

# **The Politics of Mental Health Identity**

By

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# CHAPTER 1

## Mental Health Identity in America

In the mid-1900s, gay identity was still hidden and stigmatized but was emerging as a political identity. Throughout the 1950s and 1960s, people who identified as gay were thrown in jail or mental asylums because courts and clinics defined homosexuality as “sick, criminal, and immoral” (Morris 2022). With the passage of civil rights legislation in 1965 and the Stonewall riots of 1969, the gay liberation movement cemented gay identity as a political identity. Identification became less dangerous when the American Psychiatric Association removed homosexuality as an “illness” from its diagnostic manual in 1973. The reduction in stigma following this removal was partially undone during the AIDS epidemic of the 1980s, when the federal government and the media purposefully downplayed the crisis (Morris 2022). Even so, the LGBT community relied on grassroots advocacy and protests to gain social and political recognition. LGBTQ+ voters are now a growing voting bloc with a powerful advocacy network (“Equality Voters” 2020).<sup>1</sup>

Not all identities become salient social identities and even fewer become politically powerful. LGBTQ+ is one identity that was “reclaimed” from its early negative connotations and stigma to empower individual members of the group. This is not true for every LGBTQ+ person or for all countries, but in the United States LGBTQ+ identity is a salient social and political

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<sup>1</sup> “A 2017 Gallup survey found that 11.4 million American adults, aged 18 and older, identify as LGBTQ. This number continues to grow as more individuals in all income and education groups feel more comfortable coming out. At the same time, exit polls show 7 million LGBT voters turned out to vote in 2018 (6% of the electorate), exceeding the proportion of LGBTQ voters in the 2016 electorate (5%). By comparison, the number of black, Latinx, Asian American, and Jewish voters as a proportion of the electorate decreased slightly from 2016 to 2018” (“Equality Voters” 2020).

identity. How does an emerging identity become salient? How does it become politically activated? In what ways is mental health identity similar and dissimilar to other political identities?

Like LGBTQ+ identity, mental illness historically was something people hid and were ashamed of. For some mental illnesses this is still true. For others, there was a shift during the COVID-19 pandemic that led to greater acceptance of mental health conditions. Pre-pandemic (2019), about 10% of the American public reported symptoms of anxiety or depression; in 2020, that jumped to 40% (Panchal et al. 2021). This added to an already high number of individuals who had experienced mental illness before the pandemic—nearly 47 million, or one in five U.S. adults, in 2018. Americans of all generations were forced to confront the status of their own mental health during the pandemic, which led to an increase in them seeking mental health care and speaking publicly about mental health conditions ("COVID-19 Has Made It Easier To Talk About Mental Health" 2021). While all generations faced mental health challenges during COVID-19, Gen Z has been the most open to talk about and report their own mental health conditions. (Cuncic 2021; Bethune 2019). Is mental health (becoming) an identity? How does stigma work to construct or deconstruct identity? Does mental health identity have political consequences? Is it generational?

*The Politics of Mental Health Identity* analyzes how Americans conceptualize mental health, including mental health categorization, identity, and alienation. The central question this dissertation seeks to answer is: ***When is mental health a political identity and how is it similar to and different from other political identities?*** More specifically, I compare mental health identification to physical disability and serious chronic illness identities. The main contribution of this dissertation is the creation and validation of a mental health identity battery in two

prominent nationally representative survey samples (2022 CES and 2024 ANES Pilot) and one convenience sample (2024 Lucid). I also conduct two survey experiments (Lucid 2022; 2024) to examine whether the public stigmatizes hypothetical politicians who disclose mental health conditions. Finally, I examine whether lower levels of political trust in American political institutions lead to poorer self-reported mental health.

I argue that mental health is an emerging political identity that will become more salient as societal stigma surrounding mental health continues to decline.<sup>2</sup> I find support for this argument in multiple areas: mental health categorization, identification, and feelings of alienation; an increased desire for state spending on healthcare, welfare, and education. I also find that mental health conditions are still stigmatized among political elites and that a politician revealing a mental health condition results in decreased favorability and vote share. I also show that opinions about a politician's mental health condition depend on the social acceptability of the condition and on the respondent's party identification, gender, and mental health status (those who have a mental health condition are more likely to favor and vote for representatives who have a mental health condition). This has broad-reaching implications for descriptive and substantive representation.

The politics of mental health in the U.S. is an under-studied topic in political science with many implications for the distribution and uses of power in politics and society. Overall, this project speaks to broader conceptions of identity, stigma, and intersectionally marginalized groups. My research expands the literature in health politics as well as in policy and identity

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<sup>2</sup>Pescosolido et al. 2021 investigate prejudice and discrimination attached to mental illness using the General Social Survey (GSS) during a 22-year period (1996-2018) and find that there is decreased rejection surrounding depression and less stigma surrounding the causes of schizophrenia and alcohol dependence. These changes appear to be due to age and generational cohort effects (Pescosolido et al. 2021).

formation. This line of inquiry extends the field of political behavior research and is inspired by intersectionality theory and interdisciplinary practice.

*Mental Health Identity: A Political Perspective*

This is a political science dissertation about identity. In social science, identity is often described as an awareness of one's membership in a group and a psychological sense of attachment to that group (Conover 1984, p. 761). Identity is more complex when group membership is ambiguous—especially when group identification carries a negative connotation (Huddy 2001). While group membership can be “fuzzy or ill-defined,” it is an important precursor for group identification: **an internalized sense of group belonging** (Huddy, Sears, and Levy 2013). Group identification is contextual (Huddy, Sears, Levy 2013) and, as such, *mental health* identification can vary based on other social categories and social identities (such as age, gender, race, etc.), the immediate environment (is the identity salient?), the historical moment, and societal-<sup>3</sup> and self-stigma.

Mental health and mental health identity are generally not something we think of as “visible,” like skin tone, or sharply defined, like ethnicity. Because of this ambiguity in group membership, it is critical how mental health is conceptualized for this project. In order to measure Americans' internalized sense of group belonging as it relates to mental health, it is necessary to define what it means to be a member of this group. The following questions must be

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<sup>3</sup>Societal “[s]tigma exists when the following interrelated components converge. In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics—to negative stereotypes. In the third, labeled persons are placed in distinct categories so as to accomplish some degree of separation of “us” from “them.” In the fourth, labeled persons experience status loss and discrimination that lead to unequal outcomes. Stigmatization is entirely contingent on access to social, economic and political power that allows the identification of differentness, the construction of stereotypes, the separation of labeled persons into distinct categories and the full execution of disapproval, rejection, exclusion and discrimination” (Link and Phelan 2001, 367).

considered in outlining the scope of this dissertation: First, how do we delineate the boundaries of mental health? Second, *who* do we ask about mental health? And third, *how* do we ask about it?

So *how do we delineate the boundaries of mental health?* There have been (at least) two strategies social scientists have used to answer this question: the social model of disability and the medical model of mental illness. Neither of these models tells a complete story of mental health identity in the United States, but each provides valuable information for situating mental health in this dissertation in the relevant literature. The social model of disability and the medical model of mental illness are founded on distinct worldviews (social versus medical) and levels of concern (disability versus mental illness). The social model questions society's framing of an issue. Rather than asking what is "wrong" with an individual, it asks instead what is wrong with society or our environment. For example, under the social model of disability, a building that is not wheelchair accessible is viewed as deficient, not the person in the wheelchair who cannot access the building. By way of contrast, the medical model is focused on the individual and asks how individuals with issues can be "fixed." While the medical model has improved in recent years in terms of considering environmental factors, it continues steadfastly to view individuals as patients with problems to be solved. These distinct worldviews are intrinsic to virtually all discussions of disability and mental illness. The next several paragraphs of this dissertation will define mental health for the purposes of this project by building on but contrasting that definition with the social disability and medical mental illness worldviews.

### *(Social) Disability*

As a legal rather than a medical term, "disability" encompasses many different conditions. The Americans with Disability Act of 1990 (ADA) defines "disability" as "a person

who has a physical or mental impairment that substantially limits one or more major life activity” (42 U.S. Code § 12102(1)(a) - Definition of disability). The ADA definition is too broad for mental health identification for several reasons. First, it includes *both* physical and mental “impairments.” To compare mental health identity with physical disability identity, I need to be able to separate these groups of people. Why am I interested in separating these two disability groups? Imagine two people—Annie and Andy—who have disabilities under the ADA definition. Annie is in a wheelchair and Andy has depression. It is easy to imagine that Annie may hold vastly different social perspectives and political attitudes than Andy because her lived experience in a wheelchair has helped to shape her perspectives and attitudes. Similarly, Andy’s experience with depression may have shaped his social perspectives and political attitudes in a way that is shared by others with mental health conditions but not physical disability conditions. Thus, Annie (and others with physical disabilities) may be concerned about transportation policy and the price of medical devices while Andy (and others with mental health conditions) may be concerned about the price of drugs but not at all interested in transportation policy. Lumping mental and physical disabilities under one umbrella undoubtedly overstates the similarities and vastly understates the differences between these “impairments” and identities.

The ADA definition of disability also includes an indicator for severity—one that “substantially limits one or more major life activity.” I am not interested in surveying only those individuals whose mental health substantially limits one or more major life activities. Suppose, for example, that Andy’s depression has been something he has had since young adulthood but he is extremely high-functioning and his depression does not *substantially* limit one or more *major* life activities. Even though Andy’s depression does not substantially limit one or more of his major life activities, he may still feel that his mental health is an important part of his sense of

self and also feel an internalized sense of group belonging with others who have mental health “impairments.” Using the definition of disability described in the ADA to delineate the boundaries of mental health—and then creating identity measures based on those boundaries—would exclude people with a mental health “impairment” and identity like Andy.

In summary, the ADA’s definition of disability is both *too broad*—because it includes both physical and mental “impairments”—and *too narrow*—because it excludes people who are high-functioning (i.e., are not substantially limited in one or more major life activities)—to use as the definition of mental health for this project.

*(Medical) Mental Illness/(Disorder)*

The medical conception of mental illness is not necessarily more useful. The question of “what is a mental illness?” has been at the heart of the philosophy of psychiatry *for decades* and is still unresolved (Stein, Palk, and Kendler 2021). While many in the field have recognized that what “counts” as a disorder or disease varies from place to place and changes over time (Stein, Palk, and Kendler 2021; Kirmayer 2005), some argue that psychiatry over-medicalizes everyday issues (Crawford 1980; Szasz 2011). This line of reasoning can be attributed to the fact that symptoms experience is “embedded in culturally based systems of meaning and discursive practices” (Kirmayer 2005). This is the same difference (described above as the social and medical models) as conceiving of mental illness as a social construct versus a medical malady .

Psychiatry’s definition of mental disorder leans heavily on the medical model as opposed to the social model. The current definition of mental disorder, as presented in the fifth edition of The Diagnostic and Statistical Manual of Mental Disorders (DSM-5), is as follows:

“A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or development processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social,



occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g. political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above” (American Psychiatric Association 2013).

It is worth noting that, while this definition is highly medicalized, it does not avoid all vestiges of society and culture, as can be seen by its use of the phrases “culturally approved response” and “socially deviant behavior.” In any event, this definition is too narrow and vague to use as a basis for mental health identity because it considers only “clinically significant disturbance[s].” What is “clinically significant”? Absent a diagnosis, it’s hard to tell. Suppose that Andy recognized he likely has depression, feels that his mental health is an important part of his sense of self, and feels an internalized sense of group belonging with others with mental health “disorders” but never went to see a clinician and received a diagnosis? This is problematic because it could exclude individuals like Andy with a mental health “disorder” and identity who never see a clinician for any number of reasons, including healthcare costs, accessibility, trust in psychiatry and medicine, etc., and receive a diagnosis. I am not interested in surveying only individuals who have seen a clinician and received a diagnosis, so the DSM-5 conception of mental disorder is *too narrow and vague* to use as a definition of mental health for this project.

### *Definition of Mental Health*

If the disability model is both too broad and too narrow and the mental illness model is too narrow and vague, *how do we delineate the boundaries of mental health?* This dissertation will use an expansive definition of mental health that is informed by both of the models but lies within its own category. More specifically, because it seeks to be as inclusive as possible, the definition must include individuals who may be high-functioning and those who have never been diagnosed with a mental illness or disorder. In defining mental health for this project, the

following excerpt from my semi-structured interview with Bruce Blair, Executive Director of Mental Health America of Augusta, VA, is enlightening:

**Van De Hey:** “I want to shift a little bit and talk about the terms we use for mental health, mental illness, mental health condition. There are lots of terms that we hear kind of thrown around interchangeably. And so I’m interested in how you and your organization think about the term mental illness.”

**Blair:** “So, I mean, with mental illness, we kind of just, you know, tell us that’s something that disrupts your mental state and kind of interrupts how you feel, think, communicate and behave. Whereas mental health is more like your general state and wellbeing [and] kind of state of mind. So something that should be looked after. I think that that’s typically how we differentiate them when we talk about them. But a mental health condition is a lot of things like that can be anything that, you know, like our online screening platform really kind of looks for mental health conditions, you know, And so those conditions aren’t necessarily a diagnosis. It’s just a symptom almost of to, hey, what let’s start to explore some things that we can look into.”

**Van De Hey:** “Okay, Interesting. So you think of like a mental health condition as more you said, like symptomatic, whereas a mental illness would indicate some kind of diagnosis. Is that correct?”

**Blair:** “No, I don’t think it necessarily a mental illness. No. A mental illness isn’t necessarily going to say it’s a diagnosis. [...]”

In summary, “mental health” is someone’s wellbeing and general state of mind; “mental illness” is something that disrupts someone’s mental state and interrupts how they feel, think, communicate and behave. **And this** does not necessarily require a diagnosis; and “mental health condition” is a symptomatic state of mind (as opposed to a general state of mind. Thus, “mental health condition” is a term that includes mental illness and disorders as well as all other symptomatic states of mind, so it is far more expansive than the terms “mental illness” and “mental disorder” and does not carry the negative or diagnostic implications of those terms.

In short, “mental health condition” is the proper definition of mental health for the purposes of this project. In terms of drawing the boundaries of what will be included as mental health in this dissertation, individuals with neurological and/or neurodevelopmental disorders will be excluded in the conceptualization of mental health unless they are also considered mental

disorders in the DSM-5 (“Neurological Disorders”, n.d.; “Health - Neurodevelopmental Disorders | US EPA” 2023). Some of these will be included within disability. Having now delineated the boundaries of mental health for the purposes of this dissertation, we will circle back to the two other questions guiding the scope of this dissertation: *Who* do we ask about mental health? And *how* do we ask about it?

*Who do we ask about mental health and how do we ask about it?*

The question of *who* to ask about mental health has been answered in the preceding discussions. Since this is a dissertation about American politics, we will survey Americans. And since this is a dissertation about *all* Americans and how they view mental health, we will survey *all* Americans, including those who are high functioning and not just those who have been diagnosed with a mental health condition disorder. Finally, since this is a dissertation focused on mental health conditions and identification, although I will discuss physical disability and serious chronic illness conditions and identities for comparison purposes, these categories will not be the focus of the dissertation.

*How* we ask about mental health is more complicated. As all scholars of survey methods can attest, how the question is asked is of the utmost importance. Mental health has been (and still is) a highly stigmatized topic that many Americans find deeply personal. Given this, concerns about social desirability bias must be taken very seriously.<sup>4</sup> However, this dissertation is also a story about identity. One of the prerequisites for an internalized sense of group belonging (identity) is categorization (group belonging). Since mental health is not visible, we will rely on self-identified categorization to determine group belonging. While it would be theoretically possible to get around the self-reported nature of the data—perhaps by obtaining

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<sup>4</sup> Social desirability bias is when people underreport sensitive conditions or attributes on surveys.

lists of people who have interacted with mental health advocacy organizations or diagnoses or mental health medication—that would be moving away from the purpose of this dissertation: finding out how *all* Americans view mental health and whether they identify with their own mental health. In addition to limiting the scope of this project, recruiting based on those metrics would be costly and may get into ethical issues. Most importantly, however, it would be unnecessary to answer the question at the heart of this dissertation: *When is mental health a political identity and how is it similar to and different from other political identities?*

### *Dissertation Outline*

**Chapter 2** presents a historical argument for why mental health identity may be a distinct social and political identity.

**Chapter 3**, the first empirical chapter, outlines my mental health identity batteries, which examine closeness with the ingroup, importance of identification to self, strength of identification within the ingroup, and alienation. Using the 2022 Cooperative Election Study (CES), I find that people who have experienced mental illness feel close to others who have experienced mental illness. Further, they are likely to self-categorize themselves as having had a mental illness, share a sense of group consciousness with others who have had mental illness, and recognize the need to work together to change laws that are unfair to people with mental illness. I also find an emerging mental health political identity that is most pronounced among younger (Gen Z) and more liberal Americans. There is also a strong correlation between mental health categorization, identification, and alienation and the expressed desire for increased healthcare, education, and welfare spending.

Interestingly, I find that on average those who self-categorize and have high scores on the mental health identity and/or alienation scales are just as likely to participate politically and use

(social) media as those who do not self-categorize and have low scores on the mental health identity and/or alienation scales. One of the principal contributions of this dissertation is showing that mental health identity seems to be distinct in terms of social and political consequences from (physical) disability identity and serious chronic physical illness identity. These findings have far-reaching consequences for mental health advocacy and the role mental health identity will play in the political sphere—especially as Gen Z matures as a cohort.

**Chapter 4** analyzes a mental health identity battery with expanded disability categories that was in the 2024 American National Election Study (ANES) pilot. Overall, I find that this slightly different mental health battery supports the findings in Chapter 3. Further, I find that many Americans categorize themselves as having a disability or chronic condition and also consider it as relatively important to their identity. Strength of identification varies by condition. I focus on the health-related/disability condition category and the mental health condition category primarily due to power constraints. I find that health categorization and identification vary by gender, race, ideology, party ID, and generational cohort. I examine significant predictors for the health and mental health measures. Finally I use the health and mental health measures to predict the impact of several dependent variables, including political exhaustion, election stress, and the importance of healthcare as a voting issue.

**Chapter 5** analyzes two survey experiments fielded through Lucid, a survey research company. The first was conducted at the start of 2022 (N = 1,425) and the second was conducted March 2024. The first survey experiment investigates how voters react to political candidates who have a mental illness versus a candidate who is rude. Using fictional New York Times-style vignettes, I find that voters in the United States are much more likely to favor and vote for candidates with depression than for candidates who have heroin addiction or who are rude. These

results are stronger for certain respondent attributes: gender, party ID, and history of mental illness. Democrats are significantly more likely to favor and vote for candidates with depression or heroin addiction than Republicans; women are more likely to favor decreasing social restrictiveness than men; and respondents with a history of mental illness are much more likely to favor and vote for candidates with depression than respondents without a history of mental illness.

The second survey experiment is a conceptual replication of the first but adds my mental health identity battery as a moderator. I find that with a true control condition and subtle treatments, there is not much of an electoral penalty for candidates with depression in terms of favorability or vote choice, but there is for candidates with schizophrenia. In terms of general mental health categorization—have a mental health condition or not—those who have a mental health condition are much more likely to favor and vote for politicians with depression and schizophrenia. As for specific mental health conditions, respondents who said they have schizophrenia or depression are more likely to vote for candidates with depression or schizophrenia than respondents without diagnoses. Finally, the mental health identity measure is a strong moderator for the schizophrenia condition and the mental health alienation measure is a strong moderator for both experimental conditions.

**Chapter 6** takes advantage of the spotlight on mental health during the COVID-19 crisis in the United States and asks whether lower levels of political trust in American political institutions lead to poorer self-reported mental health. I use Pew Research Center's American Trends Panel—Waves 64 (March 19-24, 2020; N=11,537), 66 (April 20-26, 2020; N=10,139), 67 (April 29-May 5, 2020; N=10,957), and 83 (February 16-21, 2021; N=10,121)—and 2022 CES data (N=1,000) to investigate this relationship. Through ordinal logistic regressions of

aggregated institutional trust and self-reported mental health questions, I conclude that there is evidence that lower levels of political trust in American political institutions lead to poorer self-reported mental health. These results are robust to another measure of mental health and other model specifications. Since there is a strong argument for reverse causality, I use the Pew ATP data and a cross-lagged panel design and find evidence in support of my main hypothesis that political trust affects self-reported mental health. Chapter 6 demonstrates the use of including *any* mental health measures in large, nationally representative political science surveys. I conclude with final thoughts on mental health identity in the United States and its relationship to other mental health and disability measures in **Chapter 7**.

## CHAPTER 2

### Mental Health Identity in America: A Historical Perspective

#### Overview

##### *Foucault's Theory of Madness*

Foucault's *Madness and Civilization: A History of Insanity in the Age of Reason* (1961/1988) outlines how French society viewed madness during the Middle Ages and Renaissance, and how it then shifted during the classical period. Foucault's tale of madness and reason begins with leprosy in the Middle Ages. Leprosy, once a huge concern, seemed to all but disappear from the West. However, the social structures that surrounded leprosy—religion, disease, and social control—remained, and would be repeated, centuries later, for the poor, criminals, and the mad. Lepers were seen as evil and it was only through their social exclusion that they were able to achieve salvation.

The “ships of fools,” or *Narrenschiff*, represents the transition to the classical idea of madness (Foucault 1961, 19). These ships collected the mad that the cities did not want, and so it was primarily a form of social exclusion. During the classical period, madness was no longer a way to access unique truths beyond man, but rather the errors that resided within man; the ship was replaced by the hospital, confinement succeeding embarkation, and madness was reduced to silence.

The great confinement occurred in the 17<sup>th</sup> century. Before the 17<sup>th</sup> century, the mad were not separated from society, but after the 17<sup>th</sup> century economic crisis, madness became a part of a broader category of social deviancy and was silenced and excluded from society. This cemented the connection between lifestyle and mental illness, in which madness became a punishment for bad lifestyles. In 1656, the Hospital General was established in Paris and was a place for the



unemployed, poor, criminals, and the mad. While the “hospitals” were numerous across Europe during this time, they were not medical establishments, but rather joint efforts by the government and church to control undesirable aspects of the population—the unfortunates who were chosen to fill the vacancies, both literally and culturally, left by the disappearance of the lepers. How did so many groups come to reside in these houses of confinement? Foucault attributes this to several factors: new perspectives on poverty, opinions about the unemployed and idle, and a work ethic that sought to link morality and law within the constraints established by the houses of confinement.

Before the 17<sup>th</sup> century economic crisis, morality and the ethics of work were implemented in houses of confinement to serve as solutions for economic crises and a way to combat the sin of idleness, which eventually also applied to the mad. In this way, the classical period viewed madness as a problem that was confined and bound to reason and morality. This confinement was not for medical or humanitarian reasons, but because the state needed to control these “abnormal” entities. And by controlling and defining what was (ab)normal, the state was able to define itself.

#### *Mental Illness: The American Perspective*

“The entire roster of personal sins morphed into communal health troubles. Drink would turn acceptable, drunkenness into an illness. Likewise, illegal drugs would pit visions of vice against a diagnosis of disease; contemporary public health advocates are leading the charge against a drug war that they put down as “incarcerating addiction. Sexuality calls up the same public health prescriptions: education, safe practices, birth control, and social supports might nurture stronger families and lasting relationships. The Social Gospel even reinterprets crime; rather than focus on bad individuals, look to the causes—poverty, discrimination, despair”

-Hellfire Nation (Morone, 19)

While the famous political science book, *Hellfire Nation: The Politics of Sin in American History*, by James Morone is not about mental illness, it contains many lessons applicable to the

history of mental health in America. “Today, the executive who drinks too much is sick and gets help; a century ago, the immigrant who drank at all was a sinner and caught hell” (ibid, 13).

Implicit in this quote and the epigraph is that addiction is now treated as a mental illness and not a sin, though the shadow of this faded morality still hangs above the mentally ill in many ways.

The history of witches and hysteria is a good place to begin to discuss mental health in America.

I will then describe the move from asylums to community care and the conception of social determinants of health (SDH).

### *Witches and Hysteria*

The Puritan ethic answers the question, “Who do we blame for trouble, the sinner or the society?” The Puritans believed in blaming both: salvation and perdition fell on individual souls, but the Puritan covenants held the entire community responsible. After the witch trials, the Puritan ethic split: the Puritan view of the individual became the Victorian religious tradition and, eventually, the community portion of the Puritan ethic became the Social Gospel (Morone 2006). At the heart of this dichotomy, from Puritans to today, is the moral tension between blaming individuals for their sins and blaming outside factors.

The initial witch accusers were women described as “hysterical,” who in the descriptions seemed to alternate between mania and a catatonic state. As Morone points out, even “[i]f the young women suffered hysteria, it was the adults around them who decided why” (85): the hysteria could have been interpreted as possession by Satan or having God’s grace moving through them. The Puritan leaders chose possession by Satan and found witches. Forty years later, during the Great Awakening, the priests chose manifestations of the Holy Spirit and found the devoted. Barring scientific or environmental factors, today we would label the witch accusers mentally ill.

Indeed, the word “hysteria” was often used to describe witches as well as witch accusers. Until 1980, hysteria was a formally studied psychological disorder that was “sex-selective,” meaning it only affected women (McVean 2017). Nor was hysteria a Puritan invention, but one with origins in ancient Greek and Egyptian societies. Hysteria diagnoses implied women were overly emotional, deranged, or did not fit the stereotypical view of what a woman ought to be—“submissive, even-tempered, and sexually inhibited” (McVean 2017). The “treatment” for hysteria—of course—was marriage, marital sex, pregnancy, and childbirth. Thus, there is a history that predates the Puritan founding of using mental illness to put women back in their “proper places,” as seen by the so-called treatment plan.

#### *From Asylums to Community Care*

The mentally ill in the colonial period were cared for mostly by family members, though they sometimes ended up in almshouses or jails. The first public effort to care for the mentally ill was in 1752 when the Quakers used the basement of the newly-erected Pennsylvania Hospital to care for the mentally ill. In 1773, the Virginia state legislature provided funds to build the first hospital devoted to treating the mentally ill in Williamsburg. By 1890, every state had built at least one publicly-supported mental hospital, and by 1940 there were more than 500,000 mentally ill patients housed in state-sponsored hospitals across the country (Grob 2016; NIH 2021).

In 1854, the Bill for the Benefit of the Indigent Insane, which would have established asylums by federal land grants to the states, passed both houses of Congress but was vetoed by President Franklin Pierce. He believed that it was the job of the states—not the federal government—to oversee social welfare. There would be no federal mental health legislation enacted until the National Mental Health Act (NMHA) of 1946. The National Institute of Mental

Health (NIMH) was founded in 1949. By way of contrast, The National Institutes of Health (NIH), the primary federal agency for biomedical and health research, was founded in 1887 (Warder 2021).

State hospitals cared for almost all institutionalized patients, regardless of whether they could pay for their treatment, and mental hospitals comprised a large portion of many state budgets (Grob 2016). During 1890-1940, the stay of institutionalized mental patients at state hospitals changed dramatically: before 1890, they were short-term and had high turnover; by the 1920s, the average stay was five years or more. The proportion of elderly patients suffering from conditions associated with aging also increased substantially. Asylums, in short, were becoming custodial establishments rather than treatment facilities. Conditions in mental hospitals declined during the Great Depression and declined further during WWII, when overcrowding increased dramatically. With staff shortages during the war, the remaining staff increased the use of restraints and force and decreased individualized attention, recreation time, and all therapies. People who refused to serve in the military for religious reasons were often assigned to mental hospitals to serve as attendants by the Civilian Public Service. They were appalled by the conditions and began a journal in 1944—*The Attendant*—that publicized the deplorable conditions in mental hospitals and the poor treatment of the mentally ill (Grob 2016). This publication was not alone.

By the mid-1940s, a number of magazine and newspaper articles, novels and movies publicly denounced the functioning of mental hospitals and urged either their reform or elimination. Moral outrage was a popular sentiment, and several notable works stoked the flames: Albert Deutsch's novels *The Mentally Ill in America: A History of Their Care and Treatment from Colonial Times* (1937) and *The Shame of the States* (1948); Edith Stern's "Our

Ailing Mental Hospitals" published in both the Survey Graphic and the Reader's Digest (1941); Albert Q. Maisel's piece entitled "Bedlam 1946," which was published in Life; and Mary Jane Ward's novel *The Snake Pit* (1946), which was turned into a movie of the same name (1948). Using the SDOH framework, instead of blaming the mentally ill themselves, the morally outraged blamed the states and argued that they had failed to meet their social welfare responsibilities (Grob 2016). In addition, the federal government had proved itself capable of addressing social problems with the New Deal and, most importantly, had funding, which made it possible to pass the NMHA in 1946 and establish the NIMH in 1949.

In all, WWII had a profound impact on mental health treatment. Physicians and psychiatrists observed that the stress of prolonged combat had more to do with a soldier's psychological health than the soldier's predisposition toward psychological disorders. This led to a shift in psychological thinking that emphasized life experiences and socioenvironmental factors over personal moral failings (Grob 2016). These battle-fatigued veterans were seen as people deserving of integration into society instead of isolation from it. Accordingly, they were then brought home and cared for in family and community settings, rather than in remote mental hospitals. This was the birth of the "community care" movement.

Before WWII, mental illness was thought to result from bad morals, demons, or personal failings. During and after WWII, social determinants of health (SDOH)—environmental or social factors for mental illness—held sway. Why did society "help" the "other" in this scenario? The mentally ill were helped because (1) the social gospel/SDOH view of mental illness blames the environment, not the individual; and (2) these were already the "good" mentally ill because they were in remote hospitals and thus not disrupting the social order. Since the "good" mentally ill are pitied and protected, people responded with moral outrage when they found out about the

abuse and neglect in the state hospitals. Groups lobbied to the state governments to improve conditions, but they quickly turned their focus to the federal government and new legislation.

The twenty years following WWII saw a revolution of the mental health system and the psychiatric profession. After the scandals over conditions in the mental hospitals, there was a mass deinstitutionalization movement that sought to transfer care of mental patients from mental hospitals to the community (Grob 1991). As mental hospitals changed, their connection to psychiatry became more tenuous and, with the rise of “scientific” medicine, psychiatry seemed old-fashioned and lacked scientific legitimacy. With the introduction of the first edition of the Diagnostic and Statistical Manual: Mental Disorders (DSM-I) in 1952, the passage of the Community Mental Health Services Act (1954), and the introduction of psychotropic drugs at about the same time, the foundation for our current system was set. By the 1960s, it became clear that the excitement over community care did not live up to the realities of overlapping federal and state jurisdictions, vague legislation, and confusion over what exactly community care entailed. So, a new law was passed—the Community Mental Health Centers Act of 1963—and signed by President Kennedy. The federalism fight was won: the states were deemed incompetent and the legislative transition to community care was complete.

With the shift away from state power, authority for community care was placed in both local communities and the federal government. This curious arrangement tried to solve one large problem—the one “big evil” of state-run asylums—and ended up creating many others. Many of the severely mentally ill did not have family to care for them in the communities or money to care for themselves if they did not have families. And while the hated asylums provided treatment and care, communities had treatment centers only. The element of care that was built-

in to the asylums—food, shelter, clothing—was absent in the community care model. Many, many mentally ill became homeless. The legacy of this transition and its consequences remain.

Throughout the 1960s and 1970s, intellectuals, radical activists, and civil rights advocates attacked the legitimacy of psychiatry. The civil rights movement, initially motivated by racial inequality, grew to include gender, class, and the mentally ill (Grob 1991). Psychiatrists were seen as neglecting their duties to people with serious mental illnesses to serve wealthy white people with less serious mental health conditions or non-medical personal relations problems. This led to the anti-psychiatry movement. Szasz (2011) describes the overextension of psychiatrists as acting the parts “of a physician, psychologist, psychoanalyst, policeman, clergyman, historian, literary critic, friend, counselor, or teacher—or sundry combinations of these roles” (Szasz 2011, 73).

Szasz rejected the entirety of psychiatry, believing that mental illness was a social conception borne to exert power over an “other.” He considered mental hospitals prisons, commitment laws a cornerstone of the “Therapeutic State,” and psychiatry merely an instrument of social control (Szasz 2011). He argues that, “in modern medicine new diseases were discovered, in modern psychiatry they were invented. Paresis was proved to be a disease; hysteria was declared to be one” (Szasz 2011, 102). Szasz was more extreme than his contemporaries with his rejection of psychiatry itself, but was not the only one to question either the medical model of psychiatry or the social construction of psychiatry in society. A popular view of the critics was that therapy “was rather an effort to force insane persons to develop an understanding of their own moral transgressions and then to alter their behavior by internalizing the values of their keepers. The physician thus became the “essential figure of the asylum.” His

authority, however, did not derive from science, but rather from the moral and social order associated with bourgeois society and its values” (Grob 1991, 287).

Mental health advocacy first began when former mental patients, who called themselves “ex-inmates,” created small groups all over the country to protest at mental hospitals and the yearly American Psychological Association meetings (“Mental Health Advocacy, From Then To Now | NARPA”). Earlier advocacy was present in the early 1900s but focused on improving the conditions within mental hospitals instead of questioning the social or political implications of mental health itself. The “ex-inmates,” also called “psychiatric survivors,” rejected the stigmatized societal view of themselves and sought to change the underlying conception of mental health, not simply transform conditions within the system.

While grassroots activism is instrumental in changing stigma, there were other influential figures and developments that led to the changing mental health climate. One was Betty Ford. In 1978, she revealed that she was addicted to pain medication and alcohol and founded the Betty Ford Center for alcoholism and drug addiction in 1982. As with her breast cancer earlier, the public embraced her and applauded her honesty and recovery. The disclosure of prescription addiction and alcoholism by a prominent social and political figure was followed by greater acceptance of those specific conditions over time and thus a lessening of societal stigma. “I believe the nation is going to go through a major change because of this,” said Dr. Robert DuPont, director of the Department of Health, Education and Welfare’s National Institute of the Drug Abuse (NIDA)” (MacPherson and Radcliffe 1978). A few years later, Prozac (an antidepressant) was approved by the FDA and put on the market in 1988. Prozac was marketed widely, which helped normalize depression and probably led to greater acceptance and less societal stigma.



More recently, COVID-19 created an environment for greater social acceptance of mental health identity. I am not speaking of the virus itself, although the direct effects of becoming infected also affect mental health, but rather the isolation, anxiety, and death that came with it. It is possible that the COVID-19 pandemic created a similar status threat for those with mental health conditions that the HIV/AIDS epidemic did for the LGBTQ+ community. The status threat is not another out-group that is threatening (or perceived to be threatening) the group, as with Black and white identity, but it is an external factor that has made mental health identity more salient for many people and may increase in-group solidarity. COVID-19 has heightened awareness for mental health and aided the process of internalization, identification, identity, and political identity formation.

In addition, Gen Z may be more likely to have a mental health identity because the way in which we speak about mental health has changed. The mental health conditions in the psychiatric diagnostic manual (DSM) no longer reflect the entirety of mental health discourse. People often use the term “mental health” more colloquially and not necessarily linked to mental illness diagnoses. Today, we often hear about how exercise, interacting with friends and family, balancing work and life, etc., are good for our “mental health.” This version of mental health does not necessarily refer to mental illness diagnoses, but rather things that are good for our general mental health or wellbeing. Significantly, this broader term has a positive connotation and is in direct contrast to the negative connotations (stigma) usually associated with specific mental illnesses.

#### *How Schizophrenia Became a Black Disease*

Like the women discussed above who were targets of punitive psychiatry using hysteria diagnoses, African American men have always been targets of punitive psychiatry. In 1851,

Samuel A. Cartwright fabricated a mental illness called “Drapetomania” to explain why enslaved black people fled captivity (White 2007).

Eugen Bleuler coined the term “schizophrenia”—a personality disorder—in 1911. From the 1930s through the 1950s, middle-class white women became the face of schizophrenia and were said to have become schizophrenic as a result of the social pressures of maintaining family life. This was a mainstream portrayal in the media, and the tone was empathetic and tolerant.

During the 1960s and 1970s, the face of schizophrenia changed to that of the African American man. This change occurred through Civil rights and the Black Power movement bleeding into diagnostic nomenclature (DSM-II) and popular advertising (Metzl 2009). For example, DSM-II had different forms of schizophrenia for African Americans and included the “symptoms” of rage, hostility, and civil rights demands, and emphasized violence toward whites. In 1968, psychiatrists Walter Bromberg and Frank Simon coined the term “protest psychosis” to mean a condition that caused delusions, hallucinations, and a rejection of white values and civilized society. Therefore, “it is far from happenstance that the angry Black male schizophrenic appeared in the charts at precisely the moment when angry black men and women protested in the streets (Metzl 2009, 157). In the 1950s and 1960s, forced psychiatric examination periods and schizophrenia diagnoses were used to slow the integration of colleges and keep black men from protesting for their civil rights (“Negro Pastor Pronounced Sane, Demands Mississippi Apologize” 1958; Metzl 2014).<sup>5</sup>

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<sup>5</sup> Metzl’s (2009) book, *The Protest Psychosis: How Schizophrenia Became a Black Disease*, examines why African Americans are four times more likely than whites to be diagnosed with schizophrenia when schizophrenia affects all ethnic groups equally. Metzl (2009) analyzes primary sources to show schizophrenia’s transformation from a white, middle-class disease primarily associated with housewives and intellectuals to a disease primarily associated with violent, “anti-white” African American men. This book contributes to the belief that medical diagnoses are socially, culturally and, politically constructed. Schizophrenia’s earlier name was “dementia praecox,” and it was described as an incurable and hereditary biological illness. This definition fit well with the widely held belief among whites that African Americans were not biologically or mentally fit for freedom. Similarly, southern whites believed the stress

While the white media spread that schizophrenia was a black disease caused by civil rights and the Black Power movement, the African American press appropriated the term and language of schizophrenia by describing it as internalized defiance and the result of white racism (Metzl 2009). African Americans in the Black Power movement claimed the identity of schizophrenia as a symbol of resistance against an unjust social system; they painted insanity and rage as a reasonable response to a white racist society. Metzl argues that the remnants of schizophrenia's racialization can still be seen in today's Hip Hop lyrics in which the term schizophrenia is common, compared with white pop music in which the term depression is common.

### **Mental Health Identification and Politicization**

Mental health identification and its politicization depend on many factors. An individual must internalize and identify with their mental health status for it to be a social identity. Internalization of a mental health status depends on an outside pressure called societal stigma and an internal pressure called self-stigma. Link (2004), and Link and Phelan (2001), outline a four-part definition of stigma created it for mental illness:

“Stigma exists when the following interrelated components converge. In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics—to negative stereotypes. In the third, labeled persons are placed in distinct categories so as to accomplish some degree of separation of ‘us’ from ‘them.’ In the fourth, labeled persons experience status loss and discrimination that lead to unequal outcomes. Stigmatization is entirely contingent on access to social, economic and political power that allows the identification of differentness, the construction of stereotypes, the separation of labeled persons into distinct categories and the full execution of disapproval, rejection, exclusion and discrimination” (Link and Phelan 2001, 367).

Internalization is thus dependent on “dominant cultural beliefs,” the history of which is discussed at length below under the subheading “*Public Attitudes Toward Mental Illness.*”

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of adapting to freedom led to dementia praecox (Metzl 2009). Thus, medical professionals and the public came to associate dementia praecox with African Americans, other marginalized groups, and criminal behavior.

Social identification is derived from self-categorization and refers to the “process by which the individual cognitively redefines the self in terms of group norms and the associated stereotypes of particular social categories” (Huddy, Sears, Levy 2013; Hogg 1992, Oakes et al 1994, Turner et al 1994). This entire process is rooted in social identity theory. Social identity is contextual and multifaceted. Huddy, Sears, and Levy (2013) recognize that an internalized sense of group belonging is an important precursor for group identification. It is crucial in the development of ingroup favoritism and outgroup antipathy (Tajfel 1981; Tajfel and Turner 1979; Huddy 2001).

An important distinction within this literature is identities ascribed (by others) and identities acquired (by oneself). A group’s permeability and the degree of ambiguity surrounding membership is especially important, particularly for low-status groups (Tajfel and Turner 1979; Huddy 2001). Low-status groups tend to be discriminated against and stigmatized, so it is difficult for them to develop strong group membership (Huddy, Sears, Levy 2013). When group membership is not obvious, there is a possibility for members of a low-status group to deny membership. This is harder when group membership is obvious to others, like with skin color. In addition to group permeability, external labeling is also consequential for identity acquisition (Huddy, Sears, Levy 2013).

Once an individual has internalized and identified with their mental health condition to the point where it is a part of their sense of self, it becomes a social identity. This process depends on the salience of other identities and proximate environmental factors. The ways in which other identities may activate or deactivate mental health identity are largely unknown. Identification is how closely people within the same relative societal position relate to one another and consciousness is how those within the same relative societal group position (who

share political beliefs and “action orientations”) relate to society. Identification would not result in “action orientations” unless it becomes politicized (Gurin et al. 1980). Race, gender, party identification, religion, and sexual orientation are usually more important to an individual’s sense of self than their mental health identity.

### *Public Attitudes Toward Mental Illness*

There was a big push in the 1950s and 1960s by mental health professionals to educate the public about mental illnesses. This education included pushing the mental health ideology, including the medical model of mental illnesses. During this time, public attitudes toward mental illness fell into two groups: the medical model of mental illness promoted by psychiatrically-oriented researchers and sociologically-oriented researchers who felt the other group was on an obnoxious “moral crusade” (Rabkin 1974).

In 1957, the Cumming and Cumming study showed that the middle-class held negative views of those labeled mentally ill, and Nunnally (1961) found that those labeled mentally ill were feared and disliked by the general public (Rabkin 1974). It was argued that these negative attitudes resulted not from misinformation, but lack of information; this opinion is part of what led to the public education campaigns. Shirley Star popularized the vignette design in her well-known but unpublished study of six case histories—a neurotic depressive, a paranoid schizophrenic, a simple schizophrenic, an alcoholic, a juvenile conduct disorder, and a phobic-compulsive neurotic (Grob 1991; Rabkin 1974). These are known as the Star vignettes, which were used widely during the 1950s and 1960s and still provide guidance to researchers.

Whatley (1958) constructed a social distance scale and found that 85% of respondents would not hire a babysitter who had seen a psychiatrist, though 36% claimed they would not oppose their daughter’s marriage to someone who had “mental problems” (Rabkin 1974). In

addition, “Whatley found that tendencies to shun or restrict social interaction with ex-mental patients were most likely to arise in situations of closeness, while attitudes of social acceptance were greatest in relatively impersonal situations” (Rabkin 1974, 12). Hollingshead and Redlich (1958) also looked at social distance and found that higher social class related to greater knowledge of mental illness and psychiatry and increased likelihood of seeking treatment. Social distance is defined in Link (2004) as “the grades and degrees of understanding and intimacy which characterize pre-social and social relations generally” (Link 2004, 519). Social distance scales are useful, but they often suffer from social desirability bias, which is when people underreport sensitive conditions or attributes on surveys.

By 1960, it was clear that the public held negative views of mental patients. It is important to note that the public feared the label of mental patient and mental illness but tended to overlook aberrant behavior without the label. The overwhelming majority of studies showed that the mentally ill were still highly stigmatized; that the public education campaigns did not dent the public’s ignorance; and that, when people were confronted with any mental illness that was labeled as such, they responded with the same fear, dislike, and aversion characterized by the first studies (Sarbin and Mancuso 1972; Joint Commission on Mental Illness and Health 1961). The finding of Philips (1963), for example, was that an individual was rejected with increasing prejudice when described as consulting a clergyman, physician, psychiatrist, or staying at a mental hospital (Rabkin 1974, 15). Another study began with a vignette describing “normal” behavior and the vast majority of respondents said they would consider him a son-in-law or rent him a room. After disclosing that this man was an ex-mental patient (even though his behavior was unchanged), only 17% of the respondents would consider him a son-in-law and less than half would rent him a room (Rabkin 1974, 16).

Tringo (1970) established a hierarchy of public preferences among twenty-one disability groups using an adapted version of a social distance scale (the extremes were: would marry/would put to death). The physically disabled were the most well-liked, then sensory disorders, and the four least-liked categories were ex-convicts, mental retardation, alcoholism, and (finishing dead last) mental illness (Rabkin 1974, 17). This reinforces the conclusion that physical illnesses make people sympathetic but mental illnesses do not. Farina et al. (1971) found that experimenters were seen as less competent and less likable when subjects thought the experimenter had a history of mental illness and those labeled “mental patient” (even when they were “normal”) were seen as more uncomfortable, to perform worse on a simple task, and as more anxious than subjects without the label. By the 1970s, people were aware that the new norm of the medical model of mental illness meant that viewing “mental illness is an illness like any other” was the “correct” thing to believe.

Consistently, the public believes mentally ill persons are unpredictable and dangerous. If the public believes someone is in control of their actions and they still behave in a deviant way, that person is seen as morally corrupt, not sick. Conversely, if the public believes someone is not in control of their actions and they act in a deviant way, that person is seen as sick (Rabkin 1974, 19). There is some evidence that African American respondents are less sympathetic toward those with the label of mental illness, although this may be due to lower status and less education since middle-class African Americans and middle-class white Americans are indistinguishable from one another on the question (Ring and Schein 1970). This finding suggests that race alone does not influence mental health opinions.

Most of the literature before 1975 on public attitudes toward mental illness looked at severe psychiatric conditions that led to hospitalization—namely, schizophrenia or psychosis.

After 1975, schizophrenia is often coupled with depression. In the hierarchy of public acceptance, schizophrenia is seen as less socially acceptable than depression because acting bizarrely is more visible socially than acting withdrawn, detached, or depressed.

Lauber et al. (2004) found that a vignette describing schizophrenia, negative emotions, acceptance of negative sanctions (loss of driver's license), age, female gender, and recognition of the vignette as illness all increase social distance. A positive attitude toward helping, an interest in community psychiatry, psychiatry in the mass media, and relationships with the mentally ill all reduce social distance (Link 2004). Female gender is surprising because it runs counter to most of the literature about gender—that women hold less stigmatizing attitudes toward mental illness than men.

Corrigan et al. (2001) finds that perceptions of fear and dangerousness are strongly correlated with social distance and that familiarity (knowledge of and experience with mental illness) and social distance are closely related to stigma. The authors also state that the general public maintain stigmatizing attitudes and they react emotionally as a result of those attitudes (Corrigan et al. 2001). The term “stigma” was adopted in 1963 and is from the Greeks, who used it to represent physical signs that the bearer's moral character was deficient in some way (Cohen 2011). These physical signs could be “obvious (such as skin color) or subtle (such as in people who are gay or people with mental illness)” (Cohen 2011, 94).

Corrigan et al. (2004) moves away from individual-level psychological paradigms related to mental illness stigma and proposes using a sociological paradigm to view structural discrimination of mental illness stigma. The authors define structural discrimination as “the policies of private and governmental institutions that *intentionally* restrict the opportunities of people with mental illness. It also includes major institutions' policies that are not intended to



discriminate but whose consequences nevertheless hinder the options of people with mental illness” (Corrigan et al. 2004, 481, emphasis theirs). The authors compare the structural stigma of mental illness to the structural discrimination of African Americans. They use Jim Crow laws as an example of laws that intentionally restrict opportunities and the SAT/ACT as unintended consequences that restrict opportunities. For intentional restricting, the authors point to the restriction of civil rights for people with mental illness in the areas of voting, holding elective office, serving jury duty, parenting, and remaining married (Corrigan et al. 2004). It is also important to note that many states use mental illness and incompetence interchangeably. This is problematic because mental illness is a label that does not speak to the good or poor behavior of the individual like incompetence does. The unintended consequence of structural discrimination the authors point to are the overwhelmingly negative portrayals of mentally ill people by the media as violent, unpredictable, and unsocial (Corrigan et al. 2004).

McGinty et al. (2015) finds that portrayals of untreated depression, schizophrenia, and drug addiction increase negative public attitudes for mental illness and drug addiction. Portrayals of successful treatments of schizophrenia and drug addiction led to decreased social distance, increased beliefs in the effectiveness of treatment, and decreased likelihood of discrimination against people with these conditions (McGinty et al. 2015). These vignettes were all about Mary, a white woman who completed college. They use the same white, educated woman because previous work had shown that race, gender, and education of people portrayed in vignettes can influence opinion. The 2006 GSS, for example, found that respondents were more likely to hold negative opinions of non-whites, the less educated (HS or less), and men (McGinty 2015).

McSween (2002) finds evidence that group identification (personal experience or a family member who has experienced a mental illness) increases the likelihood of support for

government spending on mental health. She also finds that identifying as a Democrat had the same impact as having a group identification with mental illness. Identifying as a Republican depressed support for mental health spending beyond the levels of those who have no proximity to persons with mental illness (McSween 2002).

Link et al. (1999) finds that symptoms of mental illness are still strongly tied to public fears of violence and increased social distance. For every condition except cocaine dependence (person's own bad character), the vast majority of people believed that stress was the main cause of mental health conditions. For schizophrenia and depression, the second stated cause was chemical imbalances in the brain; and for alcohol dependence, the second stated cause was the way a person was raised (Link et al. 1999).

Rusch et al. (2006) finds that low levels of both perceived discrimination and the perception that discrimination is legitimate predicts high self-esteem and empowerment (the opposite of self-stigma). The authors hypothesize that group identification with mentally ill people would lead to lower self-stigma because the group can help with coping, although they found that group identification did not predict self-esteem or empowerment in any meaningful way (Rusch et al. 2006). They did find that women with borderline personality disorders (a heavily stigmatized group) had much higher group identification than did women with social phobia. Overall, the authors conclude that there may be no protective in-group bias among people with mental illness as there is with other stigmatized groups.

Ward et al. (2013) finds that African Americans are not very open to acknowledging psychological problems, are very worried about stigma, and are modestly open to seeking mental health services but prefer religious coping. The authors say African Americans carry a higher burden for mental health: they accounted for about 12% of the population in 2007 but about 19%

of those affected by mental illness. They also have more “chronic disease, higher levels of disability, higher rates of inpatient service use, lower rates of outpatient mental health service use, and more barriers to seeking mental health treatment” (Ward et al. 2013, 2). It is well-established that African Americans, and African American men specifically, believe depression is a personal weakness and mental health problems stem from a lack of motivation (Ward et al. 2013).

Angermeyer and Dietrich (2006) reviewed population studies to gain a better understanding about public attitudes towards people with mental illness. These studies generally looked at depression and schizophrenia. Symptoms of schizophrenia are recognized as mental illnesses more often than symptoms of depression. Acute life stress is the most frequently endorsed cause of mental illness, although results are more varied when using vignettes with symptoms and labels. The public recommends seeking treatment for those with schizophrenia more than those with depression. In the absence of treatment, the public assumes a more severe deterioration of mental state for persons with schizophrenia than for those with depression (in the presence of treatment, people are optimistic about both). There is no consistent gender and age trend in opinions about schizophrenia and depression. People with schizophrenia are seen as unpredictable and dangerous and those with depression are too, though to a lesser degree. Some people also feel sorry for those with mental illnesses. Those with higher education tend not to socially distance themselves as much as those with lower education. Those with more familiarity of mental illness/mentally ill tended to have more positive attitudes. People are more likely to consider the mentally ill dangerous now than in the 1950s. Finally, people from the South emphasize a person’s bad character as being responsible for their mental illness. Angermeyer (2006) and colleague also point out that very few studies compare attitudes toward mental illness

with attitudes toward people with somatic illnesses, mentally healthy people, or other social groups.

### *Disability Identity*

Disability identity includes many different types of disabilities. Disability activism is predicated on the belief that people with disabilities share political goals and motivations (Putnam 2005). Despite the wide disability rights movement, there is heterogeneity in disability experiences—condition, impairment characteristics, demographics, employment, social networks, and attitudes about disability (Putnam 2005). Hahn (1994) locates disability not in the individual but in the relationship between the individual and the environment. If the environment provided all the resources that an individual needed then there would be no disability. The social model of disability is a social and cultural construction that is shaped by public policies which, in turn, shape the environment (Putnam 2005).<sup>6</sup> This model is a rejection of the medical model of disability, which views disability as an individual characteristic that should be “fixed,” if possible.<sup>7</sup> The social model emphasizes social discrimination and environmental barriers instead of physical impairments or limitations (Hahn and Belt 2004).

Studies find that people with the same and different disabilities share common feelings and beliefs on employment, family, rehabilitation and other medical needs (Barnartt and Scotch 2001; Putnam 2005). As with the label “Hispanic,” these commonalities can be explained by the origins of the disability identity. The disability rights movement was started by students who

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<sup>6</sup> In terms of shaping the environment, Putnam (2005) views this as the failure of full integration of persons experiencing disability because of a lack of accessibility and accommodation.

<sup>7</sup> Stefan (2001) finds that “some [disabled] people made it clear that they do not want to be ‘cured’ and fade into the mainstream. Instead, they want to be accepted and appreciated, to have society make room for them as they are” (48).

refused to live in nursing homes (Hahn and Belt 2004). These students protested during a time when disability was highly stigmatized and people with disabilities were kept indoors or in “back bedrooms” and out of the public eye (ibid). This history is important because it demonstrates individual activists with a highly stigmatized condition rejecting societal stigma and demanding better treatment through collective action. Because the disability identity formed through political action, this identity is inherently political.

Disability culture seeks to promote a common, positive, sense of identity with oneself and the disability community (Barns and Mercer 2001; Hopson 2019). Disability identity does not focus on preferring one’s condition over another’s, but rather accepting “one’s disability as non-devaluating” (Wright, 1960, 108). As individuals with disabilities recognize both the social and environmental components of disability, they become more likely to have a disability group consciousness (Schur 1998) and are more likely to take part in political activism (Hahn 1997; Wangui Murugami n.d.). Indeed, a 2000 poll conducted by the National Organization of Disability/ Harris Interactive, found that 47% of adults with disabilities have a sense of group consciousness with others with disabilities (National Organization on Disability/Harris Interactive, 2000).<sup>8</sup> Wangui Murugami (n.d.) contends that legitimizing a disability as part of one’s life (but not its main component) is how individuals make sense of themselves and their capabilities and limitations instead of being overwhelmed or entirely defined by their disability (Wangui Murugami n.d.).

One aspect of disability that is unique from most other identities is isolation—when individuals do not have a community of others with disabilities. Disability identity is thus not

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<sup>8</sup> Disability identity has also been studied in an international context (Rioux 2001; Oliver 1996; Durrer, Miller, and O’Brien 2018; Camilleri and Callus 2001; Sullivan 2001; Charlton 1998).

always shaped around a disability community, but rather by interactions with medical professionals who are frequently able bodied (Forber-Pratt et al. 2017). It is often those with hidden disabilities who seek out support groups of individuals with similar disabilities, which helps shape an individual's disability identity (Forber-Pratt et al. 2017). However, not all disabled people incorporate their disability into their sense of self. Disability rights advocates worry that “passing”—where an individual's disability is not obvious or is easily hidden—reduces the public visibility of people with disabilities and further marginalizes those experiencing disability that cannot “pass” (Gilson et al., 1997; Putnam 2005). While a high number of individuals with disabilities have a sense of group consciousness, it seems that this does not translate into disability rights activism (Barnartt and Scotch 2001); only the strongest disability identifiers seem to be politically active (Corker 1999).

## **Conclusions**

This Chapter presents a historical overview of mental illness in America. Before WWII, most people thought the mentally ill were “incurable;” the origins of mental illness were inborn—the result of bad morals, demons, or personal failings; and the best place for the mentally ill was in facilities when their families could or would not take care of them. During and after WWII, the idea that social determinants of health (SDOH)—environmental or social factors—caused mental illness was popularized and promoted a Social Gospel community-based view of mental illness that replaced the Victorian individually-based view of mental illness.

This Chapter also presents a historical argument for why mental health identity may be a distinct social and political identity. There are reasons to believe that mental health identity has been gradually unfolding since the 1970s. Until recently, mental health identity may have been salient only for certain individuals only at certain times. It could become more salient for more

people in more situations as mental health becomes increasingly socially acceptable and integrated into our daily lives. The two main reasons are COVID-19 and Gen Z.

Not all identities become salient social identities. This process is difficult for mental health because societal stigma is an outside pressure that tends to work against personal internalization and subsequent identification. The levels of external societal stigma vary over time and in different situations that make it more or less likely an individual will identify with their mental health status. Historically, mental health stigma undoubtedly hindered mental health identification for individuals who could deny a connection to this low-status group when the connection was not visible.

Identification with mental health status is a necessary but not sufficient condition for the formation of a mental health political identity. The formation of a mental health political identity requires certain environmental and political factors in addition to group consciousness. The most likely places to observe a mental health political identity are in the areas of (mental) healthcare policy, issue positions about mental hospitals and community care, and evaluations of political candidates with mental illnesses. In addition, if mental health identity is generational and younger generations identify more with mental health identity, there likely will be more individuals with mental illnesses running for political office in the future, which could have important implications for descriptive and substantive representation.

## CHAPTER 3

### **Just a Little Melancholic, Maybe a Little Blue: Mental Health as an Emerging Political Identity**

#### **Introduction**

In November 2022, Democrat John Fetterman won Pennsylvania’s pivotal U.S. Senate seat. Even though Fetterman had struggled with depression for years, he doubted that he had a diagnosable issue: “I’m just a little melancholic. Maybe a little blue” (Alvord 2023). Less than two months into office, the freshman Senator checked himself into Walter Reed National Military Medical Center to undergo inpatient treatment for clinical depression. “I never thought that it was significant enough to go get help,” Fetterman said. “And I, of course, regret that I did not do that” (Alvord 2023).

While the senator is now back in Congress, questions about his physical and mental health persist.<sup>9</sup> Despite the conservative-leaning judgment from the public, Fetterman argues that health—and mental health in particular—is a bipartisan issue (Baldoni 2023). “It’s not a Democratic issue. It’s not a Republican issue. This isn’t a hard right, hard left,” Senator Fetterman said. “This was just a human issue” (Baldoni 2023). He joins the few but growing number of politicians who have shared their experiences with mental illness.<sup>10</sup>

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<sup>9</sup> Fetterman continues to have auditory processing issues from the stroke he suffered on the campaign trail in 2022 and continues to use closed captioning in Congress. There are many who support Fetterman’s recovery; others who have not been as understanding (Lepore 2023).

<sup>10</sup> Representative Seth Moulton [D-MA] and Representative Ruben Gallego [D-AZ] with PTSD, Senator Tina Smith [D-MN] and Representative Ritchie Torres [D-N.Y.] with depression, and Representative Lynn Rivers [D-MI] with bipolar disorder (Leonard 2019b). Former Representative Jesse Jackson Jr. [D-IL] resigned from Congress in 2012, stating that he needed to focus on his bipolar disorder, amidst a federal investigation; former Representative Karen McCarthy [D-MO] sought treatment and her family revealed after her death that she had bipolar disorder; former Governor Mark Dayton [D-MN] told his constituents in 2010 that he had been taking antidepressants; and former Kansas City mayoral candidate Jason Kander, an Army veteran, dropped out of the 2018 Kansas City mayor’s race due to struggles with PTSD and depression (Schapitl and Chatterjee 2023).



Fetterman's experience is the most recent sign that the perceptions of mental health in America are changing. To grasp how far the conversation surrounding politicians with mental health concerns has come, one needs only to compare Fetterman's experience with Thomas Eagleton's in 1972. Eagleton was George McGovern's Democratic vice presidential running mate before he was dropped from the ticket after it was revealed that he had been hospitalized for depression and undergone electroshock therapy. The Eagleton-Fetterman comparison highlights how much more accepting the public has become of mental health conditions generally (Rabkin 1974; Angermeyer and Dietrich 2006; McGinty et al. 2015).

Beyond the political realm, there are other reasons why the public's attitudes towards mental health may be changing, namely, COVID-19 and Gen Z. COVID-19 created a mental health crisis in the United States. Whereas many Americans could in normal times avoid thinking about their mental wellbeing, the isolation, fear of infection, and proximity to death during the pandemic made that all but impossible. Pre-pandemic (2019), about 10% of the American public reported symptoms of anxiety or depression; in 2020, this jumped to 40% (Panchal et al. 2021). This added to an already high number of individuals—47 million, or nearly one in five U.S. adults, in 2018—who had experienced mental illness before the pandemic.

While Americans of all generations were confronted with mental health challenges during the pandemic, proportionately more Gen Z reported mental health conditions than any other generation and Gen Z is more open to talking about their own mental health than any other generation (Cuncic 2021; Bethune 2019).<sup>11</sup> This begs the question of whether proportionately more Gen Z have or had mental health conditions than other generations or whether Gen Z is just

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<sup>11</sup> There is also preliminary evidence that Gen Z is more politically engaged with protests than previous generations (Hatzipanagos 2021).

more likely to report having mental health conditions than other generations. While both may be true, the latter is almost certainly true because people have always had what we now call mental health conditions; previously, they were often labeled differently.<sup>12</sup>

In this first study to examine mental illness as a political identity, I find that people who have experienced mental illness feel close to others who have experienced mental illness. Further, they are likely to self-categorize themselves as having had a mental illness; to share a sense of group consciousness with others who had had mental illness; and to recognize the need to work together to change laws that are unfair to people with mental illness. I find that there is an emerging mental health political identity that is most pronounced among younger (Gen Z) and more liberal Americans. Finally, there is a strong association between mental health categorization, identification, and alienation and the expressed desire for increased healthcare, education, and welfare spending. Interestingly, I find that on average those who self-categorize and have high scores on the mental health identity and/or alienation scales are just as likely to participate politically and use (social) media as those who do not self-categorize and have low scores on the mental health identity and/or alienation scales. I also find these patterns are different than those associated with physical disability and serious physical illness categorization and identification. These findings have far-reaching consequences for mental health advocacy and the role mental health identity will play in the political sphere—especially as Gen Z matures as a cohort.

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<sup>12</sup> Throughout history, people have been called “sick,” “sad,” “maladjusted,” or simply “crazy,” but it is more likely than not that our categorization of human behavior has changed rather than human behavior itself.

## Argument

Mental health is a heterogeneous “umbrella” pan-condition category similar to “Hispanic.” Both have many sub-categories that could function differently politically. While previous studies on specific mental health conditions (e.g., anxiety or depression) are useful, we may not see the complete picture if we do not consider the pan-condition category. For example, many papers on depression find a negative relationship with political participation (Landwehr and Ojeda 2021; Ojeda 2015), but substituting depression for all mental health conditions may not be valid—just as substituting Cubans for Hispanic is not valid in many circumstances.

Mental health identity may only be salient for certain individuals at certain times. It could be (and probably is) an emerging identity that will become more salient for more people in more situations as mental health conditions become more socially acceptable and integrated into our daily lives. Identities and their meaning can change as society changes, and they can become activated by changing cultural circumstances (see Jardina 2019).<sup>13</sup> There is reason to believe that mental health may for some be, and perhaps for many soon become, an identity.

