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# Comparison of Perceived Covid-19 Related Mental Health Stress in SMI and Non-SMI Psychiatric Populations

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## Abstract

The purpose of the present study was to investigate differences in perceived COVID-19 associated mental health-related stress in individuals with psychiatric diagnoses at opposite ends of the DSM diagnostic severity spectrum. The opposite poles of the spectrum were represented by Adjustment Disorder (AdJ) at one end and disorders categorized as Serious Mental Illness (SMI) at the other. The study hypothesized that persons with SMI disorders are more likely to report their mental health negatively affected by COVID-19 stress compared to individuals with non-SMI disorders. An observational, cross-sectional model was used to collect data from client intake forms completed between April 2020 and December 2020. Participants were 25 male and 23 female U.S. citizens (mean age = 32.9) diagnosed with either SMI or Adjustment Disorder. COVID-related mental health stress was measured by answering 'yes' or 'no' to the following question: "Do you feel that your mental health is being negatively impacted (for the worse) by the life-changes, hardships, and stress being caused by the current coronavirus outbreak?" A Pearson chi-square analysis was used to compare the two groups. Results indicated that individuals diagnosed with SMI disorders were significantly more likely to report their mental health negatively affected by COVID-related stress compared to individuals diagnosed with Adjustment Disorder (SMI 74% vs. AdJ 19%,  $p < .001$ ). In this study, individuals with a pre-existing SMI disorder are almost four times (Risk Ratio: 3.89) more likely to be adversely affected by perceived stress associated with the COVID-19 pandemic than individuals diagnosed with Adjustment Disorder. No significant differences were found between the two diagnostic groups on sociodemographic characteristics (gender/age/ethnicity). These findings suggest that the mental health of individuals diagnosed with SMI may be considerably more negatively impacted by current COVID-19 related stress and therefore require greater clinical attention compared to those diagnosed with Adjustment Disorder and other non-SMI diagnoses.

**Keywords:** SMI, Adjustment Disorder, Stress, COVID-19

## 1. Introduction

In March 2020, the COVID-19 virus was declared a global pandemic by the World Health Organization (Cucinotta & Vanelli, 2020). As of June 2021, the virus continues to negatively impact the physical, social, and psychological health of individuals throughout the world.

Individual mental health has emerged as an area of functioning adversely affected by the current pandemic. COVID-19 related mental health issues had been found to include "stress, anxiety, depressive symptoms, insomnia, denial, anger and fear globally" (Torales, O'Higgins, Castaldelli-Maia, & Ventriglio, 2020), as well as post-traumatic stress disorder, depression, psychological distress, and anxiety in the general population (Wang, et al., 2020).

Of notable concern, certain populations have been found more vulnerable to the negative life stress associated with the pandemic in contrast to the general population. One of these populations is the mentally ill (Sher, 2020). For example, a survey of 2,206 individuals found that 64% of individuals with a pre-COVID-19 diagnosed mental illness reported worsening of their mental illness symptoms due to COVID-19-related stress (Torales, O'Higgins, Castaldelli-Maia, & Ventriglio, 2020).

Stressful life events have long been associated with the onset and exacerbation of psychiatric illness (Kendler, K., et al., 1995; Post, 2010). COVID-19 studies have found that individuals diagnosed with pre-COVID-19 mental illness report an array of specific stressors related explicitly to the COVID-19. These stressors include fears of sickness and dying, financial worries, as well as access to proper housing, food, medicine, and medical services (Shinn & Viron, 2020; Benjamin, 2020).

### **The Distinction Between Adjustment Disorders, Serious Mental Illness, and COVID-19 Effects**

One question that has not been addressed in the literature is how current COVID-19 stress might affect individuals with psychiatric diagnoses at opposite ends of the DSM diagnostic severity spectrum, namely Adjustment Disorder (AjD) and disorders categorized as Serious Mental Illness (SMI).

The NIMH distinguishes SMI disorders from non-serious mental disorders, with SMI disorders considered an emotional, mental, or behavioral condition which "substantially interferes or limits one or more major life activities" (Druss, 2021). The less severe diagnosis of Adjustment Disorder does not meet this criteria.

Non-COVID-19 related physical and mental health differences have been found between persons with Adjustment Disorder and SMI. Regarding physical health, when compared to persons with AjD, those with a SMI diagnosis engaged in lower exercise frequency, suboptimal eating habits and were more likely to have gained at least ten pounds in the past six months ( $p < 0.001$ ) (Kilbourne et al., 2007).

Mental health differences between the two groups (AjD/SMI) can be understood in the symptom severity differences between the groups. The type and potential severity of symptoms associated with SMI are distinct compared with the symptoms of Adjustment Disorder. Non-COVID related investigation by Narrow, et al. compared subjects with SMI and AjD over 12 months. Individuals diagnosed with SMI were more likely to be diagnosed with a comorbid substance use disorder (29.5% vs. 13.3%), more likely (59% vs. 20%) to have sought services in the general health systems sector, and more likely (17% vs. 0.9%) to have sought inpatient mental health or addictions services, compared to individuals with non-SMI mental health diagnosis (Narrow et al., 2000) These realities raise an important question: Is the mental health of persons with SMI more likely to be negatively affected by perceived COVID-19 stress compared to individuals with Adjustment disorder?

