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Global Mental Health Takes Center Stage

In an August 2015 article in *The Hill*, a political website, Kathleen M. Pike, PhD, Director of the Global Mental Health Program at Columbia University, cites the wave of worldwide success of an animated movie centered on a psychologically shaky young girl. "In the Pixar blockbuster, *Inside Out*," Dr. Pike writes, "11-year-old Riley's animated emotions – joy, anger, fear, disgust, and sadness – battle it out for supremacy in a film that's proven as mesmerizing to adults as it is to kids."

Dr. Pike's article is not simply referencing the movie's emotional appeal, but also how it has put a spotlight on mental health. "We know that mental disorders represent the leading cause of disability worldwide, and one in four people suffer from depression, anxiety, or another type of mental illness over their lifetime," says Dr. Pike. "However, until recently, these were largely overlooked on the global health agenda."



Dr. Kathleen M. Pike

Dr. Pike's article appeared one month before the United Nations was to vote on a new 15-year plan for tackling the world's most difficult social,

(continued on page 2)

Tourette Syndrome: Looking Past the Tics

In France in 1825, 60 years before Tourette Syndrome was defined as a discrete phenomenon, Marquise de Dampierre, a noblewoman who twitched and jerked uncontrollably and screamed obscenities in gatherings of high society, became the first patient with the syndrome to be described in the medical literature. In 1885, neurologist Georges Gilles de la Tourette singled out nine patients, using Madame de Dampierre as a base exemplar, in order to demonstrate the distinct features of the "maladie des tics." For the next 80 years, Tourette's and chronic tic disorders – burdened with social stigma and conflicting etiologic and treatment theories – were considered rare with only references in the medical literature. The efficacy of pharmacotherapy in the 1960s changed our conceptual understanding of Tourette's and tics and led to a dramatic increase in recognition and treatment. More recently the demonstration that behavioral treatment could reduce tic severity again changes our fundamental understanding of tic disorders.

John T. Walkup, MD, Director, and Shannon M. Bennett, PhD, Co-Director, lead the Tourette Syndrome Center for Excellence at Weill Cornell Medicine – one of nine Centers of Excellence across the country established by the Tourette Association of America, all based at premier medical and academic centers. For more than 30 years, Dr. Walkup has been working with patients with Tourette Syndrome, a disorder that affects three out of every 1,000 children

between the ages of 6 and 17. For many of those years, Dr. Walkup served as Chair of the Medical Advisory Board of the national Tourette Association. He has conducted both genetic and treatment research on the disorder, and he and his colleagues published the first genetic study that suggested that Tourette's was a much more complex disorder than originally thought – much like other neuropsychiatric disorders.

(continued on page 3)

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Global Mental Health Takes Center Stage (continued from page 1)



(Left) Dr. Kathleen M. Pike and Dr. Harold A. Pincus with colleagues at the WHO ICD-11 Research Network Meeting held in Japan in October 2016; (Right) Dr. Milton L. Wainberg and colleagues involved in the NIMH/Fogarty International Center-funded mental health implementation program in Mozambique

environmental, and economic issues. Never before had the UN included mental health in its global health plans. In September 2015, the UN released its Sustainable Development Goals statement and, in fact, used explicit language on mental health care. It is notably brief, but Dr. Pike calls it a toehold and an emerging recognition of the interplay between mental health and other health conditions, economics and mental health, as well as encouraging signs of new understandings and a sense of change.

The WHO and the How

Recently named the “Collaborating Centre for Research and Training in Global Mental Health” by the World Health Organization (WHO), Columbia’s Global Mental Health Program (GMHP) is devoted to bringing into high relief how addressing mental and behavioral health disorders will improve outcomes across economic, social, and many important health care initiatives. Dr. Pike is joined in these efforts by her Scientific Co-Directors **Harold Pincus, MD; Milton L. Wainberg, MD; Ezra Susser, MD, PhD; and Lena Verdeli, MSc, PhD**. “Our program is responsible for working with the WHO on improving and revising the International Classification of Diseases,” notes Dr. Pike, who with her Columbia colleagues are members of the Field Studies Coordination Group for ICD-11 Mental and Behavioral Disorders. “In the context of that work, we have set up a global network of practitioners from across the helping professions: nurses, doctors, psychologists, and neurologists.”