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<sup>13</sup> White identity has not always been an activated social or political identity, but Jardina (2019) argues that it has become increasingly important in recent years. That is not to say that white identity is new; it is not. But it does demonstrate the importance of ingroup favoritism, outgroup hostility, and how status threat can activate a politically powerful latent identity. Group identities do not always foster outgroup hostility, but outgroup hostility arises when there is a threat to the group (Huddy, Sears, Levy 2013). Unlike black identity or other marginalized group identities, white identity does not have a true threat to white group dominance in the same way as other groups. However, there is still perceived threat to white dominance (Cole 2020; Marsh and Ramírez 2019). For whites, the lack of real threats based on their racial-ethnic identity means that the threat is driven by anxiety about perceived changes to the status quo—white dominance (Marsh and Ramírez 2019). This sense of “linked anxiety” is distinct from linked fate because it is a shared sense of loss in reaction to a perceived threat while linked fate is positive solidarity (Marsh and Ramírez 2019).

## *Theoretical Overview*

Internalization of a mental health condition depends on an outside pressure called societal stigma and an internal pressure called self-stigma. This entire process is rooted in social identity theory. Social identity is derived from self-categorization and refers to the “process by which the individual cognitively redefines the self in terms of group norms and the associated stereotypes of particular social categories” (Huddy, Sears, Levy 2013; Hogg 1992, Oakes et al 1994, Turner et al. 1994). Inherent in this definition is identification, which encompasses self-categorization and internalization.

Social identity is contextual and multifaceted. It is crucial in the development of ingroup favoritism and outgroup antipathy (Tajfel 1981; Tajfel and Turner 1979; Huddy 2001). Identity research in political science is vast and has considered race (Jardina 2014; 2019; Cole 2020), gender and feminism (Duncan et al. 2020; Huddy 2001), ethnicity and nationalism (Sommers 1991; Citrin et al., 2000), LGBTQ+ identity (Bernstein 1997; Duncan et al. 2017), and more. An important distinction within this literature is identities ascribed (by others) and identities acquired (by oneself). Also important is a group’s permeability and the degree of ambiguity surrounding membership, especially for low-status groups (Tajfel and Turner 1979; Huddy 2001). Although identification can be described as “self-awareness of one’s objective membership in the group and a psychological sense of attachment to the group” (Conover 1984, p. 761), this is less applicable for groups whose membership is ambiguous—especially when group identification carries a negative connotation (Huddy 2001). Huddy, Sears, and Levy (2013) recognize that while group membership can be “fuzzy or ill-defined,” it is an important precursor for group identification—an internalized sense of group belonging.

It is difficult for negatively-regarded groups to develop strong group membership (Huddy, Sears, Levy 2013). There is evidence that ethnic identity is more developed among members of objectively identified, higher-status groups and with individuals who perceive their group as higher status (Ethier and Deaux 1994; Huddy, Sears, Levy 2013). In addition to group permeability, external labeling is also consequential for identity acquisition (Huddy, Sears, Levy 2013). Group identification is an internalized sense of group belonging and that identification is contingent on an individual's "immediate perceptual context" (Huddy, Sears, Levy 2013). This means that identification varies based on other social categories and social identities (age, gender, race, etc.), the immediate environment (is the identity salient?), the historical moment, and societal-<sup>14</sup> and self-stigma.

### *Expectations*

Not all identity groups have a common political outlook. To have a common political outlook, a group must (at a minimum) have common interests that are affected by the government. For common political outlooks to turn into political group mobilization, there must be political cohesion. In addition to strong social identity, political cohesion often requires a sense of symbolic grievances or realistic threats and a struggle to establish, change, or defend an existing power structure (Huddy, Sears, Levy 2013; Klandermans 2014). Finally, the politicization of a collective identity does not function like an "on/off" switch; instead, the

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<sup>14</sup> Societal "[s]tigma exists when the following interrelated components converge. In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics—to negative stereotypes. In the third, labeled persons are placed in distinct categories so as to accomplish some degree of separation of "us" from "them." In the fourth, labeled persons experience status loss and discrimination that lead to unequal outcomes. Stigmatization is entirely contingent on access to social, economic and political power that allows the identification of differentness, the construction of stereotypes, the separation of labeled persons into distinct categories and the full execution of disapproval, rejection, exclusion and discrimination" (Link and Phelan 2001, 367).

politicization of a collective identity unfolds as politicizing events gradually change the group's relationship to its social environment (Klandermans 2014).

Group identification or self-categorization is a basic component of identity and an acknowledgement of shared characteristics of the group (Huddy 2001; Proctor 2016). Further, feeling "close" to ingroup members has been considered a form of identification (Huddy 2003), but Jardina (2014) argues that it may be tapping into self-categorization instead of the affective dimension of identity. I expect that some but not all people who have experienced mental illness will feel close to others who have experienced the same in terms of their ideas, interests, and feelings. Further, people with mental health conditions will self-categorize themselves as having had a mental illness.<sup>15</sup>

Whether an identity is activated depends on individual internalization; whether an identity becomes a political identity depends in part on the salience of a set of characteristics of the group and recognition of the state's allocation of resources for that group (Jung 2006; Proctor 2016). This goes beyond objective categorization to importance in an individual's life. Not every identity is internalized or politicized, but every identity has the potential to be. I expect that many of those who have experienced mental illness will say it is important to them as an identity and will strongly identify with others who have experienced mental illness. An essential component of political action is a sense of group consciousness. Group consciousness includes ingroup political identity but adds ideas about the group's relative status in society, a sense of dissatisfaction with the status of the group, and a sense of shared group fate (Proctor 2016).

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<sup>15</sup>Refer to the discussion on Latino/Hispanic pan-ethnicity for a more nuanced discussion of umbrella categorization and its potential implications for a mental health political identity (Sommers 1991; Cuevas-Molina and Nteta 2022; Lee 2008).

Proctor (2016) argues that injustice is an essential component of marginalized identity. She defines injustice as “a sense of relative deprivation, or the sense that one’s group is being unfairly deprived of power and resources because of a group membership.” This should be especially true for groups that have been culturally and legally oppressed in America, such as persons with mental illness. Thus, I expect that those who have had mental illness are more likely to feel close to others who have had mental illness and to feel the need to work together to change laws that are unfair to people with mental illness.

Mental health, like many other social identities, is intersectional and context dependent. Other identities may interact with mental health identity to activate or deactivate it, and certain contexts may make mental health identity more or less likely to be expressed politically. It is likely that age, gender,<sup>16</sup> race,<sup>17</sup> and party identification<sup>18</sup> all play a crucial role in whether someone has a mental health identity, how strong their attachment is, and whether it is an identity that affects political behavior.

## Data

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<sup>16</sup> Gender identity may play a role in the formation or non-formation of a mental health political identity. Throughout history, mental illness diagnoses have been used to control and oppress “others” in society, as discussed in chapter 2. I expect that women may be less likely to acknowledge their mental health condition because of self-stigma and fear of societal stigma. This may make it harder for women to have a mental health social or political identity.

<sup>17</sup> African American men have always been targets of punitive psychiatry, discussed in chapter 2. Because of this history, we may expect that African Americans (and African American men in particular) may be less likely to have a mental health identity than white Americans—which may also lead to a smaller proportion of African Americans that have a mental health political identity.

<sup>18</sup> Partisan attachment is the most important factor among the individual political factors. If an individual has a partisan identity (strong partisan attachment and high intensity) that conflicts with the formation of a mental health social identity, then the partisan identity will prevent a mental health social or political identity from forming. Based on our knowledge of partisanship, we know that norms within the black community hinder identification with the Republican party and that more women than men support the Democratic party (Huddy 2018). We also know that disabled Americans resemble those without disabilities in terms of partisanship and ideology (Igielnik 2016), that the LGBTQ+ community votes strongly Democratic (Kiley and Mamiam 2016), and that the Latino community (with the exception of Cuban Americans) leans Democrat (Lopez et al. 2016). It is probable that most individuals do not have enough political knowledge or interest in politics to form a mental health political identity.

The data for this study come from the 2022 Cooperative Election Study (CES). The CES is a large, national stratified sample survey administered by YouGov. The survey consists of common content questions, asked of everyone, and content from university teams, which is given only to a subset of 1,000 respondents (Cooperative Election Study). There is a pre- and post-election wave during election years. My mental health identity battery was in the post-election wave of the survey, administered in November 2022, and had an effective sample of 860 respondents.<sup>19,20</sup> While my focus was mainly on mental illness as an identity, I also included “physical disability” and “serious chronic physical illness” categories to compare levels of identification in the American public.

My mental health identity battery was adapted from Jardina’s (2019) measures for white identity. There is an initial question that asks respondents whether they have ever had a mental illness, a physical disability, or a serious chronic physical illness. This categorization question then led to branching questions. Respondents who categorized themselves as having had a mental illness were given the full mental health identity battery consisting of two identity questions, two group consciousness questions, and two alienation questions. Respondents who selected physical disability or serious chronic physical illness were given one identity question.<sup>21</sup> Table 1 below lists the questions used in this survey.

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<sup>19</sup> The entire UVA sample had 860/1,000 respondents in the post-election wave and 140 respondents dropped out of the sample after the pre-election wave.

<sup>20</sup> Protocol approved by the University of Virginia’s Institutional Review Board (IRB #5253).

<sup>21</sup> Space was limited on the CES module. Respondents who selected “none of these” or “prefer not to say” were not given any further identity questions. For respondents who selected either physical disability or serious chronic physical illness, they received the first identity question only. For respondents who selected both physical disability and serious chronic physical illness, they were randomly given the first identity question about one of their conditions.



**Table 1: 2022 CES Questions\***

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Physical/Mental Illness Categorization

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Have you ever had any of the following in your lifetime? (check all that apply)  
Answer choices: A **mental illness**; A **physical disability**; A **serious chronic physical illness**

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MI Identity A

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How important to you is your identity as a person who has had a mental illness?

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MI Identity B

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How strongly do you identify with other persons with mental illness?

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MI Group Consciousness A

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How important is it that people with mental illnesses work together to change laws that are unfair to people with mental illness?

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MI Group Consciousness B

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How much would you say that people with mental illness in this country have a lot in common with one another?

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MI Alienation A

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American society just hasn't dealt fairly with people who have had mental illness in their lifetimes.

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MI Alienation B

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American society discriminates against people with mental illness.

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Disability/Serious Chronic Physical Illness Identity

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How important to you is your identity as a person with a [disability/serious chronic physical illness]

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\*All response options other than the categorization question are Likert-style. All have five categories except MI Identity A and Disability/Serious Chronic Physical Illness Identity, which have four. The categorization question also contains "None of these" and "Prefer not to say" as response options.

There were 220 respondents (or about 26% of the 860-person effective sample) who categorized themselves as having had a mental illness, 188 who categorized themselves as having had a physical disability, and 168 as having had a serious chronic physical illness. About one in five Americans experience mental illness in any given year and about 50% will be diagnosed with a mental illness in their lifetime ("About Mental Health" 2021). These numbers

seem to be in line with the national statistics and are higher than other self-reported samples.<sup>22</sup> Since mental illness is a stigmatized condition, it is notable that so many respondents self-categorized as having had a mental illness. Thus, a closer look at those who categorize themselves versus those who did not is warranted. The full demographics breakdown is in Appendix Table 1, but the key observations are summarized below.

About 26% of white respondents, 22% of black respondents, and 21% of Hispanic-identifying respondents categorize themselves as having had a mental illness. Women are more likely to categorize themselves as having had a mental illness (16% compared with about 9% for men). Mental illness categorization also appears to be generational. In terms of generational cohort, about 6% of Post War individuals, about 12% of Boomers, 33% of Gen X, about 44% of Millennials, and about 37% of Gen Z categorize themselves as having had a mental illness.<sup>23</sup> There were only 41 Gen Z in the sample, which may account for its slightly lower self-categorization percentage than the Millennial cohort.

There are no clear family income, education, or sexuality trends in terms of categorization, but there are clear party identification and ideological trends in mental illness self-categorization.<sup>24</sup> About 32% of Democrats, 17% of Republicans, and 25% of Independents categorize themselves as having had a mental illness. This party identification trend is consistent

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<sup>22</sup> Many samples that ask about mental health do not use the term “mental illness” and those that do have tended to get response rates in the teens.

<sup>23</sup> In terms of generations, those born between 1928-1945 are the Post War generation, those born between 1946-1964 are the Boomers, those born between 1965-1980 are Gen X, those born between 1981-1996 are Millennials, and those born between 1997-2012 are Gen Z (“Age Range by Generation.” 2023).

<sup>24</sup> In terms of family income, of those that make less than \$29,999 per year, 63% self-categorized. There is not a strong trend with the remaining family income categories: 25% of those making \$30,000-\$59,999 per year, 21.67% of those making \$60,000-\$99,999 per year, 20.95% of those making \$100,000-\$199,999 per year, and 32.26% of those making \$200,000-\$499,999 self-categorized. There is a similar lack of pattern for education: 23% of those with a post-graduate degree, 24% of those with a four-year degree, 27% of those with a two-year degree, 24% of those with some college, 29% of those with some high school, and 36% of those with no high school education self-categorized. This last category had only 25 respondents, so no confident conclusions can be drawn from that sample. Likewise, there were not enough respondents who identified as Lesbian, Gay, or Bisexual in the sample to draw any confident conclusions from the sample about mental illness categorization.

with ideology. About 39% of respondents who identify themselves as “Very Liberal,” 31% of respondents who identify themselves as “Liberal,” 24% of respondents who identify themselves as “Moderate,” 16% of respondents who identify themselves as “Conservative,” and 16% of respondents who identify themselves as “Very Conservative” categorize themselves as having had a mental illness.

In terms of intersectionality for mental illness categorization, there are some suggestive trends, but the sample had an insufficient number of people of color, in particular, to make strong claims. The intersection of mental illness categorization, race, and gender appear in Appendix Table 2; the intersection of mental illness categorization, generation, and party ID appear in Appendix Table 3; and the intersection of mental illness categorization, gender, and party ID appear in Appendix Table 4.<sup>25</sup>

### *Exploratory Factor Analysis*

I conducted principal-component exploratory factor analysis (EFA) on my mental health identity battery to determine how many latent factors were in the battery. The results of the EFA are presented in Appendix Table 5.<sup>26</sup> I determined that there are two latent factors, which I call the Mental Health Identity scale and the Mental Health Alienation scale. The Mental Health Identity scale is comprised of two identity questions and two group consciousness questions, and

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<sup>25</sup> 31.40% of white women, 21.67% of black women, 19.16% of white men and 22.22% of black men self-categorized themselves as having had a mental illness. Of all women who self-categorized as having had a mental illness, 14.82% are Democrats (20.70% of all Democrats) and 5% are Republican (10.81% of all Republicans). Of all men who self-categorized as having had a mental illness, 9.31% are Democrats (10.20% of all Democrats) and 3.72% are Republicans (6.31% of all Republicans).

<sup>26</sup> Before conducting exploratory factor analysis, I conducted the Bartlett test of sphericity and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy. For the Bartlett test of sphericity, Chi-square = 441.394 (with 15 degrees of freedom) and a p-value of 0.000. This result means that there are enough intercorrelations to conduct factor analysis. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.739, which needs to be at least 0.5 to continue with EFA. Based on these results, I will continue to EFA. Full EFA results are presented in Appendix Table 5.

the Mental Health Alienation scale is comprised of two alienation questions.<sup>27,28</sup> Cronbach's alpha for the Mental Health Identity scale is 0.79 and for the Mental Health Alienation scale is 0.74. The correlations between the MH Identity and Alienation scales is 0.28. I recoded each of the scales to range from 0-1. The comparative fit index (CFI) is 0.86 and is likely below 0.9 because the MI Group Consciousness A question—How important is it that people with mental illnesses work together to change laws that are unfair to people with mental illness?—loads onto both scales. Since the categorization question led to respondents receiving different sets of questions, I cannot conduct factor analysis on the full set of CES questions presented in Table 1. However, the correlations between the three categorization questions are relatively low—the physical illness and physical disability categorization questions have a correlation of 0.27; the mental illness and physical disability categorization questions have a correlation of 0.20; and mental illness and physical illness categorization questions have a correlation of 0.15.

Table 2 presents logistic regressions of the MI Categorization variable and OLS regressions of the MI Identity and MI Alienation scales with demographic variables that may be important to these scales. Generation, education, ideology, gender, and family income are significant for the MI Categorization variable. Generation is in the expected direction where younger respondents are more likely to self-categorize than older respondents. The negative coefficient on the education variable means that those with less education are more likely to self-categorize. The negative coefficient on the ideology variable means that the more liberal a

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<sup>27</sup> Mental Health Identity Scale—MI Identity A: How important to you is your identity as a person who has had a mental illness?; MI Identity B: How strongly do you identify with other persons with mental illness?; Group Consciousness A: How important is it that people with mental illnesses work together to change laws that are unfair to people with mental illness?; and Group Consciousness B: How much would you say that people with mental illness in this country have a lot in common with one another?

<sup>28</sup> Mental Health Alienation Scale—MI Alienation A: American society just hasn't dealt fairly with people who have had mental illness; and MI Alienation B: American society discriminates against people with mental illness.

respondent is, the more likely they are to self-categorize. Women are more likely to self-categorize than men, and those with lower family incomes are also more likely to self-categorize.

For the MI Identity scale, education and ideology are significant. Interestingly, there is a negative relationship between the MI Identity scale and education, meaning that those with less education are more likely to score higher on the MI Identity Scale. The negative relationship between the MI Identity scale and ideology is in the expected direction—the more strongly liberal a respondent is, the more likely they are to score higher on the MI Identity scale. As for the MI Alienation scale, ideology is significant and has the same interpretation as the MI Identity scale.

**Table 2:** Logit Regression of MI Categorization and OLS Regressions of MI Identity and MI Alienation Scales

	Coefficient	Coefficient	Coefficient
MI Scales	MI Categorization	MI Identity Scale	MI Alienation Scale
Generation	0.71*** (0.12)	-0.00 (0.02)	-0.01 (0.02)
Education	-0.28*** (0.08)	-0.03* (0.01)	-0.01 (0.01)
Party ID	-0.11 (0.13)	-0.01 (0.02)	-0.02 (0.02)
Ideology	-0.27*** (0.06)	-0.03** (0.01)	-0.04*** (0.01)
Gender (Male reference category)	0.44* (0.22)	0.01 (0.03)	-0.05 (0.03)
Race (White reference category)	-0.16 (0.11)	-0.00 (0.01)	-0.00 (0.01)
Family Income	-0.02* (0.01)	-0.00 (0.00)	0.00 (0.00)
N	822	205	207
AIC		-75.48	-134.00
BIC		-48.89	-107.33
Log-Likelihood	-381.52		

Standard errors in parentheses

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\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test; regressions use team weights. Unweighted values are similar.

Source: 2022 CES.

## Results

While the more exploratory analyses are useful, we must ask whether MI Categorization, MI Identity, or MI Alienation predict relevant political attitudes and whether they predict differently than physical disability categorization/identity or serious chronic physical illness categorization/identity. I focus on two categories of dependent variables for this analysis: 1) participation and 2) attitudes focusing on state legislature spending.<sup>29</sup> Coefficients for the main independent variables from each regression are presented in Table 2.<sup>30</sup> Full regression tables appear in the appendix. All regressions use survey weights and control for generation, party ID, ideology, education, gender, race, and family income.<sup>31</sup> The MI Identity and MI Alienation

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<sup>29</sup> The idea that social media is bad for mental health is widely stated and publicly accepted but appears to have mixed empirical support. Social media enables communication with friends around the world, creates opportunities to make new friends or find communities (especially for individuals who live in a remote area, have limited independence or social anxiety, or are part of a marginalized group), engage in low-stakes political advocacy, and learn about politicians and political events or mental-health resources (Guo and Chen 2022; Sadagheyani, Ebrahimpour, and Tatari 2021; Verduyn et al. 2015; Hall et al. 2019). Social media's harms are probably much better known: cyberbullying, isolation, fear of missing out, inadequacy about one's life or appearance, poor sleep quality, depression and anxiety, and thoughts of self-harm and suicide (O'Reilly 2020; Sadagheyani, Ebrahimpour, and Tatari 2021; Song et al. 2014; Kelly et al. 2018; Twenge et al. 2018).

The results from the 2022 CES reveal an interesting picture. For traditional media sources—newspapers, radio, and TV news—I find overwhelmingly null results for all of my main independent variables (MI Categorization, MI Identity, MI Alienation, PD Categorization and Identity, and ILL Categorization and Identity). The only exception to the null results for traditional media is that those who categorized themselves as having had a mental illness are less likely to watch television news than those who did not categorize themselves as having had a mental illness.

Similar null results appear for using social media and for using social media to engage with politics. To put these results into perspective, out of 66 total regressions involving media, only 10 were statistically significant—3/22 for mental health categorization and alienation, 3/11 for physical disability categorization, and 4/11 for serious chronic physical illness.

<sup>30</sup> This means Table 2 contains the main results from 138 different ordered logistic regressions.

<sup>31</sup> Religious affiliation and involvement, which are rarely influential, are not included as controls.

scales are computed together while all other main independent variables are computed in separate regressions.

### *Participation*

Until recently, studies focused on the connections between mental health and political participation have been rare and the results are mixed (Ojeda 2015; Ojeda and Slaughter 2019; Landwehr and Ojeda 2021; Ojeda and Pacheco 2020; Schur et al. 2002; Lindholm 2020; Powell and Johnson 2019; Burden et al. 2016; Sund et al. 2017; Kaufman and Hersh 2020; Burkhauser, Houtenville, and Tennant 2014; Lynch 2023; Waismel-Manor et al. 2023; Bernardi et al. 2023). Many of the more recent articles published in political science and related fields focus on depression and voting and find that depression decreases turnout and other forms of participation (Landwehr and Ojeda 2021; Ojeda 2015; Ojeda and Pacheco 2020; Ojeda and Slaughter 2019; Bernardi et al. 2023). Upon closer examination, nearly all of the above studies use different measures of mental health or social wellbeing (SWB) and many different types of participation. Some studies stress the importance of mediators like internal and/or external efficacy (Sahu and Rath 2003; Ojeda 2015; Bernardi et al. 2023), or physically intensive versus non-physically intensive forms of political participation (Stryker et al. 2000; Pacheco and Fletcher 2015; Ojeda 2015). There is a deep divide in the literature between studies using self-reported measures of mental health and disability and studies using more “objective” measures (Burkhauser, Houtenville, and Tennant 2014; Powell and Johnson 2019). Given the differing methods and measures used in these studies, there is no consensus about the *overall* relationship between mental health and political participation.

While many studies use the term “mental health,” very few are speaking in clinical terms due to moral and data accessibility issues in the United States. The lack of specificity in

definitions is confusing and may be problematic. For example, in the work on mental health that uses depressive symptoms as the measure, there is a negative relationship between mental health and political participation (Landwehr and Ojeda 2021; Ojeda 2015; Ojeda and Pacheco 2020; Ojeda and Slaughter 2019; Bernardi et al. 2023). However, in the work on mental health that uses attention deficit disorder (ADHD) as the measure, there is a positive relationship between mental health and political participation (Waismel-Manor et al. 2023). Both conditions (depression and ADHD), and therefore sets of results, appropriately fall under the umbrella term of “mental health” but they do not shed light on the overall population of persons with mental health conditions. This chapter seeks to fill that gap in understanding.<sup>32</sup>

Using a mental health categorization measure and mental health identity and alienation scales, I find largely null results between all mental health measures and measures of political participation (attending a political meeting, protest, working for a campaign, donating, being contacted, and an average measure of these five political participation measures). Interestingly, I also find null results for the physical disability measures and mostly null results for serious chronic physical illness—the exceptions being that those who categorize themselves as having had a serious chronic physical illness are *more* likely to politically protest and be contacted by someone affiliated with a politician.

These null results are important for many reasons. First, these measures not only ask about self-categorization but also identification for mental health, physical disability, and physical illness. This is the first study that examines a direct measure of mental health identity and one of very few that attempts to disentangle physical disability from mental health and

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<sup>32</sup> This chapter uses self-identification measures so it is possible conditions are underreported due to social desirability bias.



physical illnesses.<sup>33</sup> Further, these findings have ramifications for political representation. In aggregate, individuals who categorize or identify with having a mental health condition, physical disability, or serious chronic physical illness are just as likely to participate in politics as those without such condition, disability, or illness.

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<sup>33</sup> This is also one of the few studies—even in the disability studies literature—that does not measure disability from a work-disability question. It is widely believed that this measure greatly underestimates the number of individuals with (mild or moderate) disabilities since it only captures those who are not able to work due to their disability (Burkhauser, Houtenville, and Tennant. 2014; Powell and Johnson 2019).

**Table 3: Regressions of Participation, State Legislature Spending, (Social) Media Use, and Mental Illness, Physical Disability, and Chronic Illness Variables**

Dependent Variables	Independent Variables						
Participation	MI Categorization	MI Identity	MI Alienation	PD Categorization	PD Identity	ILL Categorization	ILL Identity
Political Meeting	<b>-0.78*</b> (0.39)	-1.28 (1.49)	1.63 (1.49)	-0.04 (0.34)	0.89 (1.05)	0.44 (0.32)	-1.55 (1.50)
Political Protest	0.22 (0.36)	<b>-5.15*</b> (2.30)	4.96 (2.82)	0.046 (0.49)	0.10 (1.50)	<b>0.87*</b> (0.40)	-1.34 (1.88)
Political Work	0.05 (0.48)	0.23 (1.71)	0.55 (1.65)	-0.07 (0.44)	-0.93 (1.12)	0.45 (0.42)	-2.64 (2.30)
Political Donate	0.11 (0.26)	-0.71 (1.10)	2.37 (1.26)	0.12 (0.26)	-1.80 (1.17)	0.43 (0.24)	0.33 (0.96)
Political Sign	-0.54 (0.31)	0.51 (1.37)	0.49 (1.49)	0.07 (0.27)	1.39 (1.22)	0.06 (0.27)	-1.04 (1.06)
Political Contact	0.33 (0.25)	0.10 (1.09)	0.49 (1.15)	0.34 (0.24)	-0.98 (0.86)	<b>0.50*</b> (0.24)	-0.83 (0.80)
Did Something Political	0.00 (0.22)	-0.58 (0.96)	0.65 (1.03)	0.11 (0.21)	0.51 (0.85)	0.22 (0.23)	-0.11 (0.77)
<b>State Legislature Spending</b>							
State Healthcare	<b>0.84**</b> (0.30)	<b>2.90*</b> (1.18)	<b>3.03*</b> (1.18)	0.11 (0.26)	0.57 (1.15)	0.28 (0.25)	1.43 (0.81)
Welfare	<b>0.63*</b> (0.26)	<b>2.14*</b> (0.92)	0.79 (1.25)	0.18 (0.23)	-0.31 (0.89)	0.25 (0.23)	1.39 (1.09)
Education	<b>1.02**</b> (0.30)	-0.76 (1.38)	<b>3.02*</b> (1.39)	0.43 (0.24)	-0.95 (0.84)	0.21 (0.25)	1.60 (0.92)
Transportation	-0.25 (0.22)	0.81 (1.07)	-2.08 (1.12)	0.13 (0.23)	-1.09 (0.94)	0.13 (0.25)	0.49 (0.91)
Law Enforcement	-0.25 (0.22)	0.81 (1.07)	-2.08 (1.12)	0.13 (0.28)	-1.09 (0.94)	0.13 (0.25)	0.49 (0.91)

*Note:* Full regressions are in the Appendix. All regressions contain survey weights and the following control variables: Generation, Party ID, Ideology, Education, Gender, Race, and Family Income.

### *State Legislature Spending*

In the CES's battery of state legislative spending, there are questions about desire for increased, decreased, or maintained state spending on state healthcare, welfare, education, transportation, and law enforcement. The main results of the ordered logistic regressions appear in Table 2 and full regression results appear in the appendix.

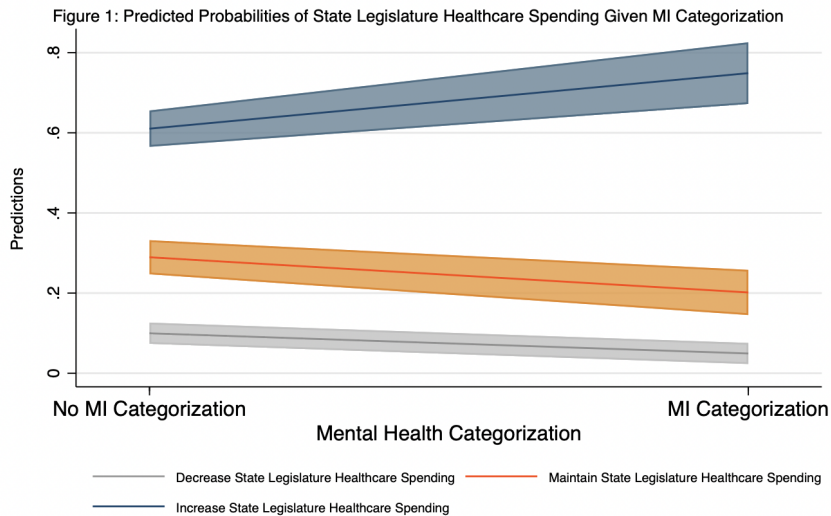
As I had expected, MI categorization, MI identity, and MI alienation are positive and significant for the health spending question. Substantively, this means that people who categorize themselves as having had a mental illness are more likely to want increased state healthcare spending compared with those who do not categorize themselves as having had a mental illness. Further, the higher people score on the MI Identity scale (more MI identification) and MI alienation scale (more MI alienation), the more likely they are to want increased state legislature healthcare spending. These results are statistically significant. In addition to healthcare spending, MI categorization is also consequential for wanting increased welfare and education spending: MI identity is positive and significant for welfare spending and MI alienation is positive and significant for education spending. Surprisingly, I did not find similar results for physical disability (PD) categorization, PD identity, illness categorization, or illness identity. Indeed, PD categorization, PD identity, illness categorization, and illness identity are null for all state spending measures—healthcare, welfare, education, transportation, and law enforcement.

Next, I turn to predicted probabilities and first differences for the significant mental health findings. All MI state healthcare spending graphs show a similar general trend in which there is an increased desire for healthcare spending when one goes from no MI categorization/low MI identity/low MI alienation to MI categorization/high MI identity/high MI alienation. Likewise, there is a negative trend for wanting to maintain or decrease state

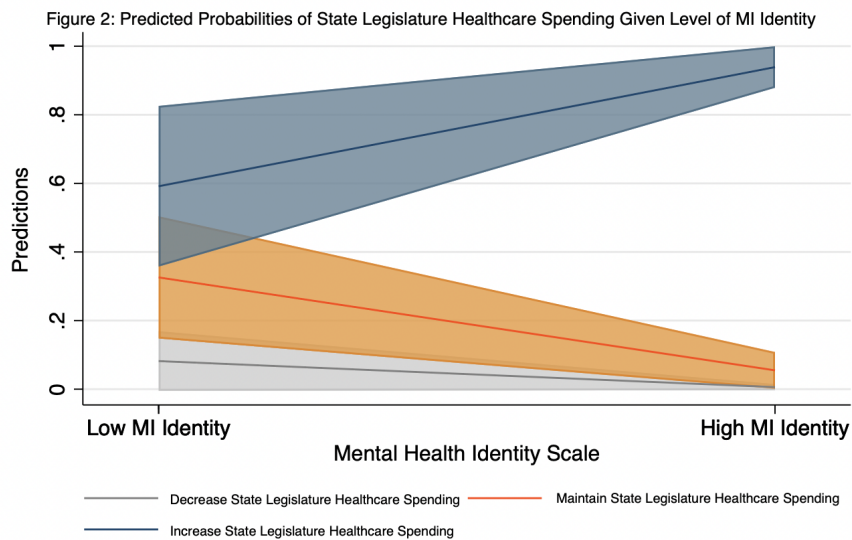
healthcare spending when one goes from no MI categorization/low MI identity/low MI alienation to MI categorization/high MI identity/high MI alienation.

Specifically, in the blue line of Figure 1, individuals who did not categorize themselves as having had a mental illness have about a 61% chance, on average, of wanting increased state legislature healthcare spending. On the same line, individuals who categorized themselves as having had a mental illness have about a 75% chance, on average, of wanting increased state legislature healthcare spending (both are statistically significant). For the first differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from no MI categorization to MI categorization results in an increase of about 14 percentage points in the average predicted probability of wanting increased state legislature healthcare spending.

In the blue line of Figure 2, individuals who had low MI identity have about a 59% chance, on average, of wanting increased state legislature healthcare spending. On the same line, individuals who had high MI identity have about a 94% chance, on average, of wanting increased state legislature healthcare spending (both are statistically significant). For the first differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from low MI identity to high MI identity results in an increase of about 35 percentage points in the average predicted probability of wanting increased state legislature healthcare spending ( $p < 0.05$ ).



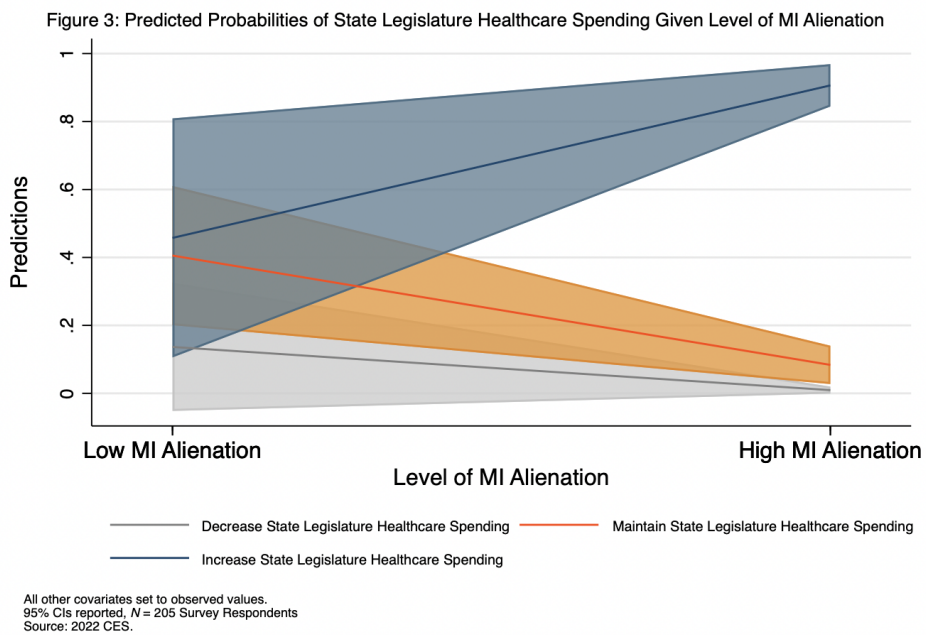
All other covariates set to observed values.  
 95% CIs reported, N = 821 Survey Respondents  
 Source: 2022 CES.



All other covariates set to observed values.  
 95% CIs reported, N = 205 Survey Respondents  
 Source: 2022 CES.

Turning to Figure 3 and once again examining the blue line, individuals who had low MI alienation identity have about a 46% chance, on average, of wanting increased state legislature healthcare spending. On the same line, individuals who had high MI alienation identity have about a 91% chance, on average, of wanting increased state legislature healthcare spending (both are statistically significant). For the first differences (not presented), a specific example is again

the blue line where, holding all other covariates at their observed values, going from low MI alienation identity to high MI alienation identity results in an increase of about 45 percentage points in the average predicted probability of wanting increased state legislature healthcare spending ( $p < 0.05$ ). Predicted probability graphs on welfare, education, and transportation are in the appendix. I find similar significant results for welfare and education but not transportation.



## Conclusion

When is a mental health condition a defining attribute versus a thing to fix? How is mental health identity translated into political behavior? Is this different from how physical disability (e.g., a lost limb) or serious chronic physical illness (e.g., breast cancer) are translated into politics? How does it interrelate and compare with other important political identities (race, sexuality, gender)? These are crucial questions that go to the heart of mental health as a political identity. American perceptions of mental health and identity directly inform how they make

demands on government, which can take the form of expanded policy positions and state spending on healthcare, and the desire for increased descriptive and symbolic representation in Congress. The demanders can be individual voters, grassroots activist groups, or mental health advocacy organizations, each of which have their own political implications.

I have presented evidence in this chapter that mental health is becoming a political identity at least for some people in their desire for increased state spending on healthcare, education, and welfare. It appears that ideology is the most important factor for mental health identification and there are suggestive results when MI categorization is also taken into account that generational cohort, education, and (to a lesser extent) gender are important as well. What is clear, however, is that many people categorize themselves as having had a mental illness. Even more interesting is that the vast majority of those who so categorize themselves view mental illness identity and mental illness alienation as important to their sense of self. Significantly, these attachments predict support for healthcare, education, and welfare spending but *not* transportation or law enforcement spending. Further, I find that, as a heterogeneous “umbrella” category, those who categorize themselves and identify with their mental health are similar in the ways they participate and use (social) media politically to those who do not categorize themselves or identify with their mental health. Finally, this study makes a novel contribution by comparing and contrasting mental health identity with physical disability identity and serious chronic physical illness identity. Mental health will continue to be an important political consideration, especially as Gen Z ages as a cohort.

## CHAPTER 4

### The Content of Mental Health Identity:

#### Measuring Health Categorization and Identity Using the 2024 ANES Pilot

*"It is not simply the shared experience of oppression. If that were all our culture was, I would agree with those who doubt the probability of a disability culture. The elements of our culture include, certainly, our longstanding social oppression, but also our emerging art and humor, our piecing together of our history, our evolving language and symbols, our remarkably unified worldview, beliefs and values, and our strategies for surviving and thriving."*

*Carol Gill*

*Disability Studies Scholar and Activist*

*"The development of disability as identity politics has been important in instrumental terms because it has led to campaigns for independent living and civil rights, which have made a material difference to the lives of millions of disabled people. . . . [D]isabled people do not have to identify in terms of impairment and deficit, but can identify in terms of social oppression, resistance, solidarity, and pride. The conscientization—or awareness of the role of social forces in disabling people—leads to renewed demands for change and political reform."*

*Shakespeare and Watson (2001, 562)*

Inherent in Carol Gill's description of disability culture is social and political identity formation. Social identity can be described as the "process by which the individual cognitively redefines the self in terms of group norms and the associated stereotypes of particular social categories" (Huddy, Sears, Levy 2013; Hogg 1992, Oakes et al 1994, Turner et al. 1994). While "culture" is an expansive term, "disability" is as well. Within disability, there are many conditions and groups of conditions. For identification, do all disabilities function the same? Does mental health identification function in the same way that physical disability identification functions? Do these different identities have the same political consequences? This chapter will answer these questions using a novel survey question piloted in the 2024 American National



Elections Study (ANES) Pilot Survey. It will also compare similar questions fielded in the 2022 Cooperative Election Study (CES) that examined mental health, physical disability, and serious chronic physical illness categorization and identification.<sup>34</sup> For mental health, the CES battery also included items that comprised a mental health identity scale as well as mental health alienation scale.<sup>35</sup> The CES battery was the first work of this nature.

The analysis of the health categorization and identity items from the 2024 ANES Pilot indicate that many Americans categorize themselves as having a disability or chronic condition and also consider it as relatively important to their identity. Strength of identification varies by condition. In the following analysis, I provide descriptive statistics for the two items themselves and an additional two created items—an additive scale of disability or chronic conditions that examines the number of conditions a respondent has as well as an aggregated health identity measure. I focus on the physical health-related/disability condition category and the mental health condition category primarily due to power constraints. I find that health categorization and identification vary by gender, race, ideology, party ID, and generational cohort.<sup>36</sup> I examine significant predictors for the health and mental health measures. I examine significant predictors for the health and mental health measures. Then, I use the health and mental health measures to

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<sup>34</sup> CES Question: Have you ever had any of the following in your lifetime? (check all that apply) Answer choices: A mental illness; A physical disability; A serious chronic physical illness

<sup>35</sup>Identity Items: (1) How important to you is your identity as a person who has had a mental illness? (2) How strongly do you identify with other persons with mental illness? (3) How important is it that people with mental illnesses work together to change laws that are unfair to people with mental illness? (4) How much would you say that people with mental illness in this country have a lot in common with one another? Alienation Items: (1) American society just hasn't dealt fairly with people who have had mental illness in their lifetimes. (2) American society discriminates against people with mental illness.

<sup>36</sup> In terms of generations, those born between 1928-1945 are the Post War generation, 1946-1964 are the Boomers, 1965-1980 are Gen X, 1981-1996 are Millennials, and 1997-2012 are Gen Z ("Age Range by Generation." 2023).

predict several dependent variables, including politics exhaustion, election stress, and healthcare as an important issue respondents care about.<sup>37</sup>

## **Argument**

Disability identity includes many different types of disabilities. Disability activism is predicated on the belief that people with disabilities share political goals and motivations (Putnam 2005). Despite the wide disability rights movement, there is heterogeneity in disability experiences—condition, impairment characteristics, demographics, employment, social networks, and attitudes about disability (Putnam 2005). Hahn (1994) locates disability not in the individual but in the relationship between the individual and the environment. If the environment provided all the resources that an individual needed then there would be no disability. The social model of disability is a social and cultural construction that is shaped by public policies that, in turn, shape the environment (Putnam 2005).<sup>38</sup> This model is a rejection of the medical model of disability, which views disability as an individual characteristic that should be “fixed,” if possible.<sup>39</sup> The social model emphasizes social discrimination and environmental barriers instead of physical impairments or limitations (Hahn and Belt 2004).

Unlike the pan-ethnic identities discussed earlier, studies find that people with the same and different disabilities share common feelings and beliefs on employment, family, and rehab and other medical needs (Barnartt and Scotch 2001; Putnam 2005). As with the label “Hispanic,”

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<sup>37</sup> This measure (**impissue\_issue**) was hand coded for explicit mention of healthcare, health, and Medicaid/Medicare (82 total =1) and compared to other respondents who also wrote about an important issue to them (coded 0). Those that did not choose to write something were coded as missing.

<sup>38</sup> In terms of shaping the environment, Putnam (2005) views this as the failure of full integration of persons experiencing disability because of a lack of accessibility and accommodation.

<sup>39</sup> Stefan (2001) finds that “some [disabled] people made it clear that they do not want to be ‘cured’ and fade into the mainstream. Instead, they want to be accepted and appreciated, to have society make room for them as they are” (48).

these commonalities can be explained by the origins of the disability identity. The disability rights movement was started by students who refused to live in nursing homes (Hahn and Belt 2004). These students protested during a time when disability was highly stigmatized and people with disabilities were kept indoors or in “back bedrooms” and out of the public eye (ibid). This history is important because it demonstrates individual activists with a highly stigmatized condition rejecting societal stigma and demanding better treatment through collective action. Because the disability identity formed through political action, this identity is inherently political.

Disability culture seeks to promote a common, positive, sense of identity with oneself and the disability community (Barns and Mercer 2001; Hopson n.d.). Here, disability identity does not focus on preferring one’s condition over another’s, but rather accepts “one’s disability as non-devaluating” (Wright, 1960, p. 108). As individuals with disabilities recognize both the social and environmental components of disability, they become more likely to have a disability group consciousness (Schur 1998; Wangui Murugami n.d.), and are more likely to take part in political activism (Hahn 1997; Wangui Murugami n.d.). Indeed, in a 2000 poll conducted by the National Organization of Disability/ Harris Interactive, they found that 47% of adults with disabilities have a sense of group consciousness with others with disabilities (National Organization on Disability/Harris Interactive, 2000).<sup>40</sup> Wangui Murugami (n.d.) contends that legitimizing the disability as part of one’s life (but not its main component) is how individuals make sense of themselves and their capabilities and limitations instead of being overwhelmed or entirely defined by their disability (Wangui Murugami n.d.).

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<sup>40</sup> Disability identity has also been studied in an international context (Rioux 2001; Oliver 1996; Camilleri and Callus 2001; Sullivan 2001; Charlton 1998).

One aspect of disability that is unique from most other identities is isolation—where individuals do not have a community of others with disabilities. Disability identity is thus not always shaped around a disability community, but rather by interacting with medical professionals who are often able bodied (Forber-Pratt et al. 2017). It is often those with hidden disabilities that seek out support groups of individuals with similar disabilities and this helps shape an individual’s disability identity (Forber-Pratt et al. 2017). However, not all disabled people incorporate their disability into their sense of self. Disability rights advocates worry that “passing”—where an individual’s disability is not obvious or is easily hidden—reduces the public visibility of people with disabilities and further marginalizes those experiencing disability that cannot “pass” (Gilson et al., 1997; Putnam 2005). While a high number of individuals with disabilities have a sense of group consciousness, it seems that this does not translate into disability rights activism (Barnartt and Scotch 2001); only the strongest disability identifiers seem to be politically active (Corker 2001).

### *Expectations*

Since disability is a large and heterogeneous category, the social identity and political outlook of its members may look differently. At minimum, I expect that there will be a sense of group identification (self-categorization) among those with disabilities and that they will feel close to others who have disabilities. A sense of injustice is an essential component of a marginalized group identity (Proctor 2016). This should be strongest for groups who have been culturally and legally oppressed, like people with disabilities and mental health conditions. While both of these groups have been targeted as “others” in America at different points throughout history, the societal stigma for those with physical disabilities has decreased—arguably more—

in recent history than for those with mental illness. Thus, I expect individuals with a mental health condition to have a higher sense of identity and group consciousness than other subsets of the disability community. Further, I expect that those who highly identify with their mental health will agree more strongly (than those that do not strongly identify with their mental health) that those with mental illness need to work together to change laws that are unfair to people with mental illness. Finally, I expect those who identify with their mental health will be more likely to be stressed out by the upcoming election, be exhausted by politics, and state that healthcare is an important issue for them.

## **Data**

The data come from the Pilot of the 2024 American National Elections Survey (ANES). The ANES is a large, national election survey funded by the National Science Foundation and housed at the University of Michigan. The pilot studies are used to test content and methodology for forthcoming Time Series studies in interviews that are usually administered by telephone (“FAQ - ANES”, 2021). I had two questions on the pilot administered to ~1,900 respondents. The first item, disability identity, asked respondents, “Do you have any of the following disabilities or chronic conditions? Mark all that apply.” Response options were: Health-related condition or disability, Mental health condition, Learning disability or ADHD, Autism, Blind or visually impaired, Deaf or hard of hearing, Mobility-related disability, Speech-related disability, Other (please specify), and I do not have a disability or chronic condition. The second item, disability identity importance, asked respondents who did not select “I do not have a disability or chronic condition” on the previous item, “How important, if at all, is being a person with a disability or chronic condition to your identity?” Response options were extremely important,

very important, moderately important, a little important, and not at all important.<sup>41</sup> The two items are aspects of identity—categorization and identity importance. **Table 1** contains the descriptive statistics for disability identity and **Table 2** contains the descriptive statistics for disability identity importance.<sup>42</sup>

**Table 1. Frequencies for Disability Identity**

	Unweighted Frequency	Percent	Weighted Frequency	Percent
Health-related condition or disability	352	21.18	307.8	20.52
Mental health condition	232	13.96	228.7	15.24
Learning disability or ADHD	98	5.90	105.7	7.04
Autism	37	2.22	38.75	2.58
Blind or visually impaired	33	1.99	32.51	2.17
Deaf or hard of hearing	87	5.23	77.5	5.167
Mobility-related disability	128	7.70	101.7	6.78
Speech-related disability	15	0.90	12.09	0.81
Other (please specify)	48	2.89	40.16	2.68
I do not have a disability or chronic condition	998	60.05	903.3	60.22
Inapplicable, legitimate skip	247	Excluded	0	0
Missing	0	0	0	0
Total	1,909	100	1,500	100

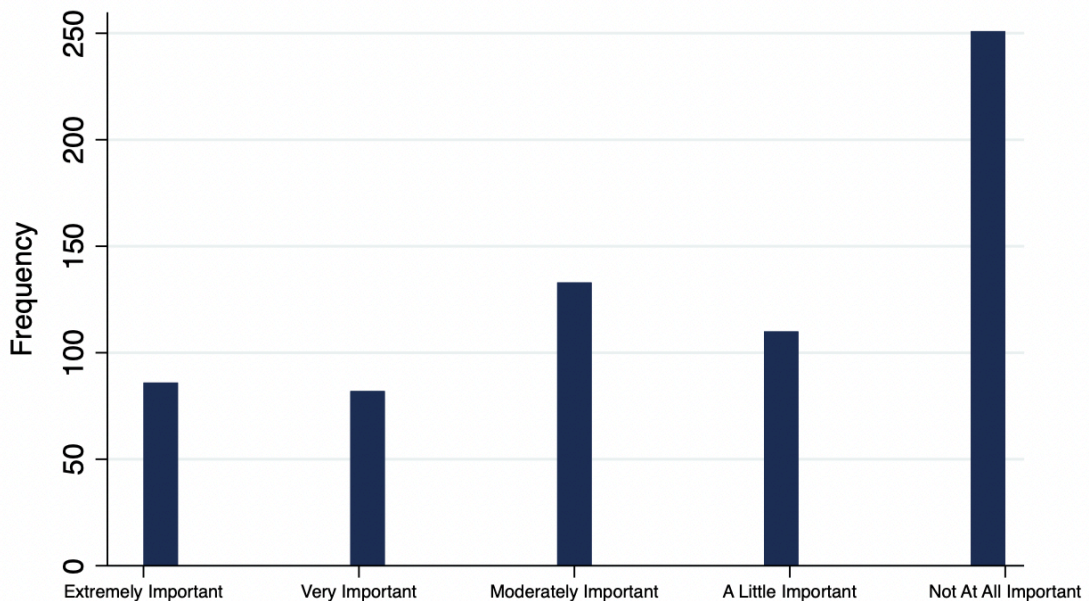
**Table 2. Frequencies for Disability Identity Importance**

	Unweighted Frequency	Percent	Weighted Frequency	Percent
Extremely important	86	12.99	79.1	13.31
Very important	82	12.39	77.39	13.02
Moderately important	133	20.09	118.6	19.96
A little important	110	16.62	103.8	17.47
Not at all important	251	37.92	215.4	36.24
Inapplicable, legitimate skip	1,247	Excluded	905.8	Excluded
Missing	0	0	0	905.8
Total	1,909	100	1,500	100

<sup>41</sup> The median administration time for the first question was 9.4 seconds and 9.9 seconds for the second question.

<sup>42</sup> Unweighted as well as weighted data are presented in this chapter in order to better understand how many individuals categorize and identify with their disability or serious chronic conditions.

About 60% of the sample said they did not have a disability or chronic condition, 20% said they had a health-related condition or disability, and 15% of the sample said they had a mental health condition. The other conditions did not comprise large enough samples individually to continue analyzing as their own categories. Going forward, I will be focusing on those without disabilities, those with health-related disabilities, and those with mental health conditions. The second item is asked of only those who did not select the “I do not have a disability or chronic condition” option in the first item. About 36% said their disability identity was “not at all important,” but over a quarter of the sample said that their disability identity was either “extremely” or “very” important. The first figure shows the distribution of the second item, disability identity importance. While many respondents chose “Not at all important,” this varies drastically by condition. **Table 3** breaks this down and shows identity importance for each health category.



How important, if at all, is being a person with a disability or chronic condition to your identity?

**Table 3. Frequencies for Disability Identity by Disability Identity Importance**

	Unweighted Frequency	Percent	Weighted Frequency	Percent
<b>Health-related condition or disability</b>				
Extremely important	51	14.49	50.36	16.35
Very important	41	11.65	35.60	11.56
Moderately important	65	18.47	52.55	17.06
A little important	60	17.05	56.50	18.34
Not at all important	135	38.35	112.80	36.62
Missing	1,557		1,192	
Total	352	100	307.81	100
<b>Mental health condition</b>				
Extremely important	33	14.22	31.69	13.86
Very important	37	15.95	36.68	16.04
Moderately important	56	24.14	55.04	24.07
A little important	47	20.26	49.64	21.71
Not at all important	59	25.43	55.61	24.32
Missing	1,677		1,271	
Total	232	100	228.7	100
<b>Learning disability or ADHD</b>				
Extremely important	9	9.18	12.74	12.06
Very important	11	11.22	12.50	11.83
Moderately important	21	21.43	20.73	19.62
A little important	20	20.41	21.90	20.73
Not at all important	37	37.76	37.79	35.77
Missing	1,811		1,394	
Total	98	100	105.70	100
<b>Autism</b>				
Extremely important	5	13.51	5.77	14.89
Very important	4	10.81	5.18	13.37
Moderately important	12	32.43	10.01	25.83
A little important	12	32.43	15.26	39.38
Not at all important	4	10.81	2.53	6.53
Missing	1,872		1,461	
Total	37	100	38.75	100
<b>Blind or visually impaired</b>				
Extremely important	3	9.09	2.74	8.43
Very important	3	9.09	5.63	17.32
Moderately important	10	30.30	8.22	25.29
A little important	5	15.15	5.71	17.57
Not at all important	12	36.36	10.20	31.38
Missing	1,876		1,467	
Total	33	100	32.51	100
<b>Deaf or hard of hearing</b>				
Extremely important	12	13.79	10.13	13.07
Very important	7	8.05	5.98	7.72
Moderately important	20	22.99	17.86	23.05
A little important	12	13.79	13.33	17.20
Not at all important	36	41.38	30.20	38.97
Missing	1,822		1,422	
Total	87	100	77.5	100
<b>Mobility-related disability</b>				

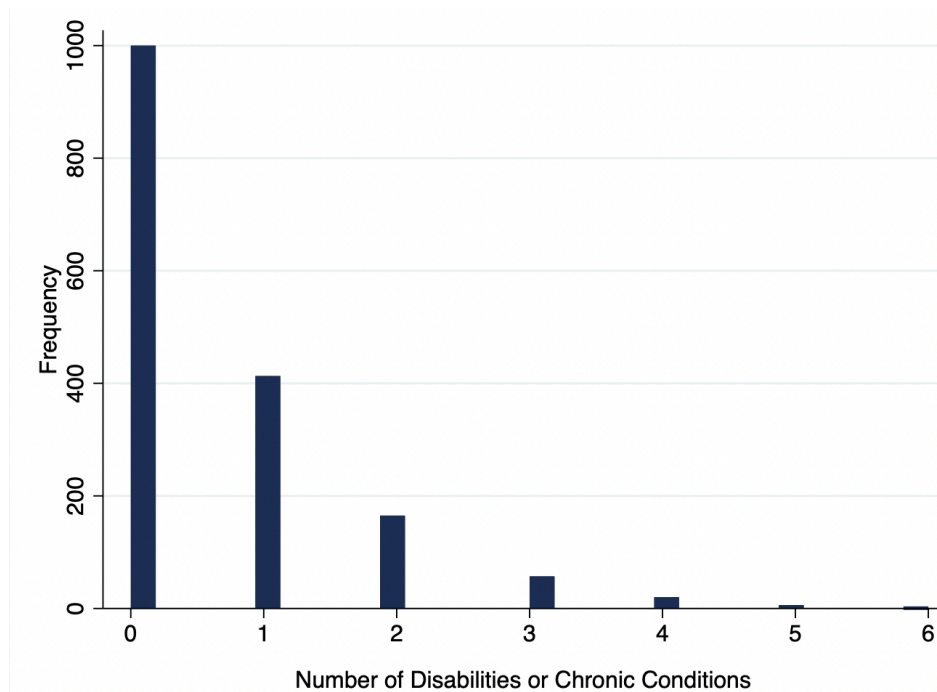


Extremely important	21	16.41	16.47	16.19
Very important	21	16.41	18.33	18.01
Moderately important	34	26.56	26.06	25.61
A little important	17	13.28	12.49	12.28
Not at all important	35	27.34	28.40	27.91
Missing	1,781		1,398	
Total	128	100	101.7	100
<b>Speech-related disability</b>				
Extremely important	5	33.33	3.66	30.30
Very important	0	0	0	0
Moderately important	3	20.00	2.68	22.19
A little important	1	6.67	1.13	9.35
Not at all important	6	40.00	4.61	38.16
Missing	1,894		1,488	
Total	15	100	12.09	100
<b>Other (please specify)</b>				
Extremely important	3	6.25	1.91	4.75
Very important	4	8.33	3.31	8.24
Moderately important	9	18.75	6.16	15.33
A little important	10	20.83	11.39	28.35
Not at all important	22	45.83	17.40	43.32
Missing	1,861		1,460	
Total	48	100	40.16	100
Total	1,909	100	1,500	100

It is interesting to note that the mental health condition contains fewer respondents that say it is “not at all important” to their identity when compared to other conditions. Indeed, only Autism (N=37) has a lower percentage of respondents who say that it is “not at all important” to their identity. Another way of stating this is that the mental health category has one of the highest percentages of respondents saying that mental health is at least a little important to their identity. This is interesting considering other conditions on this list may be more obvious or impede everyday functioning more than certain mental health conditions.

Since it is possible that not only the *type* of condition one has may be important, but also the *number* of conditions one has. It seems reasonable that if one has a greater number of conditions, that may affect their identification. I created an additive variable using the disability

identity item to examine this in the graph below.<sup>43</sup> With an increasing number of conditions, respondents are less likely to say that their disability or chronic condition is not at all important to their identity.



**Tables 5 and 6** examine the categorization and identity measures by gender. Many more women categorize themselves as having a health-related condition/disability or mental health condition than men and are more likely to say it is important to their sense of identity—especially for mental health conditions. Specifically, women are over 7% more likely to say they have a mental health condition than men and are. While the middle categories—Very important, moderately important, a little important—are roughly equal between men and women, the two end categories highlight the difference. Women are about 7% more likely to say their mental health condition is “Extremely important” to their identity and are about 10% less likely to say that it is “Not at all important” to their identities.

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<sup>43</sup> The corresponding table to this graph appears in the Appendix.

**Table 5. Frequencies for Disability Identity by Gender**

	Men		Women	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	150	18.99	202	23.17
Mental health condition	79	10.00	153	17.55
Learning disability or ADHD	49	6.20	49	5.62
Autism	22	2.78	15	1.72
Blind or visually impaired	18	2.28	15	1.72
Deaf or hard of hearing	51	6.46	36	4.13
Mobility-related disability	69	8.73	59	6.77
Speech-related disability	7	0.89	8	0.92
Other (please specify)	24	3.04	24	2.75
I do not have a disability or chronic condition	488	61.77	510	58.49
Inapplicable, legitimate skip	87	0	160	0
Sub-total (excluding skips)	790	100	872	100
Total	877		1,032	

**Table 6. Frequencies for Disability Identity Importance by Gender**

	Men		Women	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Extremely important	28	9.27	58	16.11
Very important	37	12.25	45	12.50
Moderately important	60	19.87	73	20.28
A little important	46	15.23	64	17.78
Not at all important	131	43.38	120	33.33
Inapplicable, legitimate skip	575	Excluded	672	Excluded
Missing	0		0	
Total (excluding skip)	302		360	

**Tables 7 and 8** examine the categorization and identity measures by race (White, Black, Hispanic). White respondents are more likely to categorize themselves as having a health-related condition/disability or mental health condition than black or Hispanic respondents. There are suggestive findings that although Black and Hispanic respondents are less likely to categorize, they are more likely to say that their disability or chronic condition is important to their

identity—especially for Black respondents. These findings are suggestive because of the sample size, but they do mirror similar suggestive findings in the 2022 CES analysis.

**Table 7. Frequencies for Disability Identity by Race**

	White		Black		Hispanic	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	245	22.88	35	18.13	42	16.34
Mental health condition	153	14.29	23	11.92	39	15.73
Learning disability or ADHD	70	6.54	6	3.11	13	5.24
Autism	24	2.24	1	0.52	7	2.82
Blind or visually impaired	21	1.96	1	0.52	7	2.82
Deaf or hard of hearing	67	6.26	7	3.63	5	2.02
Mobility-related disability	82	7.66	18	9.33	15	6.05
Speech-related disability	8	0.75	1	0.52	2	0.81
Other (please specify)	34	3.17	4	2.07	3	1.21
I do not have a disability or chronic condition	622	61.81	121	62.69	164	66.13
<b>Total</b>	<b>1,071</b>	<b>100</b>	<b>193</b>	<b>100</b>	<b>248</b>	<b>100</b>

**Table 8. Frequencies for Disability Identity Importance by Race**

	White		Black		Hispanic	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Extremely important	40	8.95	23	31.94	13	15.48
Very important	48	10.74	12	16.67	12	14.29
Moderately important	88	19.69	11	15.28	20	23.81
A little important	81	18.12	11	15.28	11	13.10
Not at all important	190	42.51	15	20.83	28	33.33
Inapplicable, legitimate skip	624	Excluded	121	Excluded	164	Excluded
	447	100	72	100	84	100
Sub-total (excluding skip)						
<b>Total</b>	<b>1,071</b>		<b>193</b>		<b>248</b>	

**Tables 9 and 10** examine the categorization and identity measures by party ID (Democrat, Republican, Independent). The two main findings from these tables are that (1) Republicans are far less likely to self-categorize as having a mental health condition than either Independents or Democrats, and (2) Democrats are much more likely to consider their disability or chronic condition as important to their identity than either Independents or Republicans.

