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Guest Editorial

Michael P. Hirsh, MD



Michael P. Hirsh, MD

Dear Reader:

As chairman of the Worcester District Health Society Public Health Committee and as medical director of the Worcester Division of Public Health, I am very pleased to be able to serve as guest editor for this edition of *Worcester Medicine*, which focuses on the opioid crisis. Although Worcester has had its share of substance abuse issues over the years, it was not until it began to touch our surrounding suburban and exurban communities throughout

New England that alarm bells began to ring and states of emergency were declared in Massachusetts, Connecticut, Vermont, Maine and New Hampshire. I think that this edition will satisfy you that the problem is a complex one requiring multidisciplinary solutions. I also think that it will satisfy you that the response locally within Central Massachusetts has been ambitious and fruitful.

You will first read the President's Message by Dr. Jay Broadhurst, president of the Worcester District Medical Society. Jay is an addiction medicine specialist who has been at the forefront of working with the population of opioid-addicted patients at Spectrum Health Systems. Jay brings expertise, empathy and common sense to every interaction he has with patients with substance abuse issues.

Judson Brewer is a mindfulness trainer and a professor of Psychiatry at the UMass Medical School who is at the forefront of using a new treatment to combat addiction.

Dr. Maddie Castiel is the commissioner of Health and Human Services for the City of Worcester who has distinguished herself in a 20-year career working with minority populations with addiction problems. Her involvement with the city has has led the community to take much broader look at the root causes and social determinants leading to the substance abuse problem, and she will give that perspective to us in her article.

Cassandra Andersen is the director of Strategic Partnerships at the Division of Public Health and has been very involved with substance abuse interventions at the division for years. She has been instrumental in widening the distribution of training for first responders and loved ones of substance abuse patients in the use of Narcan (naloxone), which has helped to greatly reduce the number of fatal opioid overdoses that we had been experiencing in Worcester.

Martha Akstin is the clinic director of services at the AIDS Project Worcester (APW). Because of its great track record working with this population, APW was awarded a subcontract when Worcester's Board of Health approved a Needle Exchange Program for the city. She will inform us all as to how the program works and whether it is indeed showing signs of helping us reduce the volume of not only discarded needles around the city but also potentially bringing some of those IV drug abusers in for treatment.

Perhaps most importantly, the Task Force on Opioids, commissioned by Gov. Charles Baker, recommended that there be an urgent response at the medical school level to incorporate curriculum to help our young doctors and advanced practice nurses of the future to have a different attitude towards and knowledge base of opioid prescription. UMass Medical School/the Graduate School of Nursing was on the forefront of designing this curriculum. Dr. Michelle Pugnaire, the senior dean of Education and director of the Simulation Center at UMass Medical School; Melissa Fisher, MD, M.Ed, and associate dean for Undergraduate Medical Education; and Jill Terrien, Ph.D., ANP-BC, and director of Adult-Gerontology and Family NP Program, spearheaded an innovative interprofessional program. This is a four-hour, active, handson learning experience to train in the safe prescribing of pain medication. More than 500 trainees who graduated in June were exposed to this curriculum last year.

Gillian Chase, second year UMass medical student, gives the student's perspective on how the curriculum has affected his attitudes towards patients with addiction.

In summary, I believe you will find that this is a very informative edition, showing some cutting-edge responses to the crisis. We must work as a medical society – and as a society as a whole – to destigmatize addiction and treat it with the same concern, empathy and efficacy that we do any other disease.

Sincerely,

Michael P. Hirsh, MD

Michael P. Hirsh, MD, FACS, FAAP, is a professor of Pediatrics and Surgery, director of the Injury Free Coalition for Kids Worcester, chairman of the Division of Pediatric Surgery and Trauma at UMass, chairman of the Worcester District Medical Society Public Health Committee and medical director of Worcester Division of Public Health.



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Opiate Dependence is a Chronic Disease

James Broadhurst, MD

In May 2001, I seized the opportunity to begin seeing patients at Spectrum Health Systems outpatient clinics. Actually, Spectrum had been a site for teaching medical students and family medicine residents about methadone as part of treatment for opiate dependence since I had started teaching the Community Medicine rotations in 1986. That May, Camille Martin, RN, the head nurse at the Merrick Street site, called to let me know that a physician who had been providing part-time coverage at Spectrum was to leave on short notice and that she needed me to cover. I had no specific training or experience in prescribing methadone for opiate dependence and discovered, as I accepted the request, I had an uneasy feeling about my ability to connect with and care for patients with opiate dependence. What comforted me was that care of this disease is delivered by a team, and I knew, as a member of that team, I would receive support and guidance - I was not alone. I learned the details of methadone prescribing; I learned to refer to my patients as "clients;" and, most importantly, I learned that opiate dependence is a chronic disease. As I look back now, Camille's call was a blessing, for it led to my growth as a physician and an advocate.

