fall risk, often working with people undergoing bariatric surgery. “One other thing, though, that goes into falling isn’t just physically what you can do,” Gill says. “It’s how confident you feel about moving around.

After individuals lose massive weight, it’s like getting used to an entirely new body.” The two have designed a new study that examines both the physical and emotional changes resulting from such massive weight loss.

Research has shown that people with obesity move differently, with a wider gait, than people with average body mass indices when walking on flat ground and navigating environmental obstacles. They tend to walk more slowly and take shorter, choppier steps; they also prioritize spending time on both legs, rather than balancing on one at a time. “It sounds like it should make them more stable,” says Gill, “but it actually predisposes them to more falls.”

Even after bariatric surgery, a patient’s movements don’t completely return to baseline. “There’s an argument for rehab because their walking patterns haven’t matched those of people with average body mass who never were living with obesity,” she says.

Gill’s interest in this research is, in part, personal. In 2012, she weighed 225 pounds; today she weighs about 130. Although she did not have bariatric surgery, “I was interested in differences in how I moved after losing about 90 pounds.” People who undergo bariatric surgery can lose up to 35 percent of their body weight in a single year. “I was very curious about what happens when there’s a change in your body that’s so sudden.”

For her study, Shin and Gill, who also directs Sargent’s Motor Development Lab, asked 12 adults prior to bariatric surgery to navigate five courses, which ranged from flat ground to high obstacles. Participants returned 4, 8, and 12 months after the surgery to repeat the course. A gait carpet tracked the position and timing of their footsteps, capturing digital representations of their footfalls as they walked.

At each visit, participants were also asked to complete two tests to measure self-efficacy: the belief that you can successfully complete a particular task. The first test, known as the falls efficacy scale, describes how confident a person feels that they can complete a functional, day-to-day activity—such as cooking dinner or taking a shower—without falling. The second test, called the modified gait efficacy scale, is newer and less commonly used. It tests for confidence in challenging circumstances, such as walking safely across a grass lawn or stepping up and down from a curb.

So far, Shin is in the preliminary stages of data analysis. Early results show definite changes in walking patterns after surgery; participants walk faster and with a narrower gait. Self-efficacy also shows a general improvement between the zero- and four-month mark. Examining these factors in concert is important, Shin says, because “if someone has low self-efficacy, even if they are physically capable of doing something, a lot of people still choose not to do it.” Walking is one of the least expensive and most commonly prescribed methods to combat obesity; yet patients often avoid it. This study could add another layer of data to help explain why.

Shin presented these findings at the annual Gait and Clinical Movement Analysis Society conference in March 2019. For Gill, that is an important part of the student experience. “It’s an opportunity to learn how to disseminate his work to other scientists,” she says. Another focus for Gill is to create a space where Shin and her other doctoral students can lead in the lab. “They have to learn how to be scientists, but they also have to learn how to mentor others.”

With that in mind, Shin is working with several students involved in BU’s Undergraduate Research Opportunities Program. “We show them what data collection looks like, what kind of protocols we follow,” says Shin. “They get a behind-the-scenes look at what research is.”

Shin will continue to process the data he and Gill have collected to learn which measures show improvement—or don’t—across the 6- and 12-month check-ins. The next step may be intervention—physical therapy, for instance, or home-based activities that can be monitored by practitioners through wearable devices—in order to decrease the risk of falls. Shin also speculates that their research into self-efficacy may highlight the importance of an existing practice: home assessments.

Many occupational therapists visit their patients’ homes during treatment, to ensure that their work in the clinic mirrors real-life obstacles. “We want to really emphasize to people that they’ll be able to translate their walking abilities from the clinic to their environment,” he says.
O ccupational therapist Ellen S. Cohn is optimistic about the future of her field. Today, people demand quality care and patient-centered care—priorities shared by all children with developmental disabilities. She later earned a master’s in counseling and psychology from Harvard University and a therapeutic studies doctorate at Sargent. She joined Sargent’s full-time faculty in 1999.

Today, Cohn focuses on qualitative research, including developing a new intervention to facilitate friendship in adolescents with autism spectrum disorder. Cohn offered Inside Sargent three insights on the future of occupational therapy:

1. QUALITY OVER QUANTITY
   “In the past, reimbursement for healthcare has been based on the amount of services provided instead of the quality of care or meaningful outcomes that matter to clients. Reimbursement is shifting to value-based care and quality care, as opposed to how many hours, minutes, or days people are receiving intervention. What matters to patients is now valued and viewed as both an outcome and an important means to improve health.”