The Global Clinical Practice Network holds promise for promoting collaborative initiatives that enhance training, research, and clinical capacity for mental health worldwide. The network is now comprised of some 13,000 clinicians from 151 countries – and it continues to grow (gcp.network).

“Increasingly, our field has become more sophisticated and better able to articulate the economics related to mental health and the economic burden of not addressing mental health issues globally,” says Dr. Pike. “It’s quite compelling when you look at the cost associated with ignoring the leading cause of disability in the world.”

One key goal for the Columbia collaboration with WHO is to connect global knowledge with local expertise. “We are trying to empower local providers by sharing best practices and current knowledge so that services are being delivered at the highest possible standards,” says Dr. Pike.

According to Dr. Pike, despite cultural differences, there is

a common base. “The more severe the mental illness, the more consistent the presentation is around the world,” she says. “We need, however, to underscore the assets embedded in local knowledge and culture. Societies know the priorities in their region and they know their healthcare systems, which vary enormously. Every Columbia psychiatrist or psychologist who engages in this work is continuously learning from people in, for example, the rural communities of Kenya and other remote settings. It’s a multidirectional exchange.”

In addition to the WHO, the Columbia Global Mental Health Program partners with the International Rescue Committee and other humanitarian aid organizations and is engaged in a wide variety of exciting programs around the world. This includes, for example, the initiative led by Dr. Wainberg that is an ambitious effort to provide advanced research training in mental health in Mozambique. This NIMH funded initiative has the full support of the Mozambique Ministry of Health and will dramatically expand the country’s mental health specialists and capacity to advance evidence-based mental health care.

“Whether it has to do with a natural disaster or a political conflict, displaced populations are at significantly increased risk for mental health and behavioral disorders,” says Dr. Pike. “And those individuals who have mental health problems are at an increased risk for worse outcomes in the context of disasters. Our program is about closing gaps between what we know and what we do; between research and practice; and between high income and low income countries. To accomplish this, we are implementing and disseminating research and innovative models of care where they can be applied globally, with a goal to impact policy and practice.”

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Tourette Syndrome: Looking Past the Tics (continued from page 1)

Dr. Walkup is also a staunch advocate for those affected, routinely reaching out to schools and community groups through the Tourette Association to increase awareness of this still stigmatizing disorder and disseminate the newest thinking on treatment.

"Tics are very common in childhood," says Dr. Bennett, who specializes in behavior therapy for Tourette Syndrome. "Upwards of 10 to 20 percent of very young children will have transient tics. A smaller number – three to four percent – will have chronic tics, and about between 0.5 to 1 percent of children will develop Tourette Syndrome. Coprolalia – a vocal tic that involves curse words or inappropriate language – is present in about 10 percent of individuals with Tourette Syndrome. What's important to know is that the term Tourette's conjures up a severe, loud, interfering disorder, likely due to how it is portrayed in the movies. While Tourette Syndrome can be extremely impairing in life, it very rarely looks like what you see in the movies or on talk shows."

What We Know About Tourette Syndrome

The 1960s found patients with Tourette's responding positively to antipsychotic medications. "Movement disorders often involve perturbation of the dopamine system," says Dr. Walkup. "If you think of antipsychotics from a mechanistic point of view, they are potent dopamine blockers. They essentially quiet the dopamine system, and with quieting of the dopamine system you'll see a reduction of tics. Unlike some movement disorders, however, Tourette's is particularly sensitive to the environment and other triggers. The biggest game changer in Tourette's has been the shift from thinking of it as a neurologic disorder that needed to be treated with medication to a disorder with a neurologic basis but whose symptoms are highly sensitive to influences from the environment.

"The most important shift that has happened in Tourette's in the past 30 years is probably the development of behavioral treatment," continues Dr. Walkup. "This approach provides our young patients with an activity that can help them manage their tic severity and enable them to stay in situations rather than avoid them." Environmental triggers, including stress and other psychological and social triggers, clearly provoke ticcing and other symptoms, but calm focused activities can also be used to quiet tic expression. "We've come to understand that if you want to help someone with Tourette's, you have to empower them to manage their tics psychologically and environmentally to reduce their overall tic severity," says Dr. Walkup. "It's not so much about lowering their stress level or avoiding stress, which historically is what patients were told; it's about improving their capacity to tolerate stress."