At this point as you read this message, I suspect you are underwhelmed with my story. Working as a team (to the fullest extent of one's license) in chronic disease management is a common concept in 2016. However, the clients I admit to medication-assisted treatment (MAT) at Spectrum continue to share stories of treatment in a health care system characterized by judgmental verbal and nonverbal communication, lack of compassion and sudden dismissal from care, all contributing to shame and humiliation. This adds to the shame and humiliation they experience from society at large, often from family and friends and, indeed, from themselves.

Opiate dependence is a tough disease. The evidence is clear that, without treatment, the most likely outcome is death, either from a direct effect of the disease – overdose – or from an indirect effect of the disease, such as infection or trauma. The likelihood that a person living with the disease will successfully build and sustain recovery without treatment is very low. Why? Opiate dependence is characterized by agonizing withdrawal symptoms, which provide an incredibly powerful push to use opiates. The cycle continues: use – withdrawal – and more use. This is not a failure of moral fiber but a result of mu opiate receptor change – a fully predictable response to exposure to short-acting opiates multiple times a day for enough days in a row. The mu opiate receptors do not care if the opiate stimulus is oxycodone, hydrocodone, dilaudid, fentanyl, morphine, heroin or any other short-acting opiate. Indeed, longacting opiates stimulate the same receptor change.

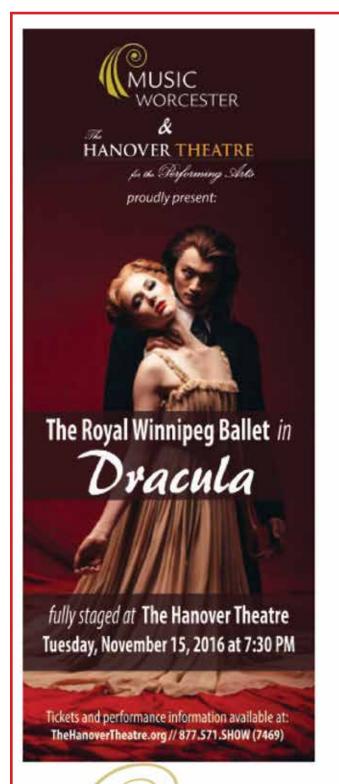
What happens when a patient comes to us with a chronic disease? Unless we are looking for it, the most common scenario is that

the patient arrives with a constellation of symptoms. A textbook example would be the individual who reports to us that they are thirsty all the time, urinating all the time, their vision is blurred and they just feel lousy. I suspect all those reading this message would check that patient's blood sugar, and we would not be surprised if the result was in the 400s. Diabetes is the diagnosis, and we start that patient on medication to lower his/her blood sugar, aiming to get that value in to a safe range. However, diabetes is a chronic disease, and we would arrange for the patient to learn about dietary changes, activity changes and other lifestyle changes to achieve optimal control of his/her diabetes. It is possible that if this is adultonset diabetes, with dietary changes and activity changes and other lifestyle changes, this patient might well be weaned off medication so that the disease is now "diet controlled." We recognize that we are not going to cure this patient of diabetes, and we will follow the patient with active surveillance for the rest of his/her life. We also know that the treatment course is never straight, narrow and easy – there will be twists and turns when the diabetes is, again, out of control, requiring modifications of the treatment regimen to get it back in control. We do the same for all other chronic diseases: asthma, hypertension, congestive heart failure, etc.

We must do the same for caring for folks with opiate dependence! Individuals with this disease most often come to our attention when the disease is out of control and interfering with the patient's ability to live life the way the patient wants to (just like any other chronic disease). We initially stabilize the situation with the help of medication (just like any other chronic disease). Significant lifestyle change is needed for optimal control of opiate dependence (just like any other chronic disease). With integrated individual and group counseling, when coping skills are healthy enough, the living situation is safe enough, relapse triggers are identified and understood well enough, the client and his/her counselor may conclude that medication support is no longer needed, and it may be tapered and discontinued. But the client still has opiate dependence and deserves ongoing surveillance and support (just like any other chronic disease). Indeed relapse – the disease getting out of control again – is always possible (just like any other chronic disease).