2. RESEARCH ADVANCEMENT
   “Occupational therapy is a relatively young profession. Yet, we now have enough practitioners and researchers who are prepared to conduct sophisticated, scientifically rigorous research to communicate and document the distinct value of the profession.”

3. GROWTH
   “We have the infrastructure and the capacity to truly demonstrate to payers, to legislators, and to the public the tremendous benefits of occupational therapy, which is really exciting. I think it’s a great time to be an occupational therapist. And I think the profession is just going to continue to flourish because of all these shifts.”

---

**Life After High School**

**ROAD Ahead Study supports high schoolers with autism as they transition into adulthood**

**BY REBECCA BAYER**

C hristian Tsetsos, an administrative professional who has Asperger syndrome, credits his mother and an aide-turned-mentor with helping him transition from high school to college and into a full-time career. They made sure he received the necessary support services from his public school system and encouraged him to advocate for himself. Tsetsos believes many students like him aren’t as fortunate when it comes to getting the help they need.

“Even among special education teachers and staff,” says Tsetsos, “there’s a lack of understanding about how best to prepare individuals on the spectrum for post-high school life.”

As a member of the advisory board of the ROAD Ahead Study: Responsibilities of Adulthood, Tsetsos champions other young people with autism who are on track to graduate high school. The four-year study, led by Sargent occupational therapy professors Gael Orsmond and Wendy Coster, investigates how educators and related service providers work with high school seniors to prepare them for adult life. The goals are to improve our understanding of common interventions, identify the predictors and markers of adult success, and develop strategies that schools could adopt and adapt.

The study, funded by the US Department of Education’s Institute of Education Sciences, began with focus groups and an online survey of high school personnel from socioeconomically and ethnically diverse Massachusetts communities to determine what schools are already doing. The next stage of the research will gauge how challenges taking over responsibility for daily life tasks at home, school, and in the community may be related to less successful outcomes.

Parents will complete a standardized assessment examining the extent to which their child has assumed responsibility for managing tasks such as making social plans, managing health and medical treatment requirements, and managing food needs. Each year of high school and then again 18 months later.

“At the top of the scale, the child manages all of a task,” says Coster, chair of the occupational therapy department. “That doesn’t mean they do it completely on their own, but it means if they need help, they take responsibility for reaching out to get it.”

As part of the ability to self-manage daily life, Orsmond and Coster are interested in the youths’ skills that support functioning: not just the ability to withdraw money from an ATM or balance a checkbook, but to effectively plan and implement a budget. Children without autism might pick up self-management skills by observing their parents or guardians. Students with autism who have an intellectual disability might learn some of these things in special education classes. But youth with autism who primarily take general education classes seem to be missing out on both ends: their disability makes learning by observation difficult, and they aren’t in special education classes because they are academically on par with their peers.

“These are kids who graduate with a high school diploma, go to college, but then struggle with social and life skills,” says Orsmond, who directs Sargent’s Families and Autism Research Lab. A study in the September 2013 issue of the Journal of the American Academy of Child and Adolescent Psychiatry found that only about 53 percent of young adults with autism had worked outside the home after high school—the lowest rate among disability groups. Much of the existing research into post-graduation success for youth on the spectrum has focused on discrete outcomes such as attending college and having a full-time job, says Orsmond. Although the ROAD Ahead Study will look at those outcomes, Orsmond and Coster hope their work will reveal that success is more fluid and nuanced than that. It’s equally important to support young adults in pursuing a range of activities. Orsmond says, like “having a balanced and meaningful life: enjoying college, having a job you like, some recreation, some social activities.”

---

3 Insights: The Future of Occupational Therapy

**SLAGLE LECTURER ELLEN S. COHN ON THE TRENDS FORCING CHANGE**

**BY ABIGAIL FREEMAN**

Inside Sargent

---

**Wendy Coster and Gael Orsmond**

For the next stage of the study, the research team, which also includes faculty from Boston University Wheelock College of Education & Human Development and the College of Arts & Sciences’ psychological and brain sciences department, will collect input from parents and their high school students with autism. A longitudinal survey will examine post–school outcomes, including successful participation in post-secondary education or employment and factors associated with these outcomes. The study will gauge how challenges taking over responsibility for daily life tasks at home, school, and in the community may be related to less successful outcomes.