Habit reversal therapy is a behavioral intervention that has been in use for decades to help people change problematic habit behaviors. "When behavioral psychologists started using habit reversal therapy to see if they could inhibit tic behaviors," says Dr. Bennett, "they found that it was possible to limit the expression of tics by channeling the energy – the premonitory urge – that comes right before a tic."

Comprehensive Behavioral Intervention for Tics, or CBIT, is derived from the tradition of habit reversal therapy. "Many patients will experience an uncomfortable urge that is alleviated by the expression of the tic," says Dr. Bennett. "This, however, creates



Dr. John T. Walkup and Dr. Shannon M. Bennett

a negative reinforcement loop, or a feedback loop, in that once that urge returns, the person has the tic again. It's a behavior that patients feel they can't control. CBIT helps them to become aware of these urges and the situations and context in which the tics are more likely to occur. Giving them a competing response or an action that they can take to break the loop between the urge and the tic has been very effective. It's an intense treatment in the beginning as individuals learn to respond to the tics differently, especially for those with frequent tics. But over time CBIT helps the tics to fade into the background."

"Perhaps the most important consideration in Tourette's is the other conditions with which it is associated," emphasizes Dr. Walkup. "The average age of diagnosis is about seven. It tends to peak in severity in the early teen years and then dissipate. But the conditions that it can co-occur with – ADHD, obsessive-compulsive disorder, anxiety disorders in prepubertal children, and then mood disorders in older adolescents and young adults – start about the same time. While the tics get better on their own, the other conditions, if they are not recognized and treated, pick up momentum and increase disability over time. The biggest contribution that I feel I have made to the management of Tourette's is to refocus thinking away from the tics alone to the co-occurring conditions that are oftentimes substantially more disabling than the tics themselves."

"As are most of our psychiatric diagnoses, Tourette's is likely a multigenic illness in which different genes turning on or off leave someone with a relative vulnerability," adds Dr. Bennett. "We do believe that it runs in families, but we don't know why it happens at a particular time of life. In terms of comorbidities though, we do know that it's highly comorbid with ADHD – about 50 percent of individuals with Tourette Syndrome also have ADHD. About 30 percent of individuals with Tourette's also have OCD. Tourette Syndrome and OCD share a similar neurobiological circuit in the brain. Depression often comes later, so we see many adults with Tourette Syndrome who may have developed depression over time due less to a biological relationship, but often because it's an added burden or consequence of living with Tourette Syndrome."

(continued on page 4)

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Tourette Syndrome: Looking Past the Tics (continued from page 3)

"You can go after the tics, but if you're not thinking in a comprehensive way about the assessment and as a result leave other issues untreated, you're likely to engage in a process that might help one aspect of the problem, but may not address the larger concerns," says Dr. Walkup. "The tics may get better but the patients are left with residual symptoms in other domains that are really causing them distress and impairment."

A National Research, Treatment, and Outreach Consortium

In April 2016, Drs. Walkup and Bennett joined with their respective directors and co-directors of Tourette Syndrome Centers of Excellence across New York State for their first meeting. Hosted by the Tourette Association, the participants shared updates on their programs since their designation. "The overall goal of our centers

is to discuss and disseminate the best possible care strategies and improve the quality of life for children, adolescents, adults, and their families who are impacted by Tourette Syndrome and other tic disorders," says Dr. Bennett. In addition to promoting evidence-based and coordinated care, the centers engage in collaborative clinical and scientific research and provide training and education to healthcare professionals across the country.

Importantly, notes Dr. Bennett, the consortium also has provided an invaluable referral resource. "We now have direct links to centers around the country where we feel comfortable sending patients with Tourette Syndrome and their families. The Tourette Association has worked hard to provide training to many providers in the latest medications and nonpharmacological behavioral treatments that can help alleviate suffering."

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