I ask that you embrace the disease model of opiate dependence, for it will help you confidently and compassionately to provide care for those living with this disease. I applaud the Baker Administration's initiative State Without StigMA* as a way to help all in our community to turn away from the judgmental approach to this disease. Shame and humiliation do nothing to help our patient. Let us take the lead in advocating for effective treatment, as we do with any other chronic disease.

*http://www.mass.gov/eohhs/gov/departments/dph/stop-addiction/state-withoutstiama









A Message from the Commissioner of Health and Human Services

Matilde Castiel, MD



Matilde Castiel, MD

The opioid epidemic is new, despite the fact that the problem of drug abuse has been ongoing. At different times, drug use has been considered either a moral weakness or a disease. It was the criminalization of drug use that has led to the complex problem we have today.

In the 1970s, President Richard Nixon declared a war on drugs. This led to mandatory sentencing laws; drug users could now be sentenced from 15 years to life in prison. The use of zero tolerance statutes in the

1980s led to a four-fold increase in incarceration, primarily of African Americans and Latinos. At that time, 50 percent of federal inmates were there for drug offenses. Today, 80 percent of our Worcester County Jail population is serving time for drug-related crimes.

Even though we understand that addiction is a disease, it is rarely treated as such. Even among medical providers – we tend to lump all drug users together, not realizing there is a profound difference between abuse and addiction. With addiction, there is a change in brain chemistry; drug use is no longer a choice. At this point, interventions such as 12-step programs are ineffective. All too often, we still blame the individuals for their relapse and tell them they aren't showing us they want to recover and that they should avoid such "bad choices."

While this epidemic has long affected all socioeconomic groups, the demand for treatment grew support only as the epidemic increased in volume and spread to the white affluent community. In order to properly respond to this need, the city is trying to increase our infrastructure to meet the increased demand for care and services. In developing a response, we must address the underlying factors that make recovery more difficult: a history of incarceration, poverty, lack of education and job training, and mental illness.

Our goal at the city level is to bring public and private entities together, so they can share responsibilities and resources. We strive for a "no wrong door" approach at entry to services. It shouldn't provide evidence-base matter if you arrive at a hospital, the police station or a social service agency, you should be able to get access to care. This care should include ongoing mental health care, along with medically for the City of Worcester.

assisted treatments such as methadone, suboxone and vivitrol. These two modalities of long-term treatment should go hand in hand

At a recent opioid summit at City Hall, we discussed the need for expanded treatment in jail. If treatment is initiated while incarcerated, individuals will have a head start helping them manage that difficult transition after release. We already encourage individuals to follow up for outpatient care, and even make them aware of available programs, yet we do not provide a much-needed support to help them navigate the system. After years in prison, just telling them to get treatment, housing, employment and mental health care on their own isn't enough. In addition to medical care, we need housing support at certified sober houses and vocational support, so that individuals can master all the skills needed to reenter the work force.

As part of our approach to vocational re-entry, we have initiated a pilot program designed to increase job training, in particular, soft skills. This pilot program provides a social worker who will follow the residents for a year to keep them employed and make sure all the social determinants of health are in place for at least a year until they are stable. We are hoping that the outcome of this program will decrease recidivism and costs and allow us to expand beyond this pilot stage.

We acknowledge that drug treatment, access on demand, housing, mental health disease treatment, job training and job security are crucial for continued sobriety.

We have taken steps to change the culture within our city. We now have a needle exchange program; we have trained our personnel and community in Narcan use; and our police now respond to all overdoses and try to encourage treatment.

We emphasize the need for both an inpatient and outpatient clinical support system, with recovery coaches, community health workers and medical and mental health care. We already know that this type of coordinated, wrap-around care is effective in both chronic disease states, such as diabetes, and in homelessness. We are working to incorporate this method of care into addiction treatment, as well.

We need to build our infrastructure to eliminate disparities and provide evidence-based care to all.

Matilde Castiel, MD, is the commissioner of Health and Human Services for the City of Worcester.

Training First Responders on Narcan as well as Families

Cassandra Andersen, BS



Cassandra Andersen, BS

When it comes to saving lives during the current opioid misuse epidemic, we can barely even imagine what we would be facing if we did not have the lifesaving drug naloxone. The Worcester Division of Public Health continues to support educational initiatives for medical professionals, first responders and the public in the prescribing, purchase and use of naloxone. Much of our work focuses on raising awareness and providing education on the health impact of substance use disorders and the ways in which we can respond as a community. In the last four years, several state laws have been passed that have allowed more community

members to be a life-saving part of the response, with many more individuals carrying and administering naloxone in both the nasal and intramuscular form.

