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Improving Mental Health Care Using Multi-Condition Assessment

How Multi-Condition Data Can Provide Safer and More Personal Care Strategies

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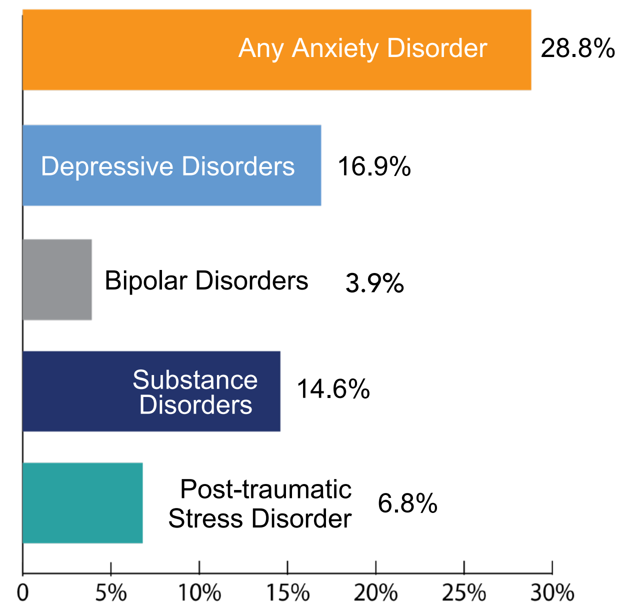
Synopsis

Researchers reviewed the medical records of 7,537 adults screened for mental illness in a Federally Qualified Health Center (FQHC) using the M3 Checklist™, a multi-condition mental health (MH) screening/assessment tool. This tool has a range of 0-108 points and a symptomatic threshold set at 32 points. Of the 3,764 patients who scored above that threshold, 72 percent had depression symptoms, but 77 percent were also at risk for other MH symptoms (e.g., anxiety). Commonly used depression-oriented screening tools are unable to capture these symptoms, which suggests that clinicians who rely on a limited tool could overlook and/or misidentify their patients' MH symptoms. Misidentification could result in ineffective or harmful interventions that contribute to patient suffering and/or higher costs to payers.[1] Adoption and routine use of an evidence-based metric that captures symptoms of a broader range of MH conditions multi-condition assessment and treatment protocol that includes monitoring of progress could help to avoid these suboptimal outcomes.[2] Populations that stand to benefit from this approach include veterans, women in peripartum, the elderly, college students, and the general population.

The Issue

Kessler and colleagues' seminal work using the DSM-IV[3], reported that people experience the symptoms of anxiety more often than depression symptoms (Figure 1). Further, we know that the symptoms of depression and anxiety often appear simultaneously in the same person; attempting to assess for one without also checking for the other often provides an incomplete clinical picture. Moreover, an assessment expanded beyond depression to include anxiety would still fail to provide a complete picture of mental health (MH), as it would miss symptoms of mania/hypomania and posttraumatic stress disorder (PTSD). These disorders reflect the morbidity experienced by a significant portion of individuals, many of whom may have severe and life-threatening symptoms.[4,5]

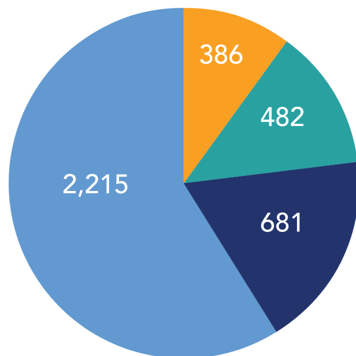
FIGURE 1: Lifetime Prevalence of DSM-IV Disorders[3]



Key Findings – An Algorithm to Reduce Patient Risk

In this study, researchers examined 7,537 adult patients seen in an integrated behavioral and physical health care setting at a FQHC. The goal was to explore whether an evidence-based multi-condition MH assessment—as measured by the M3 Checklist, which assesses the risk of anxiety, depression, bipolar disorder, PTSD, substance use, suicidality, and functional status—would provide value-added symptom information about the negative effects experience by patients with these symptoms. Persons who score over 32 points on the M3 Checklist are more likely to experience negative effects from MH disorders. This validated threshold provides clinicians with an objective tool to inform continued MH assessment and support monitoring of responses to treatments over time. Screening exclusively for depression would miss comorbidities and persons without depression, but with other MH disorders (as seen in Figure 2).