Parents will complete a standardized assessment examining the extent to which their child has assumed responsibility for managing tasks such as making social plans, managing health and medical treatment requirements, and managing food needs. Each year of high school and then again 18 months later.

“At the top of the scale, the child manages all of a task,” says Coster, chair of the occupational therapy department. “That doesn’t mean they do it completely on their own, but it means if they need help, they take responsibility for reaching out to get it.”

As part of the ability to self-manage daily life, Orsmond and Coster are interested in the youths’ skills that support functioning: not just the ability to withdraw money from an ATM or balance a checkbook, but to effectively plan and implement a budget. Children without autism might pick up self-management skills by observing their parents or guardians. Students with autism who have an intellectual disability might learn some of these things in special education classes. But youth with autism who primarily take general education classes seem to be missing out on both ends: their disability makes learning by observation difficult, and they aren’t in special education classes because they are academically on par with their peers.

“These are kids who graduate with a high school diploma, go to college, but then struggle with social and life skills,” says Orsmond, who directs Sargent’s Families and Autism Research Lab. A study in the September 2013 issue of the Journal of the American Academy of Child and Adolescent Psychiatry found that only about 53 percent of young adults with autism had worked outside the home after high school—the lowest rate among disability groups. Much of the existing research into post-graduation success for youth on the spectrum has focused on discrete outcomes such as attending college and having a full-time job, says Orsmond. Although the ROAD Ahead Study will look at those outcomes, Orsmond and Coster hope their work will reveal that success is more fluid and nuanced than that. It’s equally important to support young adults in pursuing a range of activities. Orsmond says, like “having a balanced and meaningful life: enjoying college, having a job you like, some recreation, some social activities.”

---

**“Even among special education teachers and staff, there’s a lack of understanding about how best to prepare individuals on the spectrum for post-high school life.”**

–Christian Tsetsos
When Natalie Petrone (’19) visited a segregation unit at the Suffolk County House of Correction in Boston, Mass., with two classmates, the experience struck close to home: Petrone has an uncle who suffers from mental illness and has been in and out of jail, sometimes with long stretches in isolation.

“It really illuminated how terrible the prison system is and what we can do better,” says Petrone, an occupational therapy doctoral student who wants to work with people with mental illnesses. “Luckily, with my career, I can do something about it.”

That something is a program intended to better prepare incarcerated individuals for reentry into society. “People are released into the community and wind up right back in [jail] because they didn’t have the support they needed,” says Petrone.

With Emily Briggs (’19) and Jade La Rochelle (’19), Petrone designed an occupational therapy program, DiverseOT, for female inmates at Suffolk. Its goal is to empower the women to take control of their lives and improve their chances for a successful transition back to their communities once released. According to the Massachusetts Department of Corrections 2016 prison population report, the 2013 three-year recidivism rate for women was 33 percent.

The jail can house close to 1,900 inmates, about 10 percent of them women, serving sentences typically under two-and-a-half years. In spring 2018, the Sargent students traveled to the jail every week for three months to work with a small group.

“We did our best to learn from the women by asking, ‘What barriers might prevent you from being successful?’”

– Natalie Petrone (’19)

“‘It’s a little cheesy, but this way they can see what they’re doing each week and how they can help each other,’” Briggs says, noting that one of the most meaningful outcomes of the program was the participants’ initiative to devise solutions to potential post-release challenges. They helped each other to develop strategies for finding resources in the community once they’re released, and to prepare for interacting with people who may treat them like criminals. Some of the strategies were simple: taking a breath before responding to a negative comment, for example. Others were practical, such as finding professional attire through Dress for Success and other nonprofits.

DiverseOT is the latest community outreach program to emerge from Occupation-Based Practice with Groups, a Sargent College course taught by Ellen Cohn, a clinical professor of occupational therapy. The course, which includes a weekly seminar, has been part of Sargent’s curriculum since the early 1970s. In previous years, students have partnered with Boston’s Museum of Science to provide inclusive opportunities for children with autism, worked with kids who are obese or at risk for obesity to develop healthy exercise and nutrition habits, and provided services for adolescents with disabilities who are transitioning into adulthood. The DiverseOT students were supervised by Cohn and Christina Ruccio, director of women’s program services at the Suffolk County Sheriff’s Department.