Shortly after changes to state laws supporting the carrying of naloxone by different types of first responders in 2014, the Worcester Police Department and the Worcester Fire Department trained and equipped all first responders with naloxone. This was no small feat, as it involved training hundreds of personnel and updating city policies in less than a year. The City of Worcester has seen many lives saved already. In 2015, there were a total of 1,020 overdoses recorded by the Worcester Police Department, with 38 of those being fatal. Of those reported incidents in 2015, the Worcester Police Department administered 61 doses of nasal naloxone and had 54 reversals of the overdose, while the Worcester Fire Department administered 201 doses of nasal naloxone and had 157 reversals.

With the increased distribution of heroin that contains partly or mostly fentanyl, the number of incidents in which an overdose victim needs to be administered multiple doses of naloxone has increased, and sometimes, three or more doses may be needed to reverse the overdose; for example, someone may receive one dose administered by a bystander, one dose administered by ambulance personnel and another one from the fire department. To put these local numbers into perspective, on the state level, the number of confirmed cases of unintentional opioid overdose deaths in 2015 was 1,531, which represents an 18 percent increase over 2014.

Still, more unconfirmed deaths may be added. Based on the data available as of June 30, 2016, the Massachusetts Department of Public Health estimates that there will be an additional 107-150 deaths in 2015, once these cases are finalized.

In addition to more first responders carrying naloxone, affordable access to naloxone for the public has been on the rise. The City of Worcester fully supports the training of the public in the administration of naloxone. The Worcester Division of Public Health has been

coordinating trainings with the Worcester Police Department to train hundreds of city residents and city employees on the dangers of opioid misuse and overdose, the use of naloxone to reverse an overdose and the places they can access naloxone. The ability of a friend or loved one to access and carry naloxone is a new and essential part of the community response. They are most likely to find a person who has overdosed and respond with naloxone, as they are daily interacting with that person who is struggling with an opioid addiction.

The public has three avenues to access naloxone. Anyone can go to AIDS Project Worcester during normal business hours and be trained on naloxone and receive a free overdose response kit. Naloxone is also available for free for family members who attend Learn To Cope support groups, where parents with live experience have been trained to train other parents in the use of naloxone. The third option, which we are actively involved in promoting, is the purchase of naloxone directly from the pharmacy. At last count, 16 pharmacies in the city of Worcester had naloxone in stock. MassHealth members can get the naloxone from the pharmacy with the cost fully covered, while other insurance plans will cover part of the cost (usually covered as any standard prescription).

The City of Worcester is also a study site in the Maximizing Opioid Safety with Naloxone (MOON) Study. The MOON Study is a three-year demonstration project funded by the Agency for Healthcare Research and Quality. It is being led by Dr. Traci Green, of Boston Medical Center, in collaboration with Rhode Island Hospital. The purpose of the study is to reduce harm from opioid-related adverse events, encourage safer use of opioids and increase patient awareness and access to naloxone as a rescue medication. The study focuses on access to naloxone from the pharmacy. Pharmacists are easily accessible health care professionals that are in a unique position in states such as Rhode Island and Massachusetts in that they can dispense naloxone under the standing order.

Even with the increased access to naloxone across multiple public and private entities, deaths have continued to rise. Obviously, we must respond to the epidemic of opioid misuse with preventative measures, increases in treatment options and supportive recovery services that will allow more people with a substance use disorder to maintain their recovery and flourish in a healthy community setting.

Nevertheless, our priority must first hinge on saving lives and promoting those policies which will do so. Every medical professional can be involved in screening for risk, prescribing naloxone and educating patients on the purpose and use of this life-saving drug. We hope you will join us in reducing deaths — and the stigma associated with the disease of addiction — by talking with your colleagues, patients, friends and family about what they can do to save lives today.

Cassandra Andersen, BS, is the manager of Strategic Partnerships for the City of Worcester Division of Public Health and the Central Massachusetts Regional Public Health Alliance. For more information, email andersenc@worcesterma. gov.

Mindfulness: An emerging treatment for opioid and addictions?

Judson Brewer, MD, PhD



Judson Brewer, MD, PhD

Why do young mothers buy a daily pack of cigarettes instead of spending this money on nutritious food for their children? Why are treatments that help roughly 33 percent of people overcome their substance use and have a 70 percent relapse rate hailed as the "gold standard" by the National Institute of Drug Abuse (NIDA)? In other words, why are addictions so hard to overcome?

Our brains are set up to learn. From an evolutionary perspective – to survive – when we come upon a good source of food or water, it is helpful to remember where it is. When we

stumble upon something dangerous, it is helpful to remember this, too. And this reward-based learning system, which is conserved all the way back to the most primitive of nervous systems (the sea slug with roughly 20,000 neurons), in its most basic form has three elements: trigger, behavior, reward. We see berries; we eat them; and if they taste good (reward), we lay down a memory to come back for more.