**Table 9. Frequencies for Disability Identity by Party Identification**

	Democrat		Republican		Independent	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	104	16.75	88	16.70	108	21.34
Mental health condition	75	12.08	33	6.26	73	14.43
Learning disability or ADHD	28	4.51	19	3.61	27	5.34
Autism	8	1.23	6	1.14	16	3.16
Blind or visually impaired	7	1.23	8	1.52	11	2.17
Deaf or hard of hearing	20	3.22	33	6.26	25	4.94
Mobility-related disability	41	6.60	36	6.83	36	7.11
Speech-related disability	5	0.81	5	0.95	3	0.59
Other (please specify)	10	1.61	15	2.85	15	2.96
I do not have a disability or chronic condition	348	56.04	304	57.69	259	51.19
Total	621	100	527	100	506	100

**Table 10. Frequencies for Disability Identity Importance by Party Identification**

	Democrat		Republican		Independent	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Extremely important	39	20.42	13	7.51	19	9.74
Very important	26	13.61	19	10.98	25	12.82
Moderately important	37	19.37	30	17.34	41	21.03
A little important	35	18.32	25	14.45	29	14.87
Not at all important	54	28.27	86	49.71	81	41.54
Inapplicable, legitimate skip	430	Excluded	354	Excluded	311	Excluded
Missing	0		0		0	
Total (excluding skip)	191	100	173	100	195	100

**Tables 10** and **11** examine disability categorization and identity importance measures by ideology, respectively. Table 10 shows that there is a fairly stable percentage of individuals who say they have a health-related condition or disability across ideology, with a slight increase for those identifying as “Very conservative.” In contrast, there is a much stronger trend for mental health condition. There is a steady decline in mental health categorization from “Very liberal” to “Very conservative.” Twenty-eight percent of those that identify as very liberal say they have a mental health condition, about 15% of those that say they are liberal, about 9% for moderates, 8% for conservatives, and only 5% for those that are very conservative. Table 11 shows that

**Table 10. Frequencies for Disability Identity by Ideology**

	Very Liberal		Liberal		Moderate		Conservative		Very Conservative	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	34	18.68	60	18.13	107	18.35	70	17.81	45	22.28
Mental health condition	51	28.02	48	14.50	55	9.43	33	8.40	11	5.45
Learning disability or ADHD	27	14.84	12	3.36	30	5.15	13	3.31	6	2.97
Autism	10	5.49	7	2.11	4	0.69	7	1.78	3	1.49
Blind or visually impaired	4	2.20	7	2.11	6	1.03	10	2.54	2	0.99
Deaf or hard of hearing	10	5.49	9	2.72	18	3.09	26	6.62	16	7.92
Mobility-related disability	16	8.79	17	5.14	32	5.49	31	7.89	19	9.41
Speech-related disability	1	0.55	1	0.30	4	0.69	4	1.02	3	1.49
Other (please specify)	5	2.75	3		15	2.57	12	3.05	7	3.47
I do not have a disability or chronic condition	76	41.76	194	58.61	335	57.46	215	54.71	104	51.49
<b>Total</b>	<b>182</b>	<b>100</b>	<b>331</b>	<b>100</b>	<b>583</b>	<b>100</b>	<b>393</b>	<b>100</b>	<b>202</b>	<b>100</b>

**Table 11. Frequencies for Disability Identity Importance by Ideology**

	Very Liberal		Liberal		Moderate		Conservative		Very Conservative	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Extremely important	11	13.10	16	14.95	26	14.53	13	8.84	8	10.53
Very important	11	13.10	11	10.28	29	16.20	18	12.24	3	3.95
Moderately important	25	29.76	16	14.95	38	21.23	22	14.97	14	18.42
A little important	13	15.48	21	19.63	28	15.64	25	17.01	7	9.21
Not at all important	24	28.57	43	40.19	58	32.40	69	46.94	44	57.89
Inapplicable, legitimate skip	98	Excluded	224	Excluded	404	Excluded	246	Excluded	126	Excluded
<b>Total (excluding skip)</b>	<b>84</b>	<b>100</b>	<b>107</b>	<b>100</b>	<b>179</b>	<b>100</b>	<b>147</b>	<b>100</b>	<b>76</b>	<b>100</b>

**Table 12. Frequencies for Disability Identity by Generation**

	Post War		Boomer		Gen X		Millennial		Gen Z	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	13	20.63	179	27.84	105	22.20	37	8.09	18	6.59
Mental health condition	1	1.59	34	5.29	78	16.50	71	15.54	48	17.58
Learning disability or ADHD	1	1.59	10	1.56	27	5.71	31	6.79	29	10.62
Autism	0	0	3	0.47	7	1.48	10	2.19	17	6.23
Blind or visually impaired	0	0	10	1.56	11	2.33	8	1.75	4	1.47
Deaf or hard of hearing	14	22.22	48	7.47	16	3.38	7	1.53	2	0.73
Mobility-related disability	5	7.94	67	10.42	38	8.03	13	2.84	5	1.83
Speech-related disability	0	0	3	0.47	3	0.63	5	1.09	4	1.47
Other (please specify)	2	3.17	25	3.89	10	2.11	7	1.53	4	1.47
I do not have a disability or chronic condition	31	49.21	311	48.37	234	49.47	266	58.21	156	57.14
Inapplicable, legitimate skip	37	Excluded	389	Excluded	294	Excluded	332	Excluded	195	Excluded
Total	63	100	643		473		457		273	

**Table 13. Frequencies for Disability Identity Importance by Generation**

	Post War		Boomer		Gen X		Millennial		Gen Z	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Extremely important	1	3.85	37	14.57	24	13.41	13	10.4	11	14.10
Very important	2	7.69	24	9.45	23	12.85	19	15.2	14	17.95
Moderately important	5	19.23	43	16.93	38	21.23	24	19.2	23	29.49
A little important	6	23.08	34	13.39	31	17.32	26	20.8	13	16.67
Not at all important	12	46.15	116	45.67	63	35.20	43	34.40	17	21.79
Inapplicable, legitimate skip	37		389		294		332		195	
Total (excluding skip)	26	100	254	100	179	100	125	100	78	100

identify as conservative and very conservative are less likely to say that their disability identity is extremely important to their identity compared to all other ideological categories. Also, there is an increasing trend for those saying that their disability is not at all important to their identity—going from about 29% of those identifying as very liberal to 58% of those identifying as very conservative.

**Tables 12** and **13** examine disability categorization and identity importance measures by Generation, respectively. As would be expected, those in the older generations say that they have a higher percentage of health-related conditions or disabilities than those in the younger generations. Inversely, there is the opposite trend for having a mental health condition: about 2% of the Post War generation says they have a mental health condition, about 5% of the Boomers, 17% of Gen X, 16% of Millennials, and 18% of Gen Z. While not a perfect increase, there is a clear divide between the Post War and Boomer generations and the younger generations. Table 13 shows that there is a generational trend where younger generations are less likely to consider their disability or chronic condition “not at all important” to their identity: about 46% of the Post War and Boomer generations, 35% for Gen X, 34% of Millennials, and only 22% for Gen Z. While this question does not allow a breakdown by specific disability, it seems clear that mental health categorization functions differently for different ideologies and generational cohorts. Further, there is a decrease in stating things are important for one’s identity as respondents become more conservative and older.

## **Results**

Using the original and created items as dependent variables, **Table 14A** examines likely significant predictors of disability identity, disability identity importance, and the number of conditions one has (Additive health categorization). Generation is important in different ways for



disability categorization and disability identification: the older respondents are more likely to categorize themselves but the younger respondents are more likely to identify with their disability. There is a different trend for mental health. While younger generations are more likely to categorize themselves as having a mental health condition, there is not a substantive difference for mental health identification between generations. Race is significant for disability identification, and (low) income is important for most of the items. Holding with previous trends in this chapter, the more liberal one is, the more one is likely to categorize with a mental health condition. Poor general health is also a strong predictor of categorization, while there is some

**Table 14: Logit and Ordered Logit Regressions of Disability and Mental Health Categorization and Identity Measures**

Health Items	Coefficient Disability Categorization	Coefficient Disability Identification	Coefficient Mental Health Categorization	Coefficient Mental Health Identification	Coefficient Additive Health Categorization	Coefficient Overall Identification
Gen Z	-2.07*** (0.49)	1.58* (0.75)	2.42*** (0.49)	-0.40 (0.92)	-0.40 (0.38)	1.03* (0.49)
Female	0.31 (0.20)	0.14 (0.31)	0.33 (0.23)	0.23 (0.40)	-0.11 (0.15)	0.20 (0.22)
Black	-0.46 (0.35)	1.40** (0.52)	-0.34 (0.39)	1.01 (0.52)	-0.49* (0.24)	0.95** (0.34)
Education	0.36 (0.36)	-0.59 (0.58)	-0.15 (0.47)	-2.13** (0.73)	-0.17 (0.28)	-1.23** (0.44)
Income	-0.97* (0.48)	-2.50** (0.81)	-1.59** (0.51)	-1.35 (0.90)	-1.76*** (0.35)	-1.56** (0.52)
Republican	-0.01 (0.41)	-0.40 (0.59)	0.12 (0.40)	-1.46 (0.82)	0.23 (0.29)	-0.70 (0.43)
Conservative	-0.14 (0.49)	-0.50 (0.76)	-1.82** (0.54)	0.06 (0.79)	-0.95* (0.38)	-0.28 (0.49)
Poor General Health	4.18*** (0.55)	-1.26* (0.62)	2.38*** (0.47)	1.06 (0.79)	3.16*** (0.35)	-0.21 (0.43)
Tau 1		-1.97 (0.80)		-2.26 (0.86)	0.30 (0.40)	-1.43 (0.47)
Tau 2		-1.14 (0.80)		-1.27 (0.85)	1.84 (0.41)	-0.64 (0.46)
Tau 3		-0.15 (0.81)		-0.15 (0.87)	3.28 (0.45)	0.37 (0.47)
Tau 4		0.59 (0.80)		0.88 (0.85)	4.70 (0.484)	1.25 (0.47)
Tau 5					6.64 (1.04)	
N	968	207	968	125	968	386

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test; regressions use US Citizen weights.

Source: 2024 ANES Pilot.

evidence that better general health leads to greater disability identification.<sup>44</sup>

**Tables 15-17** use the disability categorization and identity measures as independent variables in order to predict political outcomes. **Table 15** uses a question about election stress—How much, if at all, does the current election stress you out?—as the dependent variable. Across conditions, those who are more conservative and in poor general health tend to be more stressed out by the current election. In addition, respondents are more likely to be stressed out by the election if they categorize themselves as having a mental health condition and identify with that condition.

**Table 15: Ordered Logit Regressions of Disability and Mental Health Categorization, Identity Measures and Election Stress**

	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
	Disability	Disability	Mental Health	Mental Health	Additive Health	Overall
	Categorization	Identification	Categorization	Identification	Categorization	Identification
Election Stress	-0.20 (0.17)	-0.66 (0.46)	-0.40* (0.19)	-1.55* (0.65)	-0.19* (0.08)	-0.18* (0.09)
Gen Z	0.21 (0.31)	-1.07 (0.83)	0.37 (0.31)	0.69 (0.93)	0.26 (0.31)	-0.33 (0.50)
Female	-0.13 (0.13)	-0.18 (0.28)	-0.12 (0.13)	-0.60 (0.41)	-0.15 (0.13)	-0.11 (0.20)
Black	0.90*** (0.21)	0.98* (0.46)	0.90*** (0.21)	0.56 (0.63)	0.87*** (0.21)	0.66* (0.32)
Education	-0.24 (0.23)	-0.16 (0.53)	-0.27 (.24)	-0.11 (0.61)	-0.28 (0.23)	-0.29 (0.36)
Income	-0.69* (0.29)	-1.29 (0.73)	-0.73* (0.29)	-1.29 (0.85)	-0.80** (0.30)	-0.97* (0.49)
Republican	-0.01 (0.25)	-0.58 (0.61)	0.01 (0.25)	0.55 (0.87)	0.01 (0.25)	-0.22 (0.44)
Conservative	1.52*** (0.33)	1.93* (0.78)	1.45*** (0.34)	2.71** (0.89)	1.44*** (0.34)	1.70** (0.53)
Poor General Health	-0.79** (0.27)	-1.09 (0.53)	-0.81** (0.24)	-1.18 (0.76)	-0.66* (0.26)	-1.07** (0.37)
Tau 1	-1.79 (0.33)	-2.80 (0.75)	-1.8 (0.33)	-1.80 (0.97)	-1.91 (0.34)	-2.56 (0.52)
Tau 2	-0.44 (0.32)	-1.33 (0.77)	-0.45 (0.32)	-0.68 (0.93)	-0.56 (0.33)	-1.17 (0.51)
Tau 3	0.69 (0.32)	-0.17 (0.75)	0.67 (0.32)	0.90 (0.93)	0.57 (0.33)	-0.01 (0.50)
Tau 4	1.60 (0.33)	0.86 (0.75)	1.59 (0.33)	2.34 (0.90)	1.48 (0.34)	0.98 (0.51)

<sup>44</sup> The finding that less education increases mental health identification is counter-intuitive, but is mirrored in my 2022 CES results.

N	968	207	968	125	968	386
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Standard errors in parentheses

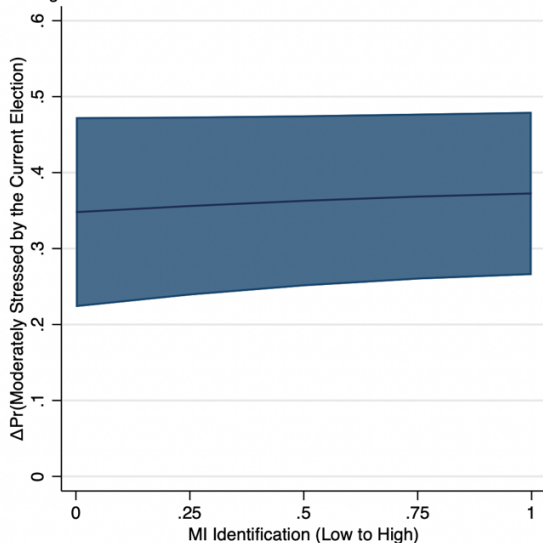
\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test; regressions use US Citizen weights.

Source: 2024 ANES Pilot.

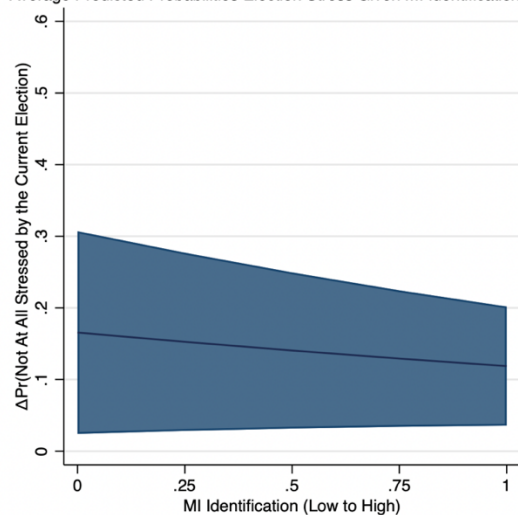
The five figures presented below display the average predicted probabilities of level of election stress, ranging from extremely stressed by the current election to not at all stressed by the current election. Those that identify the most with their mental health are about 3 percent more likely, on average, to be extremely stressed by the current election compared to those that identify the least with their mental health ( $p < 0.000$ ). A similar trend holds for those very (much) stressed by the election, where individuals who identify the most with their mental health are about 4 percent more likely, on average, to be stressed by the current election than those that identify with their mental health the least ( $p < 0.05$ ). The “moderately stressed” by the election category is in the expected direction but is insignificant, as is the “not at all stressed” by the current election category. While “a little stressed” is statistically significant ( $p < 0.01$ ), I have no theoretical expectations about this stress level and so the graph appears in the appendix.

Average Predicted Probabilities Election Stress Given MI Identification

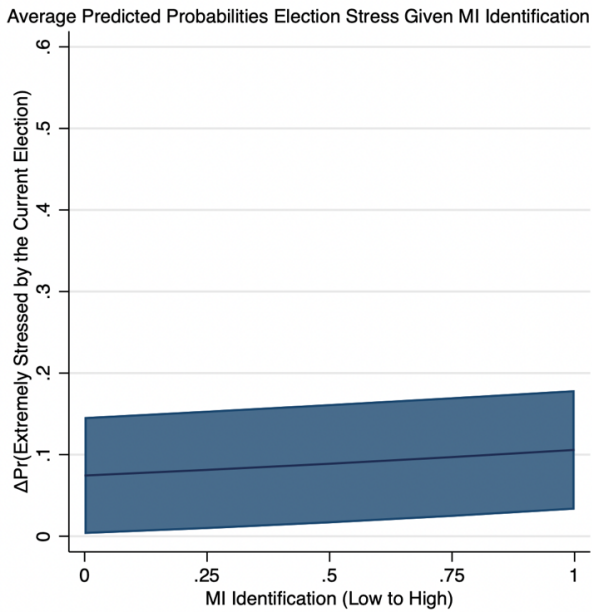


All covariates set to mean values.  
95% CIs reported,  $N = 125$  Survey Respondents  
Source: 2024 ANES Pilot.

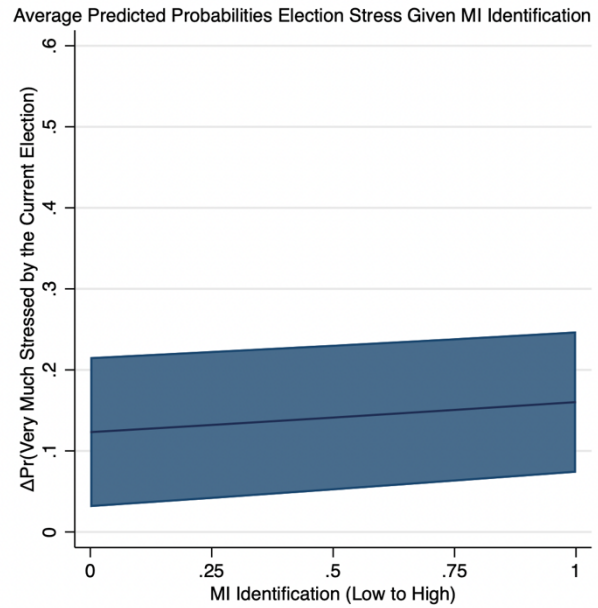
Average Predicted Probabilities Election Stress Given MI Identification



All covariates set to mean values.  
95% CIs reported,  $N = 125$  Survey Respondents  
Source: 2024 ANES Pilot.



All covariates set to mean values.  
 95% CIs reported, N = 125 Survey Respondents  
 Source: 2024 ANES Pilot.



All covariates set to mean values.  
 95% CIs reported, N = 125 Survey Respondents  
 Source: 2024 ANES Pilot.

**Table 16** uses a question about politics exhaustion as the dependent variable. Table 16 shows that all three of the health categorization variables are positive and significant. Respondents that categorize themselves with a health condition are likely to experience politics exhaustion more often. Looking at overall trends, women are more likely to experience politics exhaustion, white respondents are more likely to experience politics exhaustion, and liberals are much more likely to experience politics exhaustions often.

The five figures presented below display the average predicted probabilities of level of politics exhaustion, ranging from never experiencing politics exhaustion to very often experiencing politics exhaustion. Those that categorize themselves as having a mental health condition are 4 percent less likely, on average, to never ( $p < 0.05$ ) and almost never ( $p < 0.05$ ; also 4% decrease) experience politics exhaustion, and 5 percent more likely, on average, to fairly often ( $p < 0.05$ ) or very often ( $p < 0.05$ ; 3% decrease) experience politics exhaustion. Sometimes

experiencing politics exhaustion is insignificant and I have no theoretical expectations about this exhaustion level, therefore the graph appears in the appendix.

**Table 16: Ordered Logit Regressions of Disability and Mental Health Categorization, Identity Measures and Politics Exhaustion**

	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
	Disability	Disability	Mental Health	Mental Health	Additive Health	Overall
	Categorization	Identification	Categorization	Identification	Categorization	Identification
Politics Exhaustion	0.39*	0.04	0.44*	0.20	0.17*	-0.02
	(0.17)	(0.11)	(0.20)	(0.16)	(0.08)	(0.08)
Gen Z	0.41	0.88	0.21	1.75	0.34	0.92
	(0.30)	(0.74)	(0.31)	(1.23)	(0.30)	(0.54)
Female	0.44**	0.49	0.43**	0.56	0.46***	0.48*
	(0.13)	(0.29)	(0.13)	(0.43)	(0.13)	(0.22)
Black	-0.91***	-1.26*	-0.92***	-1.24*	-0.90***	-1.24***
	(0.21)	(0.51)	(0.21)	(0.63)	(0.21)	(0.33)
Education	0.29	-0.70	0.33	1.05	0.33	0.20
	(0.24)	(0.57)	(0.24)	(0.89)	(0.24)	(0.40)
Income	0.16	0.28	0.17	0.83	0.21	-0.05
	(0.31)	(0.83)	(0.30)	(0.94)	(0.30)	(0.53)
Republican	0.04	0.28	0.02	0.49	0.02	0.51
	(0.24)	(0.64)	(0.24)	(0.80)	(0.24)	(0.43)
Conservative	-1.17***	-1.47*	-1.09**	-2.87**	-1.11**	-2.17***
	(0.33)	(0.74)	(0.33)	(0.99)	(0.33)	(0.51)
Poor General Health	0.68*	-0.15	0.79**	0.25	0.68*	0.64
	(0.29)	(0.63)	(0.27)	(0.78)	(0.28)	(0.40)
Tau 1	-1.73	-3.02	-1.73	-1.92	-1.65	-2.31
	(0.34)	(0.91)	(0.34)	(1.36)	(0.34)	(0.57)
Tau 2	-0.74	-1.98	-0.75	-0.82	-0.67	-1.26
	(0.33)	(0.84)	(0.34)	(1.31)	(0.33)	(0.54)
Tau 3	0.82	-0.34	0.81	0.87	0.89	0.28
	(0.33)	(0.82)	(0.34)	(1.30)	(0.34)	(0.55)
Tau 4	2.13	1.08	2.12	2.51	2.21	1.71
	(0.33)	(0.79)	(0.34)	(1.31)	(0.34)	(0.54)
N	968	207	968	125	968	386

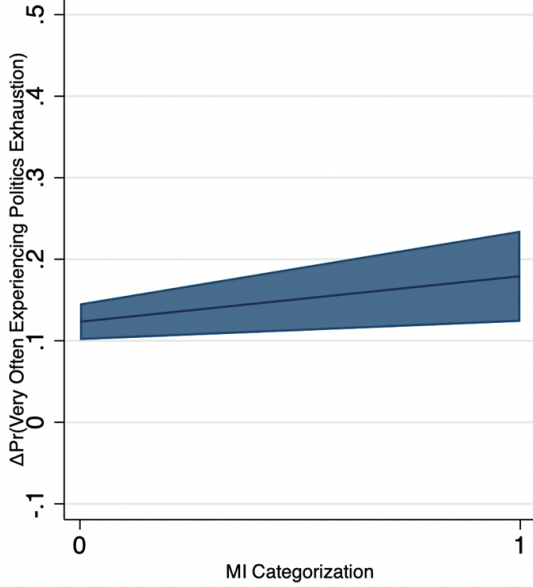
Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test; regressions use US Citizen weights.

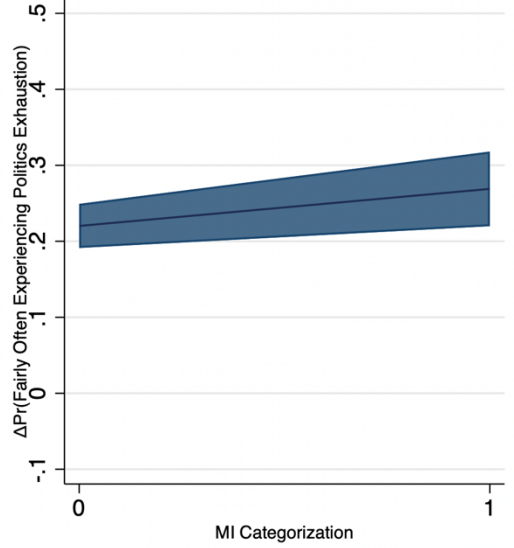
Source: 2024 ANES Pilot.

Average Predicted Probabilities of Politics Exhaustion Given MI Categorization



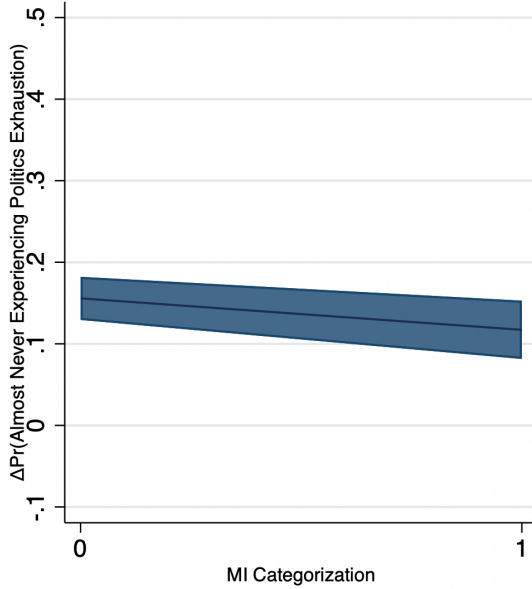
All covariates set to mean values.  
95% CIs reported,  $N = 968$  Survey Respondents  
Source: 2024 ANES Pilot.

Average Predicted Probabilities of Politics Exhaustion Given MI Categorization



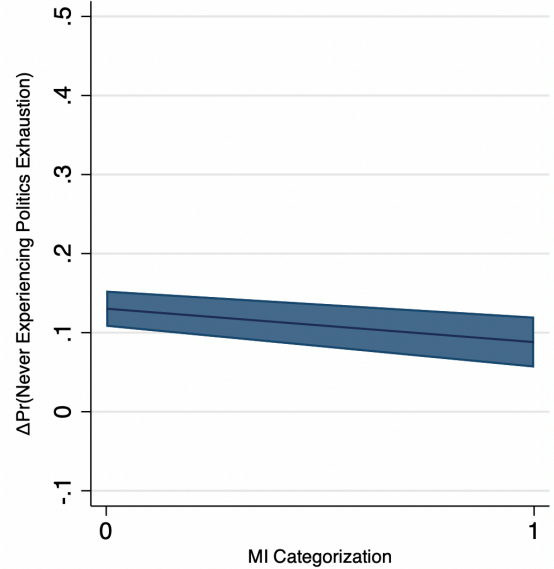
All covariates set to mean values.  
95% CIs reported,  $N = 968$  Survey Respondents  
Source: 2024 ANES Pilot.

Average Predicted Probabilities of Politics Exhaustion Given MI Categorization



All covariates set to mean values.  
95% CIs reported,  $N = 968$  Survey Respondents  
Source: 2024 ANES Pilot.

Average Predicted Probabilities of Politics Exhaustion Given MI Categorization



All covariates set to mean values.  
95% CIs reported,  $N = 968$  Survey Respondents  
Source: 2024 ANES Pilot.

**Table 17** uses an open-ended question that asked respondents what issue(s) were most important to them. I hand coded these for explicit mention of healthcare, health, and Medicaid/Medicare (82 total). Table 17 shows that all three of the health categorization variables are positive and significant. Respondents that categorize themselves with any health condition are more likely to have written about healthcare in response to the open-ended important issue question than other issues.

**Table 17: Logit of Health Categorization, Identity Measures and Important Issue Healthcare (Hand Coded)**

	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
	Health Categorization	Health Identification	Mental Health Categorization	Mental Health Identification	Additive Health Categorization	Overall Identification
Important Issue	1.12*	0.41	1.39**	0.15	0.78***	0.22
	(0.47)	(0.26)	(0.45)	(0.28)	(0.21)	(0.19)
Gen Z	0.26	3.24	-0.42	-0.18	0.17	1.80
	(0.78)	(2.35)	(0.79)	(2.30)	(0.79)	(1.06)
Female	0.28	-0.06	0.22	0.02	0.32	-0.09
	(0.32)	(0.56)	(0.33)	(0.71)	(0.33)	(0.43)
Black	0.22	0.44	0.29	-0.44	0.28	-0.88
	(0.46)	(0.81)	(0.47)	(1.14)	(0.46)	(0.77)
Education	1.28*	2.01	1.22*	1.30	1.43*	1.91*
	(0.62)	(1.68)	(0.59)	(1.24)	(0.62)	(0.96)
Income	-0.22	-1.05	0.17	-2.73	0.22	-0.79
	(0.73)	(1.75)	(0.71)	(1.80)	(0.74)	(1.14)
Republican	-1.60*	-0.39	-1.52	-2.75	-1.58	-1.48
	(0.81)	(1.43)	(0.93)	(1.97)	(0.86)	(1.11)
Conservative	-0.94	-2.36	-0.84	-0.40	-0.73	-1.33
	(1.04)	(2.42)	(1.07)	(2.32)	(1.01)	(1.24)
Poor General Health	-1.35	-1.39	-1.23	-1.15	-1.55	-1.95*
	(0.78)	(1.31)	(0.73)	(1.62)	(0.71)	(0.98)
Constant	-1.83*	-2.86	-1.73*	0.35	-2.37**	-1.51
	(0.83)	(2.69)	(0.77)	(2.36)	(0.80)	(1.35)
N	457	82	457	54	457	165

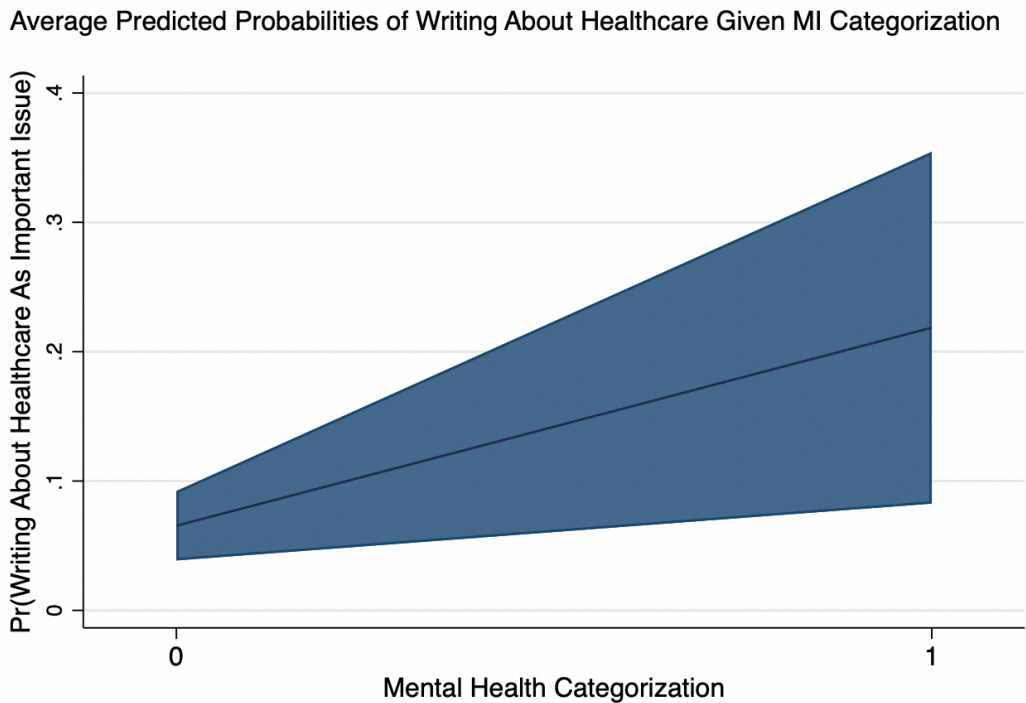
Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test; regressions use US Citizen weights.

Source: 2024 ANES Pilot.

The single figure presented below shows the average predicted probability of writing about healthcare in the open-ended important question prompt given mental illness categorization—among all of the respondents who answered yes to that question and wrote something. Those that categorize themselves as having a mental health condition are 15 percent more



likely, on average, than those who do not categorize themselves to write about some aspect of healthcare as the issue(s) they care about the most ( $p < 0.5$ ).

## Conclusion

The analysis of the health categorization and identity items from the 2024 ANES Pilot indicate that many Americans categorize themselves as having a disability or chronic condition and also consider it as relatively important to their identity. Strength of identification varies by condition. I focus on the physical health-related/disability condition category and the mental



health condition category primarily due to power constraints. I find that disability categorization and identification vary by gender, race, ideology, party ID, and generational cohort.

I examine significant predictors for the disability and mental health measures.

Generational cohort is important in different ways for disability categorization and disability identification. Older respondents are more likely to categorize themselves as having a disability, but the younger respondents are more likely to identify with their disability. Interestingly, the trend is different for mental health. While younger generations are more likely to categorize themselves as having a mental health condition compared to older generations, there is not a substantive difference for mental health identification between generations. Race is significant for disability identification, and (low) income is important for most of the items. Holding with previous trends in this chapter, the more liberal one is, the more one is likely to categorize with a mental health condition. Poor general health is also a strong predictor of categorization.

After examining the important predictors of disability and mental health categorization and identification, I use the disability and mental health measures to predict several dependent variables, including politics exhaustion, election stress, and healthcare as an important issue respondents care about. Across all models, those who are Black, more conservative, and in poor general health tend to be more stressed out by the current election. In addition, respondents are more likely to be stressed out by the election if they categorize themselves as having a mental health condition and identify with that condition. Those that categorize themselves as having a mental health condition are less likely to never and almost never experience politics exhaustion, and more likely to fairly often or very often experience politics exhaustion. Finally, respondents that categorizes themselves with any health condition are more likely to have written about healthcare in response to the open-ended important issue question than other issues. Those that

categorize themselves as having a mental health condition are 15 percent more likely, on average, than those who do not categorize themselves to write about some aspect of healthcare as the issue(s) they care about the most ( $p < 0.5$ ).

This is the first study to examine disability categorization and identity in a representative sample of Americans. Further, this chapter is also unique in that it compares different disability conditions and how individuals categorize themselves with those conditions and compares that to how those with mental health conditions categorize themselves. This chapter has large implications for how we speak about disability, mental health, and identity and how individuals with those conditions function in the modern political landscape.

## CHAPTER 5

### **(Un)stable Genius? Candidate Mental Health and Voter Attributes**

*“Political taboos, campaign dealbreakers and electoral glass ceilings are crumbling. Members of Congress are openly gay and bisexual, there’s a black man in the White House, and a woman may be next. Voters have accepted all sorts of behavioral warts and missteps in their political candidates, too. DUIs? A mistake of their youth. Draft dodgers? There’s a long list. Womanizers? A much longer list. Illegal drugs? In just a few short elections, we’ve gone from a president who “didn’t inhale” to one who openly admits using cocaine in his youth. Yet one large taboo remains stubbornly fixed—mental illness” (Thompson, 2015.)*

#### **Introduction**

How do voters respond to candidates with mental health conditions? Moreover, do these evaluations vary across voters? These are important and timely questions in light of rising mental health awareness due to COVID-19 and the 2020 presidential campaign. The COVID-19 pandemic has negatively affected many Americans’ mental health. Pre-pandemic (2019), about 10% of the American public reported symptoms of anxiety or depression; in 2020, this jumped to 40% in 2020 (Panchal et al. 2021). This adds to an already high number of individuals who have experienced mental illness in their lifetimes pre-pandemic—nearly 1 in 5 U.S. adults (47 million) in 2018. Although symptoms of anxiety and depression have increased during the pandemic, they are often coupled with other difficulties that affect mental health: difficulty sleeping or eating, increased alcohol consumption and substance use, and worsening chronic conditions (ibid).

In recent years, and especially during the 2020 presidential election, many politicians have been labeled with mental health diagnoses as delegitimizing political attacks. President Trump was described as mentally unfit, and it was speculated that President Biden has dementia (Leonard 2019a; Leonard 2019b Lee 2019; Murphy 2020). Many established politicians have

“come out” as having mental illness<sup>45</sup> and there has been a national discussion of creating a mental health fitness panel for presidential candidates.<sup>46</sup> Due to COVID-19 and the discussions surrounding politicians with mental illnesses, I expect the mental health of politicians to be an important and timely topic of study.

This chapter explores whether voters discriminate against political candidates with different mental health conditions using two survey experiments. The first survey experiment examines political candidates who have depression or heroin addiction compared to another socially undesirable characteristic—rudeness. The second survey experiment examines political candidates who have depression or schizophrenia compared to a true control condition. I argue that political candidates who have more socially stigmatized mental health conditions—heroin addiction or schizophrenia—will have lower favorability and vote choice evaluations than candidates in the control conditions. Further, candidates who have a less socially stigmatized condition—depression—will have higher favorability and vote choice evaluations than candidates who have more socially stigmatized mental health conditions—heroin addiction or schizophrenia. I expect that female (male) respondents, Democratic (Republican) respondents,

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<sup>45</sup> Representative Seth Moulton [D-MA] with PTSD, Senator Tina Smith [D-MN] with Depression, Representative Ruben Gallego [D-AZ] with PTSD, and Representative Lynn Rivers [D-MI] with bipolar disorder (Leonard 2019b). Former Representative Jesse Jackson Jr. [D-IL] resigned from Congress in 2012 amidst a federal investigation into misuse of campaign funds, stating that he needed to focus on his bipolar disorder; Representative Karen McCarthy [D-MO] sought treatment after she was publicized drunk in the House office building in 2003 and after her death her family revealed she had bipolar disorder; Former Governor Mark Dayton [D-MN] told his constituents in 2010 that he had been taking antidepressants.

<sup>46</sup> In 2019, Democrats planned and held a Capitol hill event featuring psychiatrists who warned that President Trump was unfit for office (Leonard 2019a). This was led by Dr. Bandy Lee, who is the editor of the book *The Dangerous Case of Donald Trump*, which argues that psychiatrists have a responsibility to inform the public if a president is “dangerous.” This is controversial for multiple reasons. First, most practitioners advise never to diagnose people they have never personally evaluated; second, the American Psychiatric Association instituted the “Goldwater Rule” in 1973 in its annotated code of ethics (“Goldwater Rule” 2021). This rule came about because of the *Fact* magazine’s survey of 12,356 psychiatrists during the 1964 presidential election that asked, “Do you believe Barry Goldwater is psychologically fit to serve as President of the United States?” (“Goldwater Rule” 2021). Lee notes that the goal of the conference is to create a medical panel that would, “prevent mentally unfit people from entering high office” (Leonard 2019a).

and respondents who have a mental health condition (do not have a mental health condition) and identify with that mental health condition (do not identify with it) will rate candidates with a mental health condition higher (lower) on favorability and vote choice evaluations.

For the first survey experiment, I find that voters rate rude candidates less favorably than either depression or heroin addiction and are less likely to vote for them compared to candidates with depression—although there is no statistically significant difference between the rude candidate and the candidate with heroin addiction. In terms of voter's attributes, gender, party ID, and experiencing a mental illness are all important moderators to different degrees.

Gender appears to matter for favorability and depression and is most prominent in the social restrictiveness (CAMI) measure. There is a strong partisan divide with Democratic voters favoring candidates with mental illness significantly more than Republican voters. Finally, there are substantial results that suggest voters who have had a mental health condition prefer candidates that descriptively represent them.

In the second survey experiment, I find that there is not much of an electoral penalty for candidates with depression in terms of favorability or vote choice, but there is for candidates with schizophrenia. Unlike the first survey experiment, there are not strong demographic moderators related to gender or party ID (democrats are a slight exception here). The second half of the chapter focuses on using mental health measures as moderators. In terms of general mental health categorization—have a mental health condition or not—those who have a mental health condition are much more likely to favor and vote for politicians with depression and schizophrenia. As for specific mental health conditions, respondents who said they have schizophrenia or depression are more likely to vote for candidates with depression or schizophrenia than respondents without diagnoses. Finally, the mental health identity measure is

a strong moderator for the schizophrenia condition and the mental health alienation measure is a strong moderator for both experimental conditions.

## **Argument**

Aside from overall prevalence lending importance to this study, there are two additional reasons why examining the difficulties individuals with mental health conditions face when seeking higher office is important: 1) there is evidence that psychiatric conditions may affect cognitive ability and current evidence suggests that there is high prevalence of mental health conditions among politicians; and 2) mental health status has been used in recent elections as a politically delegitimizing tactic. Politicians are required to make complex decisions (Sheffer et al. 2018), and these complex decision-making processes may be further complicated by depression (Leykin, Roberts, and DeRubeis 2011) and drug addiction (Li et al. 2013; Mizoguchi and Yamada 2019; Hou et al. 2016). There is evidence that there is a high prevalence of mental health conditions among UK politicians (Poulter et al. 2019) and historically among U.S. presidents (Davidson, Connor, and Swartz 2006). This likely extends to politicians more generally given politicians' difficult working environment and, at times, stressful decisions (Weinberg and Cooper 2003). While many of these studies examine prevalence and medical effects of mental illness, only one other study examines the perceptions of politicians' mental illness (Lowen and Rheault 2019).<sup>47</sup>

## *Substance Use Disorders*

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<sup>47</sup> Lowen and Rheault (2019) examine a hypothetical candidate with mental illness—depression— and compare that to hypothetical politicians with other physical illnesses—high blood pressure, cancer, flu, and skin conditions. They find that voters in the U.S. are about 10 percentage points less likely to vote for candidates who have suffered from depression than for those with cancer or high blood pressure. While this is a fascinating study, it only examines depression, a more widely accepted mental illness, and only compares it to physical illnesses.

Substance use disorders are very common and can evoke higher levels of stigmatization than schizophrenia, anxiety disorders, or depression (Corrigan et al. 2005; Röhm et al. 2021). The attributed controllability of an addiction, a person's perceived responsibility, as well as the familiarity with the substance and its dangerousness influence the level of stigmatization (Corrigan et al., 2005). Röhm et al. (2021) find that heroin addictions are more stigmatized than alcohol addictions, that varying personal responsibility did not matter (contrary to the prevailing consensus in the mental health literature), and that moral value orientations of the respondents and employment status of the individual with substance use disorder are significant.

***Hypothesis 1A:** Candidates who have substance use disorders (heroin addiction) will have lower favorability and vote choice evaluations than candidates who are rude.*

### *Depression*

McGinty et al. (2015) finds that portrayals of untreated depression, schizophrenia, and drug addiction increased negative public attitudes for mental illness and drug addiction. Portrayals of successful treatments of schizophrenia and drug addiction led to decreased social distance, increased beliefs in the effectiveness of treatment, and decreased likelihood of discrimination against people with these conditions (McGinty et al. 2015). Link et al. (1999) finds that symptoms of mental illness are still strongly tied to public fears of violence and increased social distance. For every condition except cocaine dependence (a person's own bad character), the vast majority of people believed that stress was the main cause of mental health conditions. For schizophrenia and depression, the second cause was chemical imbalances in the brain, and for alcohol dependence, the second stated cause was the way a person was raised (Link et al. 1999). While the explicit ordering of preferences among disability groups places

alcoholism ahead of mental illnesses, this work was done in the 1970s and did not disaggregate the individual conditions within the larger mental illness category. I think it is more telling that cocaine dependence is viewed as someone's bad character while schizophrenia and depression are viewed more in terms of illness. There is a hierarchy of acceptability of mental illnesses and, perhaps some substance use disorders may not be granted the same medical "protection" from the public's negative perceptions as depression has been afforded.

***Hypothesis 1B:** Candidates who have less socially stigmatized mental health conditions (depression) will have higher favorability and vote choice evaluations than candidates who have more socially stigmatized mental health conditions (heroin addiction or schizophrenia).*

*Respondent Attributes: Gender, Party ID, Mental Illness*

There is a vast body of literature that explores how voters process electoral information and choose candidates. This literature has found that candidate identities (race, gender, veteran status, etc.) and experience (education, occupation, etc.) can offer the voter shortcuts in decision making that simplifies the information overload (e.g. Huddy and Terkildsen 1993; Terkildsen 1993; Atkeson and Hamel 2018; Hardy et al. 2019). Work on candidate evaluations in Political Science tells us that respondents differentially discriminate against political candidates depending on gender (Hart et al. 2011), party ID (Weisberg and Rusk 1970), and race (Dwyer et al. 2009; Terkildsen 1993; McDermott 1998). This study examines whether respondents favor or vote for politicians with depression or heroin addiction differently based on their own gender, party ID, or mental health status.



Partisanship of a respondent has played a large role in candidate evaluation in political science (Weisberg and Rusk 1970). Stereotypes, individual information, and partisanship interact when individuals are evaluating candidates (Crawford et al. 2011). Furthermore, in recent years we have seen an increase in partisan-ideological sorting such that social polarization has been found to affect judgment, behavior, and emotion (Mason 2014; Huddy 2001). Thus, I expect partisanship to play a moderating role in the relationship between candidate mental health condition and ratings of favorability and vote choice. It seems that mental illness may “fit” better in a sorting sense with the Democratic party over the Republican party such that Democrats will favor and be more likely to vote for candidates with mental illnesses compared to Republicans.

***Hypothesis 2:** Democratic respondents will rate candidates with mental health conditions higher on favorability and vote choice evaluations than Republican respondents.*

Gender is also another important respondent attribute that may affect perceptions of candidates with mental illnesses. Throughout history, mental illness diagnoses have been used to control and oppress “others” in society. Women who did not fit within the narrow standards of “proper womanhood” were labeled witches in Puritan society and, more recently, they were given the pseudoscientific diagnosis of “hysteria.” Until 1980, hysteria was a formally studied psychological disorder that was “sex-selective,” meaning, it only affected women (McVean 2017). Hysteria diagnoses implied women were overly emotional, deranged, or did not fit the stereotypical view of what a woman ought to be—“submissive, even-tempered, and sexually inhibited” (McVean 2017). Because of this history, it is possible that women respondents may feel more sympathetic toward and favor candidates with mental illnesses. I expect this to be

especially true for depression since that was historically considered a mental illness that only affected women (MHA 2022).

***Hypothesis 3:** Female respondents will rate candidates with mental health conditions higher on favorability and vote choice evaluations than male respondents.*

An additional respondent attribute that may be especially significant is the mental health history of the individual respondent. It is possible respondents who have had mental illness in their lifetimes will view candidates with mental illness through a representation lens. It is also possible, though less likely, that if respondents have internalized self-stigma, they will project that onto political candidates with mental illness (Corrigan 2000). This second option seems less plausible for two reasons: 1) because not every person who has had mental illness has or ever had self-stigma; and 2) there is little evidence that laypeople would project their own self-stigma onto a political elite. Thus, I will be focusing on representation to inform my final hypothesis.

Descriptive representation has been studied from many angles in political science and is applied to many different groups. As of yet, this concept has not been applied to those with mental health conditions within political science. Mansbridge (1999) argues that descriptive representation aids group mistrust and communication and helps create a social meaning of “ability to rule.” Burden (2007) specifically mentions how personal ties and experiences motivate legislators’ voting decisions and how they decide to allocate their time. Interestingly, Burden interviews several legislators who mention their personal connections to those with mental illness and how those connections influenced their policy agenda but does not focus on this. Arnesen and Peters (2018) find that when traditionally less advantaged groups were asked about representation, they tended to value descriptive representation more than other citizens.

Therefore, I expect that respondents who have had mental illness will view political candidates with mental illnesses more favorably than those who have not had mental illness.

*Hypothesis 4: Respondents with a mental health condition will rate candidates with mental illness higher on favorability and vote choice evaluations than respondents who do not have a mental health condition.*

Angermeyer and Dietrich (2006) reviewed population studies to gain a better understanding about public attitudes towards people with mental illness. These studies generally looked at depression and schizophrenia. Symptoms of schizophrenia are recognized as mental illnesses more often than symptoms of depression and those with more familiarity of mental illness/mentally ill tended to have more positive attitudes (Angermeyer and Dietrich 2006). It is likely that those who have had a mental health condition will view political candidates with mental health conditions more positively than those who have not had a mental health condition.

*Hypothesis 5: Respondents who strongly identify with their mental health condition will rate candidates with a mental health condition higher on favorability and vote choice evaluations than respondents who weakly identify with their mental health condition.*

## **Research Design & Data**

The first survey experiment was conducted (N = 1,425) using Lucid, a survey research company, in January 2022. I also conducted a soft launch of the survey (N = 75) earlier in January 2022. The second survey experiment was conducted (N = 2,200) using Lucid in May 2024 and also had a soft launch (N = 300). Both studies were restricted to U.S. participants at least 18 years of age or older and they were paid \$1 (2022) or \$1.50 (2024) for completed

responses. I included one attention check question for Lucid Theorem and excluded participants if they failed the attention check. The attention check questions were simple, factual questions about what condition was mentioned in the article respondents just read. Since the article included one condition (heroin addiction, depression, or uncivil behavior in 2022 and depression, schizophrenia, or reelection in 2024), I expected respondents who at least read the headline and subheading to get the question right and excluded those who did not pass this baseline level of attentiveness.

Lucid convenience samples have been criticized for their deviations from nationally representative samples. While this is a valid concern, Coppock and McClellan (2019) find that that demographic and experimental findings on Lucid track well with US national benchmarks and conclude that subjects recruited from the Lucid platform constitute a sample that is suitable for evaluating many social scientific theories and produces similar results to Amazon's Mechanical Turk (MTurk). Krupnikov, Nam, and Style (2021) conclude that Lucid seems closer to a balanced sample than a convenience sample. Finally, Peyton, Huber, and Coppock (2021) investigate whether online experiments during the pandemic can be generalized to other time periods. They find that pre-pandemic experiments replicate in terms of sign and significance but there are somewhat reduced magnitudes, which they argue is due to an increased share of inattentive subjects on online platforms during COVID-19. They conclude that the pandemic does not pose a fundamental threat to the generalizability of online experiments to other time periods (Peyton, Huber, and Coppock 2021). Given these conclusions, I will generalize my Lucid findings with caution.

*Experiment # 1*<sup>48</sup>

Respondents were randomly assigned to read one of three fictional New York Times articles about a political candidate with depression, heroin addiction, or who was rude (control). The fictional New York Times articles were formatted with care to closely resemble a real NYT article and were optimized for both desktop and mobile screens (see Appendix for full articles).<sup>49</sup> Each article describes a pair of politicians and contenders for a Florida House seat, Thomas Ryden and Daniel Young, exchanging insults about Ryden's heroin addiction, depression, or uncivilized behavior. No party affiliations or policies are mentioned in the articles. The articles are identical except for what Thomas Ryden is being insulted for and includes some common stereotypes and characteristics associated with heroin addiction (dirty needles, illegality, drug testing, altered decision making) and depression (laziness and absenteeism, cannot get out of bed, altered decision making). The control (rudeness) was intentionally left vague and was characterized by the words "conduct," "incivility," and "uncivilized behaviors."

In all articles, Daniel Young comes off as aggressive and says that elected officials like Thomas Ryden should be punished in some way. In the heroin condition, Young states that he is for drug testing elected officials; in the depression condition, Young states that he is for fining elected officials for absenteeism; in the control (rude) condition, Young states that he is for exposing uncivilized behaviors in elected officials. I chose to include two political actors in an article format for a few reasons. This may somewhat limit the sympathy respondents give Ryden

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<sup>48</sup> The data was collected under protocols approved by the Institutional Review Board at the University of Virginia (# 4858).

<sup>49</sup> The same photo of a white man was used for all articles. The man was labeled as Thomas Ryden but was actually Bob Schaffer, a former Colorado U.S. House member from 1997 to 2003. Schaffer is retired from public life, and it is highly unlikely that respondents will be able to identify him.

if it had been a press release of him disclosing his illness.<sup>50</sup> Press releases of that nature also include more information about the candidate’s political party, policy stances, or history of political experience. It also allowed me to keep the specifics of the mental illness intentionally vague. From the mental health literature, it has been established that if people with mental illnesses are in treatment, on medication, or it occurred in the past and seems to be “under control” then they are viewed more favorably. I did not include any of this information and only indicated that Thomas Ryden had been struggling with depression/drug addiction since he was a teenager.

**Table 1: Experimental Conditions<sup>51</sup>**

Condition	Number of Participants	Percent
Depression	473	34.43
Heroin Addiction	440	32.02
Rude	461	33.55
Total	1,374	100

I included a factual manipulation check immediately after the articles (Kane and Barabas 2019). This manipulation check ensures that my sample includes those who at least read the headline and some of the article, although it does not determine the exact level of attentiveness.<sup>52</sup>

<sup>50</sup> Although I do include a sentence that states, “Mr. Ryden revealed last year that he had been struggling with depression since he was a teenager.” This may increase the amount of sympathy he receives, and this is not in the control (rude) condition.

<sup>51</sup> The randomization of experimental conditions appears to have worked well. A breakdown of the experimental conditions by demographic variables appears in the appendix.

<sup>52</sup> To pass the manipulation check for heroin addiction and depression, respondents had to answer what condition was discussed in the New York Times article they just read. They chose between diabetes, depression, insomnia, and heroin addiction. The soft launch revealed a potential problem with also listing uncivil behavior for the depression and heroin addiction attention checks because respondents could fairly interpret all the articles as discussing uncivil behavior because they were all discussing “insults” exchanged between politicians. Therefore, I excluded this category for the depression and heroin addiction attention checks in the full launch. The uncivil behavior attention check gave the following options: diabetes, depression, uncivil behavior, and heroin addiction.

Respondents were then asked 101-point thermometer vote choice and favorability questions followed by a social distance question (Corrigan et al. 2001), a battery of questions about mental illness attribution (Link et al. 1999; Martin, Pescosolido, and Tuch 2000; (Hing et al. 2016), a question about familiarity with persons with mental illness (Corrigan et al. 2001), the social restrictiveness subscale of the Community Attitudes Toward The Mentally Ill scale (CAMI) (Taylor and Dear 1981),<sup>53</sup> an ideology measure, party identification questions, and ended with a question about how seriously respondents take surveys (Lopez and Hillygus 2018).

### *Experiment # 2*

Respondents were randomly assigned to read one of three fictional New York Times articles about a political candidate with depression, schizophrenia, or who was running for reelection (control). These experimental vignettes used the same photo as experiment #1 and had the same NYT style, which was optimized for both desktop and mobile screens (see Appendix for full articles). Each article describes a politician, Thomas Ryden (D-Del.) announcing he is running for reelection. These were rather subtle treatments and only two sentences were changed between each treatment. The first was under the headline about Thomas Ryden announcing his reelection: “The first term senator said he’s excited to continue serving the public, **despite recurring concerns about his [depression/schizophrenia] and fitness to serve.**” The second was the last sentence of the article: “His decision to take more of a leadership role in the Senate

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<sup>53</sup> The CAMI is a 40-item scale consisting of four, 10-item subscales: Social Restrictiveness (reliability: 0.80); Authoritarianism (reliability: 0.68); Benevolence (reliability: 0.76); and Community Mental Health Ideology (reliability: 0.88). I chose the social restrictiveness subscale but excluded the two questions mentioning mental patients and the question asking whether anyone with mental problems should be excluded from taking public office. The full social restrictiveness subscale can be found in the Appendix.

could place Mr. Ryden—who was dogged by questions about his [depression/schizophrenia] and fitness to serve in the Senate throughout his campaign—at the center of a national conversation about Senate rules and procedures that has become more public and urgent since the pandemic began.” The control condition contained the same information without the bolded text.

Similar to the first experiment, I included a factual manipulation check immediately after the articles (Kane and Barabas 2019), then 101-point thermometer vote choice and favorability questions followed by a mental health identity battery, five questions unrelated to mental health, another mental health identity battery, and then demographic questions. The data was collected under protocols approved by the Institutional Review Board at the University of Virginia (# 6697).

**Table 1: Experimental Conditions<sup>54</sup>**

Condition	Number of Participants	Percent
Depression	833	34.41
Schizophrenia	780	32.22
Control	808	33.37
Total	2,421	100

## Results

### *Experiment # 1*

The survey revealed that there is a stark difference between the social acceptability of political candidates having different mental illnesses and this is contingent on the respondents’

<sup>54</sup> The randomization of experimental conditions appears to have worked well. A breakdown of the experimental conditions by demographic variables appears in the appendix.



party identification, gender, and history with mental illness. Respondents greatly favor a political candidate with depression and slightly favor a candidate with heroin addiction compared to a political candidate who is rude. This difference extends to vote choice for depression, but not heroin addiction (not statistically significant). Contrary to my expectations, I find that respondents *really* do not like rude candidates. There are two main ways to look at this surprising result. The first is to view this as a sign that our society in the age of COVID-19 is becoming more understanding and accepting of mental illnesses of all varieties. The second way to view this is that candidates with heroin addiction are still disliked, but candidates who are rude are simply disliked more. It may be more accurate to say that candidates with heroin addiction are nearly as disliked as candidates who are publicly called out for being rude.

The main results of the survey experiment are presented in the margins plots in Figures 1-4. Figures 1-4 examine differences in means between the experimental conditions (rude, depression and heroin addiction) and several dependent variables—favorability,<sup>55</sup> vote choice, social distance,<sup>56</sup> and community attitudes about mental illness.<sup>57</sup> Figure 1 shows that respondents are about 13 points more likely to favor the candidate with depression ( $p < 0.001$ ) and about 4 points more likely to favor the candidate with heroin addiction ( $p < 0.05$ ) than the

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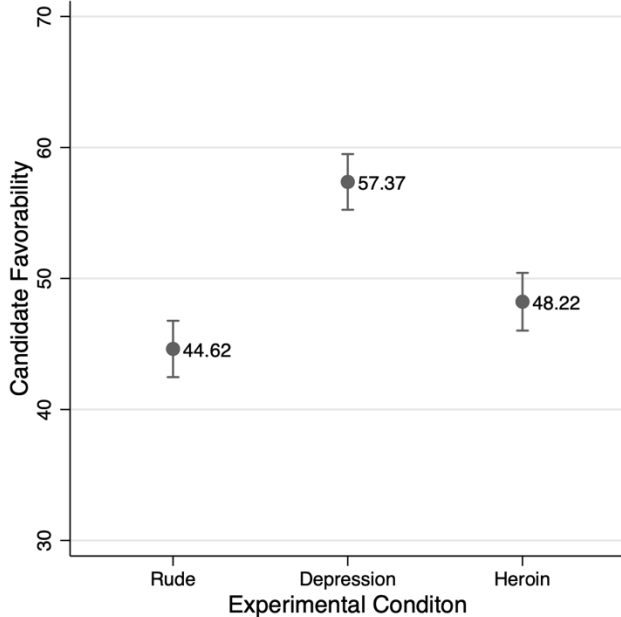
<sup>55</sup> Favorability is a 0-100- point feeling thermometer that gauges how favorable respondents feel toward Thomas Ryden. Vote choice is another 0-100-point feeling thermometer that asks how likely respondents are to vote for Thomas Ryden if they were in his district.

<sup>56</sup> Social distance in the context of mental illness is often used as a measure of bias against the mentally ill. It asks a series of eight statements that ask whether respondents want someone like Thomas Ryden to move next door to them, rent a room to someone like Thomas Ryden, or wish to have no relationship with someone like Thomas Ryden (all eight statements can be found in the Appendix). The social distance scale is a 0-7 measure that indicates the amount of interaction someone wants with someone like Thomas Ryden.

<sup>57</sup> The Community Attitudes Toward The Mentally Ill (CAMI) scale is a popular method of gauging various aspects of bias against people with mental illness. There are four subscales to the CAMI measure— social restrictiveness, authoritarianism, benevolence, and community mental health ideology—and each subscale contains 10 items. I only use the social restrictiveness subscale for this analysis and only use seven of the ten subscale questions because of time constraints. I made the CAMI social restrictiveness subscale a continuous measure from 7-35 that increases for every response that decreases social restrictiveness.

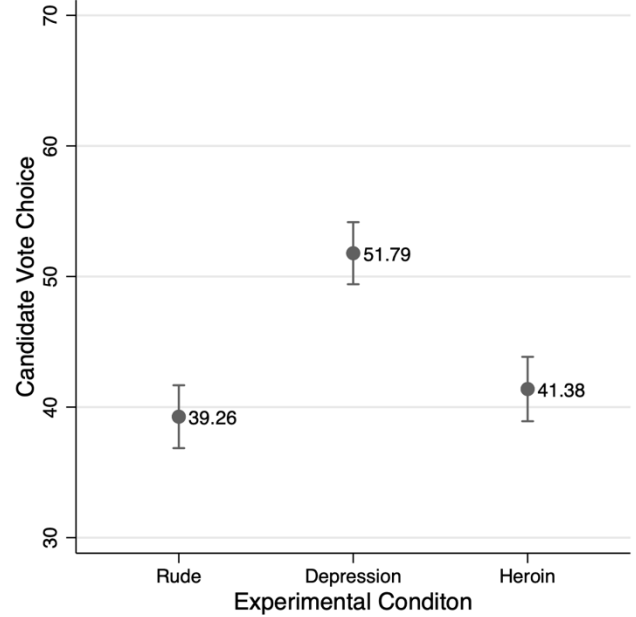
rude candidate on a 0-100 point feeling thermometer. That difference extends to vote choice for depression, where respondents are again about 13 points more likely to vote for the candidate with depression than the rude candidate ( $p < 0.001$ ). This statistically significant difference does not extend to vote choice for heroin addiction where respondents are about two points more likely to vote for the candidate with heroin addiction than the rude candidate (n.s.).

Figure 1: Mean Level Favorability for Experimental Conditions



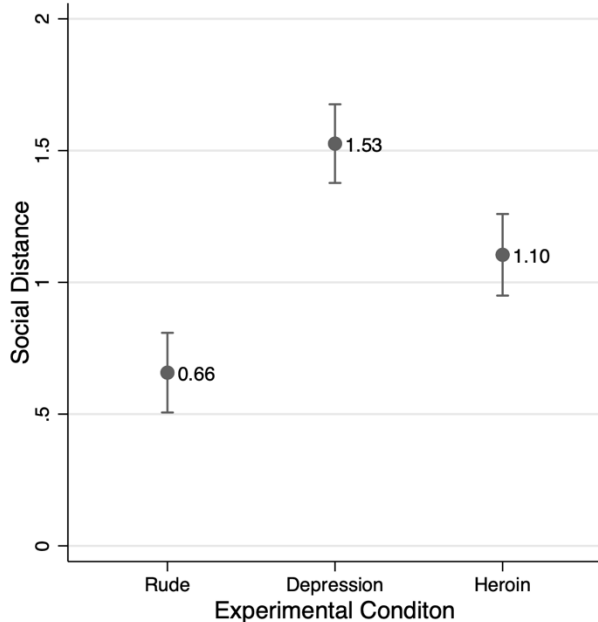
95% CIs reported,  $N = 1374$  Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 2: Mean Level Vote Choice for Experimental Conditions



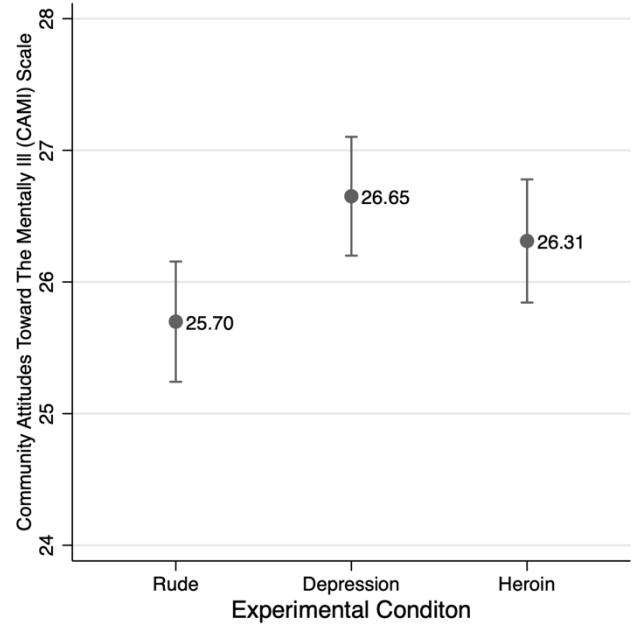
95% CIs reported,  $N = 1374$  Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 3: Mean Level Social Distance for Experimental Conditions



95% CIs reported,  $N = 1374$  Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 4: Mean Level CAMI Scale for Experimental Conditions



CIs reported,  $N = 1374$  Survey Respondents  
ce: 2022 Lucid Survey Experiment Conducted by Author.