The Suffolk work falls into an area of occupational therapy known as occupational justice, a term that acknowledges people’s right to engage in occupations or activities of daily living that promote health, well-being, and social inclusion. Occupational therapy in the criminal justice setting is an emerging practice area, Cohn adds; the Suffolk work is Sargent’s first foray into that field.

Cohn says she’s impressed by the “passion, sensitivity, commitment, and thoughtfulness” of the students, who came up with the idea for the DiverseOT program, collaborating with Ruccio and Anne Escher, a clinical assistant professor. Ruccio says the students’ curriculum is a strong fit with the Suffolk County Sheriff’s Department’s goal of providing “thoughtful, gender-specific, reentry programming to our female inmates and detainees.”

Briggs, La Rochelle, and Petrone were in the first class of doctoral students in Sargent’s entry-level Doctor of Occupational Therapy program, which launched in 2016.
On Their BEST Behavior

A TRIP TO THE SCIENCE MUSEUM HELPS YOUTH WITH AUTISM PRACTICE THEIR SOCIAL SKILLS | BY LARA EHRLICH

Every summer, the Museum of Science, Boston, offers children's programs on subjects like rockets, dinosaurs, and electricity. The programs are popular with children on the autism spectrum, who may have an aptitude for science, technology, engineering, and math (STEM), and develop focused interests in these areas. Those children also have difficulty with social interaction, at the start of a program, they would be more likely to pull out a book during lunchtime, rather than eat with the other kids, says Annette Sawyer, director of the museum's education and enrichment programs. As the program progressed, however, Sawyer noticed that the children and their peers connected through their shared interest in science. Sawyer set out to see if there was more the staff could do to create a supportive learning environment for the children with autism. In 2009, she called Sargent for help.

Ellen Cohn, a clinical professor of occupational therapy at Sargent, and her colleagues began working with Sawyer and her staff to make the museum more inclusive. In 2011, this collaboration expanded into the Buddies Exploring Science Together (BEST) program, a partnership of Sargent, the Museum of Science, and Boston Public Schools (BPS) that serves children with autism. Each spring semester, the OT students co-lead a group of 15 BPS students ages 9 to 16 on weekly field trips to the museum. The BEST program “flips the conversation about youth with autism,” says Cohn, who is also the director of Sargent's entry-level Doctorate in Occupational Therapy (OTD) Program. Typical interventions for people with autism focus on addressing an individual’s social deficits and on teaching social skills, such as making eye contact and conducting a reciprocal conversation. Those lessons often take place in a classroom or clinic and are not easily transferable to other environments and situations, says Cohn. “We know it is helpful to teach in context, and the Museum of Science is a highly engaging, interactive, and motivating environment,” she says. “Because the content of the exhibits is so compelling to youth, they have a great desire to be at the museum, and because they have an interest in the exhibits, they’re more likely to share that interest with others. They’re learning new things, and they are interacting socially—and spontaneously—with support from Sargent’s OT students.”

For the first two weeks of Cohn’s class in January, the OT students get to know the children in the BPS classroom setting. Together, they develop social stories, booklets that outline the activities the children will participate in at the museum and identify the behavior expected of them. For example, “When we get to the museum we will walk together to meet Museum Teachers. Museum Teachers wear red coats and they will help us learn about science.” They also set learning and social participation goals for their visit, such as “I will ask my friends questions about themselves and their interests” and “I will share things with my partner.” This goal-setting process is vital, says Cohn, because the children are more intentional when they set specific goals, and we see better outcomes when the goals are co-constructed or negotiated” between the OT students and the children.

The children’s enthusiasm underscores the success of the program. They have expressed excitement with comments like “awesome” and “cool,” asked questions, and participated in presentations. During the time provided for independent exploration, they often lingered at exhibits that interested them. One child asked a friend to “come over here and look at the armadillo,” and another asked his teacher to join him in looking at a shell. “That’s the kind of spontaneous interaction that happens at the museum that we don’t think would happen in the classroom,” Cohn says.