Fast-forward to modern day, where food is plentiful and our environment is relatively safe. Our brains still have the same reward-based learning system. Under the names of operant conditioning, associative learning and positive and negative reinforcement, a lot more is known about how it works. This is the good news.

The bad news is that over time, humans have stumbled upon substances that literally hijack this reward-based learning system. In fact, every substance of abuse, from tobacco to opioids to cocaine, affects the same brain pathways – the mesolimbic pathway, which mainly acts through the neurotransmitter dopamine. And each time we shoot heroin or do a line of cocaine and feel the high or smoke a cigarette when we are stressed out and feel better afterwards, we reinforce the "habit loop" (see Figure 1). This combination of tapping into the dopamine system and behavioral repetition is deadly. For example, we're in the midst of the worst opioid epidemic on record, and smoking is the *leading* cause of preventable morbidity and mortality in the U.S.¹

Treatments such as cognitive behavioral therapy are thought to act through the prefrontal cortex – involved in reasoning, planning and "top down" cognitive control in general. When we know we shouldn't eat that second helping of cake or smoke a cigarette, this is the part of the brain that helps us control that urge. Unfortunately, like the rest of the body, the prefrontal cortex is subject to fatigue, described by some as "ego depletion." As the HALT acronym predicts, when we are Hungry, Angry, Lonely or Tired, we are more susceptible to smoking or using drugs. This may be because, as the youngest part of the brain from an evolutionary standpoint, this is also the first cortical region to go

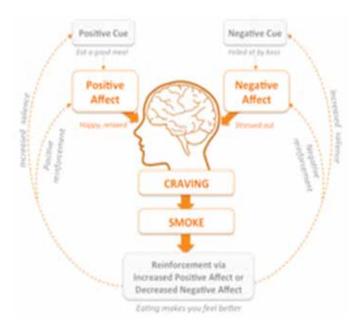


Figure 1

"offline" when we are stressed or otherwise depleted.3

If we can't rely on our prefrontal cortex, are there other ways to change our behaviors?

Interestingly, mindfulness training seems to be emerging as a possible solution. Based in ancient Buddhist psychology, mindfulness helps individuals pay careful attention to their cravings, so they can see what they are made up of – thoughts and body sensations. Importantly, with this awareness, they can notice cravings as they arise, see how they change from moment to moment (instead of lasting "forever," as some of my patients have described), and as a result, stay with them and ride them out instead of acting on them. Also, paying attention also helps individuals see clearly what they are getting from their behavior in that moment.

For example, a person using our app-based mindfulness training (www. cravingtoquit.com) commented, "Mindful smoking: smells like stinky cheese and tastes like chemicals. YUCK!" She noticed that smoking wasn't as great as she might have convinced herself previously. And this is the beginning of the end – we start to get disenchanted with what we were doing, just by paying careful attention. We are seeing similar results with helping people overcome binge and emotional eating using our app-based mindfulness training for stress and emotional eating (www.goeatrightnow.com). This dual purpose of mindfulness – disenchantment and being able to be with ourselves instead of reacting automatically – may be a winning combination.

We, and others, have found that mindfulness training helps individuals

with a range of addictions, from alcohol to opioids to nicotine dependence.⁴ In fact, in one randomized clinical trial, we found that it was *twice* as good as gold standard treatment (American Lung Association's Freedom From Smoking) in helping people quit smoking and stay quit.⁵ Why would it work so well? It turns out that it targets the core addictive loop. By helping people ride out their cravings instead of acting on them, it decouples the link between craving and behavior, effectively dismantling the loop.⁶ This is an important point, because these data pinpoint a mechanistic link that is being targeted by mindfulness, which is not always easy to find in behavioral treatments.

Though more research is needed, treatment programs such as Mindfulness Based Relapse Prevention (MBRP) show promise and are now manualized such that therapists can be trained to deliver them. Additionally, web and app-based delivery of mindfulness is being tested. For example, Craving to Quit delivers the manualized mindfulness training that we developed at Yale University described above via short daily videos, animations and in-the-moment exercises via a web and smartphone app and is paired with an online community where individuals can get peer and expert support (e.g., forum moderated by an addiction psychiatrist). Craving to Quit is now being studied in clinical trials funded by the American Heart Association and the National Cancer Institute (we are currently enrolling for several smoking cessation studies at UMASS Medical School). We're also starting to test

the combination of app-based training and in-person support for opioid and other addictions in my addiction clinic at UMASS Memorial. There, individuals can get daily training from the app and weekly support to make sure they are on track from the in-person group.