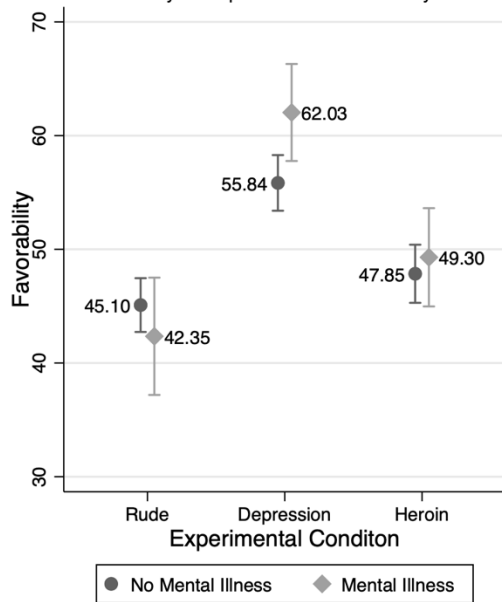
Interestingly, for both depression and heroin addiction, respondents prefer increased social distance from the rude candidate rather than either the depression or heroin addiction candidate (Figure 3). Respondents want about a 11% decrease in social distance from the candidate with depression compared to the candidate who is rude. On the combined scale, this would mean that respondents would agree to an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average, compared to the rude candidate ( $p < 0.001$ ). Respondents want about a 6% decrease in social distance from the candidate with heroin addiction compared to the candidate who is rude. On the combined scale, this would mean that respondents would agree to half an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average, compared to the rude candidate ( $p < 0.001$ ). In Figure 4, we see that on the Community Attitudes Toward The Mentally Ill (CAMI) scale, respondents want a 3.4% decrease in social restrictiveness when presented with the candidate with depression ( $p < 0.01$ ) and a 2.2% decrease in social restrictiveness when presented with the heroin addiction candidate compared to the rude candidate (n.s).

### *Respondents with Histories of Mental Illness*

I hypothesize that there are differences based on respondent gender, party ID, and history of mental illness. There are significant differences between respondent personal characteristics and how they favor and vote for political candidates with depression and heroin addiction when compared to rude candidates. Those who have had mental illness in their lifetimes are more likely to favor candidates with depression than those who have not had mental illness in their lifetimes. This difference—an increase of 6 points—is statistically different from zero. Respondents who have had mental illness in their lifetimes are 1.5 points more likely to favor

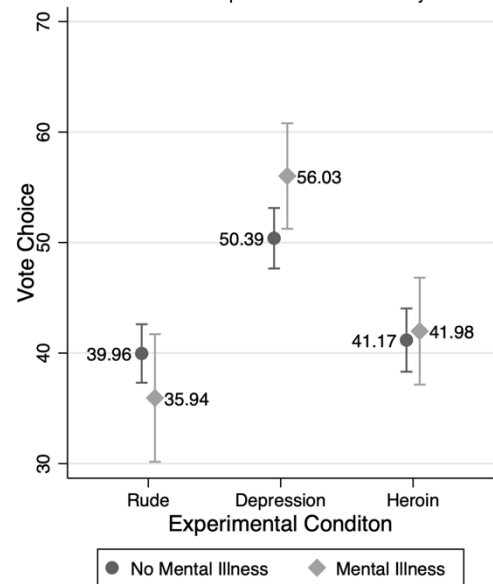
candidates with heroin addiction than respondents who have not had mental illness in their lifetimes (n.s.). Similar to favorability, there are significant effects based on respondent history with mental illness for depression and no statistically significant differences for heroin addiction and vote choice. Those who have had mental illness in their lifetimes are about 6 points more likely to vote for candidates with depression than those who have not had mental illness in their lifetimes ( $p < 0.05$ ). Those who have has mental illness in their lifetimes are about one point more likely to vote for candidates with heroin addiction than those who have not had mental illness in their lifetimes (n.s).

Figure 5: Mean Level Favorability for Experimental Conditions by Mental Illness Status



95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 6: Mean Level Vote Choice for Experimental Conditions by Mental Illness Status



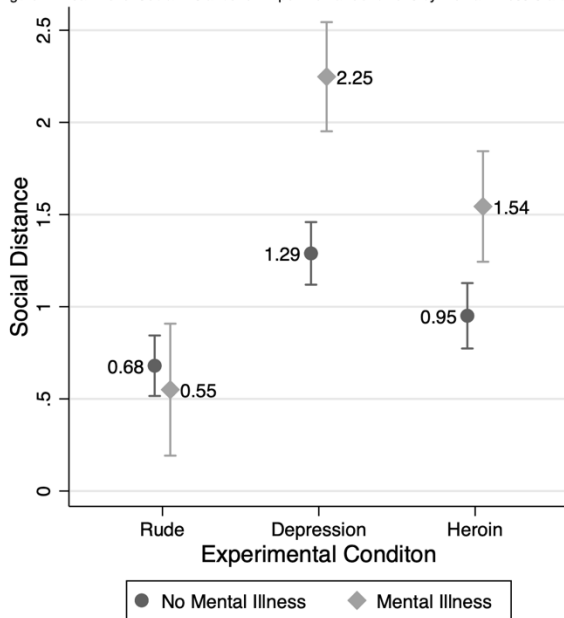
95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Respondents who have had mental illness in their lifetimes want about a 12% decrease in social distance from the candidate with depression compared to respondents who have not had mental illness in their lifetimes ( $p < 0.001$ ). On the combined scale, this would mean that respondents would agree to an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average,

compared to respondents who have not had mental illness in their lifetimes ( $p < 0.001$ ).

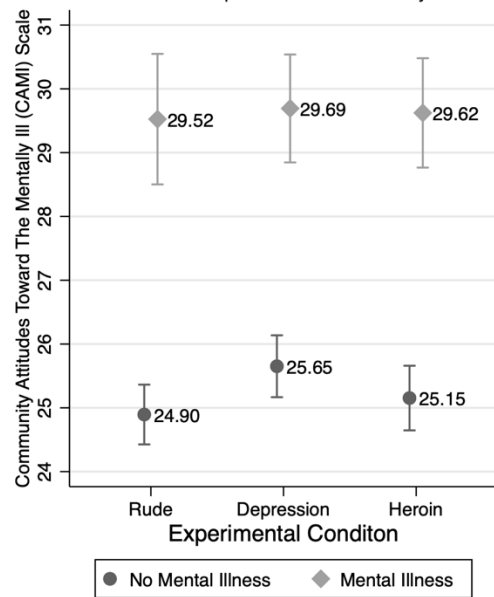
Respondents who have had mental illness in their lifetimes want about a 7% decrease in social distance from the candidate with heroin addiction compared to respondents who have not had mental illness in their lifetimes ( $p < 0.001$ ). On the combined scale, this would mean that respondents who have had MI would agree to half an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average, compared to respondents who have not had MI ( $p < 0.001$ ). In Figure 8, we see that on the Community Attitudes Toward The Mentally Ill (CAMI) scale, respondents who have had mental illness in their lifetimes want about a 7% decrease in social restrictiveness when presented with the candidate with depression ( $p < 0.001$ ) and a 6.3% decrease in social restrictiveness when presented with the heroin addiction candidate compared to respondents who have not had mental illness in their lifetimes ( $p < 0.001$ ).

Figure 7: Mean Level Social Distance for Experimental Conditions by Mental Illness Status



95% CIs reported,  $N = 1374$  Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 8: Mean Level CAMI Scale for Experimental Conditions by Mental Illness Status



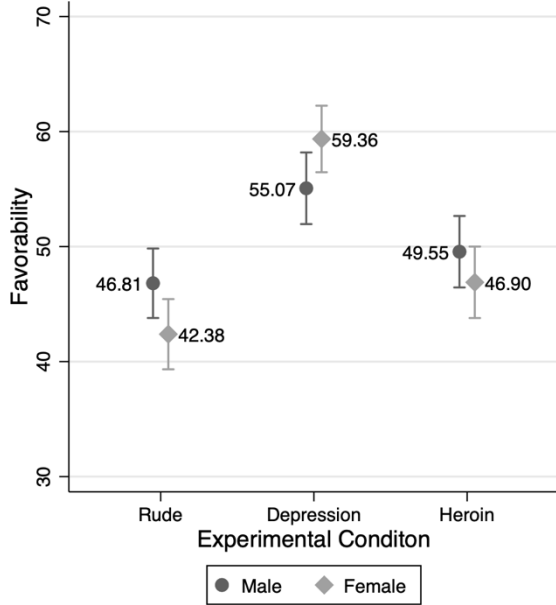
95% CIs reported,  $N = 1374$  Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

These are interesting findings because it suggests that there is some evidence that those who have experienced mental illness in their lifetimes prefer candidates who may share their own experiences. This could be suggestive evidence that voters with histories of mental illness want more descriptive representation from their representatives. What makes this even more interesting although complicates the situation is the difference between depression and heroin addiction for favorability and vote choice and then social distance and social restrictiveness (CMAI). It is possible that because heroin addiction is not as accepted as a mental illness as depression is, voters with histories of mental illness may not favor or vote for candidates with heroin addiction even if they are more tolerant in terms of social distance and social restrictiveness. Is this because voters who have had mental illness do not consider heroin addiction as a mental illness? Or, is there an internalized stigma against people with more severe mental health conditions holding public office that is even displayed among those with histories of mental illness themselves? This is an intriguing finding and an avenue for future research.

### *Gender*

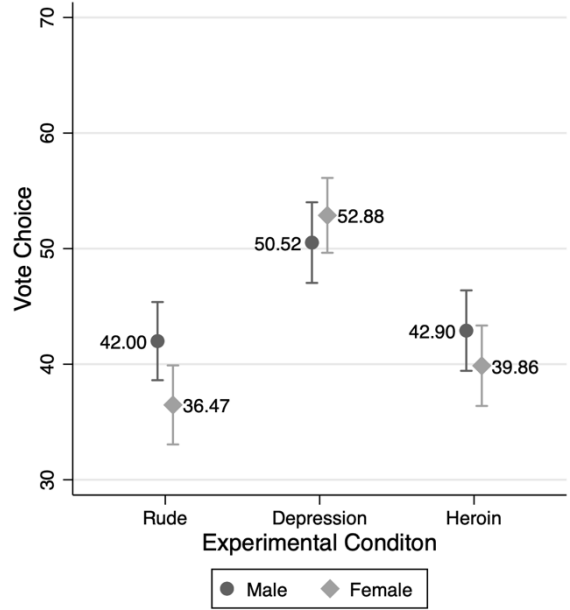
As stated in the argument section, there are interesting gender effects in the candidate evaluation literature and mental illness in the United States has been gendered in the past. I expected that women would be more favorable and be more likely to vote for candidates with depression and heroin addiction. In addition, since depression has been more gendered in the past than heroin addiction, I expect women to be more favorable and more likely to vote for candidates with depression than heroin addiction compared to men. Figure 9 shows that women are about 4 points more likely to favor candidates with depression ( $p < 0.05$ ) and are 3 points less likely to favor candidates with heroin addiction (n.s.) than men are. Women are about two points

Figure 9: Mean Level Favorability for Experimental Conditions by Gender



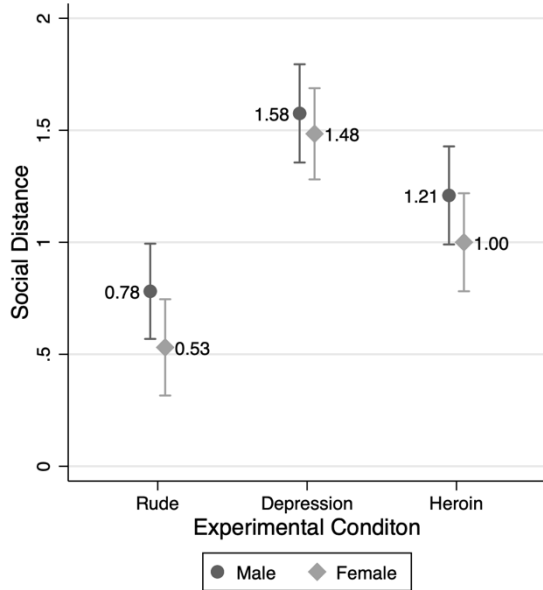
95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 10: Mean Level Vote Choice for Experimental Conditions by Gender



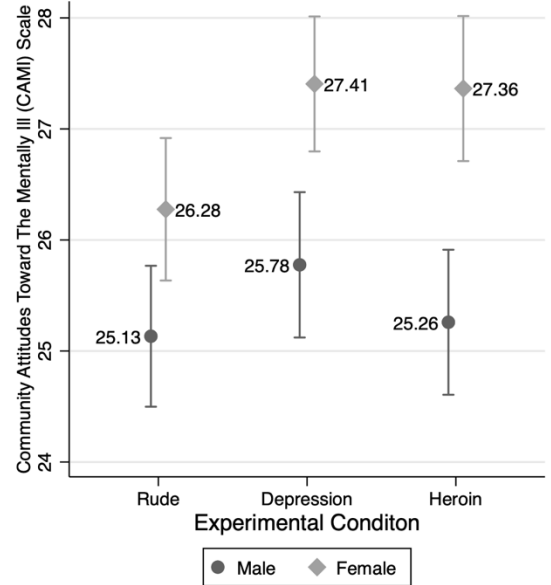
95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 11: Mean Level Social Distance for Experimental Conditions by Gender



95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 12: Mean Level CAMI Scale for Experimental Conditions by Gender



95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

more likely to vote for candidates with depression (n.s.) and 3 points less likely to vote for candidates with heroin addiction (n.s.) than men are. Turning to Figures 11 and 12, we can see the gender difference looking at social distance and social restrictiveness (CMAI), respectively. Women desire about the same amount of social distance from candidates with depression and heroin addiction as men do (all statistically insignificant). What is surprising is that women are much less socially restrictive than men are in terms of general views of mental health. Specifically, women respondents want a 6% decrease in social restrictiveness when presented with a candidate with depression ( $p < 0.001$ ) and a 7.5% decrease in social restrictiveness when presented with a candidate with heroin addiction compared to male respondents ( $p < 0.001$ ). Other than the social restrictiveness dependent variable, all other findings for depression and heroin addiction (save favorability for depression) are null.

Why is the social restrictiveness measure different for female respondents? It is possible that in the abstract women are more likely to be tolerant of people with mental illness, but when presented with concrete examples, they are less tolerant. The favorability, vote choice, and social distance measures are all based on questions contextualized to the hypothetical candidate, Thomas Ryden, while the social restrictiveness measure is based on a series of questions asking about “the mentally ill” for the most part. It is also interesting to note that when the dependent variable is contextualized, women punish the rude candidate more than men do, women are less likely to prefer the candidate with heroin addiction, and only favor and vote for the candidate with depression slightly more than men do.

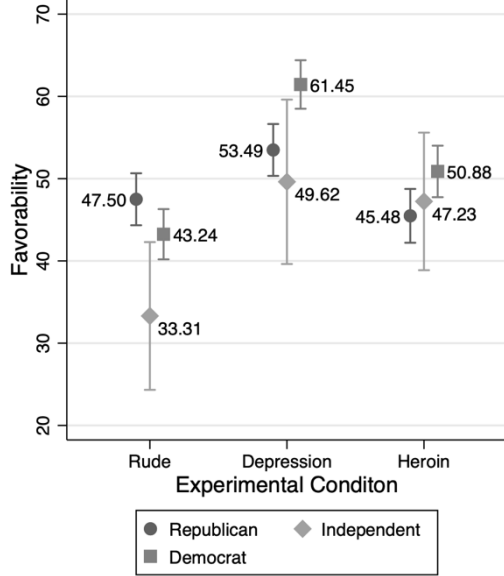


### *Party Identification*

Party Identification has become increasingly important in American politics given partisan sorting and polarization. Only a handful of politicians have “come out” with their stories of mental illness, but the majority of those that have are Democrats. This may be for several reasons: those with mental illness may identify more strongly with the Democratic party because that party generally favors expanded healthcare benefits; it could also be that the rhetoric and positions of one of the parties is culturally known to be more tolerant of mental illness and other cognitive or physical disabilities. In any event, I expect that Democrats will be more favorable towards and more likely to vote for candidates with depression and heroin addiction than Republicans are. I have no strong assumptions about respondents that are true Independents—I also do not have enough data to make strong claims about independent respondents so will be excluding them when discussing my findings.

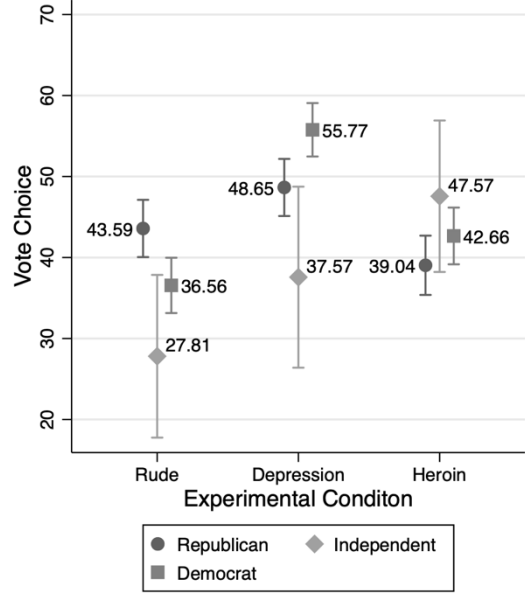
Figures 13 and 14 show favorability and vote choice by party ID, respectively. Republicans and Democrats are both more likely to strongly favor candidates with depression compared with candidates who are rude. Republicans are 6 points more likely to favor the candidate with depression ( $p < 0.01$ ) and Democrats are 18 points more likely to favor the candidate with depression compared to the candidate who is rude ( $p < 0.001$ ). For heroin addiction, the partisan differences are even more prominent. Republicans are 2 points *less likely* to favor the candidate with heroin addiction (n.s.) and Democrats are 8 points more likely to favor the candidate with heroin addiction compared to the candidate who is rude ( $p < 0.001$ ). Democratic respondents are 8 points more likely to favor a candidate with depression ( $p < 0.001$ ) and are 5 points more likely to favor a candidate with heroin addiction ( $p < 0.05$ ) than Republican respondents are.

Figure 13: Mean Level Favorability for Experimental Conditions by Party ID



95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 14: Mean Level Vote Choice for Experimental Conditions by Party ID



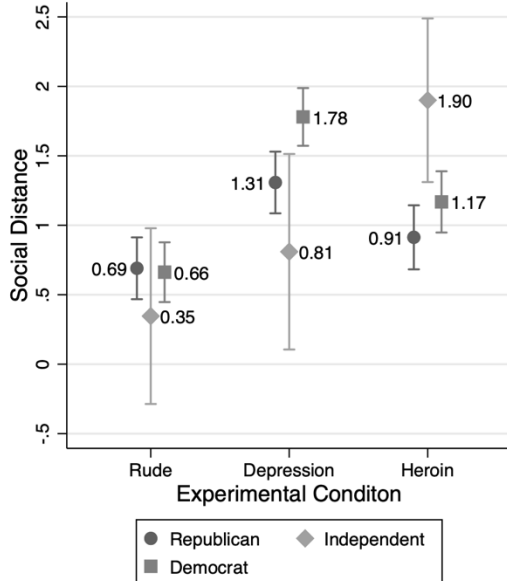
95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Republicans and Democrats are both more likely to vote for candidates with depression compared with candidates who are rude. Republicans are 5 points more likely to vote for the candidate with depression ( $p < 0.05$ ) and Democrats are about 20 points more likely to vote for the candidate with depression compared to the candidate who is rude ( $p < 0.001$ ). For heroin addiction, the partisan differences are even more prominent. Republicans are about 5 points *less likely* to vote for the candidate with heroin addiction than the rude candidate (n.s.) and Democrats are about 6 points more likely to vote for the candidate with heroin addiction compared to the candidate who is rude ( $p < 0.05$ ). Democratic respondents are 7 points more likely to vote for a candidate with depression ( $p < 0.01$ ) and are 4 points more likely to vote for a candidate with heroin addiction (n.s.) than Republican respondents are.

Figures 15 and 16 examine social distance and social restrictiveness (CAMI), respectively. Republican respondents desire more social distance from candidates with

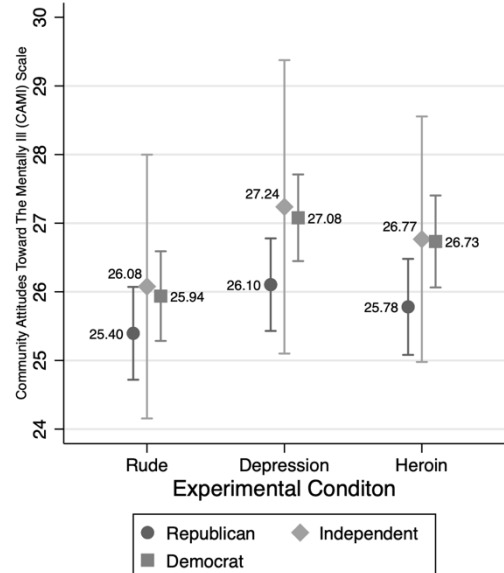
depression and heroin addiction and slightly less social distance from candidates who are rude when compared to Democratic respondents. The only statistically significant result is for depression, where Democrats would agree to half an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average, compared to the Republican respondents ( $p < 0.01$ ). Figure 16 shows that Democrats are more tolerant on the social restrictiveness scale (CAMI) than Republicans are, but all of these differences are statistically insignificant except for the candidate with depression. Democratic respondents want a 1.7% decrease in social restrictiveness when presented with a candidate with depression ( $p < 0.05$ ) compared to Republican respondents.

Figure 15: Mean Level Social Distance for Experimental Conditions by Party ID



95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 16: Mean Level CAMI Scale for Experimental Conditions by Party ID

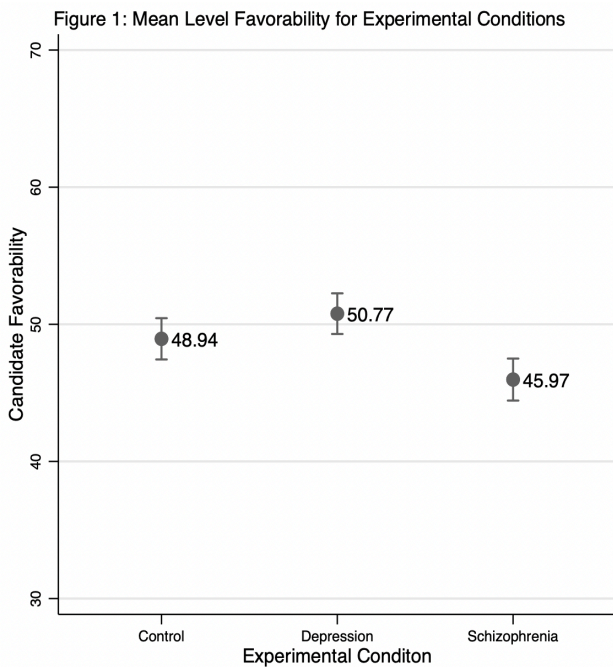


95% CIs reported, N = 1374 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

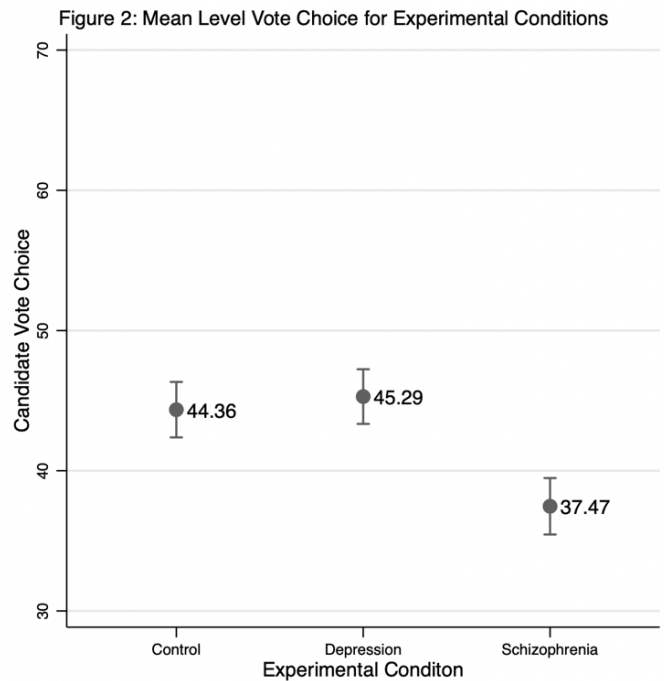
## Experiment # 2

There are two main differences between the setup of experiment #1 and experiment #2: first, the treatments are subtle and there is a true control condition; second, I included two different mental health identity batteries that were not yet formulated at the time of experiment

#1. The main results of the second survey experiment are presented in the marginsplots in Figures 1 and 2. Figures 1 and 2 examine differences in means between the experimental conditions—reelection (control), depression and schizophrenia. Figure 1 shows that respondents are about 2 points more likely to favor the candidate with depression ( $p = 0.08$ , n.s.) and about 3 points less likely to favor the candidate with schizophrenia ( $p < 0.01$ ) than the control condition on a 0-100 point feeling thermometer. Figure 2 shows that respondents are about one point less likely to vote for the candidate with depression (n.s.) and about 7 points less likely than the control condition ( $p < 0.001$ ) on a 0-100 point feeling thermometer. This is intriguing because it means that there is virtually no electoral punishment for depression, but there is one for schizophrenia.<sup>58</sup>



95% CIs reported,  $N = 2421$  Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.



95% CIs reported,  $N = 2421$  Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

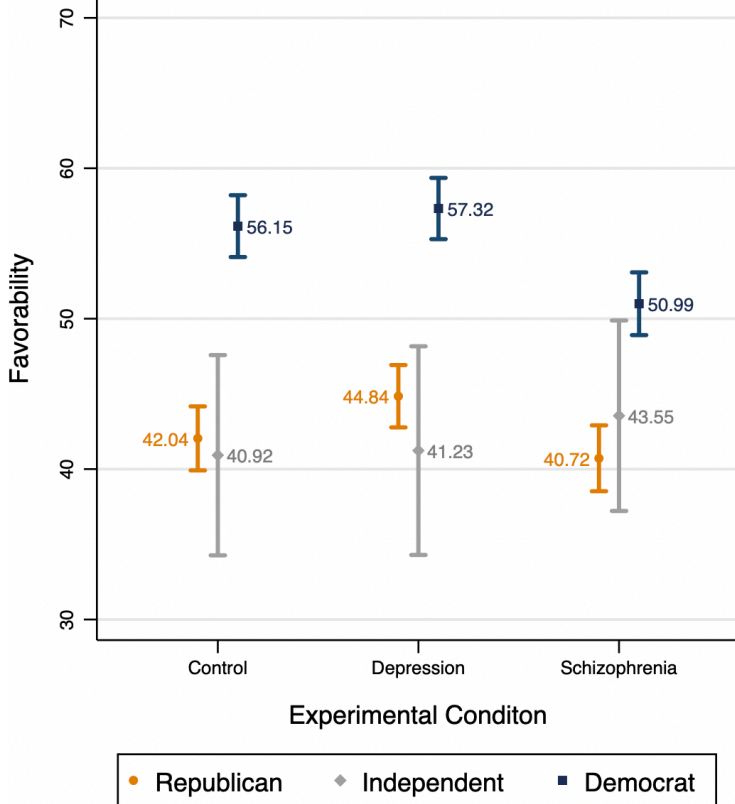
<sup>58</sup> The T-tests associated with Figures 1 and 2 appear in the appendix for Experiment #2.

*Party ID*

Figures 3 and 4 show favorability and vote choice by party ID. Democrats are more likely to strongly favor all candidates, but this is likely due to the Democratic party cue present in the experimental vignette. There is no statistical difference between the control condition and the depression condition for Republicans, Democrats, or Independents *in either* favorability or vote choice. This supports the overall finding from the main results that there is no electoral punishment for depression, even when separating out by party ID.

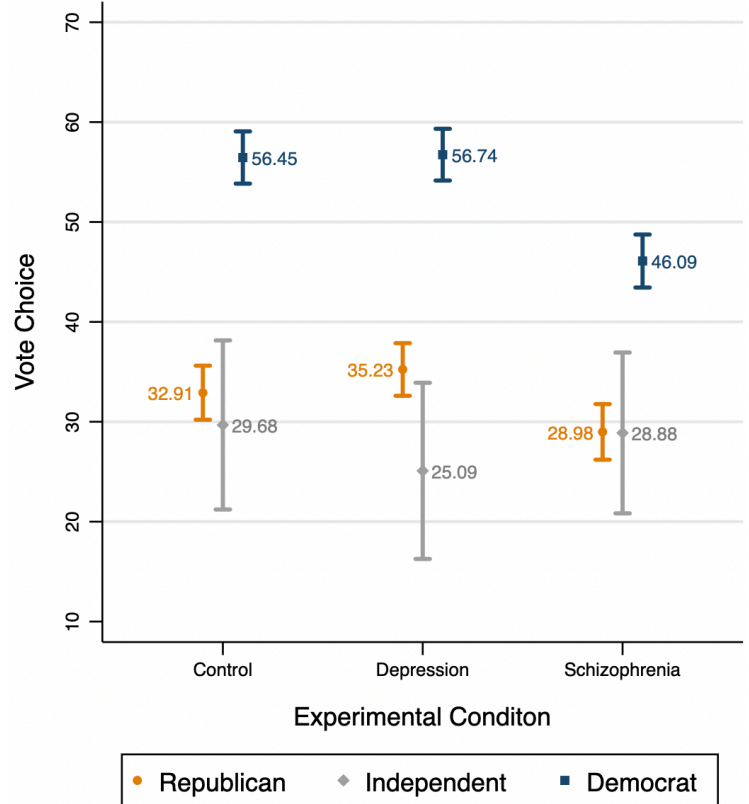
In contrast, there is somewhat of an electoral punishment for schizophrenia by party. Republicans are about one point less likely to favor the political candidate with schizophrenia

Figure 3: Mean Level Favorability for Experimental Conditions by Party ID



95% CIs reported, N = 2421 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 4: Mean Level Vote Choice for Experimental Conditions by Party ID



95% CIs reported, N = 2421 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

(n.s.) compared to the control condition, while Democrats are five points less likely ( $p < 001$ ), and Independents are about as likely (n.s.). For vote choice, Republicans are about four points less likely to vote for the political candidate with schizophrenia ( $p < 0.05$ ) compared to the control condition, while Democrats are ten points less likely ( $p < 0.0001$ ), and Independents are about one point less likely (n.s.).

### *Mental Health Categorization & Identification*

Similar to the first survey experiment, I am interested in whether mental health categorization is a moderator. This survey experiment also contains two general mental health categorization measures; one mental health diagnosis measure; one mental health identity measure; one mental health alienation measure; and one disability identity measure. I will present the most interesting findings in the body of the chapter and the remaining analyses are in the appendix.

#### *Mental Health Categorization: General (ANES)*

Figures 5 and 6 show favorability and vote choice by mental health status using the mental health measure from the ANES disability categorization question.<sup>59</sup> For the control condition, there is no difference between those with a mental health condition and those without. In the depression condition, those with a mental health condition are about 8 points more likely to favor the candidate with depression than those without a mental health condition ( $p < 0.001$ ). In the schizophrenia condition, those with a mental health condition are about 6 points more likely to favor the candidate ( $p < 0.001$ ). Turning to vote choice, there is a difference in the

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<sup>59</sup> Coding here is zero equals those that chose “I do not have a disability or chronic condition” and one “mental health condition.”

control condition where those with a mental health condition are 7 points more likely to vote for the candidate running for reelection than those without a mental health condition ( $p < 0.01$ ). In the depression condition, those with a mental health condition are 9 points more likely to vote for the candidate with depression than those without a mental health condition ( $p < 0.01$ ). In the schizophrenia condition, those with a mental health condition are 7 points more likely to vote for the candidate with schizophrenia than those without a mental health condition ( $p < 0.001$ ).

#### *Mental Health Categorization: General (CES)*

Figures 7 and 8 show favorability and vote choice by mental health status using the mental health measure from the CES mental health battery.<sup>60</sup> These figures are present in order to compare them to the ANES measures (Figures 5 and 6). They have remarkably similar results with an increase in favorability of 6 points from no mental health condition to mental health condition for the depression condition (0.01), and 5 points for the schizophrenia condition (0.01).

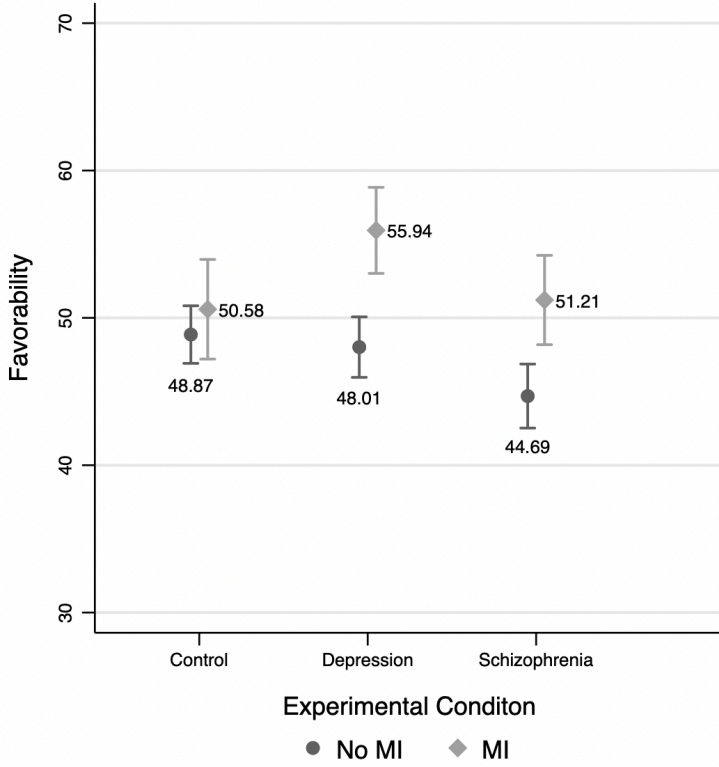
Turning to vote choice, there is a difference in the control condition where those with a mental health condition are 6 points more likely to vote for the candidate running for reelection than those without a mental health condition ( $p < 0.05$ ). In the depression condition, those with a mental health condition are 6 points more likely to vote for the candidate with depression than those without a mental health condition ( $p < 0.001$ ). In the schizophrenia condition, those with a mental health condition are 8 points more likely to vote for the candidate with schizophrenia than those without a mental health condition ( $p < 0.05$ ).

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<sup>60</sup> This includes those who have a mental health condition and those who have had a mental health condition in the past. These are coded 1 and those who have never had a mental health condition are coded 0.

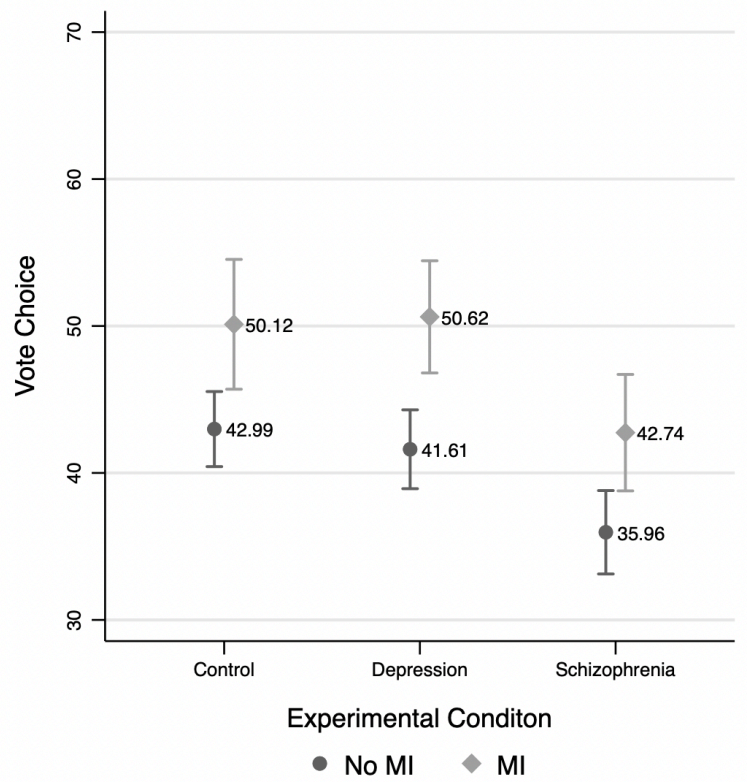


Figure 5: Mean Level Favorability for Experimental Conditions by Mental Illness Status



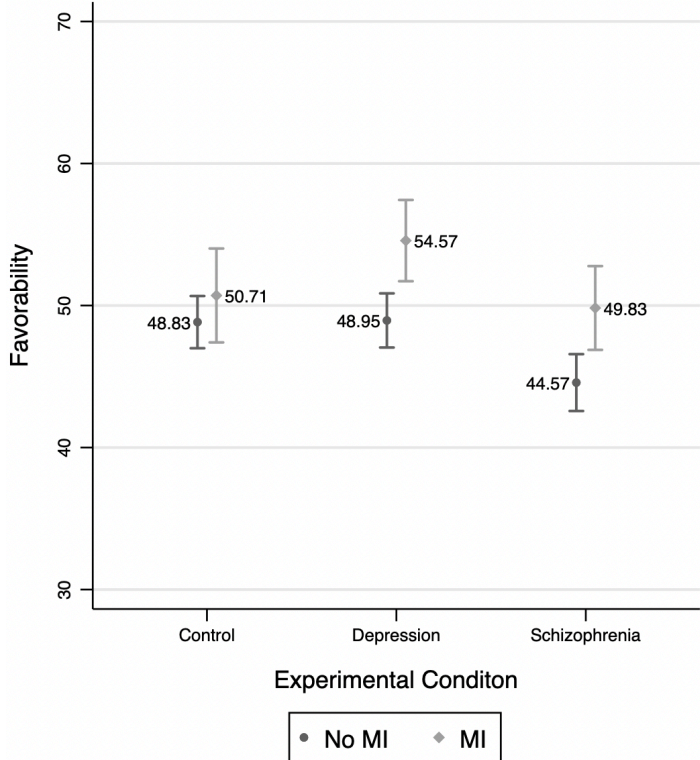
95% CIs reported, N = 1827 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 6: Mean Level Vote Choice for Experimental Conditions by Mental Illness Status



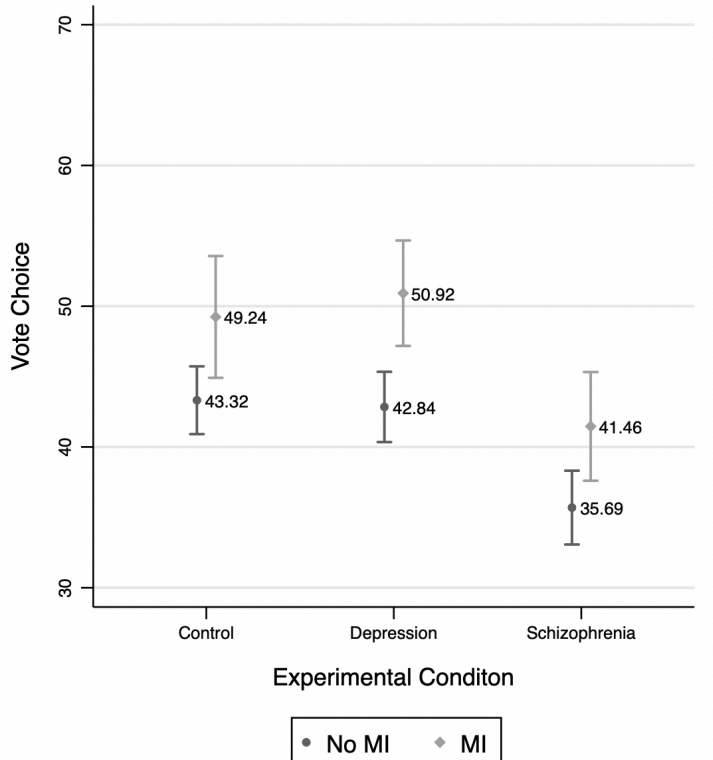
95% CIs reported, N = 1827 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 7: Mean Level Favorability for Experimental Conditions by Mental Illness Status



95% CIs reported, N = 2059 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 8: Mean Level Vote Choice for Experimental Conditions by Mental Illness Status



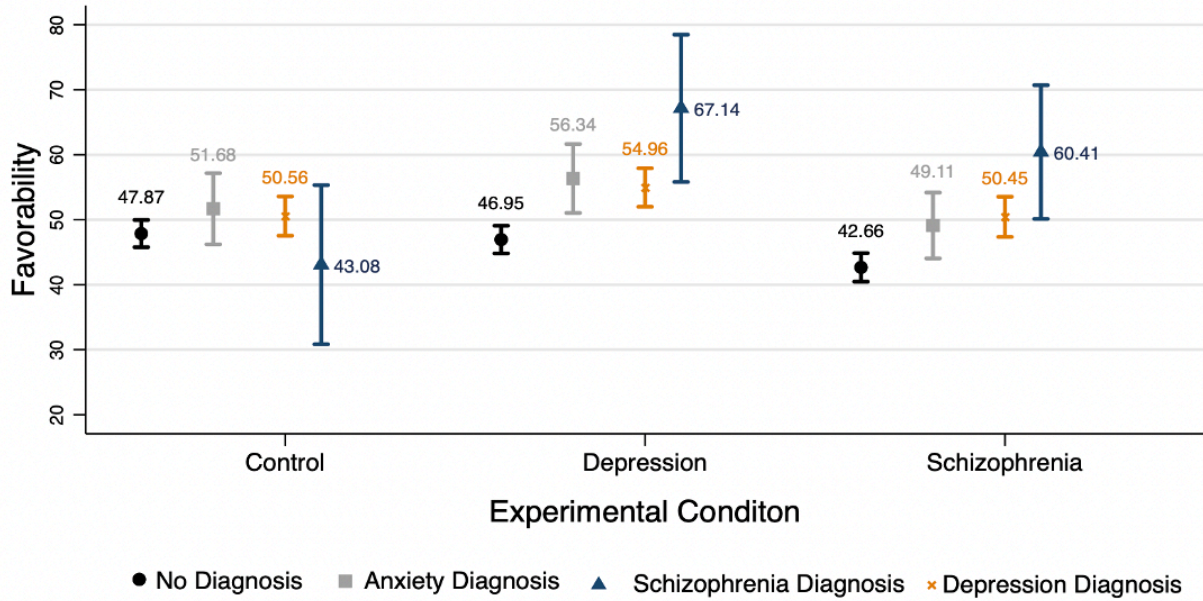
95% CIs reported, N = 2059 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.



### *Mental Health Categorization: Specific Diagnoses*

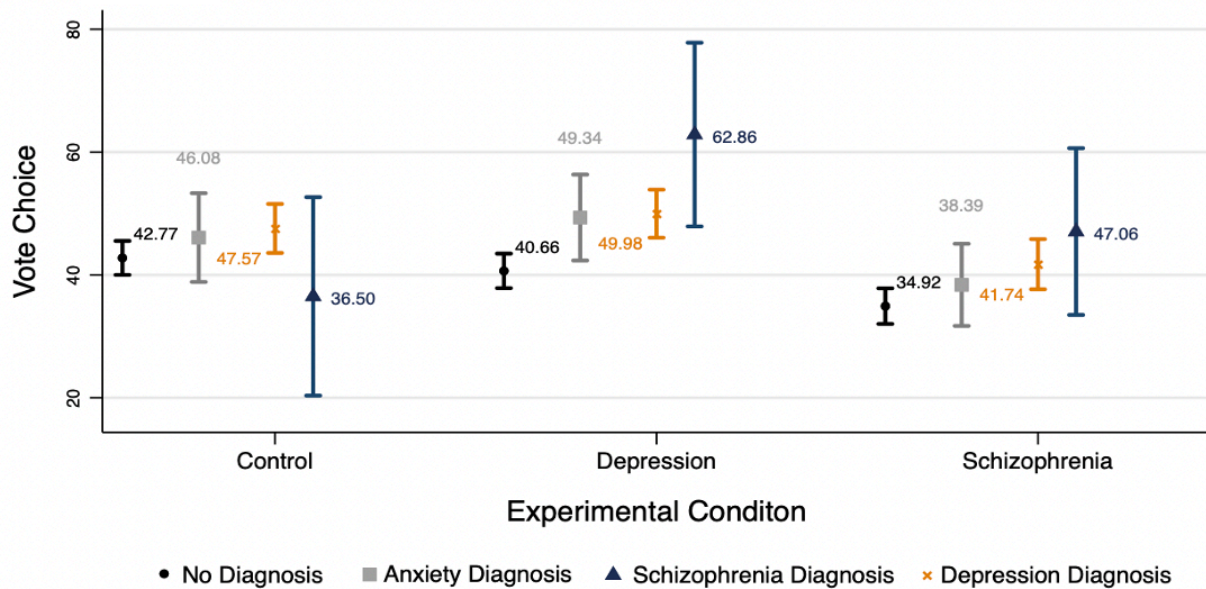
While mental health categorization moderates these relationships, what about the specific mental health conditions respondents say they have been diagnosed with? The figures on the next page examine this. In the top figure, those who say they have been diagnosed with anxiety are 9 points more likely to favor the politician in the depression condition than those who said they do not have any mental health diagnosis ( $p < 0.01$ ). Those diagnosed with depression are 8 points more likely to favor the candidate with depression ( $p < 0.001$ ), and those diagnosed with schizophrenia are 20 points more likely ( $p < 0.001$ ) to favor the candidate with depression than those without a diagnosis. For the schizophrenia condition, those with anxiety are 6 points more likely to favor the candidate ( $p < 0.05$ ); those with depression are 8 points more likely to favor the candidate ( $p < 0.001$ ); and those with schizophrenia are 18 points more likely to favor the politician with schizophrenia than those who do not have a mental health diagnosis ( $p < 0.001$ ). Turning to the bottom figure to examine vote choice: those with anxiety are 8 points more likely to vote for the candidate with depression ( $p < 0.05$ ); those with depression are 9 points more likely to vote for the candidate with depression ( $p < 0.001$ ); and those with schizophrenia are 22 points more likely to vote for the candidate with depression than those who do not have a mental health diagnosis ( $p < 0.01$ ). In the schizophrenia condition, those with anxiety are 3 points more likely to vote for the candidate than those without a diagnosis (n.s.); those with depression are 7 points more likely to vote for the candidate ( $p < 0.01$ ); and those with schizophrenia are 12 points more likely to vote for the politician with schizophrenia than those without a mental health diagnosis ( $p = 0.09$ ).

Mean Level Favorability for Experimental Conditions by Diagnosis



95% CIs reported, N=2419 Survey Respondents  
 Source: 2024 Lucid Survey Experiment Conducted by Author

Mean Level Vote Choice for Experimental Conditions by Diagnosis



95% CIs reported, N = 2419 Survey Respondents  
 Source: 2024 Lucid Survey Experiment Conducted by Author.

### *Mental Health Identity*

Figures 11 and 12 use the mental health identity battery as a moderator and examine favorability and vote choice, respectively. There are no statistical differences in favorability between the three identity levels in the depression condition. For the schizophrenia condition, moving from low mental health identification to moderate mental health identification, there is an 18 point increase in favorability ( $p < 0.01$ ) for the candidate; moving from moderate mental health identification to high mental health identification, there is a 10 point increase in favorability for the candidate with schizophrenia ( $p < 0.001$ ). There are no statistical differences in vote choice between the three identity levels in the depression condition. For the schizophrenia condition, moving from low mental health identification to moderate mental health identification, there is a 22 point increase in vote choice ( $p < 0.01$ ) for the candidate; moving from moderate mental health identification to high mental health identification, there is an 11 point increase in vote choice for the candidate with schizophrenia ( $p < 0.01$ ).

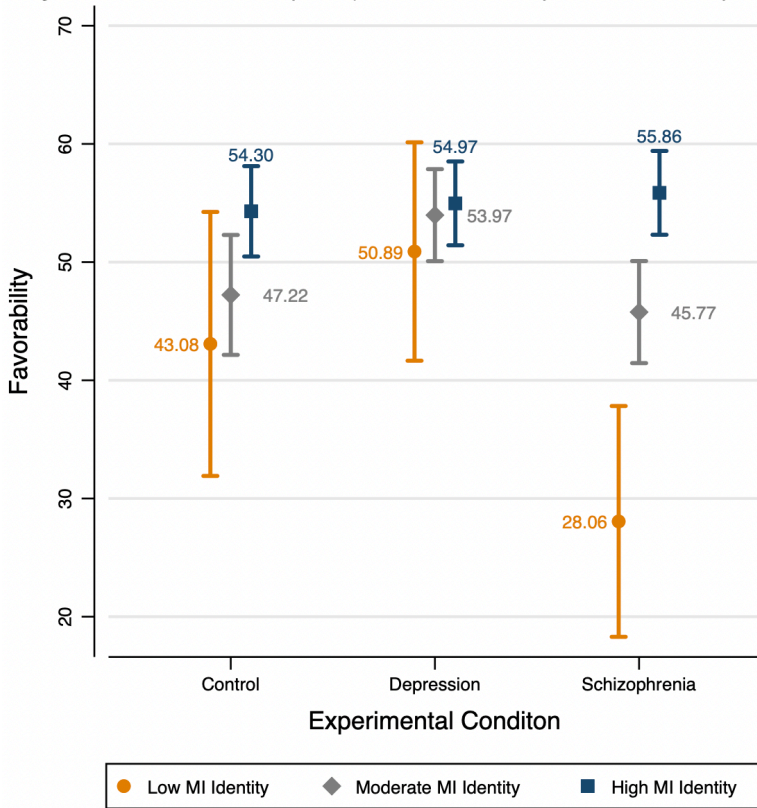
### *Mental Health Alienation*

Figures 13 and 14 use the mental health identity battery as a moderator and examine favorability and vote choice, respectively. For the schizophrenia condition, moving from low mental health alienation to moderate mental health alienation, there is a 6 point increase in favorability ( $p < 0.05$ ) for the candidate; moving from moderate mental health alienation to high mental health alienation, there is an 11 point increase in favorability for the candidate with schizophrenia ( $p < 0.001$ ). For the depression condition, moving from low mental health alienation to moderate mental health alienation, there is a 2 point increase in favorability (n.s.) for the candidate; moving from moderate mental health alienation to high mental health

alienation, there is an 8 point increase in favorability for the candidate with depression ( $p < 0.001$ ).

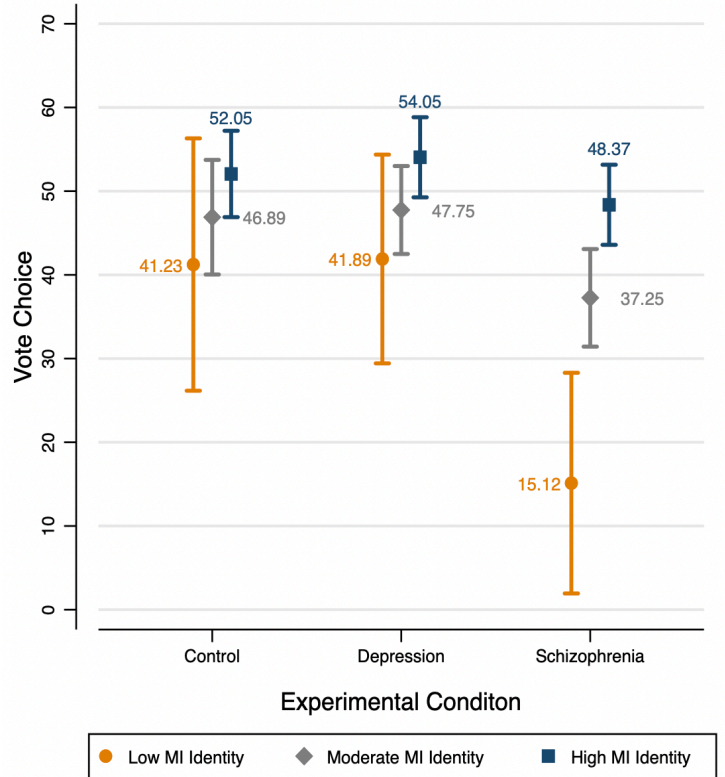
In terms of vote choice in the schizophrenia condition, moving from low mental health alienation to moderate mental health alienation, there is a 6 point increase in vote choice (n.s.) for the candidate; moving from moderate mental health alienation to high mental health alienation, there is a 14 point increase in vote choice for the candidate with schizophrenia ( $p < 0.001$ ). For the depression condition, moving from low mental health alienation to moderate mental health alienation, there is a 3 point increase in vote choice (n.s.) for the candidate; moving from moderate mental health alienation to high mental health alienation, there is a 12 point increase in vote choice for the candidate with depression ( $p < 0.001$ ).

Figure 11: Mean Level Favorability for Experimental Conditions by Mental Health Identity



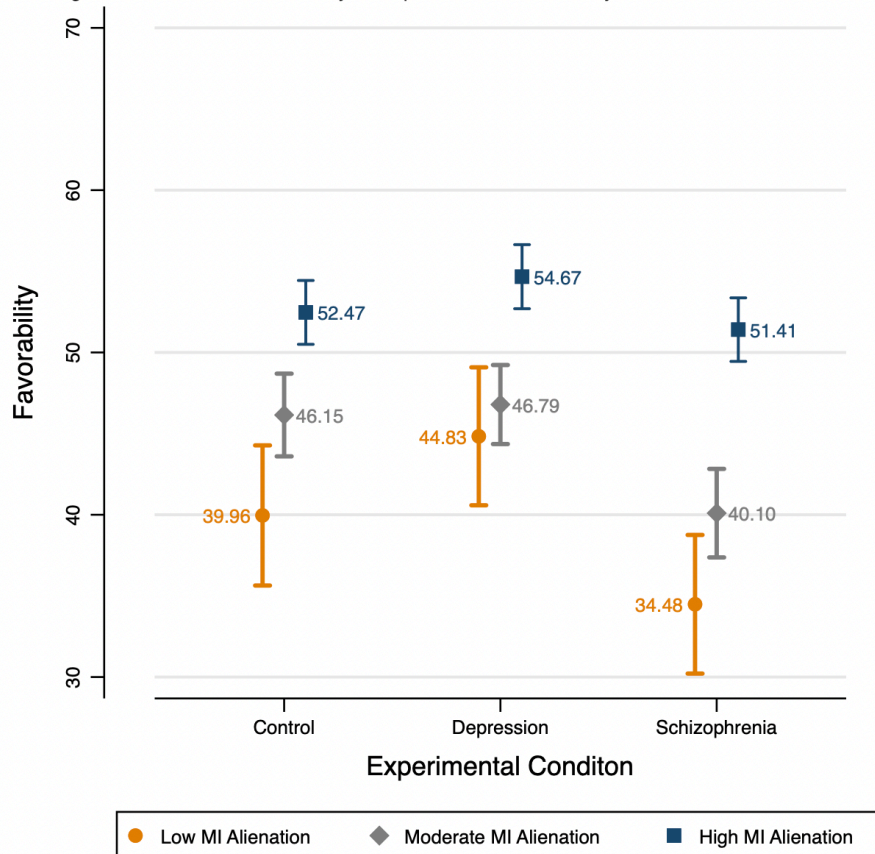
95% CIs reported, N = 675 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 12: Mean Level Vote Choice for Experimental Conditions by Mental Health Identity



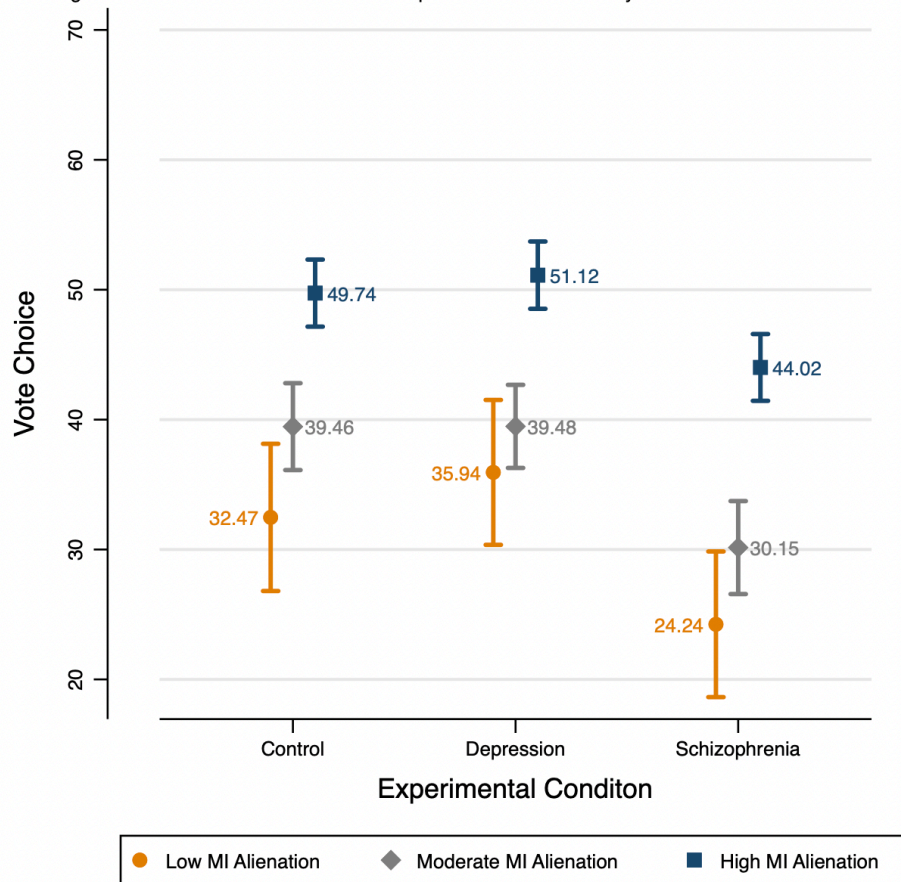
95% CIs reported, N = 675 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 13: Mean Level Favorability for Experimental Conditions by Mental Health Alienation



95% CIs reported, N = 2421 Survey Respondents  
Source: 2024 Lucid Survey Experiment Conducted by Author.

Figure 14: Mean Level Vote Choice for Experimental Conditions by Mental Health Alienation



95% CIs reported, N = 2421 Survey Respondents  
 Source: 2024 Lucid Survey Experiment Conducted by Author.

## Conclusion

The first half of this chapter presents results that show there is a clear difference in acceptability in mental health conditions for politicians. Voters dislike rude candidates but appear to dislike candidates with heroin addiction too. Candidates with depression are vastly preferred. These results become stronger for certain voters with particular attributes. Democrats are far more likely to favor and vote for candidates with depression and heroin addiction than Republicans, women are more likely to favor decreased social restrictiveness compared to men, and those who have had mental illness in their lifetimes are much more likely to favor and vote for candidates with depression than those who have not had mental illness in their lifetimes.

As for the second survey experiment, with a true control condition and subtle treatments, I find that there is not much of an electoral penalty for candidates with depression in terms of favorability or vote choice, but there is for candidates with schizophrenia. Unlike the first survey experiment, there are not strong demographic moderators related to gender or party ID (democrats are a slight exception here). The second half of the chapter focuses on using mental health measures as moderators. In terms of general mental health categorization—have a mental health condition or not—those who have a mental health condition are much more likely to favor and vote for politicians with depression and schizophrenia. As for specific mental health conditions, respondents who said they have schizophrenia or depression are more likely to vote for candidates with depression or schizophrenia than respondents without diagnoses. Finally, the mental health identity measure is a strong moderator for the schizophrenia condition and the mental health alienation measure is a strong moderator for both experimental conditions.

These results have implications for politics and representation more broadly. It seems that candidates with depression fare well when compared to less socially accepted mental illnesses (heroin addiction or schizophrenia), other undesirable characteristics—rudeness—and even a more positive true control condition.

In the United States, mental illness has been historically gendered and racialized for certain conditions (Wright 2007; McVean 2017).<sup>61</sup> I did not find racial effects, but I also did not include a mental health condition that has been historically racialized (ex. Schizophrenia). I did find some gender effects (favorability and social restrictiveness) and that was stronger for the historically gendered mental health condition (depression). Future work should examine the

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<sup>61</sup> African American men have historically been targets of punitive psychiatry. Refer to chapter 2 for more information on this.

interactive effect of historically racialized and gendered mental health conditions and whether those can be disentangled from the perceived acceptability of those conditions.

Future extensions of this work could ask whether Democrats or Republicans are more comfortable disclosing mental illness and when viewing hypothetical candidates without a party label whether respondents are more likely to assume the candidate with mental illness is part of the Democratic party. This could also link to studies that demonstrate prejudice against women and black candidates through ratings of liberalism (McDermott 1998). Finally, there is a fascinating question about whether voters who have experienced mental illness want a representative who shares their descriptive identity; these findings suggest that they do.



## CHAPTER 6

### **Institutional Trust in the Age of COVID-19:**

#### **Does Low Institutional Trust Lead to Worse Mental Health?**

##### **Introduction**

The United States saw many more COVID-19 deaths than other wealthy nations (Beaubien 2020). The news media covered COVID-19 every hour, every day, for months. Political pundits both lauded and blamed other pundits, the White House, state and local governments, and healthcare experts for how they handled this crisis. COVID-19 has also been associated with mental health challenges related to the disease itself and the efforts taken to reduce its spread, including the impacts of physical distancing and stay-at-home orders (Czeisler 2020). Anxiety and depression were much higher during the pandemic than during the same period in 2019 (ibid). With the spotlight on government performance and government orders that impact mental health, is there a relationship between how we view our institutions and how we rate our mental health?

More specifically, *did lower levels of political trust in American political institutions lead to poorer self-reported mental health during COVID-19?* This question is timely because there is a growing literature on COVID-19, political trust during COVID-19, and mental health during COVID-19 (Czeisler 2020; Lee 2020; Wong 2020). A few studies have sought to connect these topics in various ways, but to date there are no papers that address this specific question. This research question is not only timely, it is also substantively important. There are important potential consequences if the level at which an individual approves or trusts institutions affects their mental health. Using an ordinal logistic regression of aggregated institutional trust—trust in the President, state elected officials, local elected officials, public health officials, and the news

media—and self-reported mental health questions, I argue that lower levels of political trust in American institutions led to poorer self-reported mental health during COVID-19. I find that support for this argument and these results are robust to another measure of mental health and other model specifications. I make no assumptions about whether this relationship will hold in a post-COVID-19 environment, which may be a direction for future research.

## **Argument**

### *Theoretical Overview*

Social capital is defined as, “the connections among individuals’ social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam 2000, 19). Research suggests that social capital promotes health by decreasing psychosocial stress, though few studies have examined the relationship between social capital and mental health and fewer still are in the U.S. context (Kawachi, Kennedy, and Glass, 1999; Lindstrom and Mohseni 2009). Social capital works horizontally, through trust in other people, and vertically, through political trust between individuals and institutions. Horizontal and vertical trust “may be regarded as aspects of social capital, because they are reciprocally associated with and related to the engagement, networks and participation in civil society, and the relations of reciprocity in civil society” (Putnam, 1993). Political phenomena may affect mental health in a population, and “trust in the political system, i.e. trust in its basic political ideas, institutions, performance and representatives, may affect mental health in a population” (Lindstrom and Mohseni 2009, 437). I focus in this chapter on the performance aspect of political institutional trust and its relationship to mental health. I begin by examining the foundations of political trust in political science, then differentiate between social and political trust and review the mental health literature on political trust, and end with a discussion of this analysis in the context of COVID-19.