At the end of each visit, the OT students reinforce the children’s goal-setting by pointing to specific examples of their successful behavior. It’s important for the youth to assess for themselves whether they met their goals because “we’re trying to promote their perceived sense of competence in their ability to be successful science learners and social participants,” Cohn says.

At the end of the program, the OT students and museum staff also interview the teachers about how the visits benefit their students, and how BEST reinforces their learning goals. According to teacher assessments before and after the 2014 program, 9 of the 15 children demonstrated improvement in skills such as participating in group activities, sharing with others, and demonstrating flexibility in unplanned situations. The children, too, reported improvement in their social skills and behaviors. The OT students benefit as much as the youth. “It’s all about the community,” Cohn says. Through the BEST program, the OT students “learn that some of our partners don’t necessarily have to be medical practitioners in a hospital or rehabilitation hospital. Our partners can be educators and exhibit designers and docents in museums.”
Desiree Jones-Eaves took the elevator to the radiation oncology department in the basement of Boston Medical Center (BMC) and changed into a hospital gown to await her chemotherapy treatment. After the session, she put on her wig, penciled in her eyebrows, and rushed back to the ninth floor to tend to her patients. “People would tell me, ‘You’re doing such a good job’” [balancing the demands of a challenging career with the stress of chemotherapy], says Jones-Eaves (CGS’82, SON’85), a nurse at BMC, “but they had no idea.”

Throughout 6 weeks of 33 treatments, Jones-Eaves struggled with fatigue, memory loss, and the multitasking demands of her job. Those cognitive difficulties didn’t go away when her treatment ended. After months of doctor’s appointments, chemotherapy, and constant stress, cancer survivors like Jones-Eaves often face continuing challenges that make it hard to get back to their daily lives.

A new program to support breast cancer survivors after treatment can help. Robin Newman, a Sargent clinical assistant professor of occupational therapy, developed the six-week intervention. Hosted at BMC, the program is designed for women who have been in remission for 6 to 24 months and who are experiencing cancer-associated cognitive impairment, such as memory loss or trouble focusing.

“Breast cancer patients have needs, not just during diagnosis and treatment, but beyond,” says Naomi Ko, an oncology physician at BMC and a BU School of Medicine assistant professor. Ko describes Newman’s program as a “great way to take care of all aspects of the person, not just their disease, but their lives.”

The first week includes a private appointment with Newman at which the women discuss challenges and goals, followed by four weeks of group sessions and a final one-on-one evaluation to review outcomes. The weekly sessions focus on the participants’ goals for self-care, work, and leisure and are moderated by Newman, who is an occupational therapist and a certified lymphedema therapist. The women help each other generate strategies to feel more in control of difficult situations. Jones-Eaves addressed her memory loss by developing a system for taking brief rest breaks. The group became a safe space for the women to share the difficulties they faced from week to week, from the serious (workplace meltdowns) to the mundane (piles of laundry).

The program also helped the women feel less alone as they came to understand their challenges as part of the recovery process, instead of as a personal failing. When Jones-Eaves shared her concerns about her low energy level with the other three women in her group, “I realized I wasn’t just being lazy,” she says.

“It’s our responsibility to listen deeply to what the patient’s daily life challenges are and provide treatments that meet those needs.” —Robin Newman

Susie, another group member, is a self-described morning person who used to finish her errands and housework by noon on Saturday. After her diagnosis, however, she couldn’t maintain that pace, and the group has helped her learn acceptance. “Your priorities change,” she says. The women in Newman’s group had not previously worked with an occupational therapist as part of their breast cancer recovery, and they considered the experience eye-opening. “I wish everyone could have a session to discuss what to expect” after treatment, Jones-Eaves says. “It gave us tools to continue to work on what we needed.”

Dima Thabit (16’18), who lost her grandmother to breast cancer, volunteered with two cohorts of women while earning a master’s in OT, observing group and private sessions. The group also gave Newman insight into her practice. “I ask better, deeper questions when I work with people,” she says. “If someone tells me they’re fine, I probe a bit more. I try to install in students that it’s our responsibility to listen deeply to what the patient’s daily life challenges are and provide treatments that meet those needs.”

Newman believes OT intervention should be standard care for breast cancer survivors, and her initial research groups, though small, have shown positive results. Since 2016, three cohorts have completed the program, and the majority of the women have reported greater satisfaction with their ability to participate in work, self-care, leisure, and social activities, which they were also able to undertake with more ease. They reported better functional well-being and were less frustrated by the impact of their cognitive impairments on their daily lives. Their participation in familiar and new activities also increased.