Judson Brewer, MD, Ph.D., is the director of Research at the Center for Mindfulness and associate professor of Medicine and Psychiatry at UMASS Medical School. An earlier version of this article was published on rehab.com.

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Worcester's Syringe Service Program

Martha Akstin

AIDS Project Worcester (APW) was honored to be chosen by the Massachusetts Department of Public Health as the site for Worcester's Needle Exchange – or Syringe Service – Program.

Those in the public health arena prefer the term "Syringe Service Program" because we do more than just swap one needle for another. When people access the Syringe Service Program, APW staff engages them in conversations about their housing status, medical care and health insurance enrollment. We ask questions about their nutritional needs — when was the last time they ate? Would they like a bottle of water or Gatorade, a granola bar, fruit or other healthy snack? We treat every person with dignity, respect and compassion.

Since the SSP began March 1, we have enrolled 584 unduplicated clients. This means that 584 individual people have come in to access sterile syringes. APW staff designed an intake form that asks questions about demographics, employment, health care, health insurance enrollment and housing status. Do they know their status for HIV, Hepatitis C, syphilis or other sexually transmitted infections? We ask if they would be interested in being tested to determine their status because APW has trained phlebotomists on staff who can perform these tests. We ask if the client is enrolled in APW's Narcan program. Narcan – or naloxone – is an opioid antagonist that saves lives by reversing the effects of an opioid overdose. APW is also the Narcan education and enrollment site for

Central Massachusetts and has trained thousands of people in Narcan since the statewide pilot program began seven years ago.

And, of course, we ask people if they are interested in detox or treatment. Over the years, APW has established relationships with treatment and detox facilities throughout Central Massachusetts. Staff is very knowledgeable about area services and more than ready to make the call and advocate on behalf of the client seeking such services. However, we know that a person is ready for treatment on their own timetable. We let them know that we are willing to assist them in finding a bed or a program when they are ready. As one veteran staff member said, "We hold out our hand until they are ready to take it. And then we walk beside them."

Worcester's SSP acts as a doorway to better health for many of the city's most vulnerable and marginalized residents. APW is proud to be a part of the efforts to serve these residents, and we appreciate the community's support. If you or a loved one would benefit from being trained in Narcan, please contact us. APW is open 8:30 a.m.-5:30 p.m. Monday through Thursday; 8 a.m. – 5 p.m. Friday; and noon- 5 p.m. Saturday.

Martha Akstin is the director of Prevention and Screening at AIDS Project Worcester

Teamwork in Action: UMass Medical School Educating Future Prescribers to Combat the Opioid Crisis

Jill M. Terrien, Ph.D., ANP-BC; Melissa A. Fischer, MD M.Ed.; and Michele Pugnaire, MD



Left to right – Jill M. Terrien, Ph.D., ANP-BC; Melissa A. Fischer, MD M.Ed.; and Michele Pugnaire, MD

The opioid crisis gripping our nation is considered the "biggest public health threat in the U.S. since the AIDS epidemic" by the American Medical Association. The scope and urgency of the opioid epidemic has stimulated a nationwide "call to action" to address multiple factors contributing to the crisis. This includes the pressing need for prescriber training in the prevention and treatment of opioid use disorders (OUDs) and preparing our health care teams with tools and skills for effective pain management. It has been widely recognized that the need for education in OUDs, pain management and safe prescribing practices applies not only to our health care professionals but also to our students now in training. They will become our future work force of safe prescribers and the next generation of health care teams, on whom we will count to responsibly and compassionately care for patients in pain.

The training of students as future prescribers has been identified as an important priority in our Commonwealth's comprehensive action plan to address the opioid epidemic. Under the leadership of the Governor's Office, the Massachusetts Department of Public Health established a first-in-thenation collaborative model to accomplish this important work by creating interprofessional partnerships between the state's four medical schools, the Massachusetts Medical Society and professional groups and schools representing the four "prescribing health care professions" of medicine – advanced practice nursing, dentistry and physician assistants. This interprofessional collaboration culminated in the development of 10 Core Competencies for the Prevention and Management of Prescription Drug Misuse that have been formally endorsed by each of the four professions representing students in training as licensed health care prescribers in our state

This article describes how the University of Massachusetts Medical School (UMMS) has responded to the governor's call to implement these 10 competencies, using an interprofessional team-based model, across our educational programs and engaging the broader community of Worcester and Central Massachusetts in this groundbreaking work.