FIGURE 2: Co-occurrence of Depression and Other Mood Disorders (above threshold)

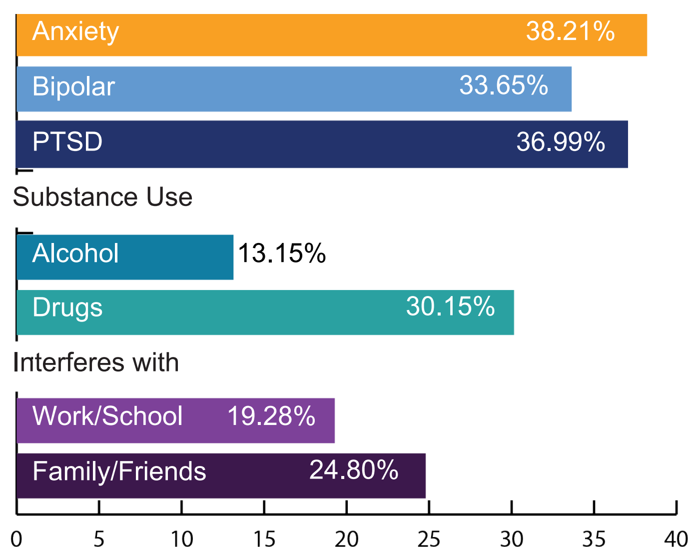


Number of Individuals (n=3,764)

- Depression with other mood disorders (2,215)
- Depression only, no other mood disorder (482)
- Other mood disorder only, no depression (681)
- No depression, no other mood disorder (386)

Data Showing the Limits of Depression-Only Screening: There are limitations to using depression-only screens. Kessler[3] found that 55 percent of people who screened negative for depression using a validated instrument experienced symptoms of bipolar disorder, anxiety, and PTSD. In the current study, the FQHC data showed that among patients whose M3 Checklist scores were over 32 points but negative for depression (n=1,067), 66 percent experienced other MH symptoms. Those symptoms, represented in Figure 3, include not only bipolar, anxiety, and PTSD, but also reported interference with work/school performance, family/friend relationships, and reported substance use.

FIGURE 3: Positive Findings among persons scoring negative for Depression (with scores >32)



The overall M3 Checklist results in this FQHC study appear in Figure 4. For each diagnostic category, a large majority of patients who experience symptoms over threshold also have accompanying functional or relationship impairment.

Specific M3 Checklist Findings for Patients scoring positive for depression (n=2,697)

71% reported symptoms of Anxiety
63% reported symptoms of PTSD
42% reported symptoms of Bipolar Disorder
Only 14% reported no other symptoms

The Big Picture – How Depression-Only Assessment Increases Costs

Attention to the full range of mood and anxiety symptoms will improve comorbid physical health outcomes and reduce the overall cost of care (Figure 5)[1]. Single condition, depression-only assessments fail to address the overall comorbid nature of MH, leaving patients with potentially large gaps in diagnosis and treatment and providing inadequate guidance for clinicians. Guidelines from the U.S. Preventive Services Task Force (USPSTF)[6] state that a person screened positively for depression risk should receive a more comprehensive evaluation to obtain a better understanding of any comorbid MH issues—implying a two-step assessment process. Starting with a multi-condition assessment could reduce the potential risks and inefficiencies inherent in a two-step process. The graph below (Figure 5) summarizes the potential financial costs for each physical diagnosis and the compounding effect of behavioral health and SUD on those costs. While the represented data do not report underlying condition, our findings support Kessler's suggestion that a depression-only assessment would miss a considerable number of these patients and their associated costs. Thus, application of a multi-condition MH assessment would reduce the number of patients with undetected comorbid MH conditions. The essence of value-based care is to leverage resources to provide better care at lower costs for more people. The elimination of the single disease bias in MH will help achieve these goals.