“Their power is in doing things that are meaningful to you,” says Thabit. “There’s a therapeutic aspect to it.”

Jones-Eaves acknowledges her own attitude shift. “Now, instead of feeling bad and embarrassed,” she says, “I just let it go. The program taught me to sit still and not feel guilty.” After spending her career taking care of others, she’s learned the importance of looking after herself.

The women also gave Newman insight into her practice. “I learned the importance of understanding the population you’re working with and their needs.”

The program’s pilot year was part of a feasibility study funded through a grant from the Boston University Clinical & Translational Science Institute. A Dudley Allen Sargent grant funded Newman’s 2017–2018 programs.
Gathering accurate information on the social lives of people with schizophrenia has long been a challenge for researchers. They have tried to go beyond typical self-reporting methods by asking people to answer questions in the context of their daily lives using personal digital assistants or mobile phones, a method known as ecological momentary assessment. But many people—not just those with schizophrenia—have difficulty providing an accurate picture of their activities that way.

Dan Fulford, an assistant professor of occupational therapy, and colleagues from San Francisco State University and the University of Saskatchewan are developing a cell phone app that collects social data in real time and takes the onus of reporting off the participants. They hope it will help clinicians better understand the illness and soon allow for real-time intervention.

People with schizophrenia—a chronic mental illness that affects about 7 or 8 individuals out of 1,000—often feel isolated. They want to make friends and have relationships, but they can't seem to translate that desire into action, says Fulford, a clinical psychologist and director of Sargent's Approach Motivation & Participation (AMP) Lab. The symptoms of schizophrenia can include delusions, hallucinations, and problems with thinking, concentration, and motivation—all of which can make social interaction difficult.

"So, how do we more specifically understand social motivation and drive? And how do we intervene?" asks Fulford, who also collaborates with BU’s Center for Psychiatric Rehabilitation on projects to study motivation and social participation among people with schizophrenia, and how various therapies might affect them.

The app that Fulford and his colleagues are developing will help them identify when a person is feeling isolated, eventually they hope to use it to prompt social engagement. Built by developers from the University of Saskatchewan computer science department and customized for this project, the app employs a phone’s GPS and accelerometer to monitor a person’s movements and activity level. It uses the device’s microphone to record samples of ambient noise, including the participant’s conversations.

“These are random snippets throughout the day of what is happening in their environment,” Fulford says, which will give the researchers “a richer, more qualitative understanding of their social worlds” and deeper insight into “how motivation for social connection breaks down in people with schizophrenia in the real-world environment.”

In this and earlier studies, researchers have found that part of the problem is how people with schizophrenia perceive rewards. “Not the ability to experience satisfaction in the moment, per se—they experience the same pleasure when smelling a flower or tasting a great meal—but it’s more in the anticipatory emotion, in which you’re anticipating feeling good in the future or having a positive outcome,” Fulford says. “That’s where the difficulties seem to lie.”

The idea is that anticipating pleasure (and experiencing pleasure in anticipation) ultimately motivates social interaction.

People with schizophrenia tend to have difficulty anticipating pleasure, which diminishes social motivation. If people anticipate earning a reward from a social situation (e.g., “I will enjoy speaking with Jane”), then they will be more likely to engage in that activity (“I should walk up to Jane and start a conversation”). While people with schizophrenia often experience symptoms such as paranoia and hearing voices. But people with schizophrenia show healthy levels of in-the-moment pleasure during positive events (“Wow, this is fun!”), they tend to have more difficulty anticipating pleasure, which diminishes their motivation for social interaction.

Ultimately, Fulford says, the app should be set up to help a person reach a defined social goal, such as “improve communication with my brother.” When the app detects social isolation, the subject would be prompted with reminders of the goal (improve communication), requisite steps for goal progress (for example, call brother, share recent experience, ask how he is doing), and strategies for overcoming potential barriers (if brother doesn’t want to talk, here is what you can do . . . ).