### *Social Capital and Institutional Trust*

Putnam did not invent the theory of social capital, but he expanded on it and popularized it in his 2000 book, *Bowling Alone*. Pre-Putnam theories of social capital centered on the idea that social ties make our lives more productive (Morrow and Scorgie-Porter 2017; Putnam 2000). Putnam expanded on this theory by examining how people's civic participation in their local areas produced social capital. Putnam's aim with his book was to raise awareness and argue that, after WWII, there was a decline in civic engagement, a reduction in social capital, and an increase in Americans' distrust of their government. Putnam focuses on many measures of social capital—such as private organizations and volunteerism—but he also links civic engagement to governmental performance, health outcomes, economics, and education (Morrow and Scorgie-Porter 2017; Putnam 2000). One critique of Putnam's work is that it does not differentiate between social and political capital clearly enough (Kim 2005). The next section will differentiate between social capital or social trust and political capital or political trust.

### *On Personal Versus Institutional Trust*

There is significant disagreement between social capital scholars about the strength of the connection between, direction of, and origins of social and political trust. In Putnam's (2000) view, social trust arises out of social capital and political trust evolves similarly. Proponents of this line of thinking argue that social and political trust are formed by early socialization and cultural norms (Kim 2005; Putnam 2000). The other side of the debate argues that political and social trust have different origins and different functions in society, and that political trust is determined by institutional performance and not by an individual-level capacity to trust (Kim 2005; Newton 2001; Uslaner 2002). This distinction matters because it relates directly to our

expectations for how political trust behaves. If it is more like social trust and is shaped by cultural norms, it will be long-lasting and relatively stable; but if it is more like perceptions of institutional performance, then political trust will fluctuate in response to perceived changes in performance.

Newton (2001) argues that political trust is “not an expression of a basic feature of ‘trusting personalities’, but an evaluation of the political world. This makes trust scores a litmus test of how well the political system is performing in the eyes of its citizens” (Newton 2001, 205). He goes on to claim that what matters it is not whether people are “trustees” or “distrusters,” but rather their ability to judge the trustworthiness of their changing circumstances. Newton’s definition of political trust—heavily reliant on perceived performance—is the definition of political trust I use in this chapter.

I use composite measures of mental health and institutional trust, though I examine the relationship directly, as Hudson (2006) does. My composite measure of institutional trust includes five measures—perceived performance of Donald Trump, state elected officials, local elected officials, public health officials, and the news media. These measures are supported by the literature, though there is some debate about whether using a politician’s name instead of the office will impact the validity of the measure. Ultimately, I side with Campos-Castillo et al. (2016), who argue that an institution is not the building it is housed in, but the role of person(s) who represent the institution. Further, they state that to most people the President is the embodiment of the executive branch and “approval of the president is significantly and positively related to trust in government, although the direction of causation has been debated” (Campos-Castillo et al. 2016, 103).

### *Mental Health Measures and Institutional Trust*

Prior mental health studies primarily measure social well-being, happiness, or life satisfaction. Fewer studies have examined more “negative” mental health measures, such as the severity and frequency of poor mental health symptoms. Shockley (2016) emphasizes this point when discussing the “dark side” of trust. Specifically, he points out that trust is not always positive and, when there is a threat to safety, security, or a lack of meaning and understanding, individuals may be more trusting and less critical of institutions.

After Putnam popularized the idea that institutional trust could impact mental health, it became an avenue of research for many mental health scholars (McKenzie et al. 2006). There is evidence that geographic areas with higher levels of social capital have lower rates of suicide and mortality and longer life expectancy (ibid). For example, Steptoe and Feldman (2001) find that local problems (such as air pollution, noise, vandalism, and litter) are correlated with poor self-reported mental health, psychological distress, and impaired physical function.

But *how* does the mechanism between institutional trust and mental health work? The short answer is: there is no consensus. This is because mental health and institutional trust are both complex concepts and, although there have been many proposed mechanisms and theories, we will most likely never know for certain (McKenzie et al. 2006). However, there are many possible ways that institutional trust could impact mental health.

For example, when individuals continually reassess a low-trust environment, they become anxious and are more susceptible to physical and mental illnesses (ibid). Social disorganization, which means “the inability of a community to realize the common values of its residents and maintain effective social controls,” correlates to increased rates of suicide and crime (Sampson and Groves 1989, 777). Increased rates of crime, substance abuse, and domestic violence, perhaps caused by the authorities and others not enforcing societal norms, can lead to

mental illness (McKenzie et al. 2006). Even though these theories were written well before COVID-19, they seem to fit our circumstances well for the pandemic. If people expect the government to keep them safe—whether through mask mandates, vaccine rollouts, or other measures—lower institutional trust may call that into question and lead to psychological distress. It may also be that, instead of or in addition to medical and public health provisions, people expect the government to maintain effective social controls and constrain people who are making others unsafe. There are undoubtedly many other ways poor institutional trust could lead to poorer self-reported mental health (and we may expect this relationship to vary by partisanship, which is examined in the appendix). My hypothesis, formally stated, is: **H1. Lower levels of political trust in American political institutions lead to poorer self-reported mental health.**<sup>62</sup>

## Data

### *Pew's American Trends Panel*

In this analysis, I use data from Pew Research Center's American Trends Panel Wave 64, 66, and 67. Wave 64 took place from March 19-24, 2020, and had 11,537 respondents. Wave 66 took place from April 20-26, 2020, and had 10,139 respondents. Wave 67 took place from April 29-May 5, 2020, and had 10,957 respondents. The unit of analysis is the individual survey respondent. Pew's American Trends Panel (ATP hereafter) is panel data, but I will present Wave 64 as one cross-sectional data point and then Wave 66 and 67 as a second cross-sectional data points. After that, I will take advantage of the panel nature of the data to present a cross-lagged

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<sup>62</sup>“The term ‘mental health’ is considered an unimpeded sense of psychological and functional wellbeing. The term ‘mental illness’ refers to specific mental disorders as defined and classified by the World Health Organization’s (WHO) *International Classification of Diseases* system or the USA’s *Diagnostic and Statistical Manual of Mental Disorders*. The term ‘mental health problems’ refers to symptoms of psychological difficulties; these include diagnosable mental illnesses and subclinical states” (McKenzie et al. 2006).

panel model that uses both data points to gain leverage on causal directionality. A brief overview of the sampling method appears in the appendix.

#### *ATP Waves 64, 66, 67*

ATP Waves 64, 66, and 67 are part of the three most recent address-based recruitments and most of the surveys were self-administered online. Across the 2018, 2019, and 2020 recruitments, 17,161 adults were invited to join the panel and 15,134 (88%) agreed and completed an initial profile survey (ibid). Waves 64, 66, and 67 use survey questionnaires that focused almost entirely on perceptions of COVID-19.<sup>63</sup>

#### *Combining Waves 66 and 67*

Wave 64 contains all of my key independent and dependent variables. Unfortunately, no other panel to date has had both my key independent and dependent variables within the same panel. The only other wave that contains my main and alternate mental health dependent variables is Wave 66, but it does not contain my main institutional trust independent variables. Conversely, Wave 67 contains my main institutional trust independent variables, but it does not contain the mental health dependent variables. Fortunately, these panels are so close together in time that I argue they can be considered the same panel. Indeed, people who took the survey at the end of Wave 66 (April 20-26) may be taking it closer in time to those who took the survey at the beginning of Wave 67 (29-May 5) than to those who took the survey at the beginning of their own panel. While I consider these panels to be the same panel because of timing, they are

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<sup>63</sup> All questions used in the analysis are from ATP Waves 64, 66, and 67. All questions used in the analysis are presented in the appendix.

distinct from Wave 64, which took place about a month before the start of Wave 66. All the key variables are used in this chapter are presented in the table below.

**Table 1: Descriptions of Key Variables**

Variables	Wave 64: March 19-24 2020		Wave 66 & 67: April 20-May 5 2020	
	Frequency	Percent	Frequency	Percent
<b>Dependent Variables</b>				
Poor Mental Health (Main DV)◇				
Rarely or a little bit of the time	8731	66.59%	7805	59.53%
Occasionally	2125	16.21%	1760	13.42%
Often	552	4.21%	480	3.66%
Missing (Originally Refused)	1702	12.99%	3066	23.38%
Poor Mental Health (Alternative DV) ◇◇				
Rarely or a little bit of the time	9529	72.68%	8488	64.74%
Occasionally	1251	9.54%	1073	8/18%
Often	724	5.52%	530	4.04%
Missing (Originally Refused)	1607	12.26%	3020	20.03%
<b>Independent Variables</b>				
Institutional Trust				
Poor*	451	3.44%	580	4.42%
Only Fair	2895	22.08%	3686	28.11%
Good	6225	47.48%	5625	42.90%
Excellent	1735	13.23%	890	6.79%
Missing (Originally Refused)	1805	13.77%	2330	17.77%
Trust in People				
People can never be trusted*	3109	23.71%		
People can rarely be trusted	1685	12.85%		
People can occasionally be trusted	2137	16.30%		
People can always be trusted	4233	32.29%		
Missing (Originally Refused)	1947	14.85%		
Economic Hardship				
No economic hardship*	7827	59.70%		
Economic hardship	3610	27.53%		
Missing (Originally Refused)	1674	12.77%		
Following Covid Closely				
Not at all closely*	68	0.52%	122	0.93%
Not too closely	474	3.62%	713	5.44%
Fairly closely	3496	26.66%	3869	29.51%
Very closely	7495	57.17%	5423	41.36%
Missing (Originally Refused)	1578	12.04%	2984	22.76%
Partisanship				
Democrat	4101	31.28%		
Republican	2848	21.72%		



Independent *	3381	25.79%
Something Else	1097	8.37%
Missing (Originally Refused)	1684	12.85%
Perceive Covid as a Crisis		
Not a problem at all*	57	0.43%
A minor problem	210	1.60%
A serious problem but not a crisis	2513	19.17%
A significant crisis	8723	66.53%
Missing (Originally Refused)	1608	12.26%
Age		
18-29*	1286	9.81%
30-49	3775	28.79%
50-64	3448	26.30%
65+	2968	22.64%
Missing (Originally Refused)	1634	12.46%
Race		
White non-Hispanic*	7535	57.47%
Black non-Hispanic	881	6.72%
Hispanic	2358	17.98%
Other	624	4.76%
Missing (Originally Refused)	1713	13.07%
<hr/>		
N	10,501	7,853

\*Reference Category

◇ Response to five mental health questions combined into three categories.

◇◇ In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?

Source: 2020 Pew Research Center's American Trends Panel: Waves 64 (March 2020), 66 & 67 (April-May 2020). Pew Research Center, Washington, D.C.

### *Main Dependent Variable*

My main dependent variable is a composite variable made from a series of five self-reported mental health questions: “In the past 7 days, how often have you.[ Felt nervous, anxious, or on edge?] [Felt depressed?] [Felt lonely?] [Felt hopeful about the future?] [Had trouble sleeping?]”. The possible answer choices are: “Rarely or none of the time (less than 1 day),” “Some or a little of the time (1-2 days),” “Occasionally or a moderate amount of time (3-4 days),” “Most or all of the time (5-7 days),” and “No answer.” I created an additive measure of the five questions and then, excluding the “no answer” category, collapsed them back into four categories representing the four response categories. I then further collapsed this measure into

three categories by combining the “Rarely or none of the time” category with the “Some or a little of the time” category. I did this for two reasons. First, there was a variable already provided in the Wave 64 dataset that did this exactly: it had Low (bottom 50%), Medium (next 25%), and High (top 25%) frequency of self-reported poor mental health categories.<sup>64</sup> The second reason I chose to follow this procedure is theoretical. My hypothesis is interested only in poor mental health and good mental health and has no expectations about those with moderate mental health. As such, it makes sense that someone who experiences poor mental health 0-2 days out of the week (the bottom two categories combined) has “good” mental health and someone who experiences poor mental health 5-7 days out of the week has “poor” mental health (top category).

The labels are phrased this way because the composite measure asks the more general question of how frequently a respondent has experienced poor mental health. Most of the sample (67%) does not frequently experience poor mental health, while the next level (16%) experiences poor mental health a moderate amount, and the top quarter (~5%) experiences poor mental health often. All of the survey options with “No answer” were labeled by Pew as “refused.” I coded all of the “refused” answers as missing. For nearly all questions, there were no missing values other than the “refused” responses. Since this is a multi-item variable, I will present the most basic reliability statistic, Cronbach’s alpha, to measure the internal reliability between items in a scale. The Cronbach’s alpha for the main dependent variable for Wave 64 is 0.735 and for Wave 66 is 0.751.

### *Main Independent Variable*

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<sup>64</sup> This measure is similar to a collapsed version of the four response category variable. I conducted several Wald tests and concluded that there is some evidence that there is no difference between the bottom two categories collapsed into the three category version. This is a common approach for transforming mental health data, which is likely why the transformation was already provided in the Wave 64 dataset.

The main independent variable is a composite measure of five questions about the job performance of various people and/or institutions. The prompt asks: How would you rate the job each of the following is doing responding to the coronavirus outbreak? [Donald Trump], [Your state elected officials], [Your local elected officials ], [Public health officials such as those at the CDC (Centers for Disease Control and Prevention)], [Ordinary people in your local community], and [The news media]. The response options are (4)“Excellent,” (3)“Good,” (2)“Only Fair,” (1)“Poor,” and “No answer.” Since I want my primary IV to be about institutional trust, I excluded the [Ordinary people in your local community] question from this measure.<sup>65</sup>

I included Donald Trump, the news media, and public health officials in this measure because institutional trust does not just refer to government institutional trust. A narrow definition of Institutional trust is the degree of confidence that people have in the judicial, economic and governmental bodies as well as citizens’ evaluations of the performance of those institutions (Ciziceno and Travaglino 2019; Hudson 2006; Putnam 1993). If Donald Trump is not included in this measure then there is no measure representing the executive branch and that is not a complete measure of governmental institutional trust. Ciziceno and Travaglino (2019) use a composite measure of trust in police, banks, the judicial system, health care system and government. I include public health officials because it is important for the context of my question, but also to mirror Ciziceno and Travaglino’s measure.

Finally, I am including the mass media because it is still thought of as the fourth pillar of democracy, especially in times of crisis. The media not only functions to keep the public abreast

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<sup>65</sup> To make the composite measure, I began by adding the questions together to get an additive scale from 5-20. Then I collapsed the scale back to reflect the original four response categories (i.e. 5-8 “Poor,” 9-12 “Only Fair,” 13-16 “Good,” and 17-20 “Excellent”). As with all variables in this dataset, I coded “No answer/Refused” as missing.

of all current affairs, but it still fulfills one of its most important functions—acting as a watchdog for governmental misdeeds. I think news media should generally be included in institutional trust, but especially during a crisis (Graber and Dunaway 2018). While this is true, it does not consider that trust in media is defined on partisan lines, with Republicans far less likely to trust the media than Democrats (Gottfried and Liedke 2021). I control for partisanship in my main models but, because we could imagine partisans reacting differently to a number of questions, I will also be running the models separately by Republican, Democrat, and Independent identifiers (these models appear in the appendix). The Cronbach’s alpha for the main independent variable for Wave 64 is 0.626 and for Wave 66 is 0.666.

### *Survey Weights*

ATP Waves 64 and 66 use a complex process to create survey weights that attempt to account for multiple stages of sampling and nonresponse that occur at different points in the survey process. My main results are unweighted, but the weighted results for both main and alternative DV are in the appendix (DuMouchel and Duncan 1983; Daniel and Metzger Forthcoming).

### *Methods*

My main DV, Poor Mental Health (PMH), is an ordinal variable, so I will be using an ordinal logistic regression. I chose the independent variables in the model—Institutional Trust (main IV), Trust in People, Economic Hardship, Partisanship, Age, Sex, Race, Perceptions of Covid as a Crisis, and Following Covid Closely—based almost exclusively on theoretical reasoning and what other authors have done (Ciziceno and Travaglino. 2019; Hudson 2006; Lindstrom and Mohseni 2009; Lee 2020; McKenzie et al. 2006). I used several goodness of fit measures and statistical tests, which are discussed in the appendix.

In line with my hypothesis, I expect that as the frequency of poor mental health increases, institutional trust decreases. This means that a negative coefficient on Institutional Trust will show support for my hypothesis. Likewise, I expect a negative coefficient on Trust in People. That is what we observe in the ordered logit regression table.<sup>66</sup> There is a negative sign on both Institutional Trust and Trust in People for both time points and they are both statistically different from zero at the  $p < 0.001$  significance threshold. All other covariates have the expected sign, except Age, which has the opposite expected sign.<sup>67</sup> Looking at the bottom of the table, the percent correctly predicted (PCP) means that this model correctly predicts the level of poor mental health 76.3% of the time for Wave 64 and 77.8% of the time for Wave 66 & 67. The proportionate reduction in error (PRE) is -0.004 for Wave 64 and means that the model increases the prediction error associated with using only descriptive information about the DV by 0.4%. Similarly, the proportionate reduction in error (PRE) is 0.001 for Wave 66 & 67 and means that the model decreases the prediction error associated with using only descriptive information about the DV by 0.1%. Neither of these PRE statistics are very good, but this model contains all theoretically relevant covariates and the PCP is pretty good.<sup>68</sup>

Since I am primarily concerned with comparing the waves to one another, I will be presenting the ordinal logit predicted probabilities and first differences in the body of the chapter and am presenting both a generalized logistic regression and a multinomial logistic regression for Wave 64 in the appendix. Multinomial logit addresses any PRA concerns but also treats the variables as nominal and so a great deal of information about the category orderings is lost.

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<sup>66</sup> A corresponding table with survey weights is in the Appendix.

<sup>67</sup> This is not wholly inconsistent with the mental health literature that focuses on institutional trust (Lindstrom and Mohseni 2009).

<sup>68</sup> I added my covariates of interest one at a time and continuously rechecked the GOF statistics and different combinations of covariates. While there were slightly better fitting models 0.001 better for PCP/PRE, getting that extra 0.001 required cutting theoretically significant variables.

**Table 2: Ordered Logit Regression of Institutional Trust and Mental Health**

	Wave 64: March 19-24 2020	Wave 66 & 67: April 20-May 5 2020
Poor Mental Health	Coefficient	Coefficient
Institutional Trust	-0.511*** (0.034)	-0.203*** (0.042)
Trust in People	-0.236*** (0.021)	-0.187*** (0.024)
Perceive Covid as a Crisis	0.553*** (0.057)	0.423*** (0.063)
Following Covid Closely	0.278*** (0.045)	0.169*** (0.045)
Economic Hardship	0.209*** (0.051)	0.227*** (0.059)
Partisanship	0.129*** (0.024)	0.140*** (0.028)
Age	-0.225*** (0.027)	-0.316*** (0.032)
Race (White reference category)	-0.153*** (0.026)	-0.088** (0.030)
Male	0.530*** (0.050)	0.505*** (0.058)
Tau 1	2.089 (0.249)	2.123 (0.275)
Tau 2	3.973 (0.252)	3.920 (0.279)
N	10,501	7,853
PCP	0.763	0.778
PRE	-0.004	0.001
Log-Likelihood	-6553.188	-4837.572

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2020 Pew Research Center's American Trends Panel: Waves 64 (March 2020), 66 & 67 (April-May 2020). Pew Research Center, Washington, D.C.

The generalized logistic regression is often a more parsimonious model compared to the multinomial logistic regression model because you can select which variables are held to the

parallel regression assumption and therefore not as much information is lost.<sup>69</sup> Though these interpretations vary between approaches, the general expected trend for Wave 64 holds across all three models.

## Results

The main ordinal logit regression table was presented earlier, but other than sign and significance, we cannot readily interpret those values. Instead, we will use predicted probabilities and first differences of predicted probabilities generated through simulations to interpret these values.<sup>70</sup> I will interpret the main model using the observed values approach.<sup>71</sup>

### *Wave 64*

The overall trend for the predicted probabilities graphs are different for each category of the dependent variable. In the top left graph—rarely or sometimes experiencing poor mental health—the line is positive such that the predicted probability of rarely experiencing poor mental health increases as the level of institutional trust increases. In the bottom left graph—often experiencing poor mental health—the line is slightly negative such that the probability of experiencing poor mental health often decreases as institutional trust increases. The graph on the right—occasionally experiencing poor mental health—is also negative. Looking back at the bottom left graph, an individual who has very low institutional trust has a 10.8% chance, on average, of experiencing poor mental health often, holding all other covariates at their observed values.

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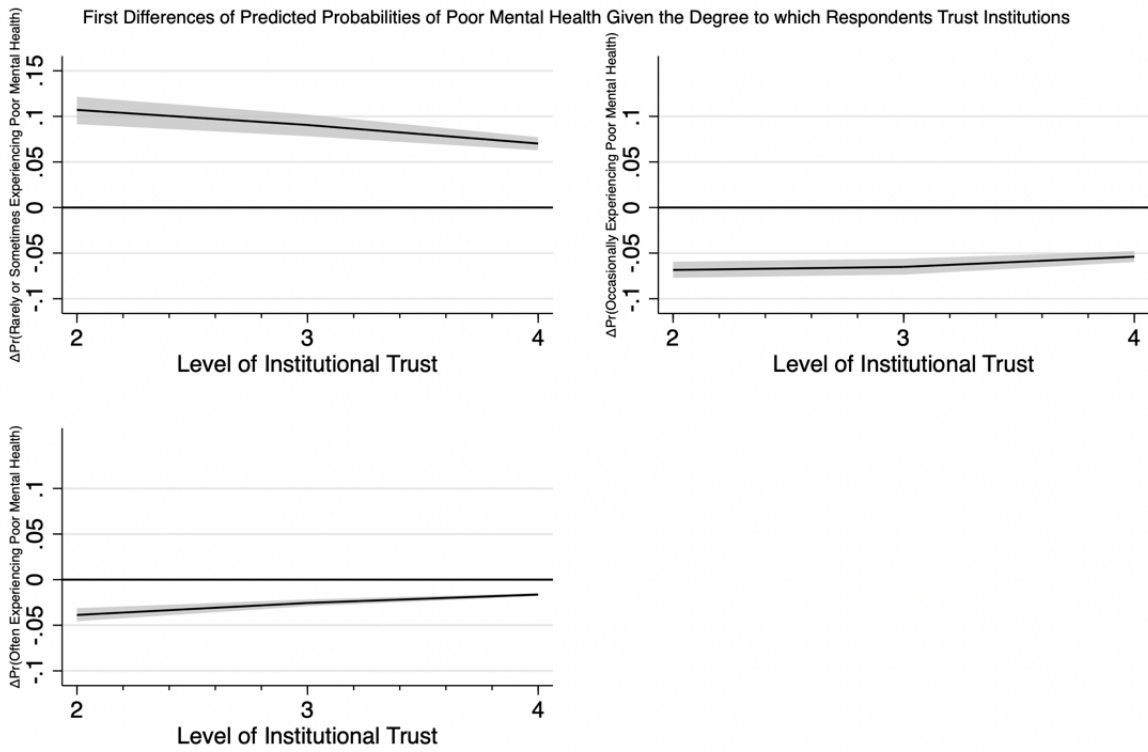
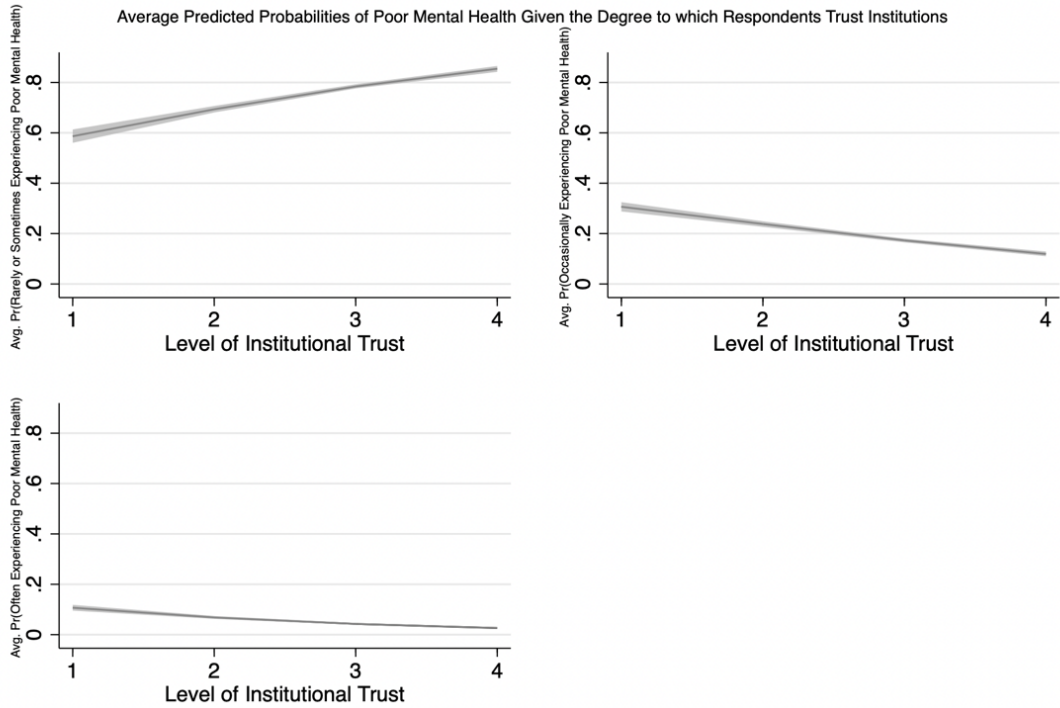
<sup>69</sup> I only allowed the PRA assumption to be relaxed for Age, Trust, and Institutional Trust while the other variables were still held to the PRA assumption. I chose these variables because they violated the PRA the most from earlier examinations.

<sup>70</sup> All simulations used 1,000 draws.

<sup>71</sup> Main model with weights and Alternative DV predicted probabilities and first differences using observed values are presented in the Appendix.

The next graph shows the first differences of the predicted probabilities from the previous graph. The top left graph is above the zero line while both the top right and bottom left graphs are below the zero line. A specific example to illustrate the trend with the “rarely experiencing poor mental health” graph is that, holding all other covariates at their observed values, increasing the level of institutional trust from (2) medium-low to (3) medium-high results in an increase of 9.14 pct. pts. in the average predicted probability of rarely experiencing poor mental health. This difference, and both of the others are statistically different from zero.

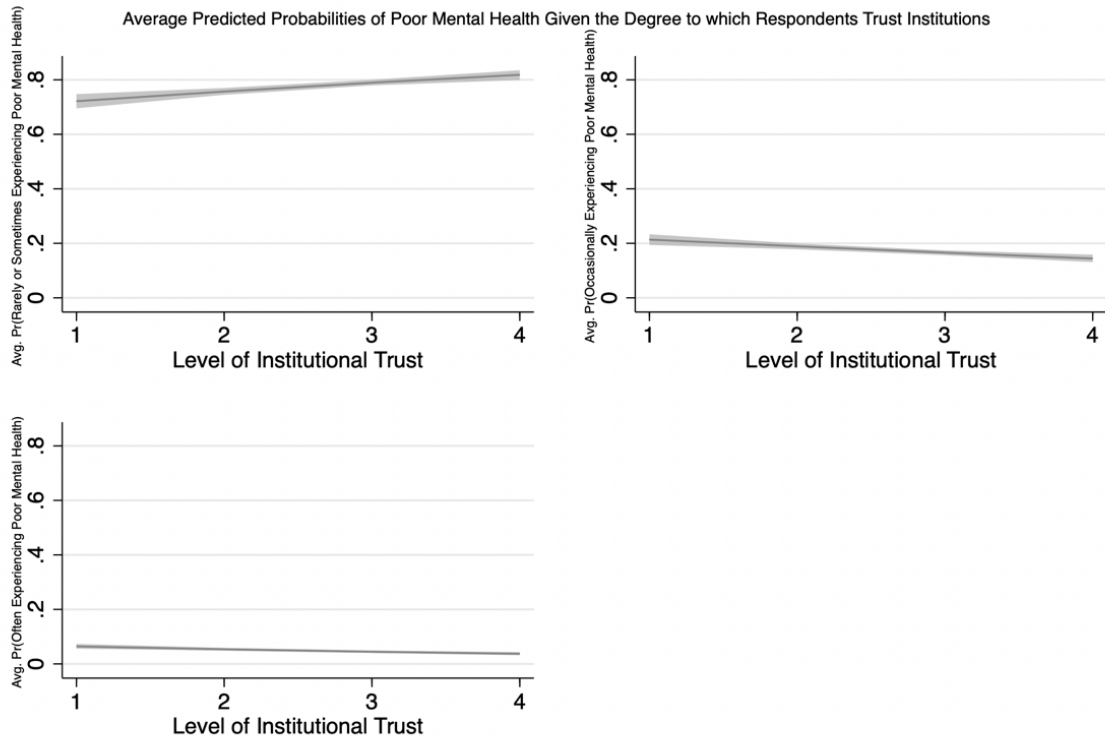




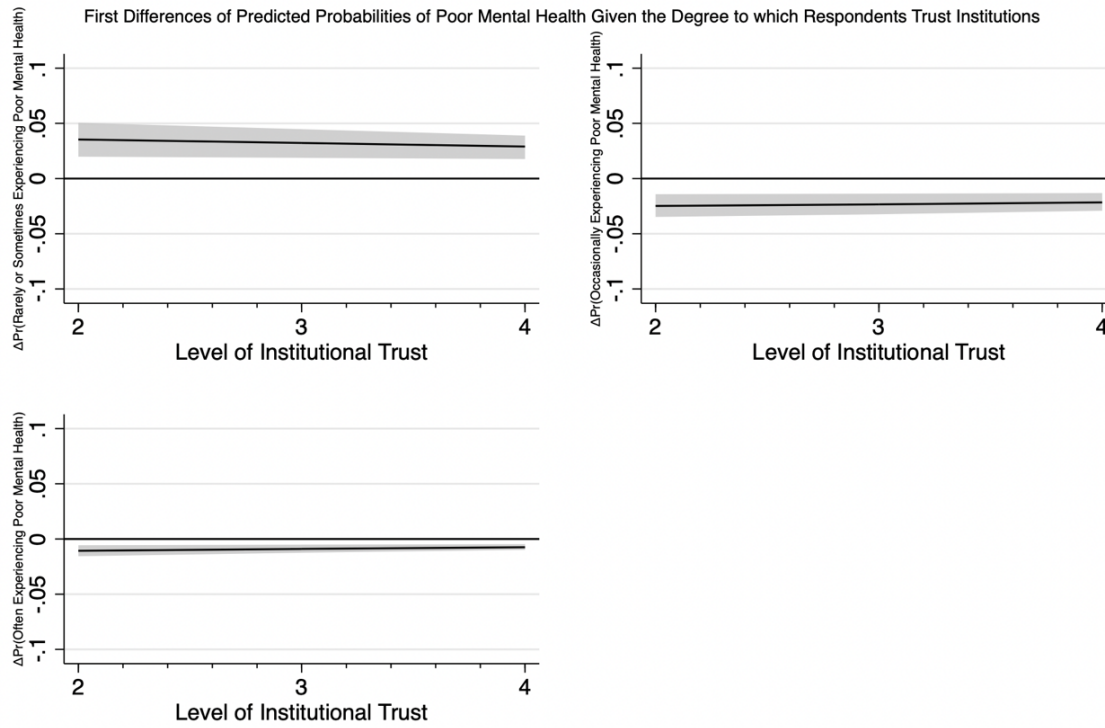
### *Wave 66 & 67*

The general trends for the predicted probabilities and first differences for Wave 66 & 67 look very similar to the Wave 64. The top left graph—rarely experiencing poor mental health—is still positively associated with level of institutional trust; the bottom left graph—often experiencing poor mental health—is still slightly negatively associated with poor mental health; and the middle category—occasionally experiencing poor mental health—is also still negative. Looking at the bottom left graph, an individual who has very low institutional trust has a 6.5% chance, on average, of experiencing poor mental health often, holding all other covariates at their observed values.

The next graph shows the first differences of the predicted probabilities from the previous graph. The top left graph is above the zero line while both the top right and bottom left graphs are below the zero line. A specific example to illustrate the trend with the “rarely experiencing poor mental health” graph is that, holding all other covariates at their observed values, increasing the level of institutional trust from (2) medium-low to (3) medium-high results in an increase of 3.54 pct. pts. in the average predicted probability of rarely experiencing poor mental health. This difference, and both of the others are statistically different from zero.



1000 simulations, all other covariates set to observed values.  
 95% CIs reported, N = 7853 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.



1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported, N = 7853 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.

### *Cross-Lagged Panel Model*

Although the results hold across Waves 64 and 66 & 67, this analysis has so far treated these data as cross-sectional surveys. Without random assignment to treatment conditions in experimental settings, it is often difficult to gain traction on causal directionality. Panel data help this because it moves the individual (for survey work) measured at one static moment to multiple moments that can tell us about how variables of interest change over time. Specifically, if we can examine a lagged dependent variable as the change in Y and show that our independent variable is associated with changes in Y, then we can more clearly show there is a causal effect from X to Y than we would be able to only using static cross-sectional surveys.<sup>72</sup> Since the data are panel and there is a theoretically compelling case for reverse causality—that people’s mental health status would affect the amount they trust institutions—I will be using a cross-lagged panel model to take a closer examination of the causal direction and strength.

The cross-lagged panel model is used to determine direction and strength of causal association between variables at a minimum of two different time points. The model is best suited to cases where reciprocal/mutual causality is plausible and variables are measured at multiple time points because the model not only tests the hypothesized direction—institutional trust affecting mental health—but it also tests the opposite—mental health affecting institutional trust—within the same model so values and statistical significance can be directly compared. This is unique because other models may only examine the hypothesized causal direction or do examine reverse causality but only at one time point. Examining reverse causality at one time

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<sup>72</sup> This sentence is specifically about panel data, but is true for the cross-lagged panel model, which requires panel data. In addition to the change in Y, the cross-lagged panel model also examines the change in X and whether Y is associated with the changes in X to see if there is a causal effect from Y to X as well as from X to Y. This, along with controlling for correlations within time points and the stability of constructs across time, is what gives the model the leverage needed to identifying mutual/reciprocal causation.

point limits the scope of investigation to simultaneous causal influences and the method to instrumental variables or 2SLS, which tend to have more restrictive assumptions than the cross-lagged panel model (Finkel 1995). Moreover, the cross-lagged panel model is especially equipped to identify reciprocal causation because its main purpose is to determine which variable causally precedes the other, if any.

The cross-lagged panel model can be used to test for spuriousness because the null hypothesis is that the cross-lagged relationships are equal and due to an unmeasured third variable, not causation. There are three general outcomes for the model in its simplest form: (1) Neither the hypothesized direction nor the counter-hypothesized direction is significant. (2) Only one direction is statistically significant and we can conclude that there is evidence for unidirectional causality. (3) Both directions are statistically significant, known as mutual causality or reciprocal causality, and we conclude that the causal effects work in both directions. With this last outcome, we can still examine which causal effect is stronger.

### *Cross-Lagged Panel Model?*<sup>73</sup>

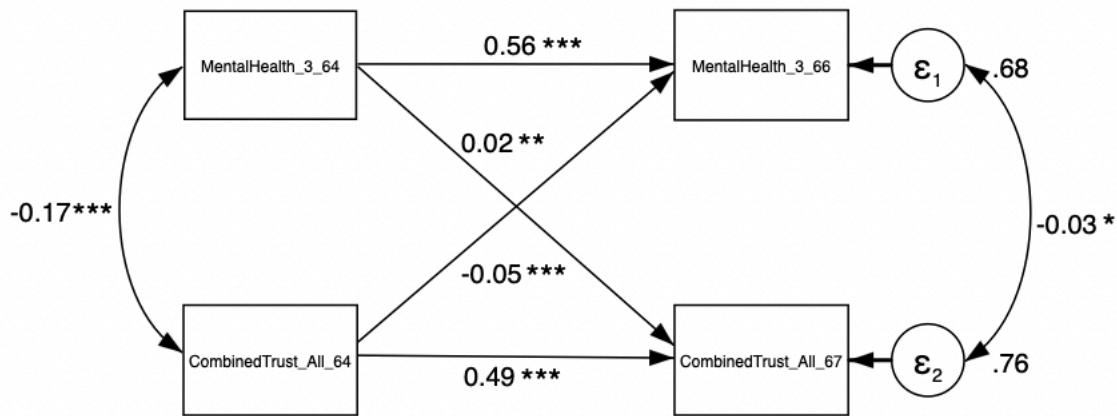
This model is a type of structural equation model that uses panel or longitudinal data to examine the direction and strength of the causal association between variables, if it exists. The model is called “crossed” because it estimates relationships between variables in both directions and it is considered “lagged” because it estimates relationships between variables across multiple time points (Allen 2017, 313).

I will be presenting two cross-lagged panel models in this section: my main model and my secondary model with alternative dependent variable. I am taking the general wisdom and

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<sup>73</sup> A more detailed explanation of the model appears in the appendix.

standardizing all results so I am able to more directly compare these results.<sup>74</sup> Since I have a significant amount of missing values across waves, and because it is suggested by multiple texts, I will be using the maximum likelihood with missing values estimation (Acock 2013; Kearney 2017; Allen 2017). Figures using the other estimation methods are in the appendix, but the results presented below are robust to the other estimation methods.

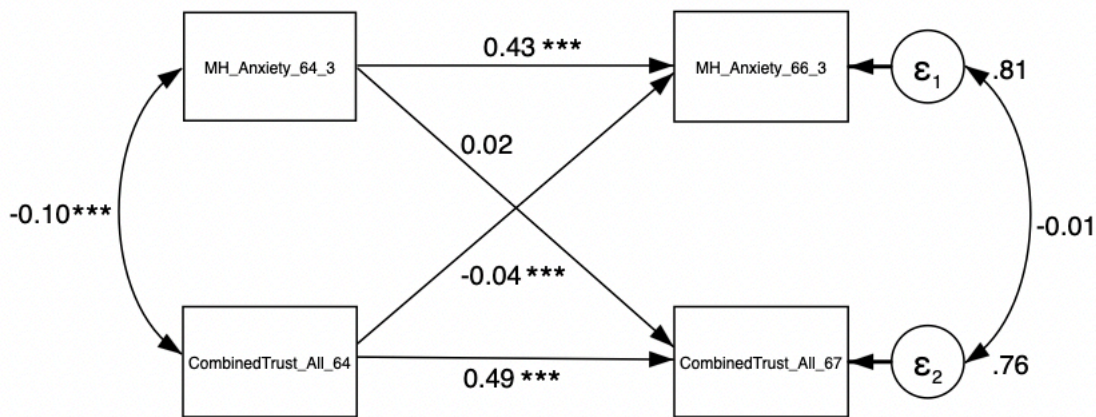


The first figure, like the generalized diagram above, presents six relationships and correlated errors. The stability relationships are of similar magnitude and significance. Both cross lagged relationships are significant, which implies that there is mutual/reciprocal causation where institutional trust affects mental health and mental health affects institutional trust. However, it is important to note that the relationship from institutional trust to mental health is larger and more significant than the path from mental health to institutional trust. The main two takeaways from this first figure are as follows: (1) it appears that mental health is more stable

<sup>74</sup> In addition, there are three options to run the estimations: maximum likelihood, maximum likelihood with missing values, and an “Asymptotic distribution free” method. Maximum likelihood and maximum likelihood with missing values are very similar, except that ML with missing values performs better with data that contain missing values. The Asymptotic distribution is, “appropriate for non-parametric distributions, without missing value imputation” (Straatmann et al. 2018, 5).

than institutional trust, and (2) that institutional trust at time one influences mental health at time two more so than mental health at time one influences mental health at time two.

For both of these claims, it is necessary to test whether these differences are statistically significant using a Wald chi-squared test of difference. For claim one, the significant chi-squared statistic is 42.21, which implies that the stability coefficient for governmental trust is significantly different from the stability coefficient for mental health. For claim two, the significant chi-squared statistic is 22.23, which implies that the effect of governmental trust on



later self-reported mental health measures differs significantly from the effect of self-reported mental health measures on later governmental trust. Although this model has mutual/reciprocal causation, there is evidence that the causal direction is stronger for institutional trust affecting self-reported measures of mental health, which supports the main hypothesis for this chapter. Next, I will examine the alternative dependent variable’s cross-lagged panel model.

The stability relationships are, again, of similar magnitude and significance. This time, only one cross lagged relationship is significant, which implies that there is a unidirectional causal relationship from institutional trust to self-reported measures of mental health. Therefore, the main two takeaways from this first figure are as follows: (1) it appears that institutional trust

is more stable than mental health in this figure, and (2) that institutional trust at time one influences mental health at time two more so than mental health at time one influences mental health at time two.

For both of these claims, it is necessary to test whether these differences are statistically significant using a Wald chi-squared test of difference. For claim one, the significant chi-squared statistic is 27.41, which implies that the stability coefficient for institutional trust is significantly different from the stability coefficient for mental health anxiety. For claim two, the significant chi-squared statistic is 15.05, which implies that the effect of institutional trust on later self-reported mental health measures differs significantly from the effect of self-reported mental health measures on later measures of institutional trust. This is strong evidence that for the alternate dependent variable, there is a causal relationship going from institutional trust to self-reported measures of mental health but there is no evidence for a causal relationship from self-reported mental health to institutional trust.

Further, since the main and alternate mental health measures and institutional trust variables are coded in the same way and the coefficients are standardized, we can conclude that the alternative DV cross-lagged model gives support for the main DV cross-lagged model. In summary, there is evidence for the hypothesized causal direction presented in this chapter.

## **Discussion**

There is support for the hypothesis that lower levels of institutional trust leads to poorer self-reported mental health. The first piece of evidence evaluated was the ordered logit regression table. That showed the expected negative sign and was significant for both Wave 64 and Wave 66 & 67. We cannot readily interpret these values, so next I created predicted



probabilities and first differences using the observed values (OV) method. The predicted probabilities follow a similar trend for both waves: the “rarely experiences poor mental health” graphs were positive, the “occasionally experiences poor mental health” graphs were negative, and the “often experiences poor mental health” graphs were also negative.

Though the “often experiences poor mental health” matches with how the hypothesis is worded, we can also look at the “rarely experiences poor mental health” graphs to support the hypothesis. We can do this because of the underlying parallel regression assumption. Though the hypothesis states that lower institutional trust leads to worse mental health, because of the parallel regression assumption, this should be symmetric. Therefore, we can also check if higher institutional trust leads to better self-reported mental health. And we do see this trend. It should be noted that wave 66 & 67 passed the PRA while Wave 64 did not, although the same trends still hold when using generalized ordinal logistic regression and multinomial regression for Wave 64.

In order to make inferences, we turn next to the first difference figures. We need to do this for inference because these figures tell us if our results are statistically different from zero. In both waves, in the first difference graphs the “rarely experiences poor mental health” graphs are both positive and statistically significant (above and not touching the zero line). The “often experiences poor mental health” graphs are both negative and statistically significant (below and not touching the zero line), and the “occasionally experiences poor mental health” graphs are also negative but are not directly tied to the hypothesis.

Next, there was a reasonable assumption that these results would differ by partisanship and so predicted probabilities and first differences were presented for both Waves 64 and 66 & 67 by Democratic, Republican, and Independent party identification. These results largely

confirmed earlier trends except for Republicans in Wave 66 & 67 where the sign on following COVID closely flipped (not statistically significant), and institutional trust had the expected negative sign, but is no longer statistically significant. Further, the predicted probability graphs had slopes that weakly matched with the main trends, but the first differences crossed zero and so none were statistically different from zero.

Finally, there was a reasonable case for reverse causality—that people’s mental health status would affect the amount they trust institutions instead of perceptions of institutional trust affecting self-reported mental health. I took advantage of the panel nature of my data and used a cross-lagged panel model to take a closer examination of the causal direction. For the main model, there was a bidirectional relationship between mental health and institutional trust, although Wald significance tests determined that the direction from institutional trust at time one influenced mental health at time two more than the other cross-lagged relationship. The model with the alternative dependent variable produced a strong unidirectional relationship going from institutional trust to mental health. Since these variables were all standardized and the mental health measures had the same response categories and were coded the same, this provides strong support for my hypothesized causal direction. In the next section I will speak briefly about the implications of these findings and directions for future research.

## **Conclusions**

There is strong support for the hypothesis that lower levels of institutional trust leads to poorer self-reported mental health. This analysis is unique because it is one of the few projects that links institutional trust directly to self-reported mental health scores, and it is the first to do so during a crisis (COVID-19) in the United States. Thus, it contributes to the institutional trust

literature, the mental health literature, and the growing COVID-19 literature. The data itself comes from a very reputable source and it has a large sample sizes.<sup>75</sup> Though this data is reputable, I did not collect or oversee the collection of this data. This means I can only look at the explanations Pew publishes on how the data were collected, and though this is extensive, it is not the same as being part of the data generating process. This matters for this chapter because I am trusting that the data does not have any major bias when they implemented their sampling method or survey protocol.

I think the question of how institutional trust impacts mental health is an interesting one and is vital in our current climate. Institutional trust is important, but it is often talked about in big terms—how important it is for democracy and the legitimacy of our government, etc. It is less often that these concerns for institutions cause individual-level effects. That is what this chapter argues. Not only is institutional trust important for the big ideas, but it also affects how people sleep, whether they are feel hopeful or depressed, anxious or lonely and that is a big deal that should be further explored in future research. Specifically, I would like to further this research by examining how institutional trust generally, and media trust specifically, affects mental health when in a crisis—COVID-19—but also if this relationship is still present when the word and our nation are back to normalcy.

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<sup>75</sup> Wave 64: N=11,537; Wave 66: N=10,139; and 67: N=10,957.

## CHAPTER 7

### Conclusion

*The Politics of Mental Health Identity* analyzed how Americans conceptualize mental health. Throughout the dissertation, I argue that mental health is a political identity. To support this argument, I create mental health identity and mental health alienation batteries that examine closeness with the ingroup, importance of identification to self, strength of identification within the ingroup, and alienation. I find that people who have experienced mental health conditions feel close to others who have experienced the same; are likely to self-categorize themselves as having had a mental health condition; share a sense of group consciousness with others who have had a mental health condition; and recognize the need to work together to change laws that are unfair to people with mental health conditions.

I find an emerging mental health political identity that is most pronounced among younger (Gen Z) and more liberal Americans. There is a strong correlation between mental health categorization, identification, and alienation and the expressed desire for increased healthcare, education, and welfare spending and these patterns are different than those associated with physical disability and serious physical illness categorization and identification. These findings have far-reaching consequences for mental health advocacy and the role mental health identity will play in the political sphere—especially as Gen Z matures as a cohort.

While the main contribution of this dissertation is the creation and validation of the mental health identity battery, I also find that the public electorally punishes, in terms of vote choice and favorability, politicians who disclose highly socially-stigmatized mental health conditions—schizophrenia and heroin addiction—but not a more socially acceptable mental health condition—depression. Importantly, I find that voters who have a mental health condition

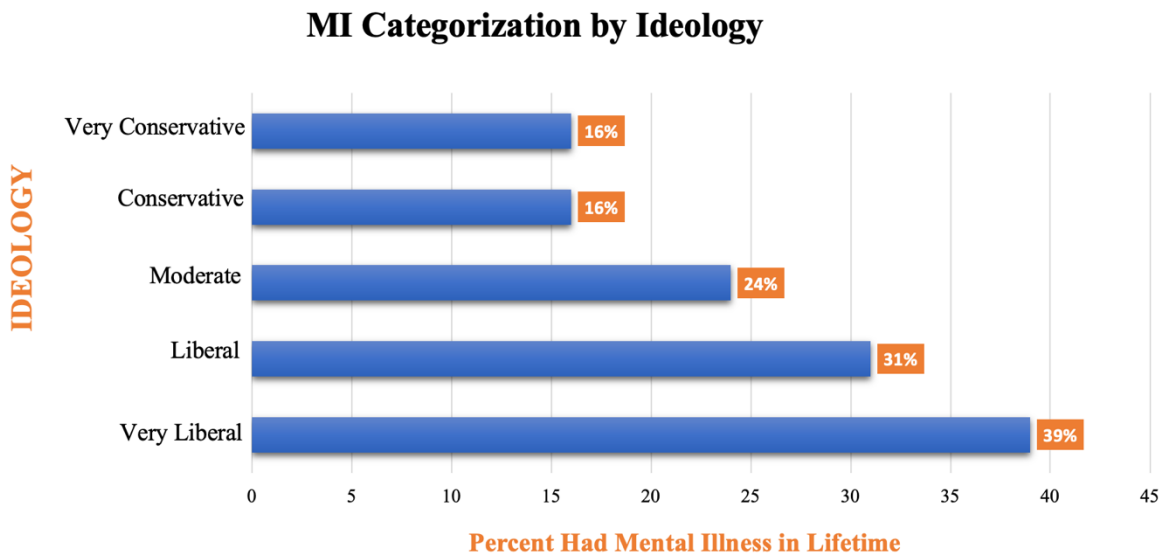
prefer candidates who descriptively represent them. Voters who do not have a mental health condition but feel that those with mental health conditions have been alienated in society also choose political candidates with mental health conditions. This is an interesting finding and has implications for descriptive and symbolic representation.

Finally, I use a pre-existing dataset to examine whether lower levels of political trust in American political institutions lead to poorer self-reported mental health. I conclude that there is statistically significant evidence that lower levels of political trust in American political institutions lead to poorer self-reported mental health. This is the only chapter in my dissertation that uses a pre-existing dataset. Often, pre-existing datasets in the social and health sciences tend to contain *either* mental health measures *or* political measures, but rarely both. This final empirical chapter highlights the importance of interdisciplinary research; there is so much data available, yet this is one of the few resources that exists to empirically examine mental health and politics on a national scale. Unfortunately, the mental health measures were only in the COVID-19 survey waves I examined and have not reappeared.

The politics of mental health in the U.S. is an under-studied topic in political science with many implications for the distribution and uses of power in politics and society. Overall, this project speaks to broader conceptions of identity, stigma, and intersectionally marginalized groups. My research expands the literature in health politics as well as in policy and identity formation. This line of inquiry also extends the field of political behavior research and is inspired by intersectionality theory and interdisciplinary practice.

*Republican and Conservative Mental Health Categorization & Identification*

There has been an influx of recent articles claiming that liberals (Democrats) have worse mental health than conservatives (Republicans) (see Lukianoff 2024; Craig 2023). At various points in the dissertation, I have also found that Republican partisan identification or conservative ideology becomes important and distinct from Democratic partisan identification and liberal ideology for mental health categorization and identification. For example, in the 2022 CES data, there is a steep increase in mental health identification from very conservatives (16%) to very liberal (39%).



This is not the first dataset that I have found this trend in either. On the next page are two tables from the 2024 ANES sample that examines disability identity categorization by party identification on the top and ideology on the bottom. Twelve percent of Democrats in the sample categorized themselves as having a mental health condition while only 6% of Republicans did. Similarly, 28% of very liberals, about 15% of liberals, 9% of moderates, 8% of conservatives, and 5% of very conservatives categorize themselves as having a mental health condition. What could the reason for this difference be?

**Table 1: 2024 ANES Frequencies for Disability Identity Categorization by Party ID**

	Democrat		Republican		Independent	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	104	16.75	88	16.70	108	21.34
Mental health condition	75	12.08	33	6.26	73	14.43
Learning disability or ADHD	28	4.51	19	3.61	27	5.34
Autism	8	1.23	6	1.14	16	3.16
Blind or visually impaired	7	1.23	8	1.52	11	2.17
Deaf or hard of hearing	20	3.22	33	6.26	25	4.94
Mobility-related disability	41	6.60	36	6.83	36	7.11
Speech-related disability	5	0.81	5	0.95	3	0.59
Other (please specify)	10	1.61	15	2.85	15	2.96
I do not have a disability or chronic condition	348	56.04	304	57.69	259	51.19
<b>Total</b>	<b>621</b>	<b>100</b>	<b>527</b>	<b>100</b>	<b>506</b>	<b>100</b>

**Table 2: 2024 ANES Frequencies for Disability Identity Categorization by Ideology**

	Very Liberal		Liberal		Moderate		Conservative		Very Conservative	
	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent	Unweighted Frequency	Percent
Health-related condition or disability	34	18.68	60	18.13	107	18.35	70	17.81	45	22.28
Mental health condition	51	28.02	48	14.50	55	9.43	33	8.40	11	5.45
Learning disability or ADHD	27	14.84	12	3.36	30	5.15	13	3.31	6	2.97
Autism	10	5.49	7	2.11	4	0.69	7	1.78	3	1.49
Blind or visually impaired	4	2.20	7	2.11	6	1.03	10	2.54	2	0.99
Deaf or hard of hearing	10	5.49	9	2.72	18	3.09	26	6.62	16	7.92
Mobility-related disability	16	8.79	17	5.14	32	5.49	31	7.89	19	9.41
Speech-related disability	1	0.55	1	0.30	4	0.69	4	1.02	3	1.49
Other (please specify)	5	2.75	3		15	2.57	12	3.05	7	3.47
I do not have a disability or chronic condition	76	41.76	194	58.61	335	57.46	215	54.71	104	51.49
<b>Total</b>	<b>182</b>	<b>100</b>	<b>331</b>	<b>100</b>	<b>583</b>	<b>100</b>	<b>393</b>	<b>100</b>	<b>202</b>	<b>100</b>

One answer is that liberals (Democrats) have a higher prevalence of mental illness than conservatives (Republicans) do and this is what leads to the discrepancy in categorization. That’s essentially what all of these opinion pieces are trying to sell: that some aspect of liberal identification leads to poor mental health. That’s not what I find in my most recent survey: I find that when the question is asking about *diagnosis*, there are only two conditions where Democrats have a substantially higher percent diagnosis than Republicans—anxiety and depression.

**Table 3: 2024 Lucid Sample: Have you ever been Diagnosed with a Mental Illness?**

	Republican		Democrat	
	Frequency	Percent	Frequency	Percent
ADD/ADHD	108	9.69	128	10.75
Anxiety	317	28.43	411	34.51
Bipolar Disorder	73	6.55	80	6.72
Depression	294	26.37	415	34.84
Schizophrenia	21	1.88	21	1.76
Other mental health condition	62	5.56	93	7.81
Yes, but prefer not to specify	14	1.26	23	1.93
Never been diagnosed but believe had MI	57	5.11	68	5.71
Never been diagnosed	585	52.47	545	45.76
<b>Total</b>	<b>1,115</b>	<b>100</b>	<b>1,191</b>	<b>100</b>

Does this mean Democrats (liberals) have a higher prevalence of anxiety and depression in the population? Not necessarily. The diagnosis statistic depends on treatment-seeking behavior and there are many reasons why people don’t seek treatment.

**Table 4: 2024 Lucid Sample: Ever Sought Treatment?**

	Republican		Democrat	
	Frequency	Percent	Frequency	Percent
Yes	403	36.14	545	45.76
No	631	56.59	542	45.51
No, but thought about it	81	7.26	104	8.73
<b>Total</b>	<b>1,115</b>	<b>100</b>	<b>1,191</b>	<b>100</b>



And we can see from the above table that Republicans are far less likely to seek treatment than Democrats. That may account for some of the difference, but why are most of the mental health conditions roughly the same except for anxiety and depression? It's possible that Republicans (conservatives) don't consider anxiety and depression a mental illness at the same rate as Democrats (liberals). Indeed, this is what I find in the 2022 CES data that asked respondents what they consider to be a mental illness. Overall, many more liberals consider things to be mental illnesses than conservatives do—including anxiety and depression.

**Table 5: 2022 CES: Consider a Mental Illness by Ideology**

	Very Conservative		Conservative		Moderate		Liberal		Very Liberal	
	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.	Freq.	Pct.
Anxiety	109	46.58	225	47.27	639	60.57	253	60.67	177	74.06
Depression	155	66.24	324	68.07	786	74.50	321	76.98	194	81.17
OCD	123	52.56	274	57.56	629	59.62	275	65.95	154	64.44
PTSD	163	69.66	330	69.33	754	71.47	305	73.14	170	71.13
ADD/ADHD	103	44.02	244	51.26	574	54.41	241	57.79	150	62.76
Eating Disorder	86	36.75	189	39.71	479	45.40	216	51.80	123	51.46
Schizophrenia	184	78.63	391	82.14	800	75.83	338	81.06	174	72.80
Bipolar Disorder	184	78.63	379	79.62	828	78.48	339	81.29	180	75.31
Drug Addiction	88	37.61	174	36.55	426	40.38	201	48.20	112	46.86
Alcohol Addiction	80	34.19	164	34.45	405	38.39	190	45.56	108	45.19
None of these	14	5.98	26	5.46	67	6.35	14	3.36	8	3.35
<b>Total</b>	234	100	476	100	1,055	100	417	100	239	100

There is a **27%** increase in considering anxiety a mental illness when going from very conservative to very liberal and a **15%** increase in considering depression a mental illness when

going from very conservative to very liberal. This could easily account for the 6% difference in anxiety diagnoses and the 8% difference in depression diagnoses. To understand why conservatives are less likely to consider anxiety and depression mental illnesses, it would be useful to interview some people.

### *The Future of Mental Health Identity*

Political environmental factors also play a role in mental health political identity formation. The LGBTQ+ identity discussion at the start of the dissertation highlighted the essential nature of group activism in the activation and formation of a mental health political identity. Groups can acquire political meaning in many ways: norms and beliefs inherent in a group can connect the group to specific political attitudes and actions; norms acquired by the group can dictate specific beliefs or actions for group members that may be political; and groups can be influenced by strong group leaders who advocate for certain political actions or policy positions (Huddy, Sears, Levy 2013). Advocacy is an important element of group identity politicization, which is absent from this dissertation. A question for future study is whether there is *political* organizing around mental health.

I conducted preliminary work that examines whether there is political organizing around mental health by interviewing employees of two national mental health advocacy organizations—NAMI and MHA. I found preliminary evidence that there seems to be tension between local coalition-building efforts between mental health advocacy affiliates of national organizations and the messaging, publicity, and funding goals of the organizations' national offices. I would seek to explore this more and interview and survey different types of mental health advocacy organizations (independent local, local national affiliates, and national branches) and look at how care is provided to different racial groups and by severity of mental health

condition. Even if there is political organizing around mental health, who does the organizing and who is organized? Are intersectionally marginalized groups (black people with schizophrenia or bipolar disorder) organized in the same way and to the same extent as advanced marginalized groups (middle-class white people with anxiety or depression)?

Another important topic of inquiry is the mental health of politicians. Political threats to public officials increased 178% during Trump's presidency (Kuznia 2023). This must have a profound effect on a politician's mental health, but it is also likely that they blame the mental health of the people that threaten them. How do politicians cope with this? How do they think about their own mental health and their constituents' mental health—even if some of those constituents are causing them harm? How do these personal views on and negative experiences with mental health affect policy outcomes? The policy outcomes I am most interested in examining are funding and treatment for mental health, and policing and gun policies relating to mental health. Fielding a survey of politicians asking them whether they or their immediate family members have ever had a mental health condition, and whether they have received threats, would be useful. Following the work by [Poulter et al. \(2019\)](#) on the UK Members of Parliament, I would also gauge their awareness of and comfort with mental health support services.

### *Conclusion*

When is a mental health diagnosis a defining attribute versus a thing to fix? How is mental health identity translated into political behavior? These are crucial questions that speak to the heart of my dissertation and mental health as a political identity. How Americans view and identify with their mental health is important because perceptions of mental health and identity directly inform how Americans make demands on the state. These demands can take the form of

requests for expanded healthcare, policy positions on healthcare, and the desire for increased descriptive and symbolic representation in Congress.

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## Appendix A: Chapter 3

**Table 1: Descriptions of Key Variables**

Variable	R Categorizes as Having MI		R Does Not Categorize as Having MI	
	Frequency	Percentage	Frequency	Percentage
<b>Race</b>				
White	165	19.19%	469	54.53%
Black	19	2.21%	68	7.9%
Hispanic	13	1.51%	49	5.70%
Asian	5	0.58%	19	2.21%
Native American	1	0.12%	5	0.58%
Two or more races	12	1.40%	21	2.44%
Other	5	0.58%	9	1.05%
<b>Gender</b>				
Man	79	9.19%	297	34.53%
Woman	138	16.05%	341	39.65%
Non-binary	3	0.35%	1	0.12%
Other	0	0.00%	1	0.12%
<b>Generation</b>				
Post War	3	0.35%	46	5.35%
Boomer	40	4.65%	301	35%
Gen X	75	8.72%	155	18.02%
Millennial	87	10.12%	112	13.02%
Gen Z	15	1.74%	26	3.02%
<b>Family Income</b>				
Less than \$29,999	75	8.72%	119	13.84%
\$30,000 - \$59,999	54	6.28%	162	18.84%
\$60,000 - \$99,999	44	5.12%	159	18.49%
\$100,000 - \$199,999	31	3.6%	117	13.6%
\$200,000 - \$499,999	10	1.16%	21	2.44%
Prefer not to say	6	0.70%	62	7.21%
<b>Sexuality*</b>				
Heterosexual	174	20.23%	578	67.21%
Lesbian	8	0.93%	15	1.74%
Gay man	5	0.58%	17	1.98%
Bisexual	24	2.79%	12	1.40%
Other	5	0.58%	4	0.58%
Prefer not to say	4	0.47%	13	1.51%
<b>Party ID</b>				
Democrat	108	12.56%	235	27.33%
Republican	38	4.42%	184	21.40%
Independent	64	7.44%	196	22.79%
Other	10	1.16%	25	2.91%
<b>Ideology</b>				
Very liberal	39	4.53%	62	7.21%
Liberal	49	5.70%	108	12.56%
Moderate	71	8.26%	220	25.58%
Conservative	26	3.02%	134	15.58%
Very Conservative	16	1.86%	87	10.12%
Not sure	19	2.21%	29	3.37%
<b>Education</b>				

No HS	9	1.05%	16	1.86%
High School Graduate	64	7.44%	157	18.26%
Some College	47	5.47%	152	17.67%
2-year Degree	25	2.90%	68	7.91%
4-year Degree	47	5.47%	152	17.67%
Post-Graduate	28	3.26%	95	11.05%

N = 860

\*Sexuality was not used for regression output simply because there were too few respondents in each category

**Table 2: Cross Tabs of Race, Gender, and MI Categorization**

	No MI Categorization			MI Categorization			Total
	Man	Woman	Non-binary	Man	Woman	Non-binary	
White	232	236	1	55	108	2	634
Black	21	47	0	6	13	0	87
Hispanic	15	34	0	6	7	0	721
Asian	12	7	0	2	3	0	24
Native American	3	2	0	0	1	0	6
Two or more races	10	10	0	7	4	1	30
Other	4	5	0	3	2	0	14
<b>Total</b>	297	341	1	79	138	3	

**Table 3: Cross Tabs of Generation, Party ID, and MI Categorization**

	No MI Categorization				MI Categorization				Total
	Democrat	Republican	Independent	Other	Democrat	Republican	Independent	Other	
<b>Post War</b>	15	18	13	0	1	1	1	0	49
Boomer	115	91	84	11	21	6	9	4	341
Gen X	53	40	55	7	38	13	23	1	390
Millennial	42	29	36	5	40	16	28	3	199
Gen Z	10	6	8	2	8	2	3	2	41
<b>Total</b>	235	184	196	25	108	38	64	10	

**Table 4: Cross Tabs of Gender, Party ID, and MI Categorization**

	No MI Categorization				MI Categorization				<b>Total</b>
	Man	Woman	Non-binary	Other	Man	Woman	Non-binary	Other	
<b>Democrat</b>	100	133	1	1	35	71	2	0	343
Republican	83	101	0	0	14	24	0	0	222
Independent	106	90	0	0	25	39	0	0	565
Other	8	17	0	0	5	4	1	0	35
<b>Total</b>	297	341	1	1	79	138	3	0	

## Factor Analysis

**Table 5: Exploratory Factor Analysis of Mental Health Identity Scale**

<b>Variable</b>	<b>Factor 1</b>	<b>Factor 2</b>
MI Identity A	0.8389	-0.0546
MI Identity B	0.8759	0.1267
MI Consciousness A	0.5832	0.5919
MI Consciousness B	0.6482	0.3307
MI Alienation A	0.0706	0.8853
MI Alienation B	0.0582	0.8646

\*Results are from principal-component factor analysis and the factors were rotated orthogonally. These results imply that the first factor is comprised of variables MI Identity A, MI Identity B, MI Consciousness A, MI Consciousness B, and the second factor is comprised of variables MI Alienation A and MI Alienation B. Cronbach's alpha for factor 1 is 0.7864 and 0.7429 for factor 2.