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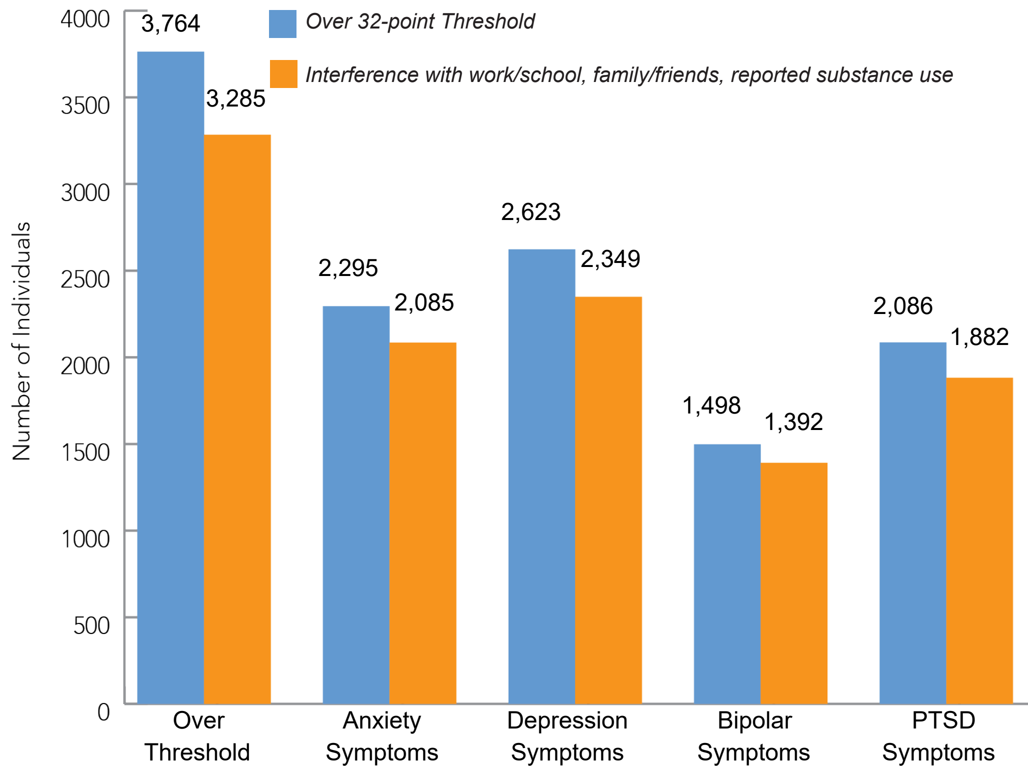
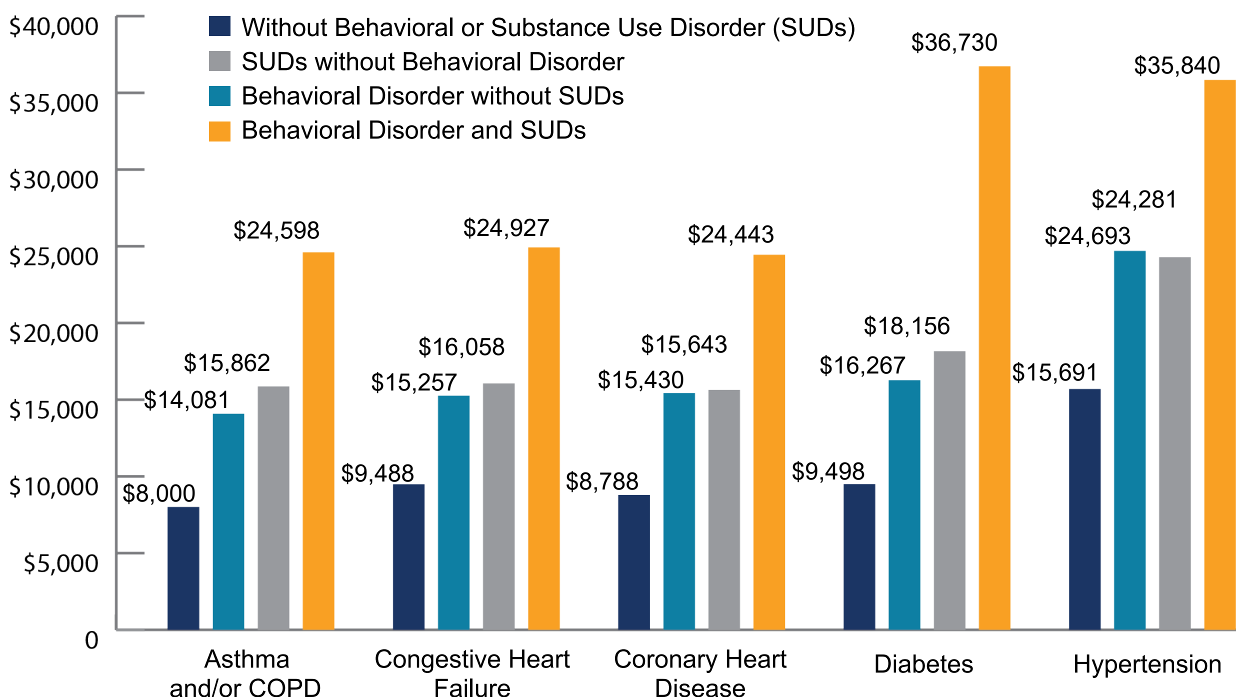
FIGURE 4: Self-Reported FQHC Findings