Fulford’s collaborator, David Gard, a professor of psychology at San Francisco State University, has been recruiting the study subjects through various mental health programs in the Bay Area, as well as through ads. The researchers expected that up to half of the patients would say they were not interested because they didn’t want to use a cell phone app that monitors their every move, since people with schizophrenia often perceive potential barriers to the research, such as paranoia and hearing voices. But the researchers have found the opposite to be true. Of the 16 people with schizophrenia asked to be part of the study, only one declined, Gard says.

“People with schizophrenia often show interest in participating in research that will ultimately help others with similar problems,” Fulford says. “Many feel that their involvement meaningfully contributes to the understanding of the disorder.” With a deeper understanding of patients’ interaction with other people, providers may be better able to help them enjoy full, functional social lives.
By the time she graduated from Ivy Street School, Mary* had conquered social anxiety so severe she couldn’t leave her house. At age 22, with no concrete steps for what to do next and a family whose concern made it hard for her to pursue independence, Mary soon became depressed and her anxiety returned. Ivy Street occupational therapist and transition coordinator Brooke Howard has seen it happen before. As students make gains at school, many struggle with their burgeoning autonomy at home. Howard asked herself, “How can we help the young person continue forward in a way that honors the goals and dreams of the young person?” In May 2016, she launched a solution: Skills for Life, a client-centered, community-based occupational therapy intervention, helping young adults aged 16 to 26 take the skills they learned at Ivy Street to the outside world.

Family dynamics can be a significant barrier to a smooth transition. Young people like Mary are “coming into adulthood and they’re getting away from their family home,” says Howard. And because of their diagnosis, they often don’t go through the typical teenage rebellion. Instead, youth and parents continue “entrenched patterns,” even though change could benefit them all. “After 20 years of making breakfast for their child, parents aren’t just going to stop,” says Howard, clinical director of Skills for Life. Families burn out trying to meet their children’s needs, while the young adults crave more independence.

Skills for Life pairs clients with an occupational therapist for weekly two-hour sessions to help them develop functional daily living skills. The treatment is framed around a client’s goals, which can range from the everyday (clean the bathroom) to less commonplace pursuits (travel to Japan), and the therapist tailors all services to the client’s functional ability. Rather than simulating a client’s daily experience in a clinical setting, the therapist provides treatment in the family’s home or in the community, at the moment it’s needed. “We don’t sit and talk about your routine,” says Howard. “We do it.”

After graduating with a BS in neuroscience, Howard worked with kids recovering from brain injuries at the Franciscan Children’s hospital. Although impressed with their progress, Howard often wondered if the young patients would get the support they needed outside the hospital. “We talk about having a clinical itch,” says Howard’s mentor, Ellen Cohn, a Sargent clinical professor of occupational therapy. “If you see something in practice that’s bothering you, you’re challenged to ask, ‘How can I provide more effective services?’”

At the end of its first year, Skills for Life had served 25 clients. Howard, who earned a master’s in occupational therapy, has begun to expand the program outside Ivy Street School, working to bring its services to supported living group communities in the Boston area. While she initially envisioned a short-term intervention, clients can continue with the program indefinitely. Several have already achieved their initial goals and set new ones. Mary has once again overcome her social anxiety and is working with Skills for Life on finding a job. Her ultimate goal? “Learn to live on my own.”

*Cohort data included

**Name changed to protect client confidentiality


Continued on page 18


# Grant Awards

BU SARGENT COLLEGE’s OT FACULTY RECEIVED $4,149,567 IN RESEARCH FUNDING IN 2018-2019. HERE IS A LIST OF OUR PROJECTS AND THE AGENCIES AND FOUNDATIONS SUPPORTING OUR RESEARCH.

## Occupational Therapy

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Title of Project</th>
<th>AGENCY/Foundation</th>
<th>Funds Awarded 2018-2019</th>
<th>Year of Award</th>
<th>Total Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gael Orsmond, associate professor of occupational therapy</td>
<td>Early Stage Identification and Engagement to Reduce Duration of Unmet Need of Intellectual Disability (E4IDE)</td>
<td>NIB/NIMH</td>
<td>$19,394</td>
<td>2 of 3</td>
<td>$58,147</td>
</tr>
<tr>
<td>Karen Jacobs, clinical professor of occupational therapy</td>
<td>Laboratory for Early Psychotic Project 2</td>
<td>McLean Hospital Corp</td>
<td>$19,506</td>
<td>1 of 2</td>
<td>$58,138</td>
</tr>
<tr>
<td>Gael Ormond, associate dean and associate professor of occupational therapy</td>
<td>Engaging Siblings of Adults with Autism in Future Planning</td>
<td>NIB/NIMH</td>
<td>$247,500</td>
<td>3 of 3</td>
<td>$739,663</td>
</tr>
<tr>
<td>Wendy Coster, professor and chair of occupational therapy</td>
<td>Engaging Siblings of Adults with Autism in Future Planning</td>
<td>NIB/NIMH</td>
<td>$3,977</td>
<td>2 of 2</td>
<td>$157,654</td>
</tr>
</tbody>
</table>

