Study points to path for better diagnosis of eating disorders, the deadliest of mental illnesses

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Credit: University of Kansas

A paper appearing recently in the peer-reviewed journal *Comprehensive Psychiatry* details a "radical" new method for diagnosing eating disorders

that predicts 68 percent of people's problems in psychological and social functioning due to eating-disorder features.

By contrast, the method of identifying eating disorders outlined by the "Diagnostic and Statistical Manual of Mental Disorders" (DSM-5) traditionally used by clinicians predicts slightly less than 10 percent of impairment in psychological and social functioning.

The new diagnostic system, dubbed the Hierarchical Taxonomy of Psychopathology, or "HiTOP," was developed by a consortium of psychologists specializing in mental illnesses, including Kelsie Forbush, M. Erik Wright Assistant Professor of Clinical Psychology at the University of Kansas and lead author of the new study.

"Eating disorders have the highest mortality rate of any mental illness, and one of the problems therapists face is that traditional eating disorder diagnoses do not predict outcomes very well," Forbush said. "If somebody comes to see you with Stage 4 melanoma, you can provide information to the patient and family about the likely course of illness and recommend an aggressive round of treatment, but with eating disorders, traditional diagnoses are not very helpful for predicting how well people are going to respond to treatment or how intensive the initial course of treatment should be."

According to the KU researcher, diagnoses of eating disorders using the DSM-5 fall short because diagnostic criteria were created by experts using a "top-down" approach, which shoehorns people into overly restrictive, theoretical categories. However, in reality, most people's eating-disorder symptoms combine in unique ways along a spectrum of severity, and they often co-occur with other disorders like depression and anxiety.

"People have true, life-threatening eating disorders, but for whatever

reason, they don't fit 'nicely' into one of the DMS-5's three categories," Forbush said. "Say someone is a normal weight and they aren't experiencing large binge-eating episodes—but they frequently self-induce vomiting, after eating normal or small amounts of food (such as after eating a cookie)—they wouldn't qualify for these three eating disorders. But, most would agree if you're making yourself vomit you have a serious issue that warrants treatment. In many cases, people do not qualify for anorexia nervosa, bulimia nervosa or binge eating disorder because they do not exhibit behavior frequently enough, or maybe they meet every symptom except for one. We have somewhat arbitrary categories, and if people don't fit into these boxes they go into a waste-bin category called 'other specified.' The major problem is that the 'other specified' category is just as severe, impairing and deadly as the three DSM-5 categories."

By contrast, the HiTOP method of diagnosing eating disorders represents an "alternative, dimensional" model for describing risk factors, etiology, course and outcome and treatment for mental disorders. The mental health researchers behind the system assert HiTOP will "facilitate research and clinical practice, improving their precision, impact and evidentiary basis."

"We're going to try something totally new, something we think is more reliable and more valid," Forbush said. "This a radical departure from the DSM-5. The DSM uses categories, and here we use dimensions. We said, 'No, let's not use the expert consensus—let's use statistics to see how symptoms cluster together in real-world settings.' We compared results of HiTOP to the DSM to see which better predicted how sick people are from their disorder."

For the study, Forbush and KU colleagues Kelsey Hagan, Benjamin Kite, Danielle Chapa and Brittany Bohrer, along with Sara Gould of Children's Mercy Hospital in Kansas City, Missouri, enlisted 207 participants who

completed a three- to four-hour intensive assessment. The paper reports the baseline data, but the authors plan to follow their participants over the next three years to see whether their new system predicts clinical course and outcome.

"We recruited people from all over the community who had any type of eating-disorder diagnosis including 'other specified,'" Forbush said. "They came into the lab, and we did comprehensive assessments using a variety of questionnaires and interviews. We were trying to understand any and all problems they had with eating, mood and anxiety."

The researchers used statistics to re-create the diagnostic system from the "bottom up." The first step identifies and groups together related symptoms into symptom dimensions. In the next "step up," the hierarchy combines symptom dimensions into sub-factors. The final step combines sub-factors into higher-order spectra. The lowest level of the hierarchy was characterized by 15 factors. At the top of the hierarchy, the authors found a broad internalizing factor that reflected diffuse symptoms of eating, mood and anxiety disorders. Internalizing branched into three sub-factors: distress, fear-avoidance (fears of certain stimuli and behaviors to neutralize fears, including eating-disorder behaviors designed to reduce fear of weight gain), and body dissatisfaction, which was embedded within distress.

"Our ultimate goal is to create a new diagnostic system that helps clinicians predict how well people with eating disorders function now and in the future," Forbush said. "Eventually, we believe that our system will make it easier for therapists to plan treatment and match patients to the best level and intensity of care, which we hope will improve patient outcomes."

Moving forward, Forbush and her colleagues hope to move the HiTOP method of diagnosing eating disorders into everyday use by clinicians.

"Our next step is to find out what clinicians think of it and tailor the system to make it easier for therapists to use this system with their patients," Forbush said. "Our new system predicted impairment really well—but can it predict how well [people](#) respond to treatment? We're partnering with Children's Mercy hospital to do additional studies. We want to get our new diagnostic system to clinicians, so we're working on an app that would incorporate HiTOP and make it easier to for clinicians to use it in their busy medical settings."

More information: Kelsie T. Forbush et al, Understanding eating disorders within internalizing psychopathology: A novel transdiagnostic, hierarchical-dimensional model, *Comprehensive Psychiatry* (2017). [DOI: 10.1016/j.comppsych.2017.06.009](#)

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