About this Study

Researchers conducted a retrospective examination of records from 7,537 unique primary care patients seen at a federally qualified health center (FQHC) in New York State. The analysis refers to each patient's first assessment using the M3 Checklist, a real-world, self-reported, research-validated resource that elicits behavioral health information through a web-portal. The principal investigator (PI) sourced the data from the FQHC using a proprietary server held by M3 Information, Inc. The PI used Stata (StataCorp, College Station, TX) to calculate summary statistics examining relationships among diagnostic criteria (e.g., depression, anxiety) and symptom-related outcomes (e.g., use of alcohol).

FIGURE 5: Annual Per Capita Cost of Behavioral Health Comorbidities[1] Disabled Medicaid-Only Beneficiaries



About the FQHC contributing to this Study

The FQHC client has implemented the M3 Checklist across three service delivery systems: behavioral health, primary care, and transitional and supportive housing. They have integrated the M3 to improve staff communication, reduce duplication, and support health literacy. This gives staffs from the three delivery systems a common tool and language for case conferences.

According to the FQHC providers that contributed data to this study

The M3 [Checklist] has been an instrumental tool connecting behavioral and primary health care with increased client engagement. The goal is to ensure that service plans and care coordination is informed by the M3. This requires that every person presenting for health care and shelter has completed an M3 at admission and [completed] quarterly updates. Staff are trained, the M3 is easily accessible and integrated into the electronic health record, clients are informed and engaged, services plans are adaptable, and cross functional teams communicate results. The first implementation year piloted the M3, with a second-year focus on spread and scale. The third-year expectation is trending analysis with the goal of improving front line clinical and workflow interventions.

Measures include number of people completing the M3 at admission and quarterly, decrease in site specific incidents, and mental health hospitalizations. Second level measures include increase in client engagement (patient activation) and improved care coordination.

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NOTE: This white paper reports preliminary findings from the FQHC study. The authors will publish final results in peer-reviewed journals.

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