In this present study the possible differences in perceived negative COVID-19 stress between individuals diagnosed with a mild psychiatric disorder and those diagnosed with SMI are compared in a clinical sample of adults from the United States. This study hypothesized that individuals with SMI would be more likely to report being adversely affected by perceived COVID-19 stress than individuals with ADJ.

## 2. Materials and methods

This was an observational, cross-sectional study based on information collected from client intake forms filled out at the beginning of mental health counseling services. The client intake sheets were collected from April 2020 through December 2020.

### 2.1 Participants

Participants were an online sample drawn from this study author's telehealth mental health counseling caseload. The clients were randomly assigned to the counselor by the telehealth provider. The sample was represented by clients from states representing all four geographical locations of the U.S. (North, East, West, South).

Before beginning counseling, all clients were required to complete a self-report intake information sheet. This study consisted of the intake sheets of 48 clients that met DSM-V diagnostic criteria for either SMI or Adjustment Disorder. Serious mental illness disorders were limited to depressive, anxiety, and OCD diagnoses.

### 2.2 Measures

One question on the intake sheet was used to evaluate each participant's perceived COVID-19 stress: "Do you feel that your mental health is being negatively impacted (for the worse) by the life-changes, hardships, and stress being caused by the current coronavirus outbreak? Yes or No.

## 3. Results

Of the total sample of 48 respondents, 23 (47.9%) identified as female and 25 (52.1%) as male. Participants ranged in age from 19 to 55 years ( $M = 32.9$ ;  $SD = 10.2$ ). The majority ( $n = 22$ ; 79.2%) of the participants were Caucasian, with the remainder evenly divided between African- American and Hispanic ethnicities ( $n = 5$ ; 10.4% each). As shown in Table 1, no significant differences were found between the two diagnostic groups on sociodemographic characteristics. The groups were compared by gender using a Pearson chi-square analysis ( $\chi^2(1) = 0.38$ ,  $p = 0.536$ ); mean age was compared using an independent samples  $t$ -test ( $t(46) = -1.18$ ,  $p = 0.244$ ); and Caucasians were compared to respondents of African-American and Hispanic ethnicities combined using a Fisher's exact test ( $p = 0.729$ ).

Table 1: Sociodemographic characteristics

Characteristic	Diagnosis		$p$
	Serious Mental Illness	Adjustment Disorder	
Gender			
Male	14 (51.9%)	9 (42.9%)	0.536
Female	13 (48.1%)	12 (57.1%)	
Age	31.4 ± 10.1	34.9 ± 10.2	0.244
Race/ethnicity			
Caucasian	22 (81.5%)	16 (76.2%)	0.729
African-American	3 (11.1%)	2 (9.5%)	
Hispanic	2 (7.4%)	3 (14.3%)	

Note. gender and race/ethnicity values are *ns* (%s); age values are  $M_s \pm S.D.s$

In response to the question, "Do you feel that your mental health is being negatively impacted (for the worse) by the life-changes, hardships, and stress being caused by the current coronavirus outbreak?" significantly more of the participants with serious mental illness (74.1%) said "yes," compared to those with adjustment disorders (19.0%;  $\chi^2(1) = 14.31$ ,  $p < .001$ ).

Table 2: Comparison of the perceived negative impact of COVID on mental health by diagnosis

Perceived negative impact of COVID	Diagnosis		$\chi^2$	df	p
	Serious Mental Illness	Adjustment Disorder			
Yes	20 (74.1%)	4 (19.0%)	14.31	1	< .001
No	7 (25.9%)	17 (81.0%)			

#### 4. Discussion

This cross-sectional study was designed to assess possible differences in perceived COVID-19 related stress on individual's mental health in diagnostically opposite psychiatric populations, represented by Adjustment Disorder and Serious Mental Illness. Of individuals diagnosed with SMI, 20/27 (74.07%) reported their mental health had been negatively affected by stress associated with the COVID-19 pandemic. Of the same group, 7/27 (25.92%) reported no negative mental health effects from the COVID-19 pandemic. Individuals diagnosed with Adjustment Disorder were significantly less likely to report their mental health negatively affected by perceived COVID-19 related stress. 17/21 (80.95%) individuals stated COVID-19 related stress had not affected their mental health, while only 4/21 (19.04%) reported negatively adversely affected. A risk ratio was computed between these two groups. The individuals with SMI were 3.89 times at greater risk of reporting their perceived mental health negatively affected by the COVID-19 pandemic than individuals with an AdJ diagnosis.

Intuitively, these findings are not surprising. While Adjustment Disorder is considered a temporary, time-limited disorder, SMI is significantly more debilitating for persons diagnosed with it. SMI results in "serious functional impairment" and substantially interferes with major life activities (Druss, 2021).

For individuals dealing with the physical, psychological, and social burdens of an SMI, the additional burden of the negative stresses associated with a global pandemic should raise concerns. Medical and mental health practitioners treating persons with SMI must have a heightened awareness of the serious difficulties and stress their patients/clients may be experiencing.

In conclusion, the results of this study suggest that individuals with a pre-existing SMI disorder are almost four times (Risk Ratio: 3.89) more likely to be adversely affected by perceived stress associated with the COVID-19 pandemic compared to individuals diagnosed with Adjustment Disorder. Persons with SMI deserve increased attention by the medical community and caregivers to stem the harmful effects of increased perceived stress resulting from the current global pandemic known as COVID-19.

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