Tucson shooting records shed light on January 2011 rampage

Just released psychiatric evaluations confirmed that Tucson shooter, Jared Loughner's mental-health issues began years earlier, when he was diagnosed and treated for depression in high school

Dear Ms Romero and Mr. Vassar,

Thank you for inviting our team to demonstrate the computerized adaptive tests for mental health (CAT-MH) to help reduce the risk of gun violence.

At the session, there were several questions and comments on the efficacy of using the CAT-MH on incarcerated offenders to identify and manage the treatment of depression/anxiety.

Please review and share the note below and attachments which compare the 2012 CAT-MH with the twenty year old screening and assessment instruments currently used to diagnose and continuously monitor and precisely measure the severity of depression and anxiety to help prevent gun violence..

Please let me know if you have any other comments or questions on the CAT-MH ?

V/R

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Depression is often undiagnosed, untreated, and unmonitored in the juvenile and criminal justice systems despite being an acute precipitant of suicide, homicide, gun violence, and substance abuse.

As many as 47% of youth in juvenile detention are affected by moderate-to-severe levels of depressive symptoms (Domalanta, Risser, Roberts, & Risser, 2003),

Unrecognized and untreated depression potentially impacts the criminal course of juvenile offenders , as depression has been shown to be associated with increased recidivism (Clark-Jones, 1999; Cocozza, 1992; Whitbeck, Hoyt, & Bao, 2000).

Offenders with depressive symptoms are a highly vulnerable group, being at an extreme risk for violent behavior, drug and alcohol abuse, suicide and serious criminality (Capaldi, 1991, 1992; Cole & Carpentieri, 1990; McConaughy & Skiba, 1993; Rapp & Wodarski, 1997; Robinson, Jenson, & Yaffe, 1992).

Access to professionals skilled in diagnosing and continuously monitoring and precisely measuring the severity of depression and anxiety in response to treatment/intervention is almost non-existent for juvenile and adult offenders,

A wide range of short, fixed screening and assessment instruments for depression and anxiety such as the Patient Health Questionnaire (PHQ) have passed into common use in the general population, but cannot be assumed to have the same sensitivity and specificity in the high risk offender populations. (See attached Hewitt Perry Adams)

The attached differentiators provide a detailed summary and comparison of the features of commonly used diagnostic screening tests for depression and dimensional severity measurements for depression and anxiety. (See attached Differentiators) The advantages of computerized adaptive testing (CAT-MH) include:

- Greatly increased sensitivity (fewer missed cases) with similar or even higher specificity (fewer false positives).

- Easily adapt screening and assessment items so they are culturally sensitive and clinically appropriate for diverse sub-populations.

- Dramatic reduction in patient and clinician burden.

- Anywhere (jails or prisons) anytime (24x7x365) administration (under 2 minutes) automated scoring and real time clinician/first responder alerts/reporting

- Device independence (smart-phones, tablets, PCs).

- Dramatic increase in precision and information content through the use of large item banks containing hundreds of items as compared to short fixed-length tests.

- Elimination of response-set bias based on repeated administration of the same items over and over.

- Continuous dynamic suicide risk screening with real-time e-mail and/or text clinician, first responder notification.

- Uncertainty estimates for severity scores which allow the determination of the amount of change that is statistically and clinically meaningful as well as confidence level associated with the screening diagnosis.

A Demonstration of Revolutionary Processes for Predicting and Preventing Violence Due to Mental Illness

"R E M I N D E R"

Briefing – Today

3:00 to 4:00 pm

Room 2226 Rayburn HOB

Dear Colleague:

We invite you and your staff to a briefing and demonstration of revolutionary new computer assisted testing and treatment monitoring procedures that have shown a high degree of predictive accuracy and treatment effectiveness for identifying and treating suicidal and violence tendencies in people suffering from depression and other mental illnesses.

The briefing and demonstration will be conducted by David J. Kupfer, M.D., Thomas Detre Professor of the Department of Psychiatry at the University of Pittsburgh School of Medicine, and Robert Gibbons, PhD, Professor of Health Studies, Medicine, and Psychiatry, and Director, Center for Health Statistics, at the University of Chicago. Here is how they describe the briefing and demonstration:

"A live demonstration of anytime, anywhere, under 2 minute 24x7x365 diagnosis and continuous, precise measurement of the severity of depression, anxiety, and hypomania

or mania, to help reduce the risk of violence. It is a demonstration of the Computerized Adaptive Test-Mental Health or CAT-MH, which is currently a collection of three adaptive tests for depression, anxiety, and mania, and a diagnostic screening test for major depressive disorder (CAD-MDD) developed as part of a 5-year grant from the National Institute of Mental Health. The CAD-MDD produces a screening diagnosis of depression in under one minute and a corresponding confidence level associated with that diagnosis. By contrast, the three computerized adaptive tests (CAT), the CAT-Depression Inventory or CAT-DI, the CAT-Anxiety or CAT-ANX and the CAT-bipolar disorder or CAT-BP, are validated dimensional measures that produce continuous severity scores in under 2 minutes based on symptomatology experienced in the past two weeks.

The revolutionary paradigm shift between traditional screening and assessment tools and those associated with these tests is that they begin with a large "bank" of items (1008 psychiatric symptom items) and adaptively administer a small and statistically optimal subset of the items (on average 12 items for each of the three CATs and 4 items for the CAD-MDD). Nevertheless, each of the CATs maintains a correlation of close to $r=0.95$ with the entire bank of items for each test (389 depression items, 431 anxiety items, 88 bipolar items). As such, with only 12 items in 2 minutes anywhere, anytime over the internet, we can extract the information contained in hundreds of items in the item bank and provide them in real time alerts for suicide and other dangerous behaviors to clinicians, first responders, and family members."

In the aftermath of the violent tragedies at Newtown, Aurora, Oak Creek, Tucson, Virginia Tech and Columbine, and the suicides and systemic violence that play out in communities across the nation daily, the CAT-MH and the CAD-MDD appear to hold great promise for preventing such tragedies and suffering.

For more information, contact Bobby Vassar at 202-225 6739, or at bobby.vassar@mail.house.gov.

<div align="center">Very Truly Yours,</div>

/s/   /s/
Robert C. "Bobby" Scott   Grace F. Napolitano, Member of
Congress
Member of Congress   Member of Congress

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nder and delete the message. Thank you.