**TOTAL** $4,149,567

## About Sargent

Boston University College of Health & Rehabilitation Sciences Sargent College has been defining healthcare leadership for nearly 140 years. As knowledge about health and rehabilitation increases and society’s healthcare needs become more complex, BU Sargent College continuously improves its degree programs to meet the needs of future health professionals. Our learning environment fosters the values, effective communication, and clinical skills that distinguish outstanding health professionals. Our curricula also include an important fieldwork component, providing students in every degree program with substantive clinical experience. Clinical placements are available at more than 1,000 sites across the country. The college also operates outpatient rehabilitation centers that offer a full range of services to the Greater Boston community.

To keep up to date on Sargent news and events, visit [bu.edu/sargent](http://bu.edu/sargent).

---

**Grant Awards**

E. Sally Rogers, executive director, BU Center for Psychiatric Rehabilitation, and Marianne Farkas

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Title of Project</th>
<th>AGENCY/Foundation</th>
<th>Funds Awarded 2018-2019</th>
<th>Year of Award</th>
<th>Total Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ellen Cohen, clinical professor and director, Entry-level Doctor of Occupational Therapy Program</td>
<td>Improved Employment Outcomes for Individuals with Psychiatric Disabilities</td>
<td>NIB/NIMH</td>
<td>$787,905</td>
<td>5 of 5</td>
<td>$3,974,048</td>
</tr>
<tr>
<td>Kazuka Russinova, research associate professor of occupational therapy and director of research, BU Center for Psychiatric Rehabilitation</td>
<td>Testing Effectiveness of a Peer-Led Intervention to Enhance Community Integration</td>
<td>NIB/NIMH</td>
<td>$455,814</td>
<td>4 of 4</td>
<td>$2,079,337</td>
</tr>
<tr>
<td>Gael Ormond, associate dean and associate professor of occupational therapy</td>
<td>Enhancing the Community Living and Participation of Individuals with Psychiatric Disabilities</td>
<td>NIB/NIMH</td>
<td>$494,474</td>
<td>5 of 5</td>
<td>$2,499,724</td>
</tr>
<tr>
<td>Gael Ormond and Wendy Coster, professor and chair of occupational therapy</td>
<td>Clinical Professor and Director, Online Post-Professional Doctor of Occupational Therapy Program</td>
<td>NIB/NIMH</td>
<td>$148,908</td>
<td>5 of 5</td>
<td>$749,004</td>
</tr>
<tr>
<td>Ellen Cohen</td>
<td>Clinical Professor and Director, Online Post-Professional Doctor of Occupational Therapy Program</td>
<td>NIB/NIMH</td>
<td>$148,908</td>
<td>5 of 5</td>
<td>$749,004</td>
</tr>
</tbody>
</table>

**TOTAL** $4,149,567

---

**FACULTY**

**E. Sally Rogers**

**Ariel Schwartz**

**Amy Schechter**

**Beth Whitney**

**Alisa Sheil**

**Lecturer**

**Assistant Professor**

**Associate Professor**

**Professor**

**Clinical Professor**

**Clinical Assistant Professor**

**PhD in Rehabilitation Sciences**

**Sargent College**

**Affiliated Faculty**

**About Sargent**

**Outpatient rehabilitation centers**

**Clinical placements**

**The college also operates**

**At a glance**

---

**Special Edition**

Inside Sargent
Get in Touch
To visit BU Sargent College or learn more about our academic programs, research, and clinical practice, please contact us:

Email: ot@bu.edu
Phone: 617-353-2729
Mail:
Boston University
College of Health & Rehabilitation Sciences: Sargent College
635 Commonwealth Avenue
Boston, Massachusetts 02215

bu.edu/sargent/ot