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Severe Symptoms and Suicidal Ideation in People Without a Psychiatric Diagnosis: Findings From an Online Cohort Study

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Background

Need: Many people experiencing mental illness are unable to access treatment due to stigma, lack of insurance coverage, and other structural and psychosocial factors.

Aims: (1) To examine clinical and demographic differences between participants diagnosed with a psychiatric disorder and non-diagnosed participants in a cohort of online study participants, and (2) To assess factors associated with severe psychiatric symptoms in non-diagnosed participants.

Methods

Data/Assessments: Participants were recruited from online and community advertising initiatives from 2017-2020. Participants provided demographic information, psychiatric diagnosis, and symptom self-assessments. Psychiatric symptomatology was captured through the Quick Inventory of Depressive Symptomatology (QIDS), the Community Assessment of Psychic Experiences (CAPE-15), and the Perceived Deficits Questionnaire 5-item (PDQ-5). In summary:

QIDS → Depression
CAPE-15 → Psychosis
PDQ-5 → Perceived Cognitive Impairment

Cutoffs: Per literature standards, we defined major depressive severity as a score ≥ 9 on the QIDS and psychosis as a response of ≥ 1.3 on the CAPE-15. We defined Suicidal Ideation (SI) as a score > 1 on QIDS item 12, “Thoughts of my own death or suicide”.

Analysis: Demographic and clinical data were compared by diagnosis status and symptom severity status (α = 0.05 for all analysis). We used the chi-square test for comparison of categorical variables and the Wilcoxon rank-sum test to compare continuous variables. We constructed a multivariable log-binomial model to test the relationship between reported symptom outcomes and SI.

Enrollment and Demographics

Enrollment: 4,134 participants enrolled in the protocol, over one-third of whom did not report a psychiatric diagnosis (1,546/4,134, 37.4%).

Demographics:

Participant Characteristic	Without Diagnosis (n= 1,546) n(%)	With Diagnosis (n = 2,588) n(%)	*p*-value
Age (median)	33.9	31.8	<.001
Male Gender	712 (46.1)	1,454 (56.2)	<.001
White Race	992 (64.2)	1,457 (56.3)	<.001
Hispanic Ethnicity	59 (3.8)	347 (13.4)	<.001

Severe Symptoms and SI in Non-Diagnosed Group

High prevalence of severe symptoms among non-diagnosed: Almost sixty percent (911/1,533, 59.4%) of non-diagnosed participants reported symptoms that met severity criteria for major depression (n = 672), psychosis (n = 31), or both (n = 208). Almost half of non-diagnosed participants reported any SI at baseline (724/1,532, 47.3%).

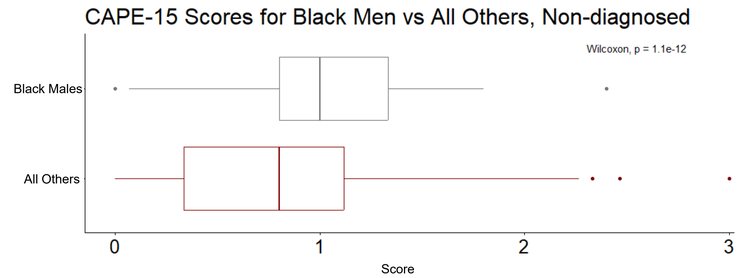
Description of Non-Diagnosed with Severe Symptoms

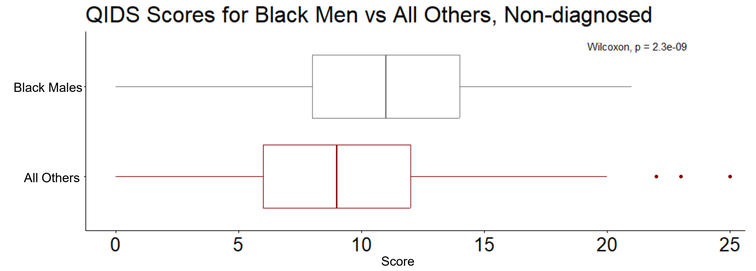
Participant Characteristic	With Severe Symptoms (n= 911) n(%)	Without Severe Symptoms (n = 622) n(%)	*p*-value
Male Gender	458 (50.3)	252 (40.5)	0.002
Black/African American Race	280 (30.7)	120 (19.3)	<.001

Multivariable Modeling of SI

Modeling shows depression and psychosis associated with SI: In a log-binomial model controlling for age, sex, and race, both major depression (prevalence ratio [PR] = 1.60, 95% confidence interval [CI], 1.47-1.75), and psychosis (PR = 1.23; 95% CI, 1.15-1.31) were **positive** predictors of SI in non-diagnosed participants.

Higher Symptom Ratings in Non-Diagnosed Black Men





Discussion

Our results point to a potential deficit in the surveillance and treatment of mental illness. Furthermore, non-diagnosed black and male participants more commonly reported severe symptoms. Together with our finding that symptom severity is associated with higher prevalence of SI, and recent literature indicating an increase in suicides among Black US residents before and during COVID-19 lockdowns, our results accentuate the need for expanded mental health treatment accessibility for key underrepresented groups.

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