With the release of the 10 competencies in November 2015, UMMS launched the Opioid Conscious Curriculum initiative, with the overarching goal of addressing all 10 competencies and providing all graduating UMMS medical and nursing students with a state-of-the-art, interprofessional program in safe prescribing, pain management and OUDs. The first phase of our Opioid Conscious Curriculum focused on the creation of the Opioid and Safe-prescribing Training Immersion (OSTI) and was developed in just three months. An interprofessional partnership under the joint sponsorship of the deans for the School of Medicine and the Graduate School of Nursing, completion of the OSTI was a graduation requirement for all medical and advanced practice nursing students in the class of 2016. In addition, all rising third-year medical students completed the OSTI before beginning clerkship

References

rotations. Between March 2016 and June 2016, an impressive total of 303 medical and nursing students completed the OSTI, with UMMS delivering on its promised goal of ensuring that all UMMS health professions graduates receive training in safe prescribing, pain management and opioid use disorders

The OSTI is a four-hour, active-learning experience, combining competency-driven skills development and hands-on practice with simulation-based learning. It features a series of "mock encounters" with standardized patients (SPs) trained to portray diverse patients presenting with a variety of pain management needs commonly experienced in day-to-day clinical care. The OSTI provides a fully interprofessional learning experience, with medical and nursing students learning "side by side" and trained facilitators representing the broad range of health professions on our health care teams, including MDs, RNs, APNs, PharmDs, psychologists, pain management specialists, social workers and health educators. These providers were recruited from across the Commonwealth, from Cape Cod to the Berkshires. Unique features of the OSTI include training on stigma, bias, barriers to health care based on social determinants of health, and the opportunity for our students to interact with and learn from panels of patients in recovery and their families.

Meeting our core competencies in the domain of bias, stigma and social determinants of health required special attention to the engagement of SPs from diverse racial and ethnic backgrounds and spanning a wide age range, as well as panelists representing individuals in recovery and their families. Recruitment initiatives for both SPs and panelists stimulated an outreach campaign that expanded community partnerships and enabled the activation of our broader regional and local partners in the OSTI program. UMMS institutional offices partnering in OSTI community outreach included Communications, Community and Government Relations, Diversity and Inclusion, and Human Resources, which leveraged existing UMMS diversity initiatives. Outside UMMS, OSTI outreach built on existing community partnerships with advocacy and treatment agencies, development of new relationships built on public-private partnerships and direct referral. Examples include our regional Department of Public Health Substance Abuse Work Group, local recovery organizations and personal contacts by UMMS faculty and staff. This engagement enriches our educational programs, supports community agencies and expands the impact of training as our SPs share their experiences in their hometowns.

As we reflect back on the OSTI program and its success in meeting our stated goal in record time, it is clear that this would not have been possible without the combined efforts of our interprofessional teams of students, educators and professionals across our schools, clinical care sites, health care systems, advocacy groups and the broader Worcester and Massachusetts communities. This theme of interprofessional and community-based team partnership further reflects the spirit of collaboration that defined the development and endorsement of the 10 core competencies that now serve as the guidelines for teaching all our health professions students in Massachusetts. With these competencies in place and the success of the student OSTI behind us, we are expanding into resident training. This experience leaves us well equipped to grow this interprofessional team effort and set a new "high bar" for education across the health professions continuum that will better prepare health care teams of the future to curb the opioid epidemic and improve the quality of care in pain management and the prevention and treatment of OUDs for all the patients, families and communities we serve in Worcester and beyond.

Melissa A. Fischer, MD, M.Ed., is the associate dean for Undergraduate Medical Education and an associate professor of Medicine at the University of Massachusetts Medical School. Michele Pugnaire, MD, is the senior associate dean for Educational Affairs and a professor of Family Medicine and Community Health at the University of Massachusetts Medical School. Jill M. Terrien Ph.D., ANP-BC, is an assistant professor at the Graduate School of Nursing and director of the Adult-Gerontology and Family NP programs at the University of Massachusetts Medical School.

^{1.} UMMS Opioid Conscious Curriculum Website: http://www.umassmed.edu/opioid/

² Medical Education: http://www.mass.gov/eohhs/docs/dph/stop-addiction/governors-medical-educationworking-group-core-competencies.pdf

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Medical Student Addiction Interest Group Week at Betty Ford

Gillian Chase, MS2



Gillian Chase, MS2

The Summer Institute for Medical Students (SIMS) offered by the Hazelden Betty Ford Foundation brings medical students from across the country to participate in an immersive learning experience. The week focuses on basic addiction education coupled with time following a patient "buddy" through his/her week.