## Full Regression Results

**Table 6: Ordered Logistic Regressions of State Legislature Spending and Mental Illness, Physical Disability, and Chronic Illness Variables**

State Spending	State Healthcare						Welfare						Education		
	Coefficient						Coefficient						Coefficient		
MI Categorization	0.52*						0.55**						0.728**		
	(0.23)						(0.18)						(0.220)		
MI Identity Scale		1.80						2.01**						0.477	
		(1.05)						(0.76)						(1.001)	
MI Alienation Scale		3.11**						1.96*						1.720	
		(1.14)						(0.88)						(1.078)	
PD Categorization			0.10						0.53**						0.348
			(0.20)						(0.17)						(0.197)
PD Identity			0.64							-0.59					
			(0.81)							(0.70)					
ILL Categorization				0.06							0.31				
				(0.22)							(0.18)				
ILL Identity					1.16							1.15			
					(0.80)							(0.71)			
Generation	-0.01	0.09	0.05	0.05	0.04	0.23	0.07	0.06	0.17*	0.22	0.14	0.06	-0.092	-0.009	-0.002
	(0.09)	(0.23)	(0.09)	(0.25)	(0.09)	(0.26)	(0.08)	(0.17)	0.07	(0.22)	(0.07)	(0.20)	(0.085)	(0.234)	(0.083)
Party ID	-0.53***	-0.14	-0.53***	-0.46	-0.53***	-0.38	-0.16*	-0.25	-0.16*	-0.14	-0.17*	-0.26	-0.318**	-0.418	-0.313**
	(0.10)	(0.23)	(0.10)	(0.26)	(0.10)	(0.26)	(0.08)	(0.16)	(0.08)	(0.22)	(0.08)	(0.22)	(0.094)	(0.216)	(0.093)
Ideology	-0.57***	-0.40**	-0.59***	-0.49***	-0.59***	-0.58***	-0.53***	-0.26**	-0.55***	-0.59***	-0.55***	-0.68***	-0.417***	-0.395***	-0.440***
	(0.05)	(0.13)	(0.05)	(0.12)	(0.05)	(0.14)	(0.05)	(0.10)	(0.05)	(0.12)	(0.05)	(0.12)	(0.050)	(0.126)	(0.049)
Education	-0.21***	-0.22	-0.22***	-0.02	-0.22***	-0.03	-0.08	-0.11	-0.08	-0.20	-0.10*	0.14	-0.038	-0.167	-0.050
	(0.06)	(0.15)	(0.06)	(0.15)	(0.06)	(0.15)	(0.05)	(0.11)	(0.05)	(0.13)	(0.05)	(0.13)	(0.056)	(0.138)	(0.055)
Gender (Male reference category)	0.05	-0.58	0.08	-0.09	0.07	0.11	0.32*	0.00	0.36**	-0.22	0.34**	0.76*	0.290	-0.183	0.328*
	(0.16)	(0.42)	(0.16)	(0.44)	(0.16)	(0.41)	(0.14)	(0.30)	(0.14)	(0.38)	(0.14)	(0.35)	(0.156)	(0.400)	(0.156)
Race (White reference category)	-0.03	-0.25*	-0.03	-0.10	-0.03	-0.06	-0.02	-0.07	-0.03	0.06	-0.02	-0.06	-0.061	-0.101	-0.056
	(0.06)	(0.12)	(0.06)	(0.15)	(0.06)	(0.15)	(0.05)	(0.10)	(0.05)	(0.15)	(0.05)	(0.13)	(0.060)	(0.117)	(0.059)
Family Income	0.00	0.12	0.00	-0.01	0.00	0.02	-0.00	0.00	-0.00	-0.04**	-0.01	-0.02*	-0.002	-0.002	-0.002
	(0.00)	(0.07)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.00)	(0.01)	(0.003)	(0.014)	(0.003)
Tau 1	-7.05	-3.32	-7.05	-6.39	-7.09	-4.70	-3.45	-1.40	-3.22	-6.00	-3.41	-2.74	-5.141	-5.264	-5.033
	(0.59)	(1.75)	(0.60)	(1.54)	(0.59)	(1.61)	(0.45)	(1.31)	(0.45)	(1.44)	(0.45)	(1.36)	(0.527)	(1.752)	(0.532)
Tau 2	-4.94	-0.98	-4.96	-4.72	-4.99	-2.66	-1.38	0.98	-1.15	-3.64	-1.358	-0.34	-3.062	-3.358	-2.966
	(0.55)	(1.73)	(0.56)	(1.48)	(0.56)	(1.57)	(0.43)	(1.31)	(0.44)	(1.36)	(0.43)	(1.33)	(0.502)	(1.716)	(0.508)
N	821	205	821	133	821	139	821	205	821	133	821	140	821	204	821
PCP	0.69	0.82	0.69	0.71	0.70	0.74	0.54	0.61	0.56	0.61	0.53	0.61	0.66	0.82	0.66
PRE	0.06	0.08	0.07	-0.03	0.08	0.16	0.24	0.12	0.28	0.21	0.24	0.33	-0.03	0.03	-0.05
Log-Likelihood	-552.50	-92.22	-555.09	-87.83	-555.18	-88.22	-754.69	-167.67	-754.85	-106.05	-758.17	-113.31	-583.02	-100.71	-587.25

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022 CES.

**Table 7: Ordered Logistic Regressions of State Legislature Spending and Mental Illness, Physical Disability, and Chronic Illness Variables**

State Spending	Law Enforcement						Transportation						Education		
	Coefficient						Coefficient						Coefficient		
MI Categorization	-0.39* (0.17)						-0.39* (0.17)								
MI Identity Scale	0.70 (0.74)						0.70 (0.74)								
MI Alienation Scale	-1.84* (0.86)						-1.84* (0.86)								
PD Categorization	0.13 (0.18)						0.13 (0.18)								
PD Identity	-0.89 (0.72)						-0.89 (0.72)						-0.23 (0.77)		
ILL Categorization	0.04 (0.18)						0.04 (0.18)						0.04 (0.21)		
ILL Identity	0.88 (0.72)						0.88 (0.72)						0.86 (0.80)		
Generation	-0.30*** (0.08)	-0.26 (0.16)	-0.34*** (0.08)	-0.37 (0.22)	-0.35*** (0.08)	-0.36 (0.21)	-0.30*** (0.08)	-0.26 (0.16)	-0.34*** (0.08)	-0.37 (0.22)	-0.35*** (0.08)	-0.36 (0.21)	-0.11 (0.23)	-0.02 (0.08)	0.13 (0.25)
Party ID	-0.21* (0.08)	-0.19 (0.15)	-0.21* (0.08)	-0.07 (0.21)	-0.21* (0.08)	-0.39 (0.22)	-0.21* (0.08)	-0.19 (0.15)	-0.21* (0.08)	-0.07 (0.21)	-0.21* (0.08)	-0.39 (0.22)	-0.33 (0.24)	-0.31** (0.09)	-0.38 (0.25)
Ideology	0.47*** (0.05)	0.50*** (0.10)	0.49*** (0.05)	0.47*** (0.12)	0.49*** (0.05)	0.68*** (0.13)	0.47*** (0.05)	0.50*** (0.10)	0.49*** (0.05)	0.47*** (0.12)	0.49*** (0.05)	0.68*** (0.13)	-0.37** (0.12)	-0.44*** (0.05)	-0.37** (0.13)
Education	-0.17** (0.05)	-0.18 (0.10)	-0.15** (0.05)	-0.32* (0.14)	-0.16** (0.05)	-0.11 (0.13)	-0.17** (0.05)	-0.18 (0.10)	-0.15** (0.05)	-0.32* (0.14)	-0.16** (0.05)	-0.11 (0.13)	-0.07 (0.15)	-0.06 (0.06)	0.09 (0.15)
Gender (Male reference category)	0.09 (0.14)	0.21 (0.28)	0.08 (0.14)	0.19 (0.39)	0.07 (0.14)	0.72 (0.38)	0.09 (0.14)	0.21 (0.28)	0.08 (0.14)	0.19 (0.39)	0.07 (0.14)	0.72 (0.38)	-0.00 (0.42)	0.31* (0.16)	0.72 (0.41)
Race (White reference category)	0.05 (0.05)	0.04 (0.09)	0.05 (0.05)	-0.08 (0.14)	0.05 (0.05)	0.10 (0.13)	0.05 (0.05)	0.04 (0.09)	0.05 (0.05)	-0.08 (0.14)	0.05 (0.05)	0.10 (0.13)	-0.12 (0.15)	-0.06 (0.06)	0.03 (0.16)
Family Income	-0.01 (0.00)	-0.01 (0.01)	-0.00 (0.00)	0.02 (0.01)	-0.00 (0.00)	0.00 (0.01)	-0.01 (0.00)	-0.01 (0.01)	-0.00 (0.00)	0.02 (0.01)	-0.00 (0.00)	0.00 (0.01)	-0.01 (0.01)	-0.00 (0.00)	0.00 (0.01)
Tau 1	-2.00 (0.44)	-2.44 (1.28)	-1.84 (0.45)	-2.61 (1.36)	-1.91 (0.45)	-0.16 (1.44)	-2.00 (0.44)	-2.44 (1.28)	-1.84 (0.45)	-2.61 (1.36)	-1.91 (0.45)	-0.16 (1.44)	-6.07 (1.51)	-5.19 (0.53)	-2.96 (1.56)
Tau 2	-0.17 (0.44)	-0.37 (1.27)	-0.01 (0.45)	-1.13 (1.34)	-0.08 (0.44)	2.25 (1.45)	-0.17 (0.44)	-0.37 (1.27)	-0.01 (0.45)	-1.13 (1.34)	-0.08 (0.44)	2.25 (1.45)	-4.21 (1.45)	-3.13 (0.51)	-1.05 (1.54)
N	821	205	821	133	821	140	821	205	821	133	821	140	132	821	140
PCP	0.59	0.55	0.59	0.59	0.59	0.63	0.59	0.55	0.59	0.59	0.59	0.63	0.67	0.67	0.74
PRE	0.07	0.25	0.07	0.00	0.07	0.22	0.07	0.25	0.07	0.00	0.07	0.22	-0.13	-0.02	0.05
Log-Likelihood	-701.44	-191.25	-703.84	-108.10	-704.08	-110.25	-701.44	-191.25	-703.84	-108.10	-704.08	-110.25	-91.03	-588.82	-90.03

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022 CES.

**Table 8: Ordered Logistic Regressions of State Legislature Spending and Mental Illness, Physical Disability, and Chronic Illness Variables with weights and clustered SEs**

State Spending	State Healthcare						Welfare						Education		
	Coefficient						Coefficient						Coefficient		
MI Categorization	0.84** (0.30)				0.63* (0.26)						1.02** (0.30)				
MI Identity Scale	2.90* (1.18)						2.14* (0.92)						-0.76 (1.38)		
MI Alienation Scale	3.03* (1.18)						0.79 (1.25)						3.02* (1.39)		
PD Categorization			0.11 (0.26)						0.18 (0.23)				0.43 (0.24)		
PD Identity			0.57 (1.15)								-0.31 (0.89)				
ILL Categorization					0.28 (0.25)						0.25 (0.23)				
ILL Identity					1.43 (0.81)						1.39 (1.09)				
Generation	-0.08 (0.12)	0.13 (0.25)	-0.00 (0.11)	0.23 (0.26)	-8.41e-06 (0.11)	0.34 (0.32)	0.07 (0.10)	-0.13 (0.23)	0.15 (0.10)	0.32 (0.27)	0.14 (0.10)	-0.06 (0.23)	-0.10 (0.11)	0.14 (0.32)	0.01 (0.10)
Party ID	-0.59*** (0.12)	0.23 (0.31)	-0.59*** (0.12)	-0.64* (0.29)	-0.59*** (0.12)	-0.52 (0.27)	-0.29** (0.10)	-0.14 (0.21)	-0.30** (0.12)	-0.32 (0.25)	-0.30** (0.10)	-0.39 (0.29)	-0.51** (0.11)	-0.29 (0.26)	-0.50*** (0.12)
Ideology	-0.55*** (0.07)	-0.45** (0.13)	-0.58*** (0.07)	-0.50*** (0.13)	-0.58*** (0.07)	-0.58** (0.18)	-0.50*** (0.07)	-0.31** (0.11)	-0.52*** (0.07)	-0.64*** (0.15)	-0.51*** (0.07)	-0.72*** (0.14)	-0.36*** (0.07)	-0.26 (0.16)	-0.39*** (0.07)
Education	-0.27*** (0.08)	-0.17 (0.20)	-0.29*** (0.08)	-0.38* (0.19)	-0.30*** (0.08)	-0.25 (0.16)	-0.09 (0.06)	-0.14 (0.14)	-0.11 (0.06)	-0.39** (0.15)	-0.12 (0.06)	0.12 (0.14)	-0.09 (0.08)	-0.23 (0.17)	-0.11 (0.07)
Gender (Male reference category)	0.04 (0.20)	-0.57 (0.41)	0.09 (0.20)	0.35 (0.49)	0.10 (0.20)	0.70 (0.50)	0.40* (0.18)	0.31 (0.37)	0.45** (0.17)	-0.10 (0.40)	0.45** (0.17)	1.26* (0.50)	0.09 (0.20)	0.00 (0.42)	0.16 (0.20)
Race (White reference category)	0.02 (0.10)	-0.30* (0.13)	0.01 (0.10)	-0.06 (0.20)	0.01 (0.10)	-0.03 (0.20)	-0.04 (0.07)	-0.00 (0.15)	-0.06 (0.07)	0.11 (0.12)	-0.06 (0.07)	-0.12 (0.17)	-0.06 (0.09)	-0.10 (0.13)	-0.07 (0.09)
Family Income	-0.00 (0.01)	0.08 (0.07)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.02 (0.01)	-0.01* (0.00)	0.00 (0.01)	-0.01* (0.00)	-0.04** (0.01)	-0.01* (0.00)	-0.02* (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Tau 1	-7.43 (0.74)	-2.56 (2.34)	-7.48 (0.77)	-6.37 (1.64)	-7.44 (0.75)	-4.72 (1.78)	-3.65 (0.65)	-2.36 (1.57)	-3.62 (0.65)	-6.68 (1.62)	-3.66 (0.63)	-2.81 (1.59)	-5.68 (0.67)	-3.72 (2.34)	-5.59 (0.68)
Tau 2	-5.27 (0.73)	-0.03 (2.30)	-5.35 (0.76)	-4.52 (1.57)	-5.32 (0.74)	-2.33 (1.79)	-1.48 (0.60)	-0.17 (1.57)	-1.48 (0.61)	-4.13 (1.48)	-1.51 (0.59)	-0.09 (1.60)	-3.62 (0.68)	-1.82 (2.45)	-3.56 (0.69)
N	821	205	821	133	821	139	821	205	821	133	821	140	821	204	821
Log-Likelihood	-563.53	-82.31	-570.24	-84.72	-569.57	-82.52	-737.46	-166.87	-742.96	-96.77	-742.49	-112.88	-599.65	-94.92	-608.15

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022 CES.



**Table 9: Ordered Logistic Regressions of State Legislature Spending and Mental Illness, Physical Disability, and Chronic Illness Variables with weights and clustered SEs**

State Spending	Law Enforcement						Transportation						Education		
	Coefficient						Coefficient						Coefficient		
MI Categorization	-0.25 (0.22)						-0.25 (0.22)								
MI Identity Scale	0.81 (1.07)						0.81 (1.07)								
MI Alienation Scale	-2.08 (1.12)						-2.08 (1.12)								
PD Categorization	0.13 (0.23)						0.13 (0.23)								
PD Identity	-1.09 (0.94)						-1.09 (0.94)						-0.95 (0.84)		
ILL Categorization	0.13 (0.25)						0.13 (0.25)						0.21 (0.25)		
ILL Identity	0.49 (0.91)						0.49 (0.91)						1.60 (0.92)		
Generation	-0.32** (0.09)	-0.26 (0.17)	-0.35*** (0.09)	-0.19 (0.29)	-0.35*** (0.09)	-0.24 (0.25)	-0.32** (0.09)	-0.26 (0.17)	-0.35*** (0.09)	-0.19 (0.29)	-0.35*** (0.09)	-0.24 (0.25)	0.01 (0.28)	-0.00 (0.11)	0.49* (0.25)
Party ID	-0.13 (0.11)	-0.06 (0.19)	-0.12 (0.11)	-0.06 (0.30)	-0.12 (0.11)	-0.27 (0.29)	-0.13 (0.11)	-0.06 (0.19)	-0.12 (0.11)	-0.06 (0.30)	-0.12 (0.11)	-0.27 (0.29)	-0.61* (0.27)	-0.50*** (0.11)	-0.73* (0.29)
Ideology	0.38*** (0.06)	0.41** (0.13)	0.39*** (0.06)	0.44** (0.16)	0.40*** (0.07)	0.52** (0.17)	0.38*** (0.06)	0.41** (0.13)	0.39*** (0.06)	0.44** (0.16)	0.40*** (0.07)	0.52** (0.17)	-0.42** (0.15)	-0.39*** (0.07)	-0.34* (0.15)
Education	-0.15* (0.06)	-0.30* (0.12)	-0.13 (0.07)	-0.26 (0.18)	-0.13* (0.07)	-0.09 (0.19)	-0.15* (0.06)	-0.30* (0.12)	-0.13 (0.07)	-0.26 (0.18)	-0.13* (0.07)	-0.09 (0.19)	-0.27 (0.17)	-0.13 (0.07)	0.03 (0.14)
Gender (Male reference category)	0.08 (0.19)	0.42 (0.37)	0.07 (0.19)	-0.33 (0.50)	0.07 (0.19)	0.58 (0.47)	0.08 (0.19)	0.42 (0.37)	0.07 (0.19)	-0.33 (0.50)	0.07 (0.19)	0.58 (0.47)	0.15 (0.48)	0.15 (0.20)	0.79 (0.49)
Race (White reference category)	0.01 (0.08)	0.10 (0.13)	0.02 (0.08)	-0.11 (0.18)	0.02 (0.08)	0.36 (0.25)	0.01 (0.08)	0.10 (0.13)	0.02 (0.08)	-0.11 (0.18)	0.02 (0.08)	0.36 (0.25)	0.05 (0.22)	-0.07 (0.09)	-0.03 (0.22)
Family Income	-0.01* (0.00)	-0.01 (0.02)	-0.01* (0.00)	0.02 (0.01)	-0.01* (0.00)	0.01 (0.01)	-0.01* (0.00)	-0.01 (0.02)	-0.01* (0.00)	0.02 (0.01)	-0.01* (0.00)	0.01 (0.01)	0.01 (0.02)	-0.00 (0.01)	0.01 (0.01)
Tau 1	-2.30 (0.61)	-2.71 (1.63)	-2.13 (0.62)	-3.09 (1.81)	-2.16 (0.61)	-0.23 (1.97)	-2.30 (0.61)	-2.71 (1.63)	-2.13 (0.62)	-3.09 (1.81)	-2.16 (0.61)	-0.23 (1.97)	-7.19 (1.98)	-5.74 (0.68)	-2.70 (1.76)
Tau 2	-0.50 (0.61)	-0.83 (1.66)	-0.33 (0.62)	-1.82 (1.80)	-0.36 (0.62)	2.26 (2.03)	-0.50 (0.61)	-0.83 (1.66)	-0.33 (0.62)	-1.82 (1.80)	-0.36 (0.62)	2.26 (2.03)	-5.22 (1.90)	-3.72 (0.70)	-0.35 (1.75)
N	821	205	821	133	821	140	821	205	821	133	821	140	132	821	140
Log-Likelihood	-701.14	-190.58	-701.90	-99.41	-701.91	-114.26	-701.14	-190.58	-701.90	-99.41	-701.91	-114.26	-85.45	-610.07	-81.55

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 CES.

**Table 10: Ordered Logistic Regressions of State Legislature Spending and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

State Spending	State Healthcare						Welfare						Education		
	Coefficient						Coefficient						Coefficient		
MI Categorization	0.84** (0.30)						0.63* (0.26)						1.02** (0.30)		
MI Identity Scale	2.90* (1.18)						2.14* (0.92)						-0.76 (1.38)		
MI Alienation Scale	3.03* (1.18)						0.79 (1.25)						3.02* (1.39)		
PD Categorization	0.11 (0.26)						0.18 (0.23)						0.43 (0.24)		
PD Identity	0.57 (1.15)						-0.31 (0.89)								
ILL Categorization	0.28 (0.25)						0.25 (0.23)								
ILL Identity	1.43 (0.81)						1.39 (1.09)								
Generation	-0.08 (0.12)	0.13 (0.25)	-0.00 (0.11)	0.23 (0.26)	-8.41e-06 (0.11)	0.34 (0.32)	0.07 (0.10)	-0.13 (0.23)	0.15 (0.10)	0.32 (0.27)	0.14 (0.10)	-0.06 (0.23)	-0.10 (0.11)	0.14 (0.32)	0.01 (0.10)
Party ID	-0.59*** (0.12)	0.23 (0.31)	-0.59*** (0.12)	-0.64* (0.29)	-0.59*** (0.12)	-0.52 (0.27)	-0.29** (0.10)	-0.14 (0.21)	-0.30** (0.10)	-0.32 (0.25)	-0.30** (0.10)	-0.39 (0.29)	-0.51*** (0.11)	-0.29 (0.26)	-0.50*** (0.12)
Ideology	-0.55*** (0.07)	-0.45** (0.13)	-0.58*** (0.07)	-0.50*** (0.13)	-0.58*** (0.07)	-0.58** (0.18)	-0.50*** (0.07)	-0.31** (0.11)	-0.52*** (0.07)	-0.64*** (0.15)	-0.51*** (0.07)	-0.72*** (0.14)	-0.36*** (0.07)	-0.26 (0.16)	-0.39*** (0.07)
Education	-0.27*** (0.08)	-0.17 (0.20)	-0.29*** (0.08)	-0.38* (0.19)	-0.30*** (0.08)	-0.25 (0.16)	-0.09 (0.06)	-0.14 (0.14)	-0.11 (0.06)	-0.39** (0.15)	-0.12 (0.06)	0.12 (0.14)	-0.09 (0.08)	-0.23 (0.17)	-0.11 (0.07)
Gender (Male reference category)	0.04 (0.20)	-0.57 (0.41)	0.09 (0.20)	0.35 (0.49)	0.10 (0.20)	0.70 (0.50)	0.40* (0.18)	0.31 (0.37)	0.45** (0.17)	-0.10 (0.40)	0.45** (0.17)	1.26* (0.50)	0.09 (0.20)	0.00 (0.42)	0.16 (0.20)
Race (White reference category)	0.02 (0.10)	-0.30* (0.13)	0.01 (0.10)	-0.06 (0.20)	0.01 (0.10)	-0.03 (0.20)	-0.04 (0.07)	-0.00 (0.15)	-0.06 (0.07)	0.11 (0.12)	-0.06 (0.07)	-0.12 (0.17)	-0.06 (0.09)	-0.10 (0.13)	-0.07 (0.09)
Family Income	-0.00 (0.01)	0.08 (0.07)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.02 (0.01)	-0.01* (0.00)	0.00 (0.01)	-0.01* (0.00)	-0.04** (0.01)	-0.01* (0.00)	-0.02* (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Tau 1	-7.43 (0.74)	-2.60 (2.34)	-7.48 (0.77)	-6.37 (1.64)	-7.44 (0.75)	-4.72 (1.78)	-3.65 (0.65)	-2.36 (1.57)	-3.62 (0.65)	-6.68 (1.62)	-3.66 (0.63)	-2.81 (1.59)	-5.68 (0.67)	-3.72 (2.34)	-5.59 (0.68)
Tau 2	-5.27 (0.73)	-0.03 (2.30)	-5.35 (0.76)	-4.52 (1.57)	-5.32 (0.74)	-2.33 (1.79)	-1.48 (0.60)	-0.17 (1.57)	-1.48 (0.61)	-4.13 (1.48)	-1.51 (0.59)	-0.09 (1.60)	-3.62 (0.68)	-1.82 (2.45)	-3.56 (0.69)
N	821	205	821	133	821	139	821	205	821	133	821	140	821	204	821
Log-Likelihood	-563.53	-82.31	-570.24	-84.72	-569.57	-82.52	-737.46	-166.87	-742.96	-96.77	-742.49	-112.88	-599.65	-94.92	-608.15

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 CES.

**Table 11: Ordered Logistic Regressions of State Legislature Spending and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

State Spending	Law Enforcement						Transportation						Education		
	Coefficient						Coefficient						Coefficient		
MI Categorization	-0.25 (0.22)						-0.25 (0.22)								
MI Identity Scale		0.81 (1.07)						0.81 (1.07)							
MI Alienation Scale		-2.08 (1.12)						-2.08 (1.12)							
PD Categorization			0.13 (0.23)						0.13 (0.23)						
PD Identity				-1.09 (0.94)						-1.09 (0.94)				-0.95 (0.84)	
ILL Categorization					0.13 (0.25)						0.13 (0.25)				
ILL Identity						0.49 (0.91)						0.49 (0.91)		1.60 (0.92)	
Generation	-0.32** (0.09)	-0.26 (0.17)	-0.35*** (0.09)	-0.19 (0.30)	-0.35*** (0.09)	-0.24 (0.25)	-0.32** (0.09)	-0.26 (0.17)	-0.35*** (0.09)	-0.19 (0.29)	-0.35*** (0.09)	-0.24 (0.25)	0.01 (0.28)	-0.00 (0.11)	0.49* (0.25)
Party ID	-0.13 (0.11)	-0.06 (0.19)	-0.12 (0.11)	-0.06 (0.30)	-0.12 (0.11)	-0.27 (0.29)	-0.13 (0.11)	-0.06 (0.19)	-0.12 (0.11)	-0.06 (0.30)	-0.12 (0.11)	-0.27 (0.29)	-0.61* (0.27)	-0.50*** (0.11)	-0.73* (0.29)
Ideology	0.38*** (0.06)	0.41** (0.13)	0.39*** (0.06)	0.44** (0.16)	0.40*** (0.07)	0.52** (0.17)	0.38*** (0.06)	0.41** (0.13)	0.39*** (0.06)	0.44** (0.16)	0.40*** (0.07)	0.52** (0.17)	-0.42** (0.15)	-0.39*** (0.07)	-0.34* (0.15)
Education	-0.15* (0.06)	-0.30* (0.12)	-0.13 (0.07)	-0.26 (0.18)	-0.13* (0.07)	-0.09 (0.19)	-0.15* (0.06)	-0.30* (0.12)	-0.13 (0.07)	-0.26 (0.18)	-0.13* (0.07)	-0.09 (0.19)	-0.27 (0.17)	-0.13 (0.07)	0.03 (0.14)
Gender (Male reference category)	0.08 (0.19)	0.42 (0.37)	0.07 (0.20)	-0.33 (0.50)	0.07 (0.19)	0.58 (0.47)	0.08 (0.19)	0.42 (0.37)	0.07 (0.19)	-0.33 (0.50)	0.07 (0.19)	0.58 (0.47)	0.15 (0.48)	0.15 (0.20)	0.79 (0.49)
Race (White reference category)	0.01 (0.08)	0.10 (0.13)	0.02 (0.08)	-0.11 (0.18)	0.02 (0.08)	0.36 (0.25)	0.01 (0.08)	0.10 (0.13)	0.02 (0.08)	-0.11 (0.18)	0.02 (0.08)	0.36 (0.25)	0.05 (0.22)	-0.07 (0.09)	-0.03 (0.22)
Family Income	-0.01* (0.00)	-0.01 (0.02)	-0.01* (0.00)	0.02 (0.01)	-0.01* (0.00)	0.01 (0.01)	-0.01* (0.00)	-0.01 (0.02)	-0.01* (0.00)	0.02 (0.01)	-0.01* (0.00)	0.01 (0.01)	0.01 (0.02)	-0.00 (0.01)	0.01 (0.01)
Tau 1	-2.30 (0.61)	-2.71 (1.63)	-2.13 (0.62)	-3.09 (1.81)	-2.16 (0.61)	-0.23 (1.97)	-2.30 (0.61)	-2.71 (1.63)	-2.13 (0.62)	-3.09 (1.81)	-2.16 (0.61)	-0.23 (1.97)	-7.19 (1.98)	-5.74 (0.68)	-2.70 (1.76)
Tau 2	-0.50 (0.61)	-0.83 (1.66)	-0.33 (0.62)	-1.82 (1.80)	-0.36 (0.62)	2.26 (2.03)	-0.50 (0.61)	-0.83 (1.66)	-0.33 (0.62)	-1.82 (1.80)	-0.36 (0.62)	2.26 (2.03)	-5.22 (1.90)	-3.72 (0.70)	-3.5 (1.75)
N	821	205	821	133	821	140	821	205	821	133	821	140	132	821	140
Log-Likelihood	-701.14	-190.58	-701.90	-99.41	-701.91	-114.26	-701.14	-190.58	-701.90	-99.41	-701.91	-114.26	-85.45	-610.07	-81.55

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022 CES.

**Table 12: Logistic Regressions of Political Participation and Mental Illness, Physical Disability, and Chronic Illness Variables with weights and clustered standard errors**

Political Participation	Political Meeting						Political Protest						Political Work		
	Coefficient						Coefficient						Coefficient		
MI Categorization	-0.78* (0.39)						0.22 (0.36)						0.05 (0.48)		
MI Identity Scale	-1.28 (1.49)						-5.15* (2.30)						0.23 (1.71)		
MI Alienation Scale	1.63 (1.49)						4.96 (2.82)						0.55 (1.65)		
PD Categorization	-0.04 (0.34)						0.05 (0.49)						-0.07 (0.44)		
PD Identity	0.89 (1.05)						0.10 (1.50)								
ILL Categorization	0.44 (0.32)						0.87* (0.40)								
ILL Identity	-1.55 (1.50)						-1.34 (1.88)								
Generation	0.12 (0.13)	0.30 (0.51)	0.05 (0.13)	0.16 (0.32)	0.06 (0.13)	-0.23 (0.37)	0.44** (0.16)	1.10 (0.57)	0.46** (0.15)	0.22 (0.34)	0.47** (0.16)	0.28 (0.45)	0.34 (0.22)	0.43 (0.46)	0.34 (0.20)
Party ID	-0.10 (0.14)	-0.01 (0.290)	-0.08 (0.14)	-0.27 (0.35)	-0.09 (0.14)	-0.26 (0.26)	-0.25 (0.24)	-0.39 (0.36)	-0.26 (0.24)	0.01 (0.33)	-0.25 (0.24)	-0.63 (0.74)	-0.12 (0.25)	-0.17 (0.33)	-0.13 (0.25)
Ideology	-0.00 (0.08)	0.05 (0.25)	0.03 (0.08)	0.12 (0.17)	0.04 (0.08)	-0.06 (0.26)	-0.26* (0.13)	-0.71** (0.25)	-0.27* (0.13)	-0.43* (0.20)	-0.25* (0.13)	-0.05 (0.23)	-0.14 (0.15)	0.17 (0.22)	-0.14 (0.14)
Education	0.19 (0.10)	0.38 (0.24)	0.22* (0.10)	0.28 (0.19)	0.22* (0.10)	0.15 (0.25)	0.50*** (0.12)	0.29 (0.26)	0.48*** (0.13)	0.41* (0.20)	0.49*** (0.13)	0.78** (0.29)	0.32** (0.12)	0.61** (0.22)	0.31** (0.11)
Gender (Male reference category)	-0.12 (0.27)	0.37 (0.59)	-0.17 (0.27)	0.46 (0.62)	-0.16 (0.27)	-1.35* (0.65)	0.19 (0.32)	1.25 (0.85)	0.21 (0.33)	0.41 (0.66)	0.27 (0.33)	2.65 (1.36)	-0.26 (0.35)	-0.35 (0.60)	-0.26 (0.35)
Race (White reference category)	-0.02 (0.15)	-0.49 (0.35)	-0.00 (0.14)	0.13 (0.24)	0.00 (0.14)	-0.08 (0.26)	-0.21 (0.21)	0.25 (0.25)	-0.22 (0.21)	0.13 (0.24)	-0.21 (0.20)	0.02 (0.35)	-0.02 (0.18)	-0.07 (0.20)	-0.03 (0.18)
Family Income	-0.00 (0.00)	-0.02 (0.02)	-0.00 (0.00)	0.00 (0.02)	-0.00 (0.00)	-0.02 (0.01)	-0.01 (0.01)	-0.03 (0.03)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.04 (0.05)	0.00 (0.01)	-0.02 (0.02)	0.00 (0.01)
N	822	205	822	133	822	140	822	205	822	133	822	140	822	205	822
Log-Likelihood	-255.79	-42.26	-258.62	-47.34	-257.43	-40.91	-166.06	-42.30	-166.27	-40.29	-162.94	-18.55	-157.69	-43.34	-157.68

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022 CES.

**Table 13: Logistic Regressions of Political Participation and Mental Illness, Physical Disability, and Chronic Illness Variables with weights and clustered standard errors**

	Political Participation						Political Something						Political Donate						Political Work	
	Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient		Coefficient					
MI Categorization	0.00 (0.22)						0.11 (0.26)													
MI Identity Scale			-0.58 (0.96)						-0.71 (1.10)											
MI Alienation Scale			0.65 (1.04)						2.37 (1.26)											
PD Categorization			0.11 (0.22)						0.12 (0.26)											
PD Identity					0.51 (0.85)						-1.80 (1.17)				-0.93 (1.12)					
ILL Categorization					0.22 (0.23)						0.43 (0.24)				0.45 (0.42)					
ILL Identity							-0.11 (0.77)						0.33 (0.96)		-2.64 (2.30)					
Generation	-0.16 (0.10)	-0.30 (0.21)	-0.15 (0.10)	-0.13 (0.22)	-0.15 (0.10)	-0.05 (0.25)	-0.47*** (0.13)	-0.21 (0.29)	-0.45*** (0.13)	-0.39 (0.32)	-0.45*** (0.13)	-0.43 (0.39)	0.40 (0.47)	0.35 (0.20)	-0.29 (0.43)					
Party ID	-0.03 (0.11)	-0.19 (0.20)	-0.03 (0.11)	-0.24 (0.31)	-0.04 (0.11)	0.02 (0.27)	0.04 (0.12)	0.12 (0.25)	0.04 (0.13)	0.24 (0.25)	0.04 (0.13)	0.13 (0.39)	-0.26 (0.43)	-0.13 (0.25)	-0.40 (0.49)					
Ideology	-0.08 (0.05)	0.00 (0.12)	-0.08 (0.05)	0.03 (0.11)	-0.08 (0.05)	-0.11 (0.13)	-0.17* (0.07)	-0.16 (0.16)	-0.17* (0.07)	-0.15 (0.14)	-0.17* (0.07)	-0.38* (0.15)	0.00 (0.21)	-0.12 (0.15)	0.06 (0.30)					
Education	0.28*** (0.06)	0.24 (0.13)	0.28*** (0.06)	0.30 (0.17)	0.28*** (0.06)	0.49** (0.16)	0.39*** (0.07)	0.40 (0.16)	0.39*** (0.07)	0.58** (0.18)	0.39*** (0.07)	0.56** (0.16)	0.34 (0.27)	0.32** (0.11)	0.80* (0.32)					
Gender (Male reference category)	-0.15 (0.18)	-0.04 (0.35)	-0.14 (0.18)	0.57 (0.45)	-0.14 (0.18)	0.20 (0.43)	-0.09 (0.21)	0.55 (0.45)	-0.08 (0.21)	0.52 (0.53)	-0.07 (0.21)	0.86 (0.57)	0.17 (0.67)	-0.23 (0.35)	-0.84 (1.05)					
Race (White reference category)	-0.07 (0.08)	0.08 (0.14)	-0.07 (0.08)	0.32 (0.31)	-0.07 (0.08)	-0.12 (0.18)	-0.09 (0.10)	-0.39 (0.23)	-0.09 (0.10)	-0.11 (0.19)	-0.09 (0.10)	-0.39 (0.25)	-0.50 (0.43)	-0.02 (0.18)	(0.07) (0.30)					
Family Income	0.00 (0.00)	0.01 (0.01)	0.00 (0.00)	0.02 (0.01)	0.00 (0.00)	0.01 (0.01)	0.00 (0.00)	0.03 (0.01)	0.00 (0.00)	0.00 (0.01)	0.00 (0.00)	0.01 (0.01)	-0.03 (0.02)	0.00 (0.01)	-0.17 (0.13)					
N	822	205	822	133	822	140	822	205	822	133	822	140	133	822	140					
Log-Likelihood	-535.22	-132.13	-535.04	-80.020	-534.53	-86.49	-365.49	-79.65	-365.46	-62.47	-363.80	-51.76	-30.75	-156.97	-19.72					

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022 CES.

**Table 14: Logistic Regressions of Political Participation and Mental Illness, Physical Disability, and Chronic Illness Variables with weights and clustered standard errors**

Political Participation	Political Sign						Political Contact					
	Coefficient						Coefficient					
MI Categorization	-0.54 (0.31)						0.33 (0.25)					
MI Identity Scale		0.51 (1.37)						0.10 (1.09)				
MI Alienation Scale		0.50 (1.49)						0.49 (1.15)				
PD Categorization			0.07 (0.27)						0.34 (0.24)			
PD Identity				1.39 (1.23)						-0.98 (0.86)		
ILL Categorization					0.06 (0.27)						0.50* (0.24)	
ILL Identity						-1.04 (1.06)						-0.84 (0.80)
Generation	-0.01 (0.14)	-0.18 (0.35)	-0.06 (0.13)	-0.20 (0.27)	-0.06 (0.13)	-0.48 (0.30)	-0.32** (0.12)	-0.30 (0.24)	-0.27* (0.11)	-0.24 (0.24)	-0.28* (0.11)	0.30 (0.28)
Party ID	-0.18 (0.13)	-0.24 (0.25)	-0.17 (0.12)	-0.25 (0.34)	-0.17 (0.12)	0.46 (0.30)	0.03 (0.12)	0.01 (0.24)	0.03 (0.12)	-0.07 (0.27)	0.02 (0.12)	0.16 (0.31)
Ideology	0.08 (0.07)	-0.08 (0.17)	0.10 (0.07)	0.12 (0.16)	0.11 (0.07)	-0.22 (0.15)	-0.04 (0.06)	-0.29 (0.16)	-0.06 (0.06)	-0.12 (0.11)	-0.05 (0.06)	0.04 (0.14)
Education	0.16* (0.08)	0.17 (0.19)	0.18* (0.08)	0.33 (0.19)	0.18* (0.08)	0.51** (0.18)	0.39*** (0.07)	0.27* (0.13)	0.39*** (0.07)	0.18 (0.16)	0.38*** (0.07)	0.48** (0.16)
Gender (Male reference category)	0.19 (0.23)	0.36 (0.45)	0.16 (0.23)	1.08 (0.64)	0.16 (0.23)	-0.36 (0.55)	-0.26 (0.20)	-0.26 (0.39)	-0.22 (0.20)	-0.22 (0.48)	-0.21 (0.19)	0.67 (0.47)
Race (White reference category)	-0.01 (0.13)	0.08 (0.18)	-0.00 (0.12)	-0.45 (0.34)	-0.00 (0.12)	0.01 (0.21)	-0.20 (0.12)	-0.12 (0.19)	-0.20 (0.12)	0.01 (0.24)	-0.20 (0.12)	-0.48* (0.24)
Family Income	-0.00 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.02 (0.01)	-0.00 (0.01)	-0.03* (0.01)	-0.00 (0.00)	0.01 (0.01)	-0.00 (0.00)	0.00 (0.01)	-0.00 (0.00)	0.02 (0.01)
N	822	822	133	822	140	822	205	822	133	822	140	
Log-Likelihood	-313.84	-315.62	-41.90	-315.64	-46.64	-407.66	-101.43	-407.51	-76.86	-406.05	-68.32	

Standard errors in parentheses  
 \* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$   
 Note: Two-tailed test  
 Source: 2022  
 CES.

**Table 15: Logistic Regressions of Media Use Past 24 Hours and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

Media Use Past 24 Hours	Used social media						Watched TV news						Read a newspaper		
	Coefficient						Coefficient						Coefficient		
MI Categorization	0.64 (0.35)						-0.77** (0.24)						0.02 (0.24)		
MI Identity Scale		-1.12 (1.69)						1.18 (1.07)						1.62 (1.07)	
MI Alienation Scale		3.84 (1.99)						0.15 (1.14)						-0.38 (1.22)	
PD Categorization									0.05 (0.24)						0.09 (0.22)
PD Identity							0.77 (1.07)					0.66 (0.96)			
ILL Categorization								0.57* (0.27)						-0.07 (0.25)	
ILL Identity								-0.47 (1.00)						0.23 (1.11)	
Generation	0.62*** (0.15)	0.58* (0.28)	0.70*** (0.14)	0.72 (0.37)	0.71*** (0.14)	1.08* (0.44)	-0.26** (0.10)	-0.13 (0.23)	-0.35*** (0.10)	-0.14 (0.24)	-0.35*** (0.10)	-0.92* (0.38)	-0.58*** (0.11)	-0.42* (0.21)	-0.57*** (0.10)
Party ID	-0.10 (0.14)	0.16 (0.41)	-0.10 (0.15)	0.02 (0.32)	-0.11 (0.15)	-0.61* (0.28)	-0.51*** (0.11)	-0.47* (0.23)	-0.49*** (0.11)	-0.13 (0.26)	-0.49*** (0.11)	-1.38*** (0.32)	-0.05 (0.11)	-0.20 (0.21)	-0.05 (0.11)
Ideology	-0.06 (0.08)	-0.12 (0.16)	-0.08 (0.08)	-0.26 (0.13)	-0.08 (0.08)	0.01 (0.15)	0.02 (0.06)	0.20 (0.12)	0.06 (0.06)	0.26 (0.14)	0.06 (0.06)	0.46** (0.16)	-0.17** (0.05)	-0.05 (0.13)	-0.17** (0.05)
Education	-0.04 (0.08)	-0.03 (0.20)	-0.05 (0.08)	0.02 (0.19)	-0.06 (0.08)	0.03 (0.19)	0.03 (0.07)	0.18 (0.13)	0.07 (0.07)	0.30 (0.20)	0.07 (0.07)	0.27 (0.19)	0.38*** (0.06)	0.63*** (0.14)	0.38*** (0.06)
Gender (Male reference category)	-0.44* (0.22)	0.22 (0.53)	-0.40 (0.21)	-0.64 (0.52)	-0.39 (0.21)	-1.25* (0.52)	-0.28 (0.19)	0.14 (0.38)	-0.33 (0.19)	0.06 (0.56)	-0.34 (0.19)	-0.73 (0.50)	-0.22 (0.18)	-0.33 (0.38)	-0.21 (0.18)
Race (White reference category)	0.23* (0.11)	0.79 (0.54)	0.22 (0.11)	-0.03 (0.23)	0.22 (0.11)	0.54 (0.40)	0.03 (0.08)	0.11 (0.16)	0.05 (0.08)	0.17 (0.23)	0.05 (0.08)	-0.04 (0.21)	-0.02 (0.08)	-0.03 (0.13)	-0.02 (0.08)
Family Income	-0.00 (0.00)	-0.01 (0.02)	-0.00 (0.00)	-0.02* (0.01)	-0.00 (0.00)	0.00 (0.01)	-0.01 (0.00)	-0.00 (0.01)	-0.01 (0.00)	0.01 (0.01)	-0.01 (0.00)	0.00 (0.02)	-0.00 (0.00)	-0.01 (0.01)	-0.00 (0.00)
N	822	205	822	133	822	140	822	205	822	133	822	140	822	205	822
Log-Likelihood	-369.81	-57.51	-372.44	-46.26	-370.05	-54.28	-496.23	-134.01	-504.57	-70.69	-504.53	-66.83	-448.35	-97.48	-448.27

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 CES.

Results are similar with clustered standard errors.

**Table 16: Logistic Regressions of Media Use Past 24 Hours and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

Media Use Past 24 Hours	Did not use social media, watch TV news, read newspaper or listened to radio in past 24 hours						Listened to radio news					Read a newspaper			
	Coefficient						Coefficient					Coefficient			
MI Categorization	-0.02 (0.75)						-0.41 (0.25)								
MI Identity Scale	-1.87 (1.61)						2.31 (1.20)								
MI Alienation Scale	-3.95* (1.59)						0.01 (1.23)								
PD Categorization	0.16 (0.58)						-0.04 (0.24)								
PD Identity	-0.60 (1.95)						0.92 (0.87)					-0.18 (0.88)			
ILL Categorization	-0.97 (0.71)						0.01 (0.25)					-0.03 (0.23)			
ILL Identity	-2.07 (2.04)						1.23 (0.88)					-1.00 (1.12)			
Generation	-0.15 (0.32)	-0.37 (0.41)	-0.15 (0.29)	-3.28* (1.54)	-0.17 (0.29)	-0.55 (0.60)	-0.05 (0.10)	-0.37 (0.21)	-0.09 (0.09)	-0.19 (0.23)	-0.09 (0.09)	-0.10 (0.28)	-0.57* (0.25)	-0.58*** (0.10)	-0.76* (0.33)
Party ID	0.52 (0.28)	-0.31 (0.46)	0.52 (0.28)	0.11 (1.15)	0.54 (0.29)	0.60 (0.54)	-0.15 (0.11)	-0.27 (0.21)	-0.14 (0.11)	-0.80** (0.27)	-0.14 (0.11)	-0.01 (0.29)	-0.37 (0.27)	-0.05 (0.11)	0.30 (0.32)
Ideology	0.08 (0.11)	-0.05 (0.32)	0.08 (0.10)	1.01* (0.50)	0.07 (0.10)	-0.57* (0.25)	0.06 (0.06)	0.13 (0.13)	0.08 (0.06)	0.08 (0.14)	0.08 (0.06)	0.18 (0.14)	-0.32** (0.11)	-0.17** (0.05)	-0.13 (0.14)
Education	-0.10 (0.17)	-0.63** (0.24)	-0.09 (0.18)	3.14 (2.17)	-0.10 (0.18)	-0.37 (0.47)	0.17* (0.07)	0.25 (0.14)	0.18** (0.07)	0.13 (0.18)	0.18** (0.07)	0.17 (0.16)	0.43* (0.18)	0.38*** (0.06)	0.76*** (0.20)
Gender (Male reference category)	0.70 (0.54)	-1.07 (0.93)	0.71 (0.51)	-0.42 (0.77)	0.66 (0.51)	1.32 (1.04)	-0.57** (0.19)	-0.28 (0.47)	-0.60** (0.19)	-1.04* (0.47)	-0.60** (0.19)	-0.72 (0.50)	-0.83 (0.49)	-0.21 (0.18)	0.24 (0.49)
Race (White reference category)	-0.19 (0.31)	-0.31 (0.58)	-0.18 (0.31)	0.60** (0.19)	-0.19 (0.32)	0.00 (omitted)	0.20* (0.08)	0.33* (0.14)	0.21** (0.08)	0.26 (0.17)	0.21** (0.08)	0.11 (0.16)	-0.03 (0.16)	-0.02 (0.08)	-0.03 (0.20)
Family Income	-0.01 (0.02)	-0.32 (0.29)	-0.01 (0.02)	-0.71** (0.25)	-0.01 (0.02)	-0.55 (0.54)	-0.01 (0.00)	-0.02 (0.01)	-0.01 (0.00)	-0.01 (0.01)	-0.01 (0.00)	-0.01 (0.01)	0.01 (0.01)	-0.00 (0.00)	-0.02 (0.01)
N	822	205	822	133	822	108	822	205	822	133	822	140	133	822	140
Log-Likelihood	-117.52	-22.45	-117.45	-4.46	-116.20	-17.51	-473.22	-96.38	-475.15	-68.49	-475.16	-70.96	-69.09	-448.35	-62.16

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 CES.

Results are similar with clustered standard errors.



**Table 17: Logistic Regressions of Recent Social Media Use and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

Recent Social Media Use	Posted a story, photo, video or link about politics						Posted a comment about politics						Followed a political event		
	Coefficient						Coefficient						Coefficient		
MI Categorization	0.05 (0.29)						0.07 (0.30)						0.25 (0.31)		
MI Identity Scale	1.28 (1.13)						1.46 (1.32)						-0.29 (1.38)		
MI Alienation Scale	0.04 (1.30)						-0.44 (1.69)						2.21 (1.58)		
PD Categorization	0.49 (0.30)						0.62* (0.29)						0.42 (0.30)		
PD Identity	0.27 (1.11)						0.79 (1.00)								
ILL Categorization	0.22 (0.31)						0.42 (0.29)								
ILL Identity	1.54 (1.52)						0.58 (0.93)								
Generation	0.08 (0.14)	-0.08 (0.31)	0.10 (0.14)	0.29 (0.32)	0.08 (0.14)	-0.05 (0.37)	-0.05 (0.13)	-0.41 (0.25)	-0.02 (0.12)	-0.59* (0.26)	-0.03 (0.12)	0.05 (0.32)	0.04 (0.14)	-0.26 (0.29)	0.08 (0.14)
Party ID	0.10 (0.15)	0.01 (0.23)	0.11 (0.15)	-0.72 (0.45)	0.10 (0.15)	0.57 (0.29)	0.03 (0.14)	-0.30 (0.26)	0.04 (0.14)	-0.34 (0.31)	0.02 (0.14)	0.11 (0.32)	-0.19 (0.17)	-0.09 (0.26)	-0.18 (0.17)
Ideology	-0.07 (0.08)	-0.17 (0.21)	-0.07 (0.08)	0.15 (0.18)	-0.06 (0.08)	-0.56** (0.21)	-0.07 (0.08)	-0.07 (0.15)	-0.07 (0.08)	-0.23 (0.14)	-0.06 (0.08)	-0.32 (0.20)	0.02 (0.08)	0.03 (0.14)	0.01 (0.08)
Education	0.24** (0.09)	0.23 (0.17)	0.27** (0.10)	0.09 (0.25)	0.24** (0.09)	0.68* (0.28)	0.21* (0.09)	0.24 (0.15)	0.24** (0.09)	0.24 (0.21)	0.21* (0.09)	0.29 (0.20)	0.28** (0.09)	0.32 (0.18)	0.28** (0.10)
Gender (Male reference category)	-0.55* (0.25)	-0.15 (0.49)	-0.51* (0.26)	-1.48* (0.62)	-0.53* (0.26)	-0.38 (0.60)	-0.60* (0.24)	-0.51 (0.48)	-0.56* (0.25)	-0.79 (0.63)	-0.56* (0.25)	-0.10 (0.61)	-0.32 (0.26)	-0.77 (0.51)	-0.27 (0.26)
Race (White reference category)	-0.15 (0.14)	-0.05 (0.17)	-0.15 (0.14)	-0.69 (0.38)	-0.15 (0.14)	-0.25 (0.26)	-0.14 (0.12)	0.05 (0.15)	-0.13 (0.12)	-0.55 (0.32)	-0.13 (0.12)	-0.12 (0.22)	-0.05 (0.13)	-0.11 (0.18)	-0.05 (0.13)
Family Income	-0.00 (0.01)	0.01 (0.02)	-0.00 (0.01)	-0.06 (0.04)	-0.00 (0.01)	0.01 (0.02)	-0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	0.02 (0.02)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
N	640	181	640	106	640	108	640	181	640	106	640	108	640	181	640
Log-Likelihood	-263.06	-73.16	-261.38	-48.95	-262.74	-36.02	-307.99	-82.58	-304.57	-53.51	-306.53	-57.27	-272.75	-78.69	-271.95

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 CES.

Results are similar with clustered standard errors.

**Table 18: Logistic Regressions of Recent Social Media Use and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

Recent Social Media Use	Read a story or watched a video about politics						Forwarded a story, photo, video or link about politics to friends						Followed a political event		
	Coefficient						Coefficient						Coefficient		
MI Categorization	0.17 (0.24)						-0.25 (0.30)								
MI Identity Scale	-1.00 (1.07)						2.03 (1.15)								
MI Alienation Scale	2.65* (1.23)						-1.89 (1.47)								
PD Categorization	0.58* (0.26)						0.68* (0.30)								
PD Identity	-0.22 (1.00)						-0.30 (1.19)						-1.13 (1.10)		
ILL Categorization	0.64* (0.27)						0.25 (0.31)						0.85** (0.30)		
ILL Identity	-0.03 (0.94)						0.58 (1.07)						1.41 (1.28)		
Generation	0.31** (0.11)	0.20 (0.22)	0.35** (0.10)	-0.14 (0.29)	0.34** (0.11)	0.47 (0.29)	0.13 (0.13)	-0.08 (0.28)	0.13 (0.13)	0.14 (0.32)	0.11 (0.13)	0.21 (0.34)	0.59 (0.32)	0.08 (0.14)	0.11 (0.34)
Party ID	-0.20 (0.12)	-0.22 (0.21)	-0.19 (0.12)	-0.24 (0.28)	-0.22 (0.12)	-0.32 (0.33)	-0.01 (0.16)	-0.38 (0.32)	0.01 (0.16)	0.04 (0.35)	-0.01 (0.16)	-0.05 (0.32)	-0.22 (0.33)	-0.21 (0.16)	-0.36 (0.35)
Ideology	0.03 (0.06)	0.13 (0.13)	0.02 (0.06)	-0.07 (0.15)	0.04 (0.06)	0.39* (0.16)	0.06 (0.07)	-0.20 (0.18)	0.07 (0.08)	0.04 (0.15)	0.08 (0.08)	0.02 (0.17)	-0.11 (0.15)	0.04 (0.08)	0.09 (0.20)
Education	0.32*** (0.07)	0.35* (0.15)	0.34*** (0.07)	0.48* (0.23)	0.32*** (0.07)	0.30 (0.17)	0.26** (0.09)	0.34 (0.18)	0.30** (0.10)	0.35 (0.22)	0.28** (0.09)	0.63** (0.21)	0.19 (0.23)	0.28** (0.09)	0.54* (0.21)
Gender (Male reference category)	-0.57** (0.20)	-0.64 (0.40)	-0.53* (0.20)	-0.61 (0.50)	-0.52* (0.20)	-0.42 (0.47)	-0.09 (0.25)	0.01 (0.50)	-0.08 (0.25)	-1.54* (0.63)	-0.10 (0.25)	0.87 (0.59)	-1.48* (0.60)	-0.24 (0.25)	0.62 (0.65)
Race (White reference category)	-0.04 (0.08)	-0.07 (0.14)	-0.04 (0.09)	0.07 (0.24)	-0.04 (0.09)	-0.12 (0.20)	-0.11 (0.12)	-0.07 (0.18)	-0.10 (0.12)	-0.36 (0.28)	-0.10 (0.12)	-0.38 (0.24)	-0.28 (0.27)	-0.04 (0.12)	-0.20 (0.19)
Family Income	-0.01 (0.01)	-0.02 (0.01)	-0.01 (0.01)	0.08 (0.08)	-0.01 (0.01)	-0.02 (0.02)	-0.00 (0.01)	0.01 (0.02)	0.00 (0.01)	-0.09 (0.11)	0.00 (0.01)	0.00 (0.02)	-0.08 (0.09)	-0.00 (0.01)	-0.00 (0.01)
N	640	181	640	106	640	108	640	181	640	106	640	108	106	640	108
Log-Likelihood	-412.61	-114.98	-408.92	-57.11	-408.43	-68.35	-284.69	-66.74	-281.48	-48.36	-284.67	-47.48	-52.55	-267.48	-44.08

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 CES.

Results are similar with clustered standard errors.

**Table 19: Logistic Regressions of Recent Social Media Use and Mental Illness, Physical Disability, and Chronic Illness Variables with weights**

Recent Social Media Use	None of the above					
	Coefficient					
MI Categorization	0.06 (0.25)					
MI Identity Scale		1.00 (1.11)				
MI Alienation Scale		-1.15 (1.25)				
PD Categorization			-0.39 (0.27)			
PD Identity				0.05 (1.14)		
ILL Categorization					-0.67* (0.29)	
ILL Identity						-1.16 (1.03)
Generation	-0.34** (0.11)	-0.07 (0.22)	-0.34** (0.11)	0.04 (0.31)	-0.347** (0.11)	-0.16 (0.30)
Party ID	0.28* (0.12)	0.21 (0.21)	0.27* (0.12)	0.53 (0.32)	0.29* (0.12)	0.38 (0.32)
Ideology	-0.04 (0.06)	-0.05 (0.13)	-0.05 (0.06)	0.02 (0.16)	-0.07 (0.06)	-0.22 (0.14)
Education	-0.33*** (0.08)	-0.29 (0.15)	-0.34*** (0.08)	-0.64** (0.23)	-0.34*** (0.08)	-0.27 (0.18)
Gender (Male reference category)	0.75** (0.22)	0.72 (0.41)	0.73** (0.22)	0.54 (0.55)	0.72** (0.22)	0.48 (0.49)
Race (White reference category)	0.04 (0.09)	0.04 (0.14)	0.04 (0.09)	-0.10 (0.28)	0.04 (0.09)	0.03 (0.24)
Family Income	0.00 (0.01)	-0.01 (0.01)	0.00 (0.01)	-0.03 (0.04)	0.00 (0.01)	0.01 (0.01)
N	640	181	640	106	640	108
Log-Likelihood	-394.55	-116.13	-392.91	-50.50	-389.97	-66.38

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

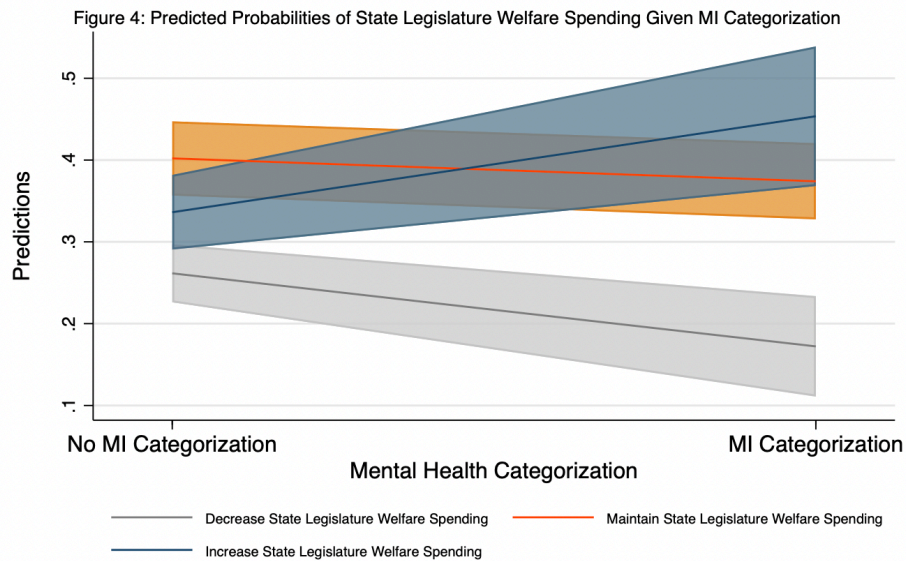
Note: Two-tailed test

Source: 2022 CES.

Results are similar with clustered standard errors.

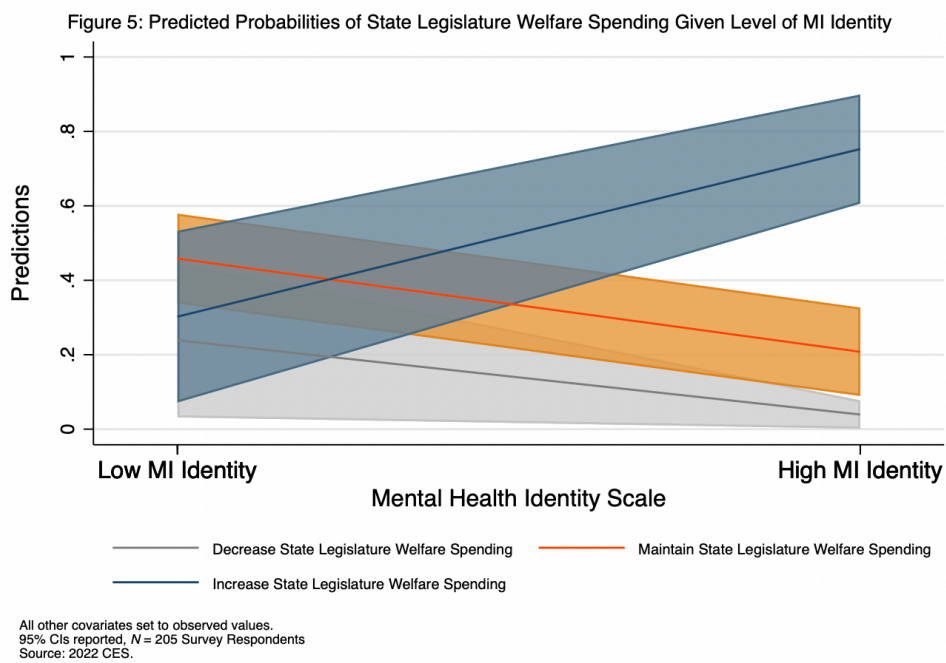
## Predicted Probabilities for Welfare, Education, and Transportation

Turning to figures 4 and 5 and state spending on welfare, the results are again stark. Looking at the blue line in Figure 4, individuals who did not categorize themselves as having had a mental illness in their lifetime have about a 34% chance, on average, of wanting increased state legislature welfare spending. On the same line, individuals who categorized themselves as having had a mental illness in their lifetime have about a 45% chance, on average, of wanting increased state legislature healthcare spending. Both are statistically significant. For the first differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from no MI categorization to MI categorization results in an increase of 12 percentage points in the average predicted probability of wanting increased state legislature welfare spending.



