

PRINT-A new approach to mental health support for students

There is no doubt there is a mental health pandemic in this country – a crisis that was already brewing and then made worse by the COVID-19 pandemic.

That's from Dr. Kyle Boerke, the director of Behavioral Health Outpatient Services at OSF HealthCare. He says innovative solutions are needed to meet the exponentially-growing demand for mental health interventions and treatment, particularly among children and teens.

Dr. Boerke cites as evidence, a concerning report from the World Health Organization (WHO) released last month.

"Identifying a 25% increase in anxiety year-over-year and that was on top of a 50% increase from the year prior to that so if you take a look at the numbers, we truly are not just in a COVID-19 pandemic but a behavioral health pandemic as well."

An average of 16 children are admitted to an OSF hospital every day for a mental, emotional, or behavioral health diagnosis. Last year, nearly 10,000 children sought outpatient behavioral health services from OSF and many more are on waiting lists.

Sister M. Pieta Keller is an innovation biomedical engineer at Jump Simulation, and the project manager and engineer on a new [Community Health Advocacy \(CHA\)](#) grant, says the project will involve developing an algorithm using data from school records to reach students *before* they are in crisis, ideally before they end up in the emergency department for a suicide attempt or extreme anxiety.

This project is a collaboration between OSF HealthCare and the University of Illinois Chicago (UIC). It's an attempt to reach students, even those who might not be an OSF patient, where they spend a majority of most days – in school during the school year.

Researchers will work with select middle and high schools in the Catholic Diocese of Peoria and Chicago archdiocese, along with, potentially, some public schools, to use de-identified student data points that national studies reveal are indicators of behavioral health issues. Those include a drop in grades and attendance, behavior marks, and even socio-economic factors that are associated with mental health challenges.

Sister M. Pieta says as OSF and UIC work to develop the algorithm, its criteria would be flagged in the school's information management system so teachers, counselors, and even coaches can see when kids might need additional support.

"They can decide if those flags, those compassion alerts, apply or if that student just has senioritis, or is just underperforming at this moment for a small reason and not a big deal, or if they were absent because they were doing school activities for so long or whatever the case may be. So they can kind of be a first discernor and say 'Are these alerts?' and intervention is appropriate and necessary?"

Approach could help those privately struggling

Many children with anxiety struggle privately. Dr. Boerke, who is also involved in the research, points out a model that can process so much data could be more effective in picking up slight changes over time that signal a student might be suffering.

“The beauty of this early identification and detection is we’re going to be able to see those small slips in grades over time, and a child that would have gone under the radar because they’re so quiet out of fear that the attention will be brought to them – and they don’t want that because of their anxiety – they’re going to be able to be identified and receive the help they need as well.”

Dr. Boerke is excited about this kind of innovation – developed with clinicians, engineers, computer and data scientists, and social workers who understand the dynamics of an urban population, – which could allow for a proactive approach.

“The older they get, the more ingrained those behaviors and those cognitions become; it’s harder work. So, if we can catch it as early as possible we’re going to be in a better position to provide these kiddos with the care they need.”

Sister M. Pieta says the research team plans to submit a proposal to the Institutional Review Board (IRB), which oversees research involving individuals, to ensure their methods and data collection are aligned with ethical standards, including protections required by federal laws regarding student and health care patient privacy.

Only teachers and others with authorized access to student records would be provided with alerts. If parental consent is given for the program, digital and in-person resources can be shared with the student.

“Existing resources in all areas of life, whether it’s in mental health, whether it’s in emotional supports, or even physical and spiritual support; we want to connect them to existing, vetted resources that are age-appropriate.”

Sister M. Pieta says the effort will leverage evidence-based interventions, including OSF SilverCloud, a behavioral health app that has proven to reduce symptoms of stress, anxiety and depression in adults.

“So we’ve seen the advantages that it’s brought to adults, and we want to reach our children with that same care, if not more care, because they’re more vulnerable and they’re at a time in their life when they really need that help; that additional support, that additional connection – that heart connection that we’re trying to establish.”

OSF is seeking additional outside funding through a separate innovation challenge that could bring more resources to creating, testing, and fully integrating the algorithm with school information management systems.