Hazelden Betty Ford Foundation has been a leader in addiction education and is now the largest non-profit treatment organization in

the nation. The SIMS program aims to expose medical students to all of the facets of the in-patient program, either in Rancho Mirage, Calif., or in Center City, Minn., to give students the skills to better evaluate, counsel and treat patients who have a past or current chemical dependency.

Hazelden Betty Ford's approach to inpatient addiction treatment is based on Alcoholics Anonymous. Patients are assigned to a unit and a counselor and receive intensive spiritual counseling, wellness and logistical support. The resources that Hazelden Betty Ford offers its patients are astounding and awe-inspiring. Staff meets regularly to discuss patients, modify treatment plans and make recommendations to patients and their families. Counselors see their patients about every other day, or more if there is a need. There is even a dedicated staff person who makes appointments for discharged patients in their hometowns.

The most powerful takeaway from the whole experience was the program's ability to bringing into focus individuals and to have future physicians walk in the shoes of a patient in recovery. I started the week feeling very timid and unsure of how to perform my role, which was not to provide any type of counseling or medical advice but, rather, just get to know the women on our unit. High on my list of concerns was how to hold a conversation with or relate to someone going through the monumental process of recovery.

My fears, as I soon came to realize, were completely unfounded. The unit, while filled with routine and tasks, was infused with a spirit of acceptance and sisterhood. Our patient buddies folded us into their routines, encouraged us to share our experiences, sharing with us five precious days of their recovery. One of the most important unifiers was grief. The women I got to know

grieved for the loss of marriages, fathers, mothers, missed time with children, missed important events and the hurt they caused their love ones. We laughed and cried together. In a way, it was a break from the usual professional persona. We, as medical students with no role other than to learn from the patients, were able to become companions. We were able to see firsthand the power of recovery.

That power was never clearer than when women were learning from and sharing with each other. I had the privilege to witness a sharing circle for a woman who had completed her journey at Hazelden Betty Ford and was headed home. Women were constantly coming and going, starting and ending their time at Hazelden Betty Ford; some were there for 28 days, others for less than a week. But it was clear, by the time women were ready to leave, they had made immense progress and were an inspiration to those just starting.

What I came to realize over the course of the week was that I saw myself in these women. The stories they shared of how they came to be in treatment, their fears and insecurities and the choices they regretted were completely human. Much of the focus of treatment is on gaining skills of self-reflection, addressing grief, taking responsibility and, more importantly, how to carry on these skills at home. Witnessing this process drove home the point that as a future physician, I need to incorporate self-care into my routine to better serve my future patients.

It was clear that these women had overcome enormous barriers to treatment. The largest barrier to treatment is getting to treatment that is available and affordable. We were told that Hazelden Betty Ford has undergone a number of changes in the past few years, which includes now taking insurance. Unfortunately, its inpatient hospital is not equipped enough to qualify for Medicaid or Medicare, but it has been able to negotiate contracts with several large insurance companies. Sadly, patients still struggled with insurance coverage, and a week at Hazelden Betty Ford will cost you well over \$20,000.

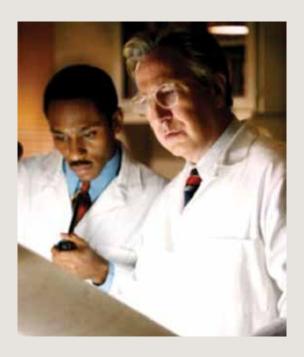
My week in Center City, Minn., was an educational experience I will never forget. Most importantly, I am taking away the confidence to allow me to talk patients about substance abuse and a genuine understanding of how treatment works well.

Gillian Chase is a second-year medical student studying at UMass. She is originally from Dorchester and now lives in the Burncoat neighborhood of Worcester with her husband, James, and dog, Harvey.

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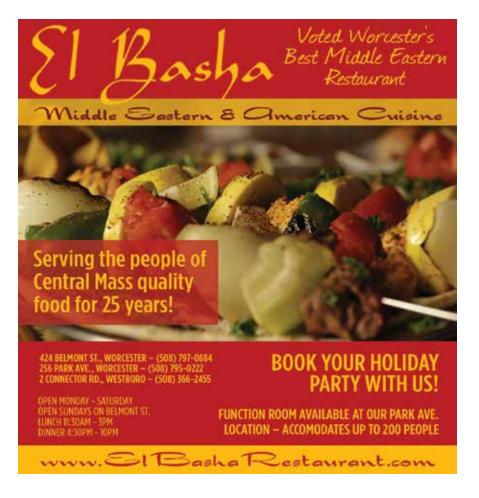
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