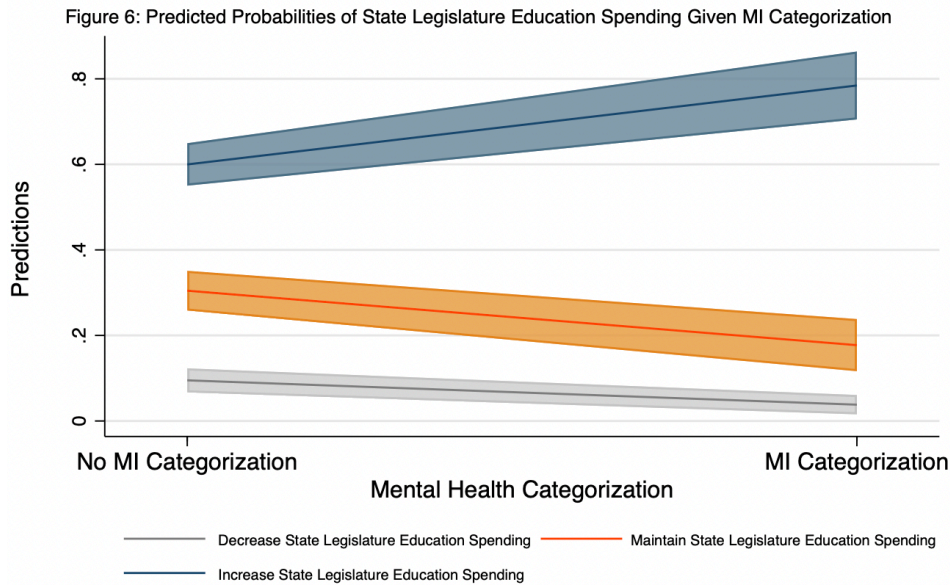
In the blue line of Figure 5, individuals who had low MI identity have about a 30% chance, on average, of wanting increased state legislature welfare spending. On the same line,

individuals who had high MI identity have about a 75% chance, on average, of wanting increased state legislature welfare spending. Both are statistically significant. For the first differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from low MI identity to high MI identity results in an increase of 45 percentage points in the average predicted probability of wanting increased state legislature welfare spending.



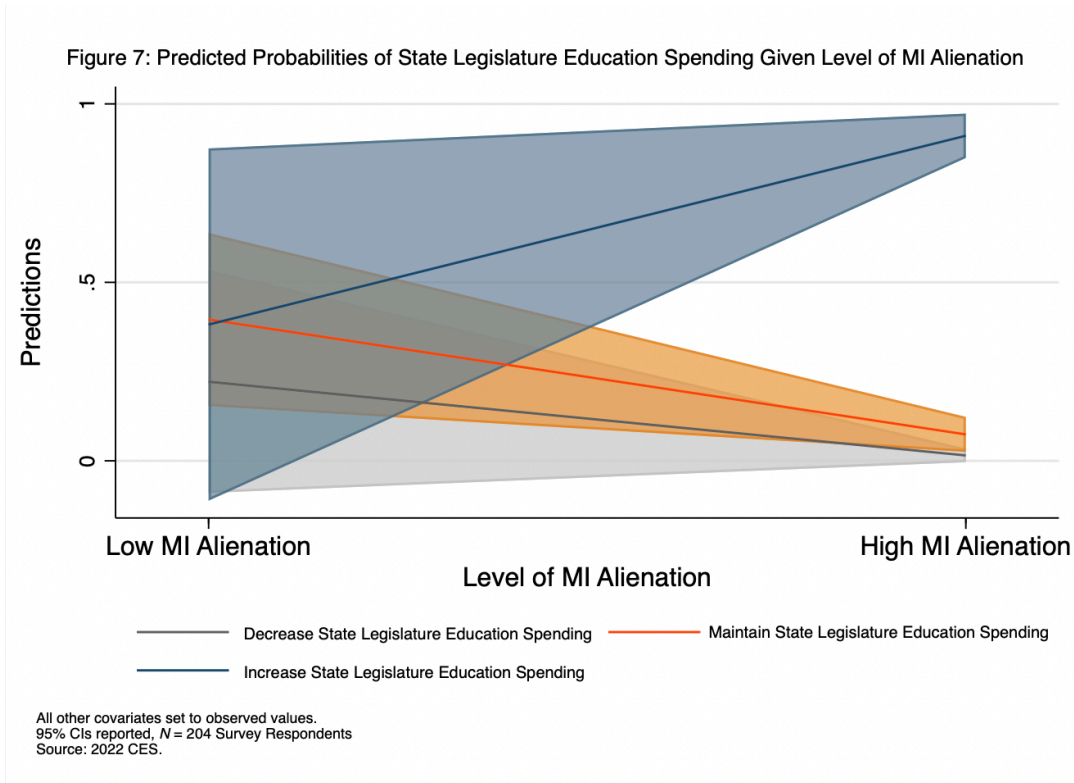
Turning to figures 6 and 7 and state spending on education, the results are similar. Looking at the blue line in Figure 6, individuals who did not categorize themselves as having had a mental illness in their lifetime have about a 60% chance, on average, of wanting increased state legislature education spending. On the same line, individuals who categorized themselves as having had a mental illness in their lifetime have about a 78% chance, on average, of wanting increased state legislature education spending. Both are statistically significant. For the first

differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from no MI categorization to MI categorization results in an increase of 18 percentage points in the average predicted probability of wanting increased state legislature education spending.



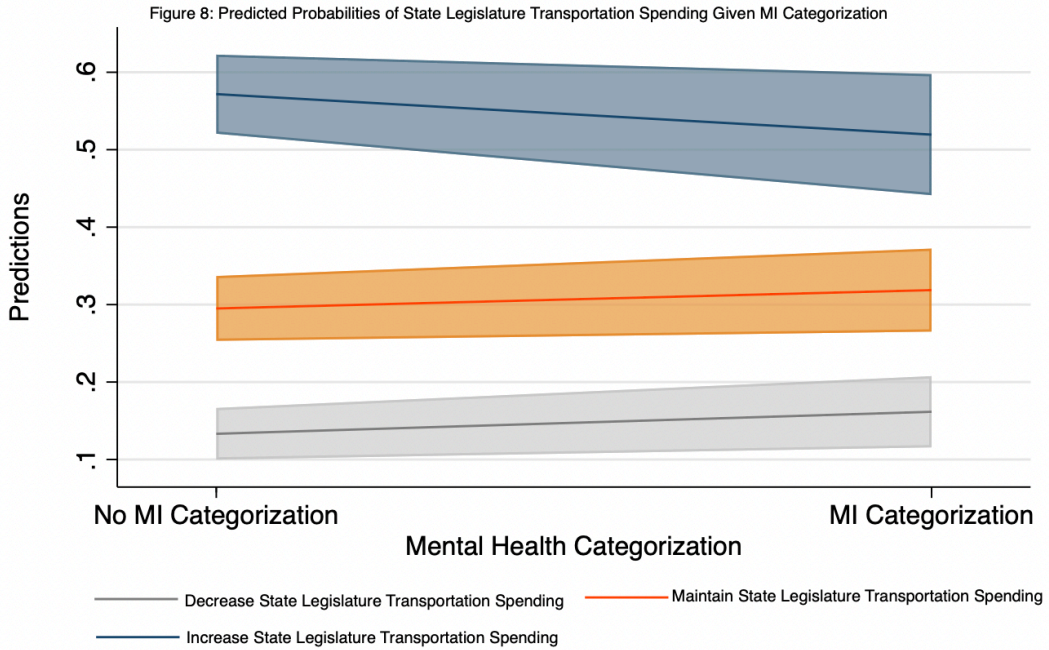
All other covariates set to observed values.  
 95% CIs reported, N = 821 Survey Respondents  
 Source: 2022 CES.

Turning to Figure 7 and again examining the blue line, individuals who had low MI alienation identity had about a 38% chance, on average, of wanting increased state legislature education spending. On the same line, individuals who had high MI alienation identity have about a 91% chance, on average, of wanting increased state legislature education spending. For the first differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from low MI alienation identity to high MI alienation identity results in an increase of 53 percentage points in the average predicted probability of wanting increased state legislature education spending. This is only marginally significant at traditional levels.



As a comparison, figure 8 shows null results for state spending on transportation. Looking at the blue line, individuals who did not categorize themselves as having had a mental illness in their lifetime have about a 58% chance, on average, of wanting increased state legislature transportation spending. On the same line, individuals who categorized themselves as having had a mental illness in their lifetime have about a 52% chance, on average, of wanting increased state legislature transportation spending. For the first differences (not presented), a specific example is again the blue line where, holding all other covariates at their observed values, going from no MI categorization to MI categorization results in a decrease of 5 percentage points in the average predicted probability of wanting increased state legislature

transportation spending. This is not statistically significant and shows general trends that are the opposite of the previous figures.



All other covariates set to observed values.  
95% CIs reported, N = 821 Survey Respondents  
Source: 2022 CES.



## Appendix B: Chapter 4

**Table 1. Unweighted Frequencies for identity\_imp by Number of Disabilities of Chronic Conditions**

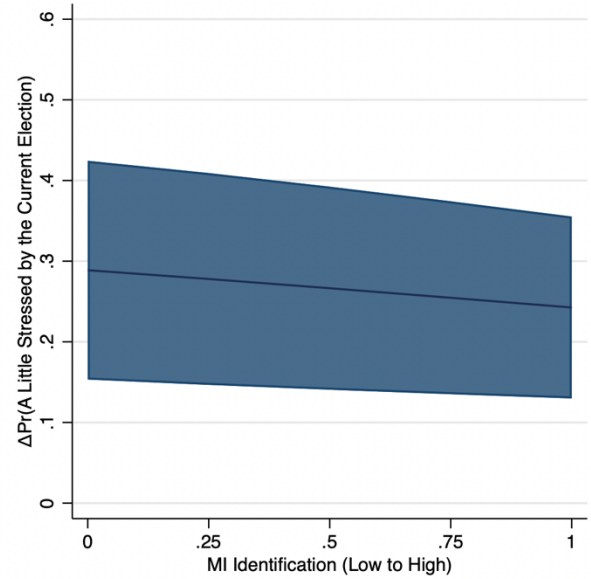
	1 Condition		2 Conditions		3 Conditions		4 Conditions		5 Conditions		6 Conditions	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Extremely important	50	12.11	20	12.12	12	21.05	4	20.00	0	0	0	0
Very important	52	12.59	19	11.52	6	10.53	5	25.00	0	0	0	0
Moderately important	71	17.19	39	23.64	14	24.56	7	35.00	1	16.67	1	100
A little important	64	15.50	29	17.58	10	17.54	3	15.00	4	66.67	0	0
Not at all important	176	42.62	58	35.15	15	26.32	1	5.00	1	16.67	0	0
Missing	0		0		0		0		0		0	0
<b>Total</b>	<b>413</b>	<b>100</b>	<b>165</b>	<b>100</b>	<b>57</b>	<b>100</b>	<b>20</b>	<b>100</b>	<b>6</b>	<b>100</b>	<b>1</b>	<b>100</b>

**Table 2: Correlations of Health Categorization & Identity and Mental Health Categorization & Identity**

	Pairwise Coefficients			
	Health Categorization	Health Identity	Mental Health Categorization	Mental Health Identity
Party ID	-0.01	-0.17	-0.10	0.05
Ideology	0.02	-0.14	-0.18	0.09
General Health	0.37	-0.03	0.20	-0.06
Election Stress	-0.07	-0.13	-0.07	0.17
Political Exhaustion	0.08	0.05	0.13	0.02
Quality of Sleep	0.18	0.11	0.15	-0.02
Confidence in Ability to Handle Personal Problems	-0.02	-0.19	-0.20	0.16
Feeling Difficulties Were Piling Up	0.10	0.20	0.27	-0.11

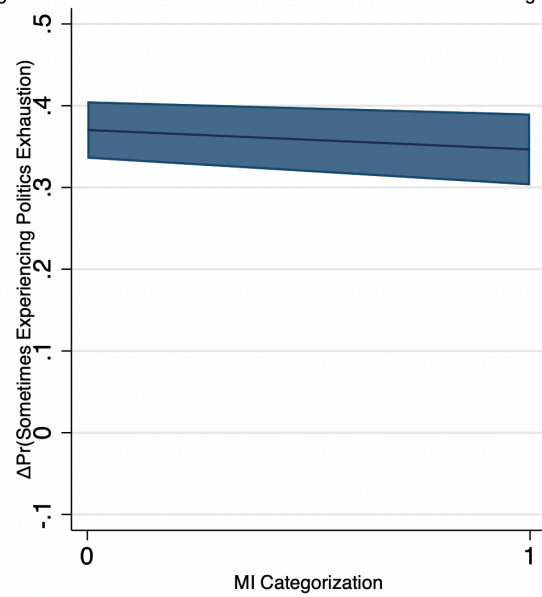
**Table 18** demonstrates that the health categorization and identity measures are highly (and moderately) correlated with what we would expect, and also uncorrelated (and have low correlations with) what we would expect. General health is highly correlated with health categorization, moderately correlated with mental health categorization, and has low correlations with both identity measures. Party ID and Ideology are also low to moderately correlated with the categorization and identity measures.

Average Predicted Probabilities Election Stress Given MI Identification



All covariates set to mean values.  
95% CIs reported, N = 125 Survey Respondents  
Source: 2024 ANES Pilot.

Average Predicted Probabilities of Politics Exhaustion Given MI Categorization



All covariates set to mean values.  
95% CIs reported, N = 968 Survey Respondents  
Source: 2024 ANES Pilot.

## Appendix C: Chapter 5

### Survey Experiment # 1

Many respondents did not reach the end of the survey for numerous reasons. Initially, 2,252 respondents agreed to the IRB consent statement and began the survey. There were 432 respondents who did not answer question 3 (attention checks). The first question of the survey after the IRB is not presented in this study and had a 30-character validation. Many respondents did not make it past this question, likely because of the validation requirement. Only 1,820 respondents answered the attention check questions and 1,504 passed, giving an average pass rate of 82.6% for the attention check questions.<sup>76</sup> For those that passed the attention checks at the beginning of the survey and were given the option to continue, 95.4% made it to the end of the survey. Of the 1,435 people who answered the final question, 75 respondents said they do not always take surveys seriously and instead provide humorous, or insincere responses always (31) or most of the time (44).<sup>77</sup> These respondents were removed from the main sample.<sup>78</sup> The randomization appears to have worked well. There are few independents in all experimental conditions and Black respondents.

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<sup>76</sup> The pass rates for the attention checks by treatment condition and other answer options are below:

- Heroin: 78.4% (479/611) passed; 4.58% diabetes (28); depression (83) 13.58%; Insomnia (21) 3.44%.
- Depression: 86.4% (529/612) passed; 2.9% (18) diabetes; 2.61% (16) Insomnia; Heroin addiction 8% (49).

<sup>77</sup> Here is the breakdown of responses to the question that asks whether respondents provide insincere responses: Never 70.73% (1015); Rarely 14.63% (210); Some of the time 9.41% (135); most of the time 3.07% (44); Always 2.16% (31).

<sup>78</sup> A handful of respondents were also removed after hand-coding the emotional induction text responses and final open-ended text box for respondents who provided nonsense answers.

**Table 1: Two-Sample T-Tests**

	Depression	Heroin	Rude
Favorability	57.37*** (1.18)	48.23* (1.12)	44.62 (0.99)
Vote Choice	51.79*** (1.25)	41.38 (1.33)	39.27 (1.12)
Social Distance	1.53*** (0.09)	1.11*** (0.08)	0.66 (0.06)
CAMI	26.65** (0.23)	26.31 (0.24)	25.70 (0.23)
N	473	440	461

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

The comparisons are between depression and rude and heroin and rude.

**Table 2: Demographics by Experimental Condition**

		Depression	Heroin	Rude
Gender	Male	219	220	233
	Female	254	220	228
Party ID	Democrat	241	214	225
	Independent	21	30	26
	Republican	211	196	210
Race	Black	52	46	63
	White	335	334	320
Education	None	141	134	137
	Low	144	155	142
	Medium	134	105	125
	High	54	46	57
Age	Mean Age	45.47	46.74	44.24
N		473	440	461

*Regression Tables with Interactions*

**Table 3: Regression of Depression, Heroin Addiction, Rudeness and Dependent Variables by Mental Illness Status**

Dependent Variables	Favorability	Vote Choice	Social Distance	Social Restrictiveness (CAMI)
	Coefficient	Coefficient	Coefficient	Coefficient
Depression	10.74*** (1.73)	10.43*** (1.94)	0.70*** (0.12)	0.76* (0.34)
Heroin Addiction	2.75 (1.78)	1.21 (1.99)	0.27* (0.12)	0.26 (0.35)
Have MI	-2.75 (2.89)	-4.03 (3.24)	-0.13 (0.20)	4.63*** (0.57)
Depression X Have MI	8.94* (3.83)	9.66* (4.29)	1.09*** (0.27)	-0.56 (0.76)
Heroin X Have MI	4.20 (3.86)	4.83 (4.32)	0.72** (0.27)	-0.16 (0.77)
Constant	45.10*** (1.21)	39.96*** (1.35)	0.68*** (0.08)	24.90*** (0.24)
N	1,374	1,374	1,374	1,374

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 4: Regression of Depression, Heroin Addiction, Rudeness and Dependent Variables by Gender**

Dependent Variables	Favorability	Vote Choice	Social Distance	Social Restrictiveness (CAMI)
	Coefficient	Coefficient	Coefficient	Coefficient
Depression	8.26*** (2.21)	8.53** (2.48)	0.79*** (0.16)	0.64 (0.47)
Heroin Addiction	2.74 (2.21)	0.91 (2.47)	0.43** (0.16)	0.13 (0.46)
Female	-4.43* (2.19)	-5.52* (2.45)	-0.25 (0.15)	1.14* (0.46)
Depression X Female	8.72** (3.08)	7.88* (3.45)	0.16 (0.22)	0.49 (0.65)
Heroin X Female	1.77 (3.13)	2.48 (3.51)	0.04 (0.22)	0.96 (0.66)
Constant	46.81*** (1.54)	42.00*** (1.72)	0.78*** (0.08)	25.13*** (0.32)
N	1,374	1,374	1,374	1,374

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 5: Regression of Depression, Heroin Addiction, Rudeness and Dependent Variables by Party Identification**

Dependent Variables	Favorability	Vote Choice	Social Distance	Social Restrictiveness (CAMI)
	Coefficient	Coefficient	Coefficient	Coefficient
Depression	16.31* (6.85)	9.76 (7.66)	0.46 (0.48)	1.16 (1.47)
Heroin Addiction	13.93* (6.26)	19.76** (7.00)	1.55*** (0.44)	0.69 (1.34)
Republican	14.19** (4.85)	15.78** (5.43)	0.34 (0.34)	-0.68 (1.04)
Democrat	9.94* (4.84)	8.75 (5.41)	0.32 (0.34)	-0.14 (1.04)
Depression X Republican	-10.32 (7.22)	-4.70 (8.07)	0.15 (0.51)	-0.45 (1.54)
Depression X Democrat	1.89 (7.18)	9.45 (8.03)	0.65 (0.51)	-0.02 (1.54)
Heroin X Republican	-15.94* (6.67)	-24.30** (7.46)	-1.33** (0.47)	-0.30 (1.43)
Heroin X Democrat	-6.29 (6.64)	-13.65 (7.43)	-1.05* (0.47)	0.11 (1.42)
Constant	33.31*** (4.58)	27.81*** (5.12)	0.35 (0.32)	26.08*** (0.98)
N	1,374	1,374	1,374	1,374

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

*Multivariate Regression Tables*

**Table 6: Regression of Depression, Heroin Addiction, Rudeness and Favorability**

Favorability	Coefficient	Coefficient
Depression	12.69*** (1.55)	
Heroin Addiction		3.92** (1.51)
Party ID	0.65 (0.95)	0.46 (0.94)
Ideology	-0.61 (0.88)	0.63 (0.85)
Age	0.01 (0.05)	-0.06 (0.05)
Race	-0.14 (0.48)	0.61 (0.48)
Male	-0.13 (0.02)	-3.32* (1.53)
Education	2.04 (2.42)	0.33 (2.38)
Familiarity with MI	0.04 (0.21)	-0.03 (0.20)
N	934	901

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.



**Table 7: Regression of Depression, Heroin Addiction, Rudeness and Vote Choice**

Vote Choice	Coefficient	Coefficient
Depression	12.64*** (1.69)	
Heroin Addiction		2.59 (1.74)
Party ID	-0.16 (1.03)	-1.38 (1.08)
Ideology	-0.60 (0.96)	-0.32 (0.98)
Age	-0.02 (0.05)	-0.11* (0.06)
Race	-0.75 (0.52)	0.63 (0.55)
Male	-1.24 (1.71)	-3.74* (1.76)
Education	4.72 (2.63)	1.44 (2.74)
Familiarity with MI	-0.05 (0.23)	-0.10 (0.23)
N	934	901

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 8: Regression of Depression, Heroin Addiction, Rudeness and Favorability by Respondent MI Status**

	Has/Had MI	No MI	Has/Had MI	No MI
Favorability	Coefficient	Coefficient	Coefficient	Coefficient
Depression	19.37*** (3.75)	10.79*** (1.70)		
Heroin Addiction			7.00* (3.47)	2.95 (1.67)
Party ID	1.16 (2.29)	0.49 (1.03)	-2.46 (2.36)	0.97 (1.02)
Ideology	-1.77 (2.06)	-0.16 (0.97)	-0.11 (1.95)	0.61 (0.95)
Age	0.20 (0.12)	-0.02 (0.06)	-0.03 (0.12)	-0.03 (0.05)
Race	-0.93 (1.13)	0.04 (0.53)	-1.12 (1.37)	0.92 (0.51)
Male	4.24 (3.74)	-1.45 (1.71)	3.91 (3.49)	-5.48** (1.69)
Education	8.49 (6.44)	0.30 (2.58)	2.33 (5.99)	-0.36 (2.58)
N	197	737	194	707

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 9: Regression of Depression, Heroin Addiction, Rudeness and Vote Choice by Respondent MI Status**

	Has/Had MI	No MI	Has/Had MI	No MI
Vote Choice	Coefficient	Coefficient	Coefficient	Coefficient
Depression	20.43*** (3.86)	10.48*** (1.88)		
Heroin Addiction			6.00 (4.15)	1.62 (1.91)
Party ID	1.66 (2.36)	-0.60 (1.15)	-3.92 (2.82)	-0.93 (1.16)
Ideology	-1.48 (2.12)	-0.26 (1.07)	-2.66 (2.33)	0.24 (1.08)
Age	0.07 (0.13)	-0.02 (0.06)	-0.09 (0.15)	-0.09 (0.06)
Race	-1.57 (1.16)	-0.56 (0.59)	-1.41 (1.64)	0.95 (0.58)
Male	1.55 (3.85)	-2.34 (1.90)	2.54 (4.16)	-5.70** (1.93)
Education	7.80 (6.64)	0.47 (2.86)	4.72 (7.15)	0.18 (2.95)
N	197	737	194	707

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 10: Regression of Depression, Heroin Addiction, Rudeness and Favorability by Respondent Gender**

	Man	Woman	Man	Woman
Vote Choice	Coefficient	Coefficient	Coefficient	Coefficient
Depression	8.51*** (2.23)	16.55*** (2.16)		
Heroin Addiction			3.06 (2.17)	4.73* (2.10)
Party ID	0.62 (1.36)	0.34 (1.33)	1.61 (1.35)	-0.86 (1.32)
Ideology	-0.44 (1.23)	-0.72 (1.26)	1.43 (1.20)	-0.31 (1.21)
Age	-0.05 (0.08)	0.07 (0.07)	-0.04 (0.07)	-0.05 (0.06)
Race	0.28 (0.71)	-0.61 (0.64)	0.56 (0.68)	0.76 (0.68)
Familiarity	-0.14 (0.29)	0.27 (0.31)	-0.22 (0.28)	0.21 (0.30)
Education	-0.66 (3.41)	5.34 (3.45)	-0.32 (3.40)	0.91 (3.41)
N	452	482	453	448

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 11: Regression of Depression, Heroin Addiction, Rudeness and Vote Choice by Respondent Gender**

	Man	Woman	Man	Woman
Vote Choice	Coefficient	Coefficient	Coefficient	Coefficient
Depression	8.55*** (2.43)	16.16*** (2.35)		
Heroin Addiction			1.13 (2.46)	4.04 (2.48)
Party ID	-1.06 (1.48)	0.33 (1.44)	-1.00 (1.53)	-1.85 (1.55)
Ideology	-0.65 (1.34)	-0.58 (1.37)	0.17 (1.36)	-0.86 (1.43)
Age	-0.01 (0.08)	-0.00 (0.07)	-0.10 (0.08)	-0.120 (0.08)
Race	0.16 (0.78)	-1.63* (0.70)	0.82 (0.76)	0.48 (0.80)
Familiarity	-0.22 (0.32)	0.13 (0.33)	-0.19 (0.32)	-0.02 (0.35)
Education	1.08 (3.72)	8.81* (3.74)	1.74 (3.90)	1.08 (4.02)
N	452	482	453	448

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 12: Regression of Depression, Heroin Addiction, Rudeness and Favorability by Respondent Party ID**

	Republican	Independent <sup>†</sup>	Democrat	Republican	Independent <sup>†</sup>	Democrat
Favorability	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Depression	6.04** (2.18)	15.70 (8.37)	18.34*** (2.28)			
Heroin Addiction				-2.01 (2.13)	13.81 (7.00)	9.12*** (2.23)
Ideology	-0.36 (1.25)	-1.44 (4.57)	-0.58 (1.30)	-1.19 (1.20)	-2.43 (4.09)	3.03* (1.28)
Familiarity	-0.11 (0.30)	-0.17 (0.96)	0.20 (0.31)	0.21 (0.29)	-0.11 (0.86)	-0.19 (0.30)
Age	0.08 (0.07)	0.30 (0.29)	-0.10 (0.07)	-0.03 (0.07)	-0.22 (0.27)	-0.09 (0.07)
Race	0.56 (0.71)	0.96 (2.20)	-0.96 (0.68)	0.13 (0.74)	0.03 (1.79)	0.83 (0.67)
Male	0.05 (2.21)	2.48 (8.10)	-1.20 (2.31)	-2.73 (2.16)	-2.27 (6.88)	-4.52* (2.24)
Education	1.66 (3.42)	-12.90 (12.85)	2.36 (3.54)	-0.40 (3.38)	0.80 (11.79)	0.89 (3.49)
N	421	47	466	406	56	439

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

† Values should be interpreted with caution due to small sample size.

Source: 2022 Lucid Survey Experiment Conducted by Author.

**Table 13: Regression of Depression, Heroin Addiction, Rudeness and Vote Choice by Respondent Party ID**

	Republican	Independent <sup>†</sup>	Democrat	Republican	Independent <sup>†</sup>	Democrat
Vote Choice	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Depression	5.01* (2.39)	7.76 (9.74)	19.57*** (2.42)			
Heroin Addiction				-4.33 (2.55)	21.05* (8.09)	7.57** (2.50)
Ideology	-0.01 (1.37)	1.36 (5.32)	-1.17 (1.38)	-1.20 (1.44)	-4.35 (4.73)	1.22 (1.44)
Familiarity	-0.09 (0.32)	0.01 (1.12)	-0.08 (0.33)	0.16 (0.34)	-0.55 (0.99)	-0.32 (0.34)
Age	0.03 (0.08)	0.39 (0.34)	-0.12 (0.08)	-0.11 (0.08)	0.05 (0.31)	-0.14 (0.08)
Race	0.28 (0.78)	-0.09 (2.56)	-1.68* (0.72)	0.44 (0.89)	0.15 (2.07)	0.54 (0.75)
Male	-2.18 (2.42)	-8.18 (9.42)	-0.22 (2.46)	-4.33 (2.60)	3.37 (7.95)	-4.20 (2.51)
Education	3.92 (3.75)	-1.05 (14.95)	4.64 (3.77)	2.01 (4.06)	-11.65 (13.63)	1.46 (3.93)
N	421	47	466	406	56	439

Standard errors in parentheses

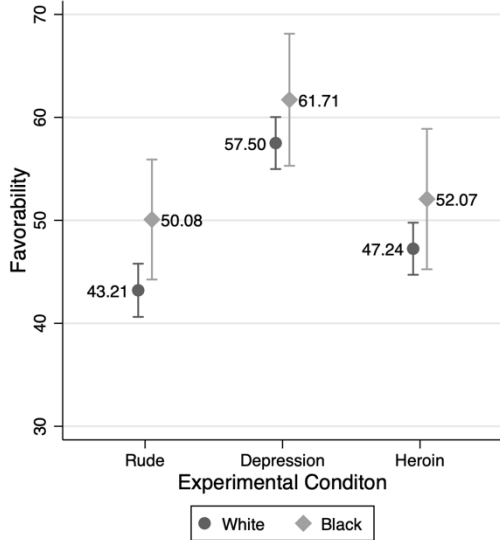
\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

† Values should be interpreted with caution due to small sample size.

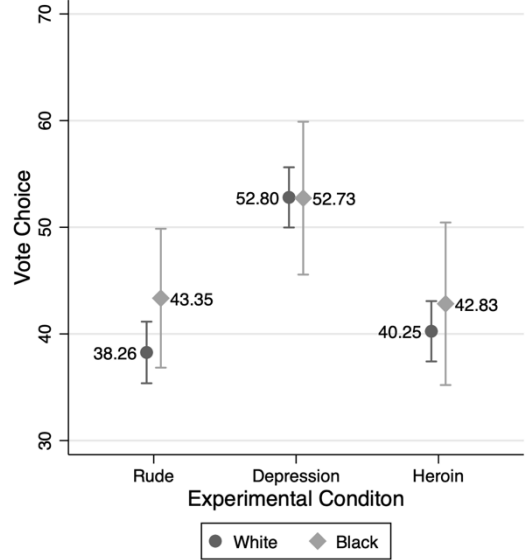
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 17: Mean Level Favorability for Experimental Conditions by Race



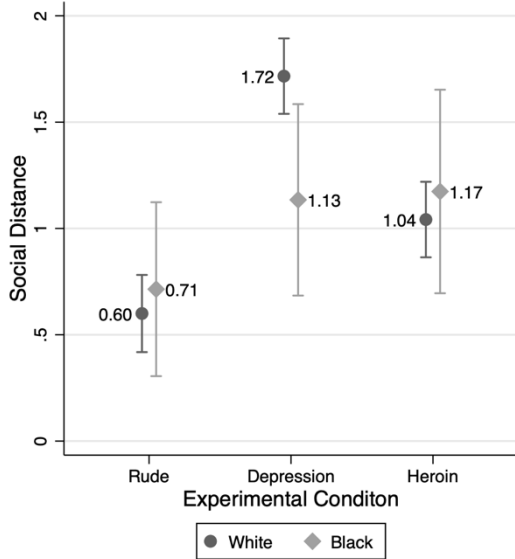
95% CIs reported, N = 1150 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 18: Mean Level Vote Choice for Experimental Conditions by Race



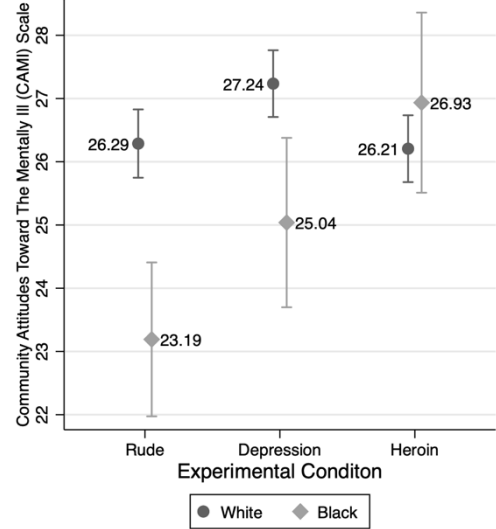
95% CIs reported, N = 1150 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 19: Mean Level Social Distance for Experimental Conditions by Race



95% CIs reported, N = 1150 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.

Figure 20: Mean Level CAMI Scale for Experimental Conditions by Race



95% CIs reported, N = 1150 Survey Respondents  
Source: 2022 Lucid Survey Experiment Conducted by Author.



## Discussion

Contrary to my expectations, I find that voters rank rude candidates less favorably than either depression or heroin addiction and are less likely to vote for them compared to candidates with depression—although there is no statistically significant difference between the rude candidate and the candidate with heroin addiction. In terms of voter's attributes, gender, party ID, and experiencing a mental illness in their lifetimes are all important moderators to different degrees.

Gender appears to matter for favorability and depression and is most prominent in the social restrictiveness (CAMI) measure. Women are about 4 points more likely to favor candidates with depression ( $p < 0.05$ ) and are 3 points less likely to favor candidates with heroin addiction (n.s.) than men are. Women are about two points more likely to vote for candidates with depression (n.s.) and 3 points less likely to vote for candidates with heroin addiction (n.s.) than men are. Women desire about the same amount of social distance from candidates with depression and heroin addiction as men do (all statistically insignificant). What is surprising is that women are much less socially restrictive than men are in terms of general views of mental health. Specifically, women respondents want a 6% decrease in social restrictiveness when presented with a candidate with depression ( $p < 0.001$ ) and a 7.5% decrease in social restrictiveness when presented with a candidate with heroin addiction compared to male respondents ( $p < 0.001$ ).

There is a strong partisan divide with Democratic voters favoring candidates with mental illness significantly more than Republican voters. Democratic respondents are 8 points more likely to favor a candidate with depression ( $p < 0.001$ ) and are 5 points more likely to favor a

candidate with heroin addiction ( $p < 0.05$ ) than Republican respondents are. Democratic respondents are 7 points more likely to vote for a candidate with depression ( $p < 0.01$ ) and are 4 points more likely to vote for a candidate with heroin addiction (n.s.) than Republican respondents are. Republican respondents desire more social distance from candidates with depression and heroin addiction and slightly less social distance from candidates who are rude when compared to Democratic respondents. The only statistically significant result is for depression, where Democrats would agree to half an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average, compared to Republican respondents ( $p < 0.01$ ). Democrats are more tolerant on the social restrictiveness scale (CAMI) than Republicans are, but all of these differences are statistically insignificant except for the candidate with depression. Democratic respondents want a 1.7% decrease in social restrictiveness when presented with a candidate with depression ( $p < 0.05$ ) compared to Republican respondents.

Finally, there are substantial results that suggest voters who have had mental illness in their lifetimes prefer candidates that descriptively represent them. Those who have had mental illness in their lifetimes are more likely to favor candidates with depression—by 6 points—( $p < 0.05$ ) and are about 6 points more likely to vote for them ( $p < 0.05$ ) than those who have not had mental illness in their lifetimes. Respondents who have had MI are 1.5 points more likely to favor candidates with heroin addiction (n.s.) and are about one point more likely to vote for them (n.s.) compared to those who have not had mental illness in their lifetimes.

Respondents who have had mental illness in their lifetimes would agree to an additional statement (“I would move next door to someone like Thomas Ryden,” “I would recommend a person like Thomas Ryden for a job”), on average, for the candidate with depression compared

to respondents who have not had mental illness in their lifetimes ( $p < 0.001$ ). Likewise, respondents who have had MI would agree to half an additional statement, on average, for the candidate with heroin addiction compared to respondents who have not had MI ( $p < 0.001$ ). Respondents who have had mental illness in their lifetimes want about a 7% decrease in social restrictiveness when presented with the candidate with depression ( $p < 0.001$ ) and a 6.3% decrease in social restrictiveness when presented with the heroin addiction candidate compared to respondents who have not had mental illness in their lifetimes ( $p < 0.001$ ).

### *Survey Instrument*

## IRB Consent

---

**Informed Consent Agreement:** University of Virginia Study #4858

**Study Title:** Health and Political Behavior

Please read this consent agreement carefully before you decide to participate in the study. You may print this agreement for your records or later reference.

**Purpose of the research study:** The purpose of the study is to gather information about people's opinions on certain health conditions and their attitudes toward politicians.

**What you will do:** You will fill out questions pertaining to some background information, certain health conditions and your attitudes toward politicians.

**Time required:** This survey should take approximately 6-9 minutes.

**Risks:** There are no risks associated with taking part in this study.

**Benefits:** There are no direct benefits to you for participating in this research study.

**Confidentiality:** The information that you give in the study will be anonymous.

**Voluntary participation:** Your participation in the study is completely voluntary.

**Right to withdraw from the study:** You have the right to withdraw from the study at any time without penalty. Because data are anonymous, you may not withdraw after the data is submitted. Payment will not be given for incomplete or unfinished surveys.

**How to withdraw from the study:** Your participation in this study will not be finalized until you have completed it. You can withdraw at any time by closing the browser window.

**Payment:** You will receive payment for completing the study. Incomplete or unfinished surveys will not receive payment.

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To obtain more information about the study, ask questions about the research procedures, express concerns about your participation, or report illness, injury or other problems, please contact:

Tonya R. Moon, Ph.D.  
Chair, Institutional Review Board for the Social and Behavioral Sciences  
One Morton Dr Suite 500 University of Virginia, P.O. Box 800392 Charlottesville, VA 22908- 0392  
Telephone: (434) 924-5999  
Email: irbsbshelp@virginia.edu  
Website: <https://research.virginia.edu/irb-sbs>  
Website for Research Participants: <https://research.virginia.edu/research-participants>  
If you wish to make inquiries about your rights in the study, please reference IRB-SBS study: 4858

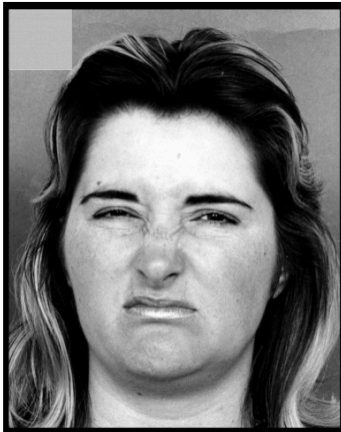
Please check this box to indicate that you are 18 or older, that you have read the above information, and that you are willing to take part in the study.

I Consent

Here is a picture of someone who is **AFRAID**. We would like you to describe in general things that make you feel like the person in the picture. It is okay if you don't remember all the details, just be specific about what exactly it is that makes you **AFRAID** and what it feels like to be **AFRAID**. Please describe the events that make you feel the **MOST AFRAID**, these experiences could have occurred in the past or will happen in the future. If you can, write your description so that someone reading it might even feel **AFRAID**. Please write a few sentences.



Here is a picture of someone who is **DISGUSTED**. We would like you to describe in general things that make you feel like the person in the picture. It is okay if you don't remember all the details, just be specific about what exactly it is that makes you **DISGUSTED** and what it feels like to be **DISGUSTED**. Please describe the events that make you feel the **MOST DISGUSTED**, these experiences could have occurred in the past or will happen in the future. If you can, write your description so that someone reading it might even feel **DISGUSTED**. Please write a few sentences.



Now we would like you to describe in general things that make you feel **RELAXED**. It is okay if you don't remember all the details, just be specific about what exactly it is that makes you **RELAXED** and what it feels like to be **RELAXED**. Please describe the events that make you feel the **MOST RELAXED**, these experiences could have occurred in the past or will happen in the future. If you can, write your description so that someone reading it might even feel **RELAXED**. Please write a few sentences.

**Prompt**

Please read the following article. After you finish, we will ask you some questions about it.

---

## ***Contenders for FL House Seat, Thomas Ryden and Daniel Young, Exchange Insults About Ryden's Heroin Addiction***

The Florida congressional elections are heating up with exchanged insults between political rivals Thomas Ryden and Daniel Young. This controversy began when Young was asked about Ryden's history with heroin addiction in an interview with Politico last Thursday.



Thomas Ryden responding to the remarks Daniel Young made in an interview with Politico last Thursday. Taylor Glass for The New York Times

**By Lewis C. Willmet**  
Oct. 29, 2021

WASHINGTON — In response to the question, “What do you think about Mr. Ryden’s [history of alcoholism and drug addiction](#)?” Mr. Young responded by saying, “Quite frankly, I think it’s [sickening](#). You have these people who are supposed to be role models for our children and instead they’re role models for [recreational drugs](#) and we’re all supposed to think that’s okay?” Mr. Young continued by saying, “In some cases it’s not about getting them help and being their friends—it’s about arresting them, taking their drugs, and making them take responsibility for their actions.” He was further asked whether he thought that policy should apply to Mr. Ryden and he stated that he thought [drug testing elected officials](#) was a good idea.

Mr. Ryden [revealed last year](#) that he had been struggling with [drug addiction](#) since he was a teenager. Mr. Ryden responded to Mr. Young’s remarks by saying, “Someone that does not have a single ounce of understanding or compassion has no business holding public office.”

Mr. Young [immediately replied](#) via social media saying, “Someone who is one lapse, one [dirty injection](#), one moment of weakness away from altered decision-making is simply undermining the integrity of the US political machine and has no business holding public office.” For the moment, Mr. Ryden has the final word when he stated he would not engage with bigots when reporters asked his opinion about the social media post yesterday.

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## ***Contenders for FL House Seat, Thomas Ryden and Daniel Young, Exchange Insults About Ryden's Depression***

The Florida congressional elections are heating up with exchanged insults between political rivals Thomas Ryden and Daniel Young. This controversy began when Young was asked about Ryden's history with depression in an interview with Politico last Thursday.



Thomas Ryden responding to the remarks Daniel Young made in an interview with Politico last Thursday. Taylor Glass for The New York Times

**By Lewis C. Willmetts**  
Oct. 29, 2021

WASHINGTON — In response to the question, “What do you think about Mr. Ryden’s [history of depression](#)?” Mr. Young responded by saying, “Quite frankly, I think it’s [sickening](#). You have these people who are supposed to be role models for our children and instead they’re role models for [laziness and absenteeism](#) and we’re all supposed to think that’s okay?” Mr. Young continued by saying, “In some cases it’s not about getting them help and being their friends—it’s about punishing them and making them take responsibility for their actions.” He was further asked whether he thought that policy should apply to Mr. Ryden and he stated that he thought [fining elected officials](#) for absenteeism was a good idea.

Mr. Ryden [revealed last year](#) that he had been struggling with [depression](#) since he was a teenager. Mr. Ryden responded to Mr. Young’s remarks by saying, “Someone that does not have a single ounce of understanding or compassion has no business holding public office.”

Mr. Young [immediately replied](#) via social media saying, “Someone who regularly [cannot get out of bed](#) and may have altered decision-making is simply undermining the integrity of the US political machine and has no business holding public office.” For the moment, Mr. Ryden has the final word when he stated he would not engage with bigots when reporters asked his opinion about the social media post yesterday.



## ***Contenders for FL House Seat, Thomas Ryden and Daniel Young, Exchange Insults***

The Florida congressional elections are heating up with exchanged insults between political rivals Thomas Ryden and Daniel Young. This controversy began when Young was asked about Ryden's conduct in an interview with Politico last Thursday.



Thomas Ryden responding to the remarks Daniel Young made in an interview with Politico last Thursday. Taylor Glass for The New York Times

**By Lewis C. Willmetts**

Oct. 29, 2021

WASHINGTON — In response to the question, “What do you think about [Mr. Ryden's conduct](#)?” Mr. Young responded by saying, “Quite frankly, I think it's [sickening](#). You have these people who are supposed to be role models for our children and instead they're role models for [incivility](#) and we're all supposed to think that's okay?” Mr. Young continued by saying, “In some cases it's not about being their friends—it's about punishing them and making them take responsibility for their actions.” He was further asked whether he thought that policy should apply to Mr. Ryden and he stated that he thought [exposing uncivilized behaviors](#) in elected officials was a good idea.

Mr. Ryden responded to Mr. Young's remarks by saying, “It was only an [offhand remark](#) and someone that does not have a single ounce of understanding or compassion has no business holding public office.”

Mr. Young [immediately replied](#) via social media saying, “Someone like that is simply undermining the integrity of the US political machine and has no business holding public office.” For the moment, Mr. Ryden has the final word when he stated he would not engage with bigots when reporters asked his opinion about the social media post yesterday.



---

**Attention Check-Heroin**

---

What condition was discussed in the New York Times article you just read?

- Diabetes
  - Depression
  - Insomnia
  - Heroin addiction
- 

**Attention Check-Depression**

---

What condition was discussed in the New York Times article you just read?

- Diabetes
  - Depression
  - Insomnia
  - Heroin addiction
- 

**Attention Check-Rude**

---

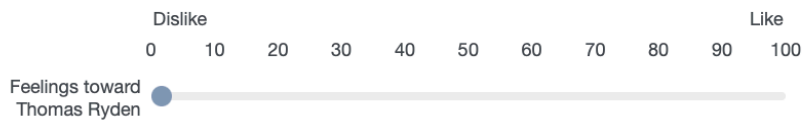
What condition was discussed in the New York Times article you just read?

- Diabetes
  - Depression
  - Uncivil behavior
  - Heroin addiction
- 

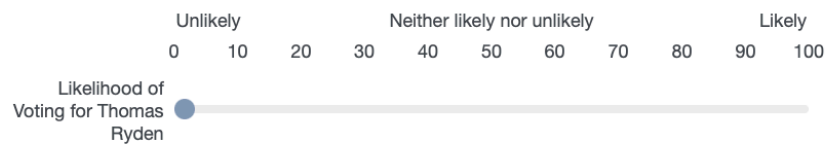
**Vote Choice & Favorability**

---

We'd like to get your feelings toward Thomas Ryden on a "feeling thermometer." A rating of zero degrees means you feel as cold and negative as possible. A rating of 100 degrees means you feel as warm and positive as possible. You would rate Thomas Ryden at 50 degrees if you don't feel particularly positive or negative toward them.



If you lived in Thomas Ryden's district, how likely do you think you would be to vote for him in the 2022 election?



Please read each of the following statements carefully. After you have read all the statements below, select the statements that apply to you.

- I would be willing to start work with a person like Thomas Ryden
- I would like to move next door to a person like Thomas Ryden
- I would make friends with a person like Thomas Ryden
- I would rent a room to a person like Thomas Ryden
- I would recommend a person like Thomas Ryden for a job
- I would like my child to marry a person like Thomas Ryden
- I would trust a person like Thomas Ryden to take care of my child
- None of the above

---

**Candidate Traits**

Please read each phrase about Thomas Ryden and evaluate whether each phrase describes Thomas Ryden extremely well, quite well, not too well, or not well at all.

	Extremely well	Quite well	Not too well	Not well at all
He is warm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
He is moral	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
He is dangerous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
He is competent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
He is unreliable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

**Mental Health Attribution**

How likely do you think it is that Thomas Ryden's situation is caused by his bad character?

- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

How likely do you think it is that Thomas Ryden's situation is caused by a chemical imbalance in his brain?

- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

How likely do you think it is that Thomas Ryden's situation is caused by stressful circumstances in his life?

- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

---

How likely do you think it is that Thomas Ryden's situation is caused by a genetic or inherited problem?

- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

---

How likely do you think it is that Thomas Ryden's situation is caused by God's will?

- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

---

How likely do you think it is that Thomas Ryden's situation is caused by the way he was raised?

- Very likely
- Likely
- Neither likely nor unlikely
- Unlikely
- Very unlikely

---

### **MI Familiarity**

Please read each of the following statements carefully. After you have read all the statements below, select all statements that depict your exposure to persons with a mental illness.

- I have never observed a person that I was aware had a mental illness.
  - I have observed, in passing, a person I believe may have had a mental illness.
  - I have watched a movie or television show in which a character depicted a person with mental illness.
  - I have watched a documentary on the television about mental illness.
  - I have observed persons with a mental illness on a frequent basis.
  - I have worked with a person who had a mental illness at my place of employment.
  - A job I have had included providing services to persons with a mental illness.
  - A job I have had involved providing services or treatment for persons with a mental illness.
  - A friend of the family has or had a mental illness.
  - I have a relative who has or had a mental illness.
  - I live or lived with a person who has a mental illness.
  - I have or had a mental illness in my lifetime.
-

---

**CAMI Social Restrictiveness Sub-scale**

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For each of the following statements, please indicate the extent to which you agree or disagree.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The mentally ill should not be given any responsibility.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No one has the right to exclude the mentally ill from their neighborhood.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The mentally ill should not be denied their individual rights.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would not want to live next door to someone who has been mentally ill.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A woman would be foolish to marry a man who has suffered from mental illness, even though he seems fully recovered.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The mentally ill are far less of a danger than most people suppose.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The mentally ill should be isolated from the rest of the community.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

---

**Background Characteristics**

---

In general, how would you describe your own political viewpoint?

- Very liberal
  - Liberal
  - Moderate
  - Conservative
  - Very conservative
- 

Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?

- Democrat
  - Republican
  - Independent
  - Other
- 

Would you call yourself a **strong** Democrat or a **not very strong** Democrat?

- Strong Democrat
  - Not very strong Democrat
- 

Would you call yourself a **strong** Republican or a **not very strong** Republican?

- Strong Republican
  - Not very strong Republican
-

---

Do you think of yourself as **closer to** the Republican Party or to the Democratic Party?

Republican Party

Democratic Party

---

**Seriously**

---

We sometimes find people don't always take surveys seriously, instead providing humorous, or insincere responses to questions. How often do you do this?

Never

Rarely

Some of the time

Most of the time

Always

---

**Feedback**

---

Do you have any additional comments about politicians who have mental illness and/or their fitness to hold political office?

## Appendix Survey Experiment # 2

**Table 1: Descriptions of Key Variables**

	Variable	Frequency	Percentage
Race	White	1,679	69.35
	Black	299	12.35
	American Indian	43	1.78
	Asian	113	4.67
	Pacific Islander	13	0.54
	Other	253	10.45
	Prefer not to answer	18	0.74
Gender	Man	1,201	49.61
	Woman	1,217	50.27
Generation	Post War	63	2.60
	Boomer	596	24.62
	Gen X	524	21.64
	Millennial	753	31.10
	Gen Z	485	20.03
Party ID	Democrat	1,191	49.19
	Republican	1,115	46.06
	Independent	115	4.75
Ideology	Very liberal	239	9.87
	Liberal	417	17.22
	Moderate	1,055	43.58
	Conservative	476	19.66
	Very Conservative	234	9.67
Education	Some high school or less	110	0.99
	High school graduate	555	4.54
	Other post high school vocational training	122	22.92
	Completed some college, but no degree	524	5.04
	Associate's degree	298	21.64
	Bachelor's degree	510	12.31
	Master's or professional degree	225	9.29
	Doctorate degree	50	2.07

**Table 2: Frequency & Percentage of ANES MH Categorization Question**

	Frequency	Percent
Health-related condition or disability	468	14.69
Mental health condition	559	17.55
Learning disability or ADHD	233	7.31
Autism	78	2.45
Blind or visually impaired	107	3.36
Deaf or hard of hearing	121	3.80
Mobility-related disability	207	6.50
Speech-related disability	39	1.22
Other (please specify)	106	3.33
I do not have a disability or chronic condition	1,268	39.40
<b>Total</b>	<b>3,186</b>	<b>100</b>

**Table 3: Frequency & Percentage of ANES MH Identity Importance Question**

	Frequency	Percent
Extremely important	166	6.86
Very important	215	8.88
Moderately important	290	11.98
A little important	217	8.96
Not at all important	265	10.95
Inapplicable, legitimate skip	1,268	52.38
<b>Total</b>	<b>2,421</b>	<b>100</b>

**Table 4: Frequency & Percentage of CES MH Categorization Question**

	Present		Past	
	Frequency	Percent	Frequency	Percent
A Mental Illness	589	21.81%	86	5.74
A Physical Disability	365	13.52%	69	4.61
A Serious Chronic Physical Illness	276	10.22%	53	3.54
None	1,470	54.44%	1,289	86.11
<b>Total</b>	<b>2,700</b>	<b>100</b>	<b>1,497</b>	<b>100</b>

**Table 5: Lucid MH Diagnosis Question**

	Frequency	Percent
ADD/ADHD	254	10.49
Anxiety	765	31.60
Bipolar Disorder	161	6.65
Depression	750	30.98
Schizophrenia	45	1.86
Other mental health condition	163	6.73
Yes, but prefer not to specify	42	1.73
Never been diagnosed but believe had MI	134	5.53
Never been diagnosed	1,179	48.70
Total	2,421	100



**Table 6: Favorability (Figure 3)**

	Coefficient
Experimental Condition: Depression	-0.92 (1.52)
Experimental Condition: Schizophrenia	-5.20** (1.55)
ADD/ADHD	1.21 (5.88)
Anxiety	3.88 (2.99)
Bipolar Disorder	-8.17 (6.92)
Depression	2.69 (1.88)
Schizophrenia	-4.78 (6.33)
Other mental health condition	3.15 (3.11)
Yes, but prefer not to specify	1.63 (7.72)
Never been diagnosed but believe had MI	1.01 (3.58)
Depression # ADD/ADHD	7.26 (7.95)
Depression # Anxiety	5.58 (4.17)
Depression # Bipolar Disorder	12.72 (10.37)
Depression # Depression	5.32* (2.64)
Depression # Schizophrenia	24.98** (8.64)
Depression # Other mental health condition	-3.01 (4.58)
Depression # Yes, but prefer not to specify	5.01 (9.40)
Depression # Never been diagnosed but believe had MI	4.48 (4.59)

Schizophrenia # ADD/ADHD	0.30 (7.86)
Schizophrenia # Anxiety	2.63 (4.11)
Schizophrenia # Bipolar Disorder	17.23 (9.58)
Schizophrenia # Depression	5.09 (2.69)
Schizophrenia # Schizophrenia	22.53** (8.30)
Schizophrenia # Other mental health condition	-1.07 (4.36)
Schizophrenia # Yes, but prefer not to specify	-1.47 (9.40)
Schizophrenia # Never been diagnosed but believe had MI	2.97 (5.55)
<hr/>	
Constant	47.87*** (1.07)
<hr/>	
N	2,419

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2024 Lucid Survey Experiment

Conducted by Author.

**Table 7: Vote Choice (Figure 4)**

	Coefficient
Experimental Condition: Depression	-2.11 (2.01)
Experimental Condition: Schizophrenia	-7.85 (2.04)***
ADD/ADHD	0.44 (7.76)
Anxiety	3.31 (3.95)
Bipolar Disorder	-6.87 (9.14)
Depression	4.80 (2.47)
Schizophrenia	-6.27 (8.36)
Other mental health condition	4.48 (4.10)
Yes, but prefer not to specify	6.10 (10.19)
Never been diagnosed but believe had MI	-1.95 (4.73)
Depression # ADD/ADHD	11.49 (10.50)
Depression # Anxiety	5.37 (5.51)
Depression # Bipolar Disorder	7.21 (13.69)
Depression # Depression	4.52 (3.49)
Depression # Schizophrenia	28.47* (11.41)
Depression # Other mental health condition	-0.23 (6.05)
Depression # Yes, but prefer not to specify	-0.18 (12.40)
Depression # Never been diagnosed but believe had MI	10.73 (6.06)

Schizophrenia # ADD/ADHD	1.14 (10.38)
Schizophrenia # Anxiety	0.16 (5.42)
Schizophrenia # Bipolar Disorder	16.32 (12.64)
Schizophrenia # Depression	2.03 (3.56)
Schizophrenia # Schizophrenia	18.41 (10.96)
Schizophrenia # Other mental health condition	-0.99 (5.75)
Schizophrenia # Yes, but prefer not to specify	-9.96 (12.41)
Schizophrenia # Never been diagnosed but believe had MI	1.46 (7.32)
Constant	42.77 (1.41)
N	2,419

Standard errors in parentheses

\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2024 Lucid Survey Experiment Conducted by Author.

**Table 8: T-Tests**

Condition		Favorability	P-value	Vote Choice	
Control versus Depression	0	48.94 (0.74)	0.081	44.36 (1.00)	0.51
	1	50.77 (0.75)		45.29 (0.70)	
Control versus Schizophrenia	0	48.94 (0.74)	0.01	44.36 (1.00)	0.00
	1	45.97 (0.82)		37.47 (1.05)	

Standard errors in parentheses

Note: Two-tailed test

Source: 2024 Lucid Survey Experiment Conducted by Author.

## Appendix D: Chapter 6

### Original Sampling Overview

The first wave of ATP was recruited from a large (n=10,013) national RDD telephone survey about political polarization conducted Jan. 23 through March 16, 2014, in English and Spanish ("Building Pew Research Center's American Trends Panel - Pew Research Center Methods" 2020). At the end of the survey, respondents were asked to join the panel and received \$10 cash for joining and additional monetary compensation for completing each additional panel survey. A majority (54%) who were asked to join the panel did so, though only 43% of those invited joined and took at least one survey in 2014. The initial waves using telephone surveys were skewed such that respondents were more likely to be non-Hispanic white, older, college graduates, and be active in politics (ibid). Panelists were surveyed about once a month in 2014 and less frequently in 2015. Two additional recruitment waves took place using RDD surveys before switching to mailed invitations in the 2018 recruitment. An overview of the recruitment year, style of recruitment, and panelist information is provided in the "American Trends Panel recruitment surveys" figure below.

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#### American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	2,302
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	1,334
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	683
Aug. 8 to Oct. 31, 2018	ABS/web	9,396	8,778	6,397
Aug. 19 to Nov. 30, 2019	ABS/web	5,900	4,720	3,023
June 1 to July 19, 2020	ABS/web	1,865	1,636	1,633
	<b>Total</b>	<b>36,879</b>	<b>25,076</b>	<b>15,372</b>

Note: Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel. The number of active panelists in this table reflects the state of the panel on Sept. 8, 2020.

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The addressed-based sampling (ABS), is a random, representative sample of residential addresses selected from the U.S. Postal Service’s Delivery Sequence File database that covers about 97% of the U.S. population (Gramlich 2019). Essentially, nearly all adults in the U.S. have a known chance of being selected for the panel. This new method had a much higher sign-up rate (94%) than the previous RDD method. One goal of this new method was for most surveys to be self-administered online, rather than interviewer-administered over the phone. This is important because respondents tend to give more honest answers to questions—especially sensitive or very personal questions, like mental health questions—when they are self-administering a survey online as opposed to talking to a person over the phone (ibid).

Panelists who do not have internet access or access to a computer are provided with a tablet and an internet connection. Why are multiple recruitments needed? Pew states that it is primarily for two reasons: attrition and panel conditioning. Attrition is when panelists are lost or drop out of the sample over time. Panel conditioning is “the possibility that panelists become acclimated to the interview process and survey content and no longer respond in the same ways that they did when first interviewed” (“Building Pew Research Center’s American Trends Panel - Pew Research Center Methods” 2020). It is important to note that Waves 64, 66, and 67 were all administered after the 2019 recruitment period and before the 2020 recruitment period.

### *Separating by Party Identification*

As mentioned earlier in the chapter, it is likely that there may be variation in responses by party identification, especially with trust in the media, but with other institutions as well.<sup>79</sup> For

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<sup>79</sup> I tested my main model, alternative DV model, and those models with survey weights with an interaction between partisan identification and institutional trust and did not find significant interactions. I am splitting by partisan identification here because this is a surprising result and warrants further examination.

example, Gottfried and Liedke (2021) with PEW research found that Republicans with at least some trust in national news organizations dropped from 70% to 35% in 2016. Republicans are the main cause of the widening partisan gap in trust of the media, and Republican-owned media,

**Table 1: Ordered Logit Regression of Institutional Trust and Mental Health Wave 64: March 19-24 2020 Separated by Party Identification**

	Democrat	Republican	Independent
Poor Mental Health	Coefficient	Coefficient	Coefficient
Institutional Trust	-0.39*** (0.05)	-0.34*** (0.09)	-0.54*** (0.06)
Trust in People	-0.23*** (0.02)	-0.40*** (0.05)	-0.26*** (0.04)
Perceive Covid as a Crisis	0.36** (0.11)	0.56*** (0.12)	0.43*** (0.10)
Following Covid Closely	0.35*** (0.07)	0.07 (0.11)	0.26** (0.08)
Economic Hardship	0.27*** (0.08)	0.29* (0.13)	0.22* (0.09)
Age	-0.18*** (0.04)	-0.29*** (0.07)	-0.22*** (0.05)
Race (White reference category)	-0.22*** (0.04)	-0.10 (0.07)	-0.15** (0.05)
Male	0.37*** (0.08)	0.64*** (0.12)	0.65*** (0.09)
Tau 1	1.28 (0.46)	1.67 (0.55)	1.41 (0.43)
Tau 2	3.23 (0.46)	3.49 (0.56)	3.31 (0.43)
N	3,804	2,614	3,093
PCP	0.69	0.86	0.78
PRE	-0.00	0.00	-0.01
Log-Likelihood	-2831.47	-1127.63	-1856.78

Standard errors in parentheses

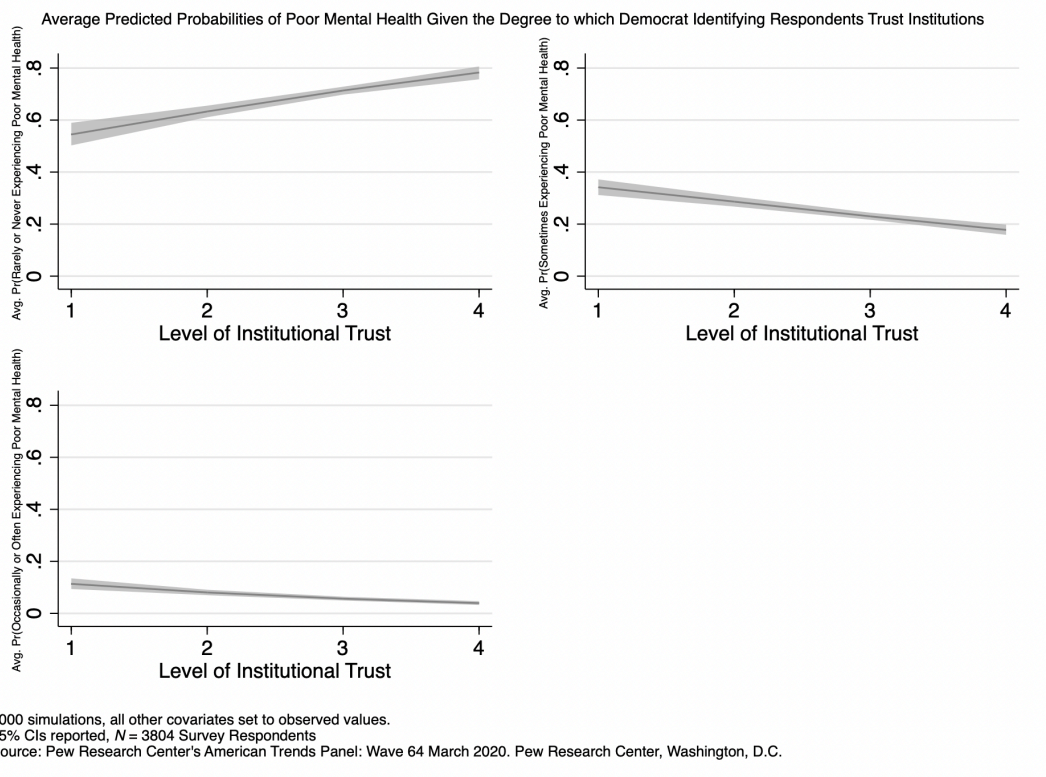
\* $p < 0.5$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Note: Two-tailed test

Source: 2020 Pew Research Center's American Trends Panel: Waves 64 (March 2020), Pew Research Center, Washington, D.C.

and Fox News in particular, both actively questioned and undermined many public health officials and state-sanctioned public health mandates. At the very least, we would expect differing results between Republicans and Democrats. Surprisingly, this is not what I find. Above are the models split by Democratic, Republican, and Independent party identification for Wave 64. For Wave 64, we can see that the signs remain the same for all partisan identifiers, and these signs are consistent with the main model for Wave 64. To further explore these results, we must look at the graphs for predicted probabilities and first differences for Wave 64.

