

Under Six Minutes:

Using Technology to Diagnose and Report on Behavioral Health Challenges Facing Foster Youth

Although everyone involved in the child welfare system understands that foster youth are highly vulnerable, knowing the full extent of their mental health needs is difficult because obtaining accurate mental health assessments is costly and time consuming. First, typical casework processes and workload leave little time for conducting lengthy mental health assessments. Second, caseworkers themselves often do not have the training needed to carry out a thorough, accurate assessment.

Cutting-edge technology to diagnose and report mental health in less than 6 minutes

To solve these problems, the Tennessee Department of Children's Services, the University of Chicago's Departments of Medicine & Public Health Sciences, and the Center for State Child Welfare Data at Chapin Hall are field-testing computerized adaptive mental health tests (CAT-MH™) to diagnose and report on the mental health of young people in the child welfare system. Preliminary results suggest that, in a population of foster youth age 12 and older, use of the CAT-MH™ produces a valid and reliable assessment of anxiety disorders, major depressive disorders, and suicidality in less than 6 minutes (and often in less than 4 minutes).

The CAT-MH is a web-based instrument that takes a few minutes to complete while maintaining a high correlation with an hour-long, clinician-administered diagnostic assessment. The CAT-MH™ uses a person's initial item response to determine a provisional estimate of his or her standing on the measured trait (for example, depression or anxiety). This estimate is then used for the selection of subsequent items. The provisional estimates are updated after each item response until the person's severity measurement achieves the desired level of precision (typically 5 points on a 100 point scale). The paradigm shift is from traditional fixed length tests which fix the number of items administered and allow the precision of measurement to vary across individuals and for repeated measurements of the same individual, to adaptive tests which fix the measurement precision for all individuals and allow the items to vary in content and number. The net result is a dramatic increase in the precision of measurement with corresponding decreases in the burden of measurement.

Immediate feedback

Immediately after a person completes the CAT-MH™, the results are sent instantly to their caseworker, supervisor and/or clinician, as required by local practices. Results include immediate suicide warnings based on suicidal ideation and intent, diagnosis for major depressive disorders, substance abuse, anxiety and mania/hypomania. For child welfare purposes, the CAT-MH™ minimizes burden on the caseworker and young person, yet maximizes precision of measurement. It represents an efficient and accurate way to understand the mental health needs of young people in foster care.

Testing the CAT-MH in Tennessee

The pilot study of the CAT-MH™ in Tennessee, which involved nearly 350 foster youth, recently concluded. With the results, agency caseworkers, clinicians, and leadership better understand the mental health needs of foster youth. For example, 24% of the population was diagnosed with major depressive disorders. Nevertheless, the CAT-MH™ revealed that only 3.25% of the population had severe depression. These results were obtained in an average of 4 minutes and 35 seconds.

"From the minute our staff were trained, they were amazed at how brief the assessment was and how quickly they received feedback. It has taken away the guesswork – staff know before they even leave the youth's side whether to call Mobile Crisis services. It is also extremely reassuring for administrators to know that we can detect crisis situations immediately, and gain

valuable information about whether a therapy referral is warranted", Lisa Pellegrin, Executive Director of Child Health at the Tennessee Department of Children's Services.

Because the CAT-MH™ is easy to administer, and does not repeatedly administer the same items which leads to response bias, it is possible to gather longitudinal assessments of youth as they make their way through the child welfare system. When linked with administrative records, like those maintained by the Center for State Child Welfare Data, the information provides an unprecedentedly powerful resource for treatment planning and service delivery.

"Historically, one of the main limitations of administrative data has been the lack of detailed information about the mental health status of young people both while being in care and as a result of being in care. The CAT-MH™ when linked to administrative records solves this long-standing problem", explains Fred Wulczyn, Director of the Center for State Child Welfare Data and Senior Research Fellow at Chapin Hall.

- [Join our webinar](#) on February 14, 2018, to learn more about the use of the CAT-MH™ in the child welfare system.
- Read more about the CAT-MH™ tool and its application on adaptivetechologies.com.
- Interested in using the CAT-MH™? Contact us [HERE](#).
- Stay up to date on progress and results of the use of CAT-MH™ in the child welfare system by [subscribing to our newsletter](#).