Democrats Wave 64:





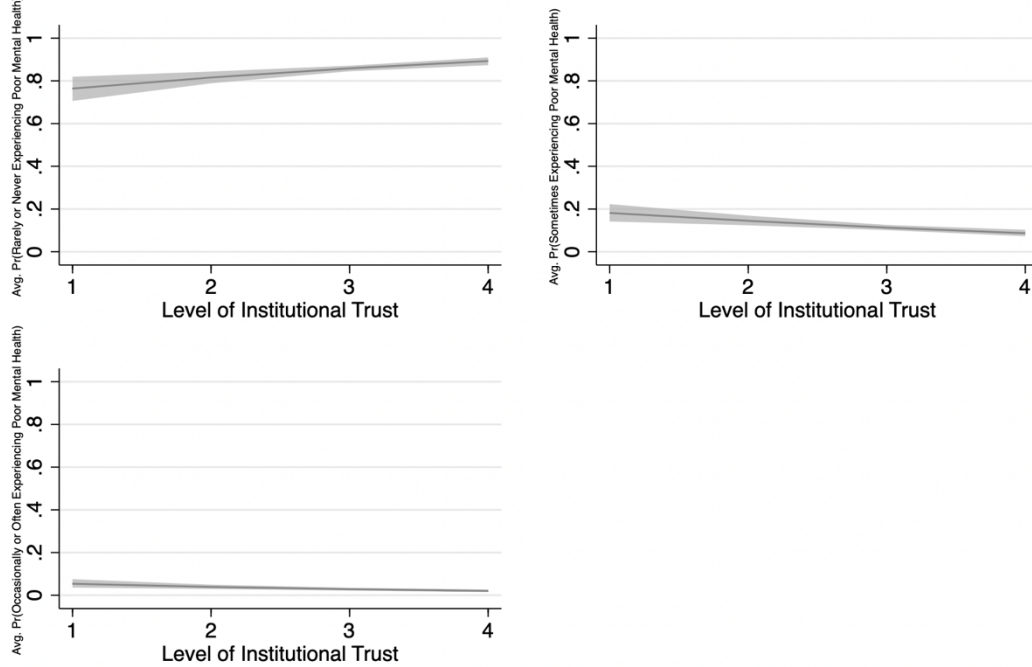
First Differences of Predicted Probabilities of Poor Mental Health Given the Degree to which Democrat Identifying Respondents Trust Institutions



1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported,  $N = 3804$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

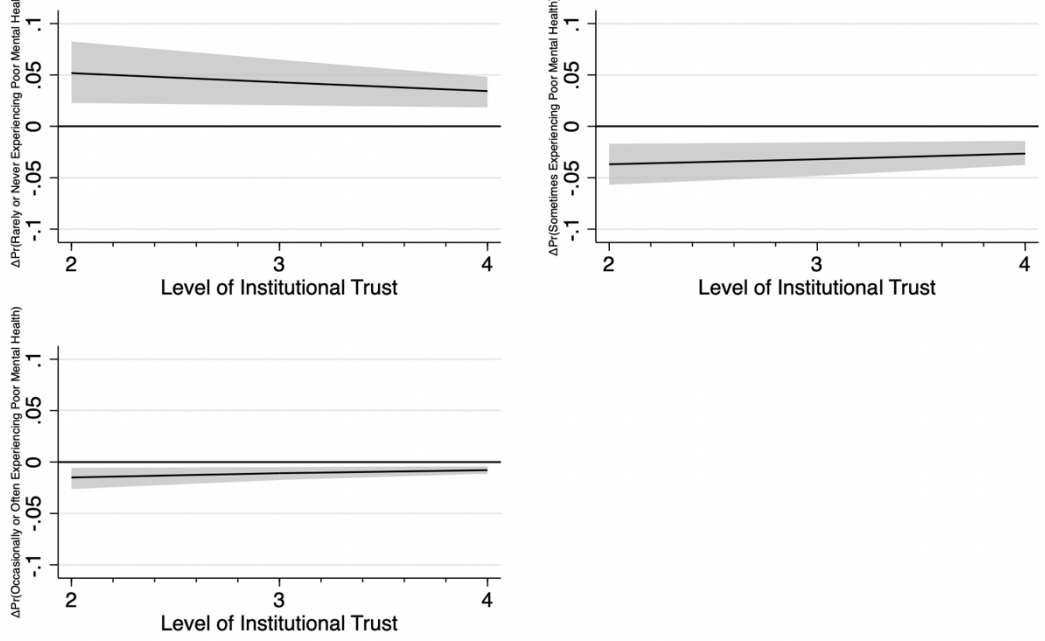
## Republicans Wave 64:

Average Predicted Probabilities of Poor Mental Health Given the Degree to which Republican Identifying Respondents Trust Institutions



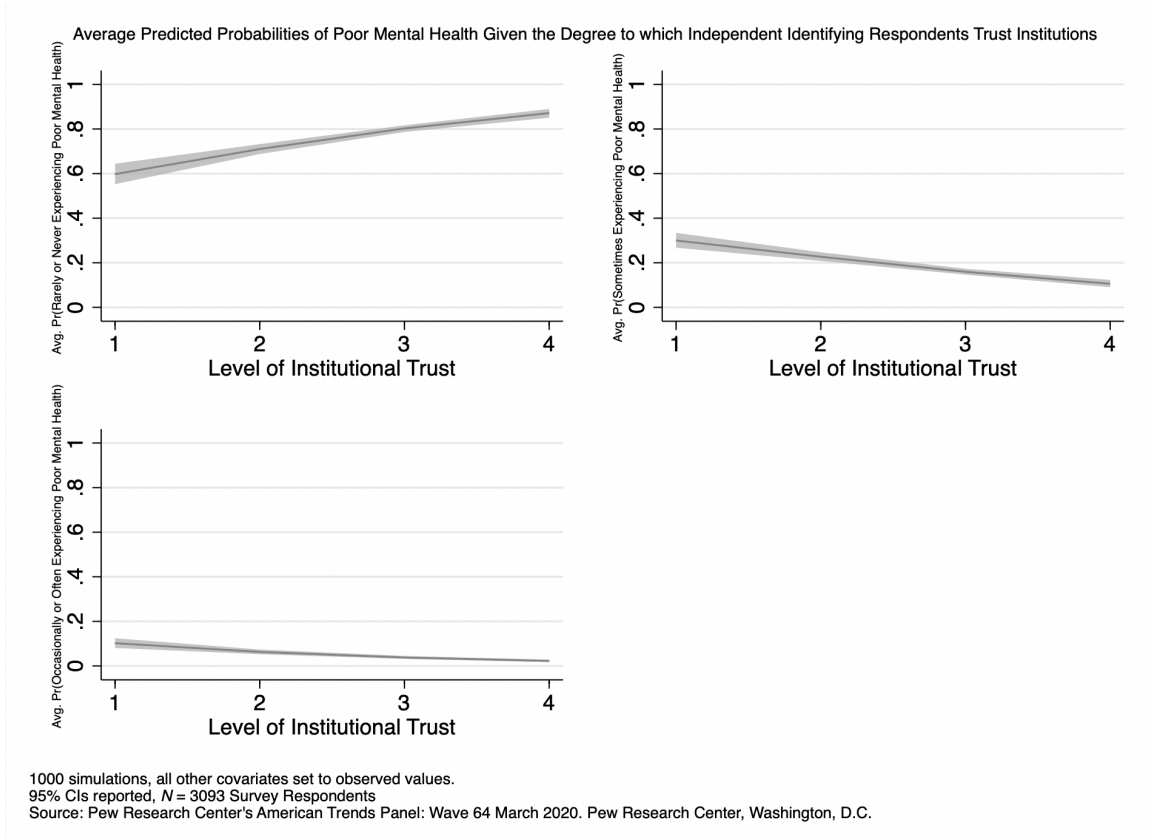
1000 simulations, all other covariates set to observed values.  
 95% CIs reported,  $N = 2614$  Survey Respondents  
 Source: Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

First Differences of Predicted Probabilities of Poor Mental Health Given the Degree to which Republican Identifying Respondents Trust Institutions



1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported, N = 2614 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

## Independents Wave 64:



These graphs all show similar trends for both predicted probabilities and first differences. The top left predicted probability graphs—rarely experiencing poor mental health—all have a positive slope, and the other two predicted probability graphs—occasionally or often experiencing poor mental health—both have negative slopes. From the first difference graphs, we can see that these slopes are statistically different from zero.

### *Alternative Dependent Variable*

My alternative dependent variable is only mentioned as a robustness check for my primary model and the cross-lagged panel model. The variable is the question, “In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?” There are five possible answers: (1) Rarely or none of the time (less than 1 day); (2) Some or a little of the time (1-2 days); (3) Occasionally or a moderate amount of time (3-4 days); (4) Most or all of the time (5-7 days); and No answer. I collapsed this question into three categories to mirror the main dependent variable. This is a good choice for the alternate dependent variable because this question is very similar to the previous question in several important ways. They both describe mental health symptoms. The symptoms are time-dependent and the time is consistent in both questions in terms of looking back at the previous 7 days and in terms of response categories that have accompanying day ranges. I did not choose this variable as my main dependent measure because this question seems to describe extreme anxiety manifested in physical reactions and links these reactions to a specific event—the coronavirus outbreak. The questions that make up the main dependent variable do not prompt people with a specific event and cover many more underlying conditions or symptoms and so it is more generalizable.

Therefore, while this measure is similar enough to use for a robustness check, it is too narrowly drawn when compared to the other measure to use as my main dependent variable.

### *Other Independent Variables*

All of the variables are presented in the “Descriptions of Key Variables” table, so I will not go into great detail for most of the other independent variables. I did not transform any of the other independent variables except for “Trust in People” and “Economic Hardship.” Trust in people is an important control because some argue that institutional trust (vertical trust) is related to personal forms of trust (horizontal trust). I used three questions to create this measure. (1) Generally speaking, would you say that... [Most people can be trusted], [Most people can't be trusted]; (2) Do you think most people... [Would try to take advantage of you if they got a chance], [Would try to be fair no matter what]; (3) Would you say that most of the time people... [Try to help others], [Just look out for themselves]. From this I created a four category variable: (1)“People can never be trusted,” (2)“People can rarely be trusted,” (3)“People can occasionally be trusted,” and (4)“People can always be trusted.” This set of questions only appeared in Wave 64, but trust in people is likely stable over time, is unlikely to change in the span of about a month, and so is used as a control for both time points.

The other variable I created was a measure of economic hardship from two questions. The prompt for this set of two questions was: For each of the following, indicate whether or not it is something that happened to YOU OR SOMEONE IN YOUR HOUSEHOLD because of the coronavirus outbreak. (1) Been laid off or lost a job [Yes, has happened], [No, has not happened]; (2) Had to take a cut in pay due to reduced hours or demand for your work [Yes, has happened], [No, has not happened]. This became a dichotomous variable and if someone

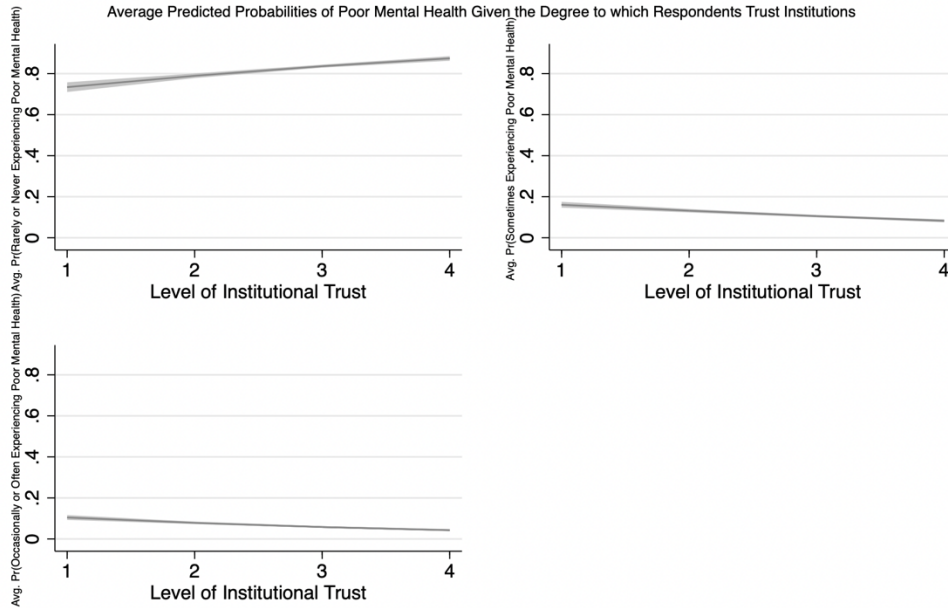
answered yes to either or both of these questions they were placed in the economic hardship category.

Logistic ordinal models have three underlying assumptions that need to be met—the constant is constrained to equal zero, that the distribution of  $y^*$ 's  $u$  is  $u \sim \lambda\left(0, \frac{\pi^2}{3}\right)$ , and the parallel regression assumption. The parallel regression assumption expects that  $y^*$  has a linear relationship with  $x$  such that  $\hat{\beta}_x$  is the same, regardless of  $y$ 's values (Class 13 2020). I tested the parallel regression assumption with a likelihood-ratio test and the Brant test. The likelihood-ratio test is a statistical test to assess a constraint and it checks whether two nested models' likelihoods are statistically different from one another. A significant result means that we reject the null hypothesis that the estimates are the same and this implies a possible parallel regression violation.

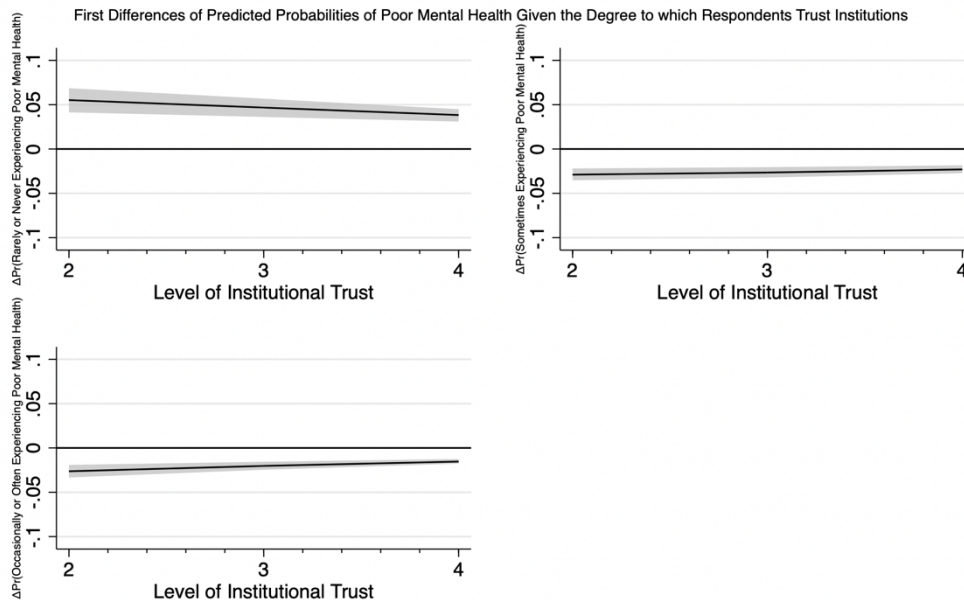
My main models have interesting PRA results. Wave 64 has a statistically significant LR test with a statistically significant chi-squared of 37.14. I also used the Brant test where a significant result also implies that the parallel regression assumption has been violated. Wave 64 had a statistically significant Brant test with a chi-squared value of 34.19. In both tests there is evidence that the PRA was violated. In contrast, the results of these tests for Wave 66 & 67 implies there is no evidence that the PRA was violated. It had a statistically insignificant LR test with chi-squared of 14.50 and a statistically insignificant Brant test with chi-squared of 13.04. Upon closer examination, most of the PRA violation is coming from three variables: trust in people contributes the most by far, followed by institutional trust, and Age also contributes a small amount. All of these variables are theoretically significant and cannot be dropped; I would also not want to drop them because a main part of this analysis is comparing the two different time points with the same model. The results of the PRA tests imply that I should use ordered

logit for Wave 66 & 67 and gologit2 or multinomial logit for Wave 64 because it relaxes the parallel regression assumption.

Average Predicted Probabilities and First Differences with Alternative DV Wave 64



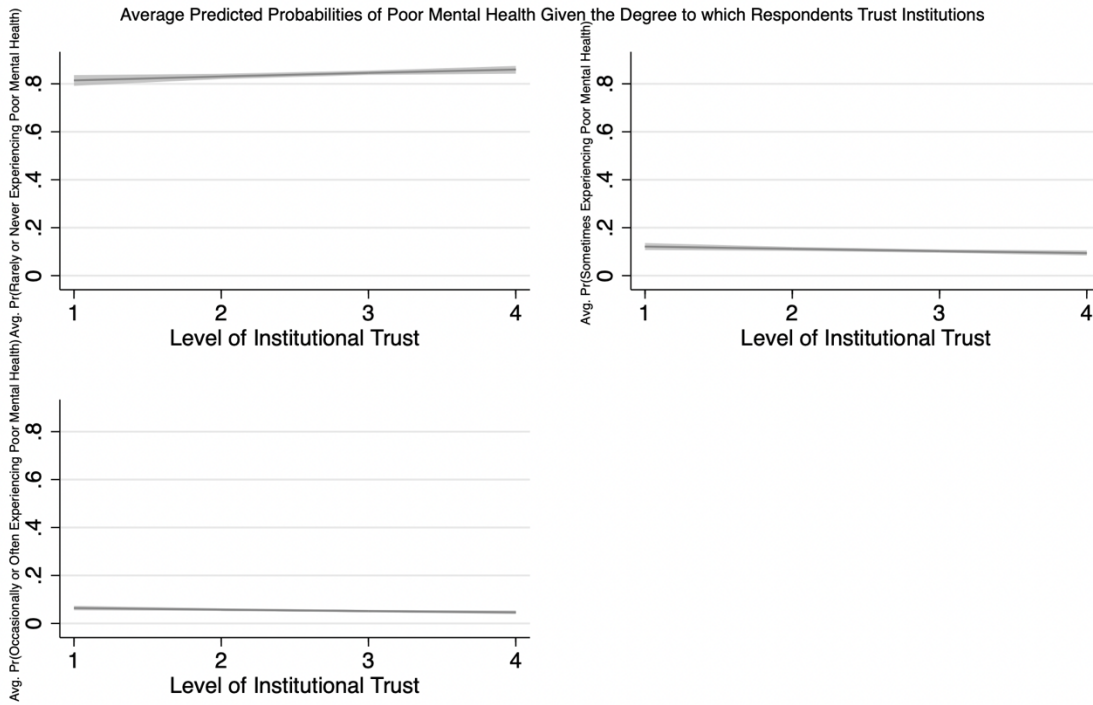
DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 95% CIs reported, N = 10581 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.



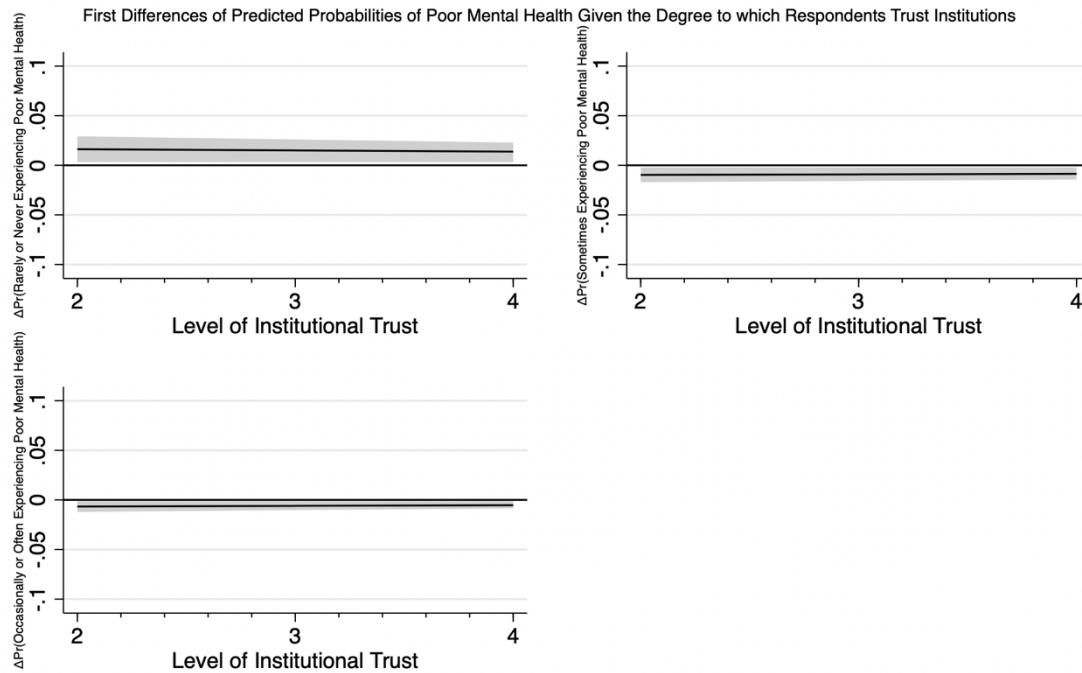
DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported, N = 10581 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.



## Average Predicted Probabilities and First Differences with Alternative DV Wave 66 & 67



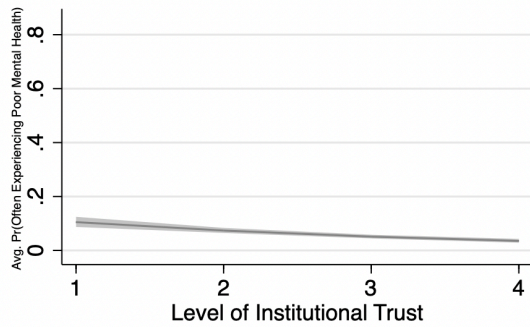
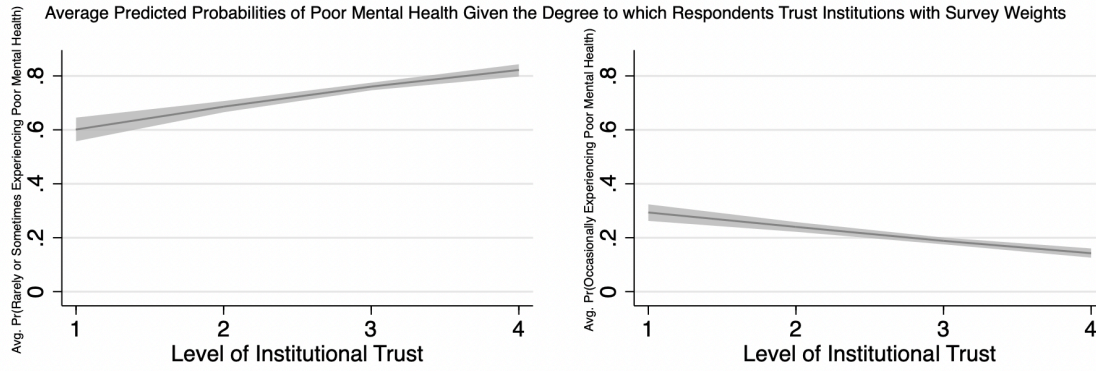
DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 95% CIs reported,  $N = 7885$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.



DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported,  $N = 7885$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.

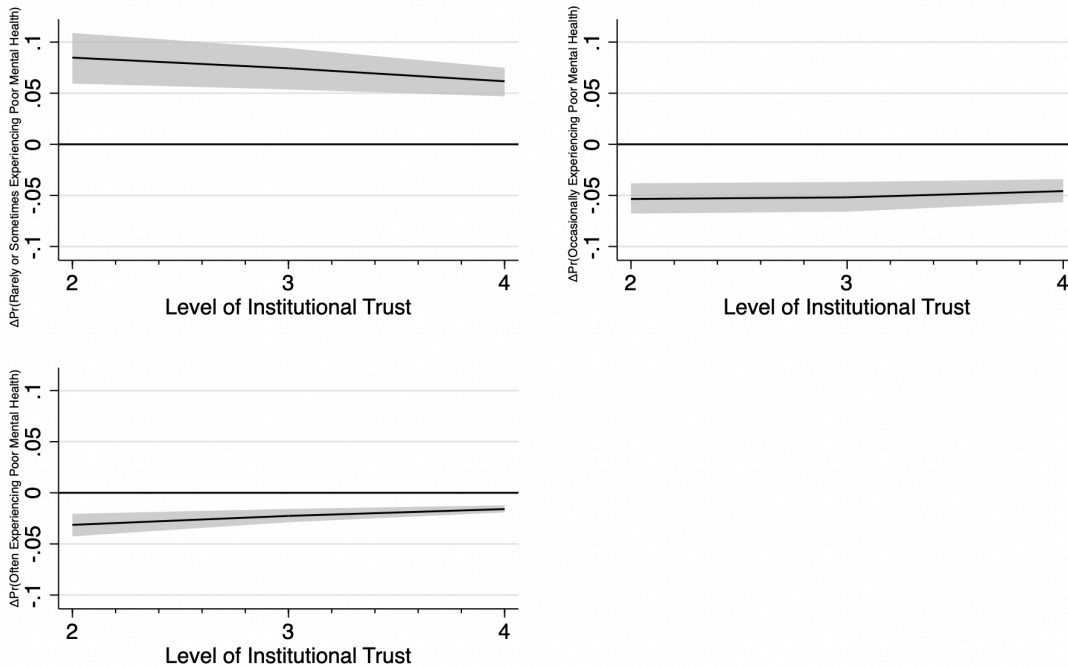


# Average Predicted Probabilities and First Differences with Survey Weights Wave 64



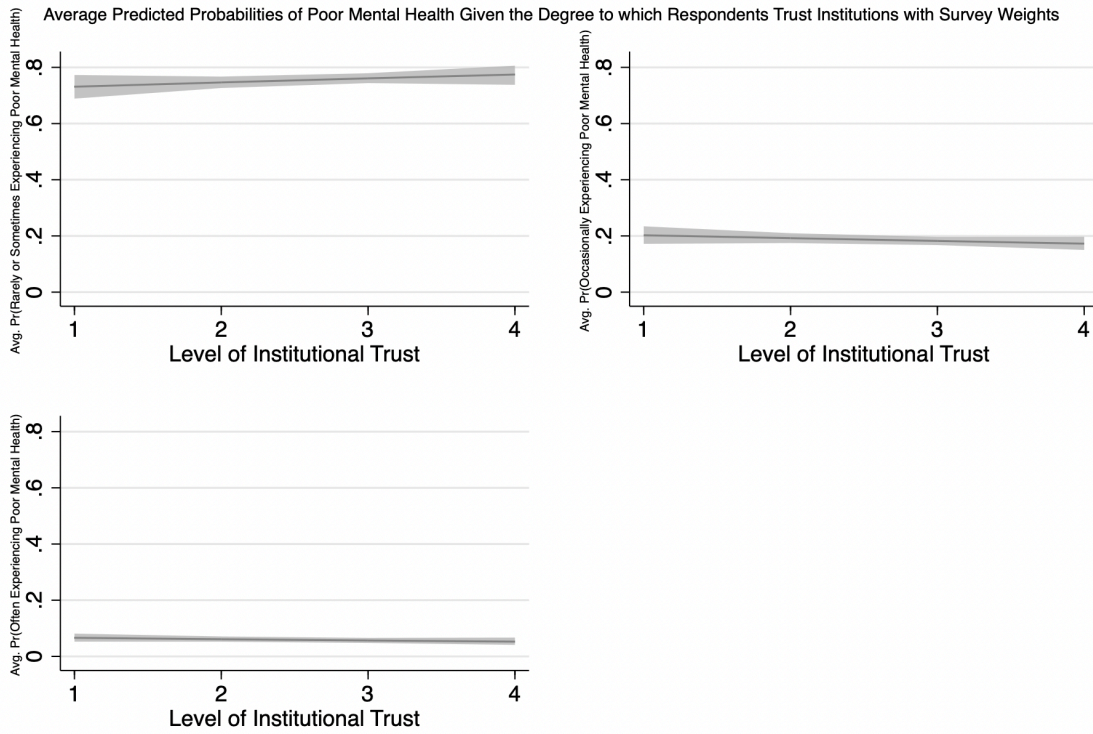
1000 simulations, all other covariates set to observed values.  
 95% CIs reported, N = 10501 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

## First Differences of Predicted Probabilities of Poor Mental Health Given the Degree to which Respondents Trust Institutions with Survey Weights

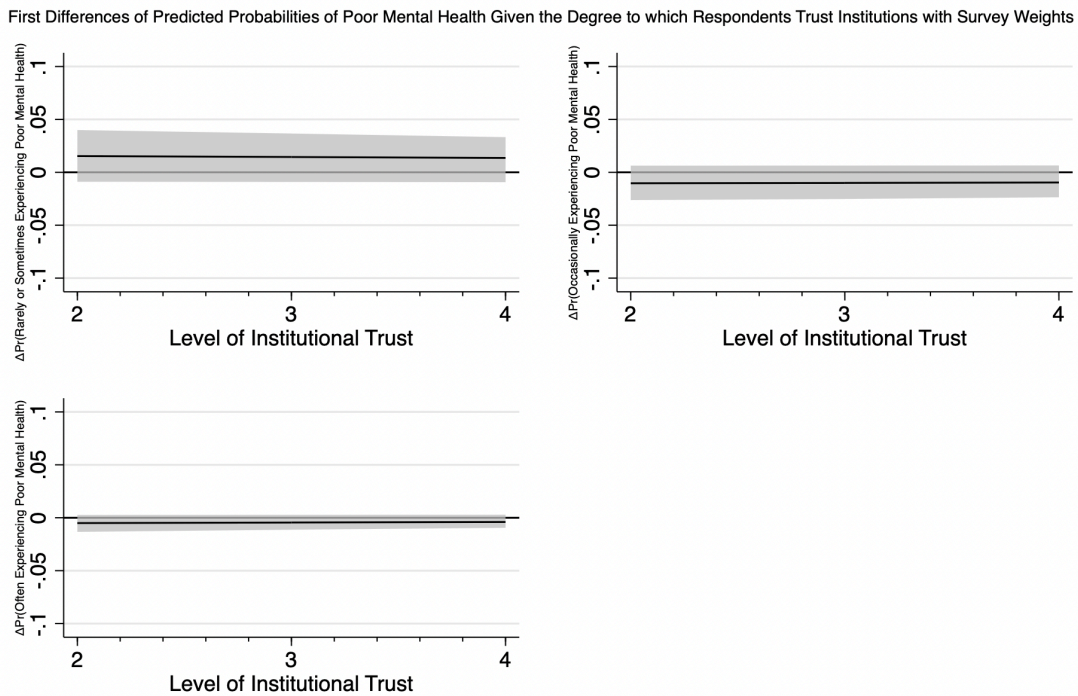


1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported, N = 10501 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

## Average Predicted Probabilities and First Differences with Survey Weights Wave 66 & 67



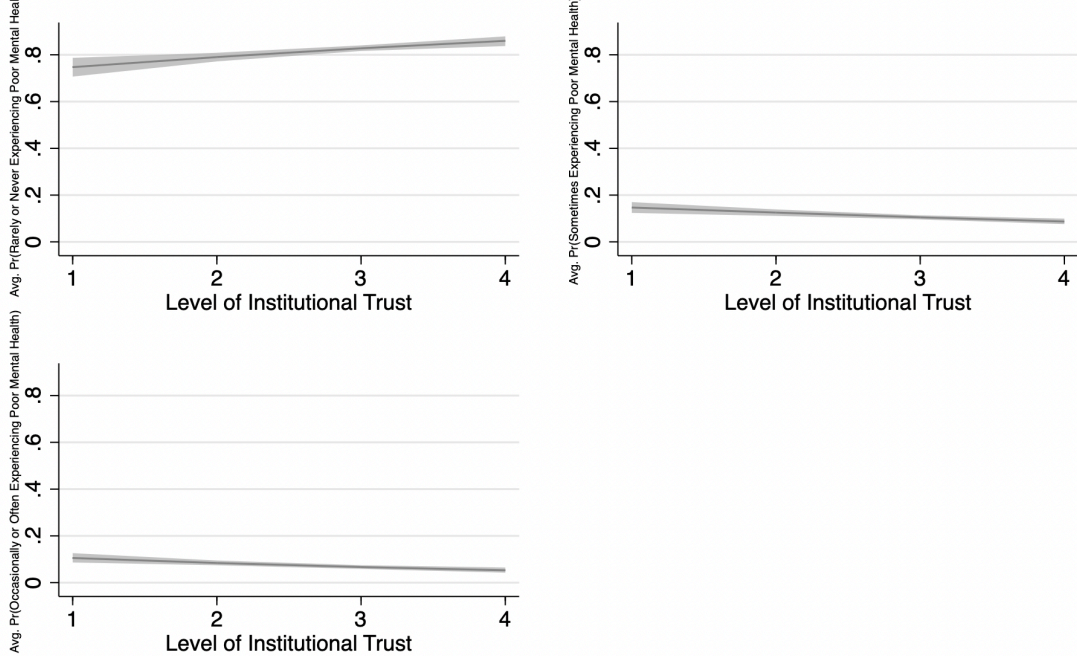
1000 simulations, all other covariates set to observed values.  
 95% CIs reported,  $N = 7853$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.



1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported,  $N = 7853$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.

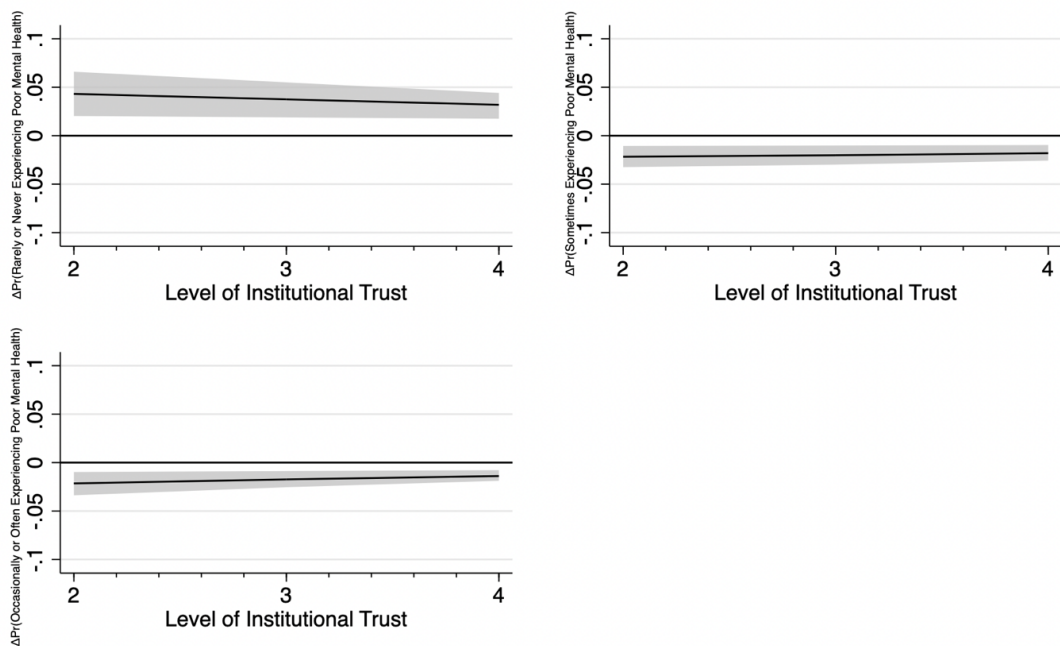
## Average Predicted Probabilities and First Differences Alternative Dependent Variable with Survey Weights Wave 64

Average Predicted Probabilities of Poor Mental Health Given the Degree to which Respondents Trust Institutions (with Survey Weights)



DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 95% CIs reported,  $N = 10581$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

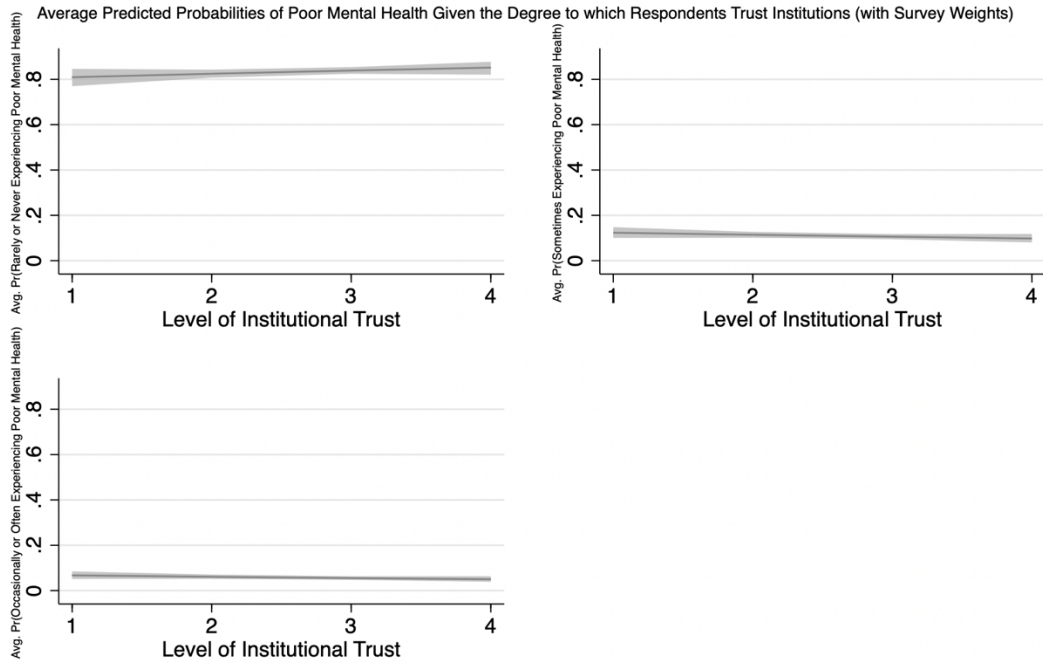
First Differences of Predicted Probabilities of Poor Mental Health Given the Degree to which Respondents Trust Institutions (with Survey Weights)



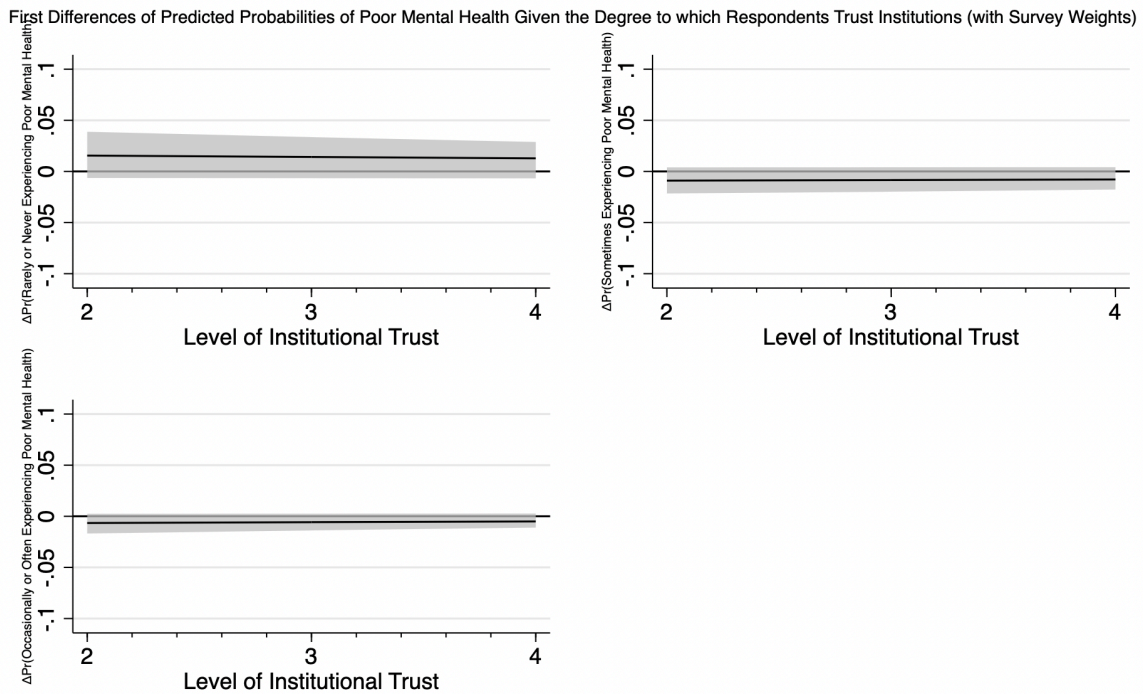
DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported,  $N = 10581$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.



## Average Predicted Probabilities and First Differences Alternative Dependent Variable with Survey Weights Wave 66 & 67

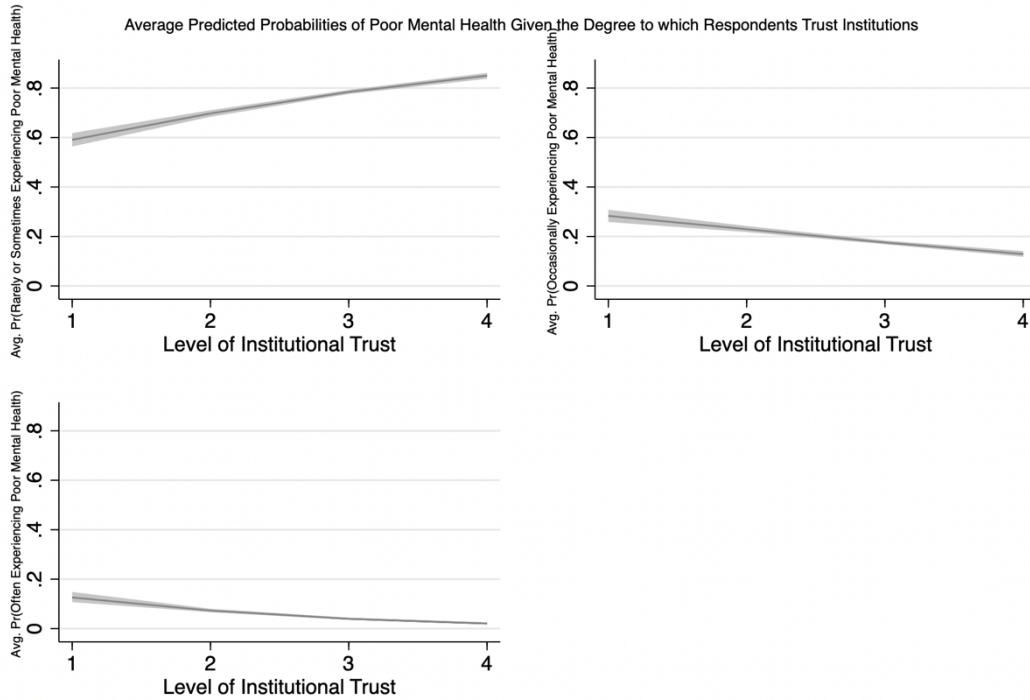


DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 95% CIs reported, N = 7885 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.

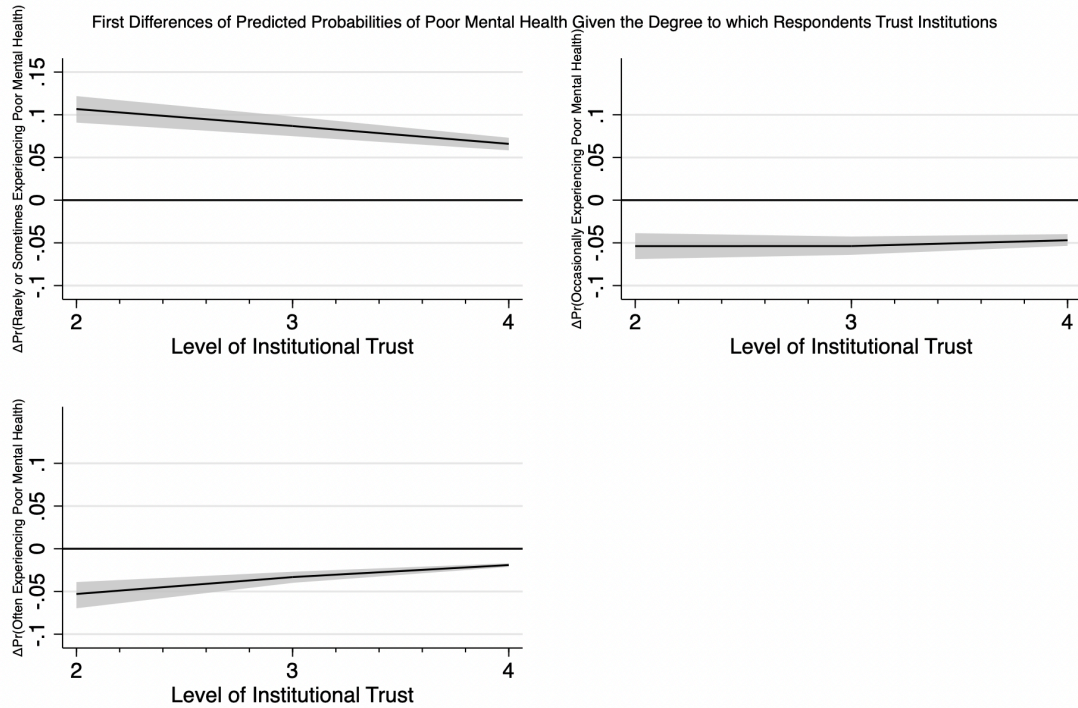


DV: In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?  
 1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported, N = 7885 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 66 & 67 April 20-May 5 2020. Pew Research Center, Washington, D.C.

## Wave 64 Multivariate Logit Predicted Probabilities and First Differences

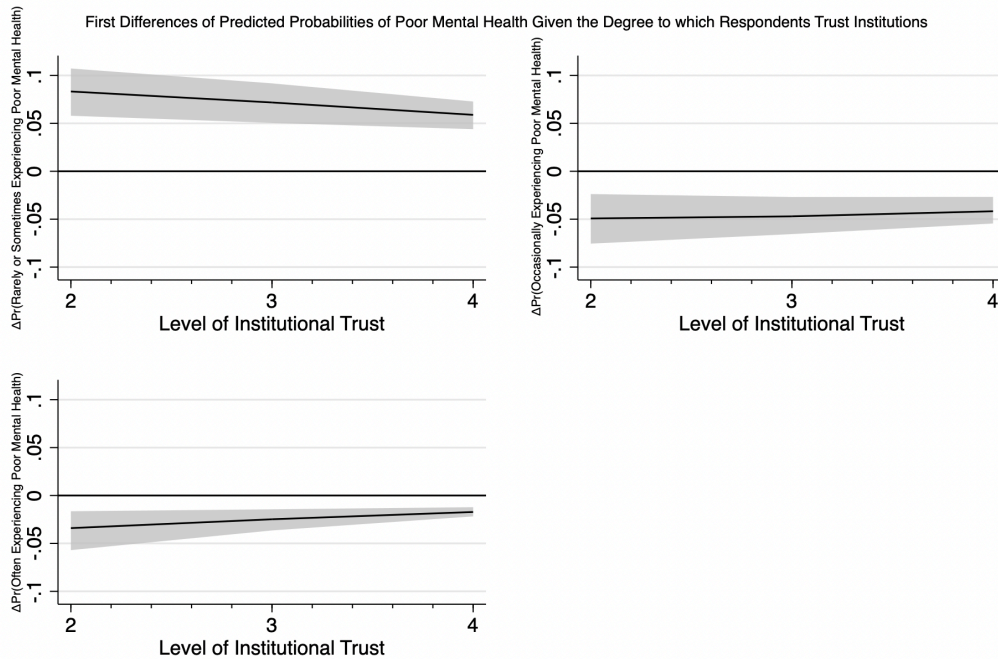
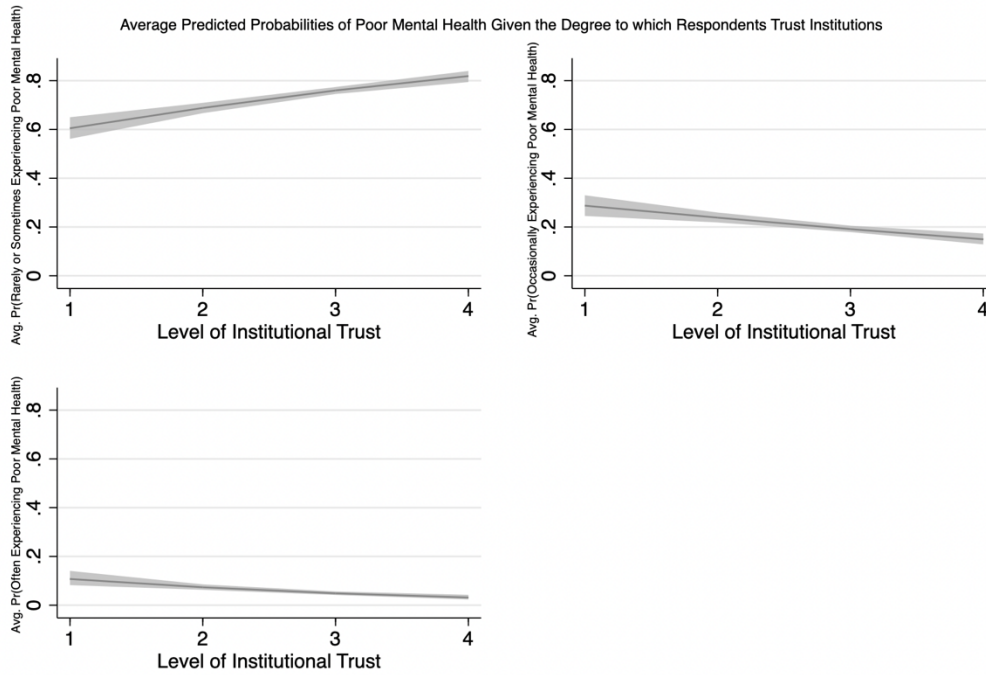


1000 simulations, all other covariates set to observed values.  
 95% CIs reported,  $N = 10501$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.



1000 simulations, all other covariates set to observed values.  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported,  $N = 10501$  Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

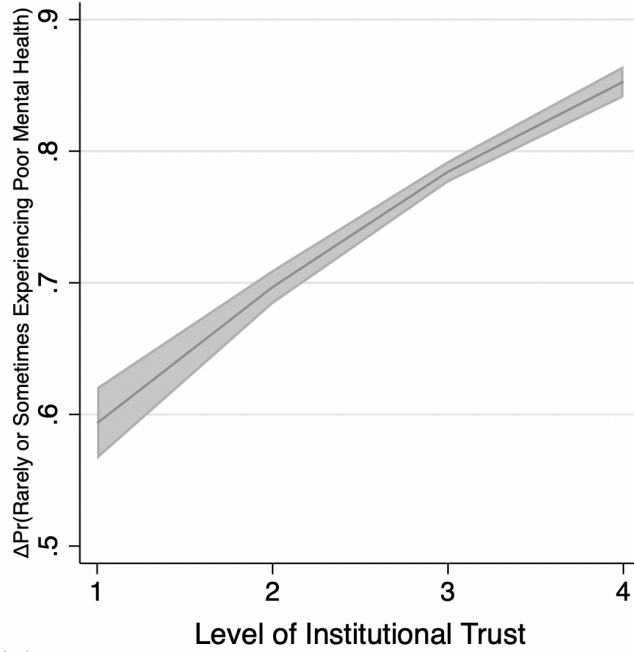
# Multinomial Logit Wave 64 Predicted Probabilities and First Differences with Survey Weights





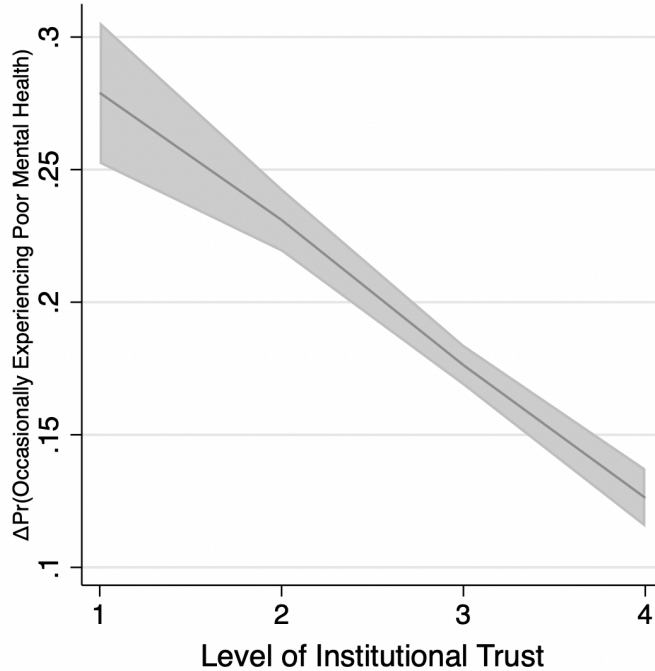
# Generalized Ordinal Regression Predicted probabilities and First Differences Wave 64

Average Predicted Probabilities of Poor Mental Health Given the Degree to which Respondents Trust Institutions



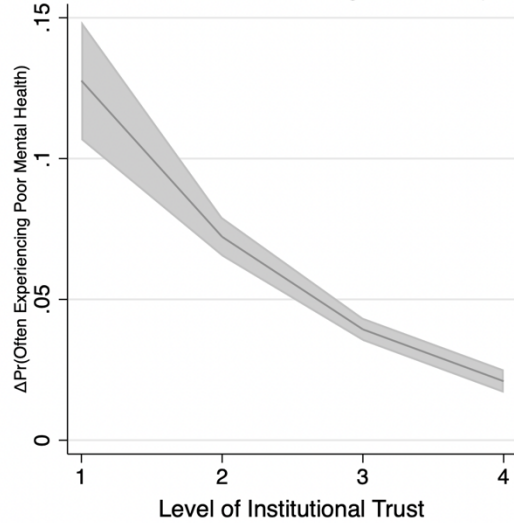
All covariates set to observed values.  
95% CIs reported, N = 10501 Survey Respondents  
Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

Average Predicted Probabilities of Poor Mental Health Given the Degree to which Respondents Trust Institutions



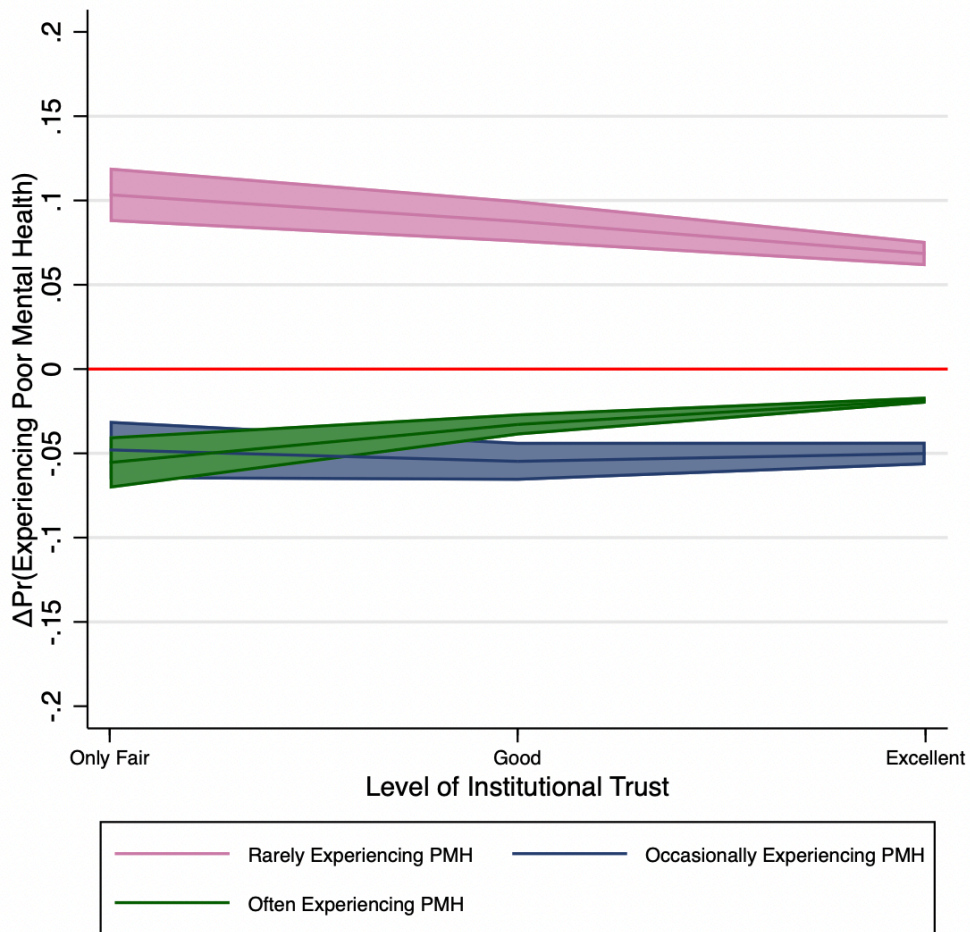
All covariates set to observed values.  
95% CIs reported, N = 10501 Survey Respondents  
Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

Average Predicted Probabilities of Poor Mental Health Given the Degree to which Respondents Trust Institutions



All covariates set to observed values.  
 95% CIs reported, N = 10501 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020. Pew Research Center, Washington, D.C.

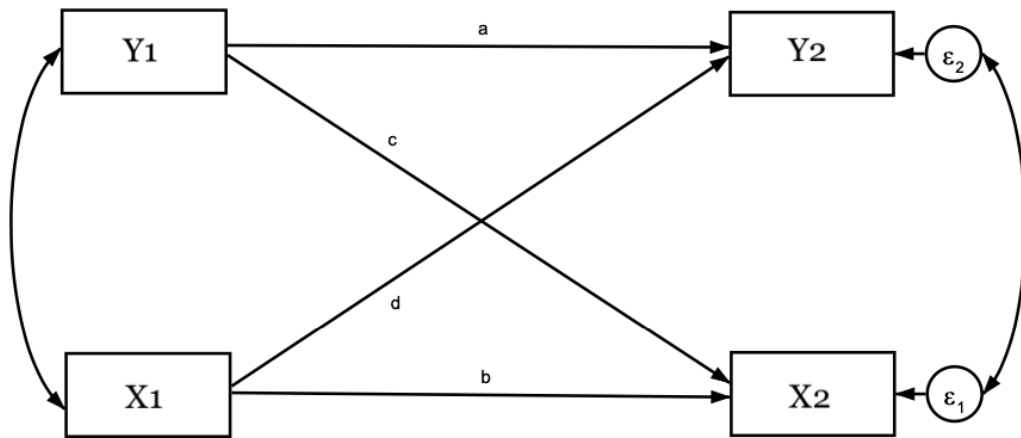
First Differences of Predicted Probabilities of PMH Given the Degree to which Respondents Trust Institutions



All other variables held at their median values  
 Displayed: an increase from Level of Institutional Trust-1 to Level of Institutional Trust  
 95% CIs reported, N = 10501 Survey Respondents  
 Source: 2020 Pew Research Center's American Trends Panel: Wave 64 March 2020.



The figure below is the most basic example of a cross-lagged panel model, although more than two time points could be used. We are interested in comparing X and Y at two different time points, which produces six different correlations to examine. There are two relationships between X(Y) at time 1 and X(Y) at time 2, which is represented by b(a). These two relationships show how stable the variable levels/empirical values are between time points. A high value means that individuals' response to the construct has not changed much over time, while a small value means that individuals' response to the construct has changed over time.



The curved lines without letters are the two noncausal relationships that show the association of X and Y measured at the same point in time. The curve on the left represents the covariance between the baseline, exogenous values of X and Y at time point 1 and the curve on the right represents the correlated errors for X and Y at time point 2 in the model. The curved arrow on the right is included because there is likely some variance in Y2 that is unaccounted for by Y1 and X1 and that is likely to be correlated with the variance in X2 that is unaccounted for by Y1 and X1. Also, not including it implies that all factors influencing Y2 are uncorrelated with those influencing X2 except for X1 and Y1 (Acock 2013).

Finally, the cross-lagged relationships are represented in the diagram by letters c and d. This setup allows us to examine causal directionality because if either of the cross-lagged correlations are statistically significant, it is assumed that there is a causal relationship between the two variables at the two different points in time. If both are statistically significant, then we can conclude that there is a mutually/reciprocally causal relationship where X causes Y and Y causes X. If there is mutual causation, then we are still able to look to the degree of statistical significance and magnitude of the coefficients to determine which direction contributes more to the relationship (Glen 2018; Bobbit 2020). Cross-lagged panel models are useful because estimates for cross-lagged effects also control for correlations within time points and the stability of constructs across time.

#### *Assumptions of the Cross-Lagged Panel Model*

Different authorities include different lists of assumptions for cross-lagged panel models, but they all agree there are two primary assumptions. The first assumption is called *synchronicity* and assumes that measurements at each time point occurred at the exact same point in time. Kearney (2017) says violations of the synchronicity assumption could occur when there are complications during data collection. This is problematic because if variables were measured at different times, then they could have different correlations due to the difference in timing and not because of meaningful differences.<sup>80</sup> Generally, ensuring variables are measured at the same time ensures synchronicity and is not a threat to inference; but if synchronicity is violated, then the results could be biased.

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<sup>80</sup> Kenny (1975) adds that variables measured closer together in time have higher correlations than variables measured further apart in time and this is particularly important for questions that require retrospection.

The second assumption is called *stationarity* and requires that variables and relationships stay the same over time. This is related to the stability relationships (a,b) explained above, but is distinct. Stationarity goes beyond variables staying the same over time and assumes that the causal processes that create the variables did not change during the measured time points. This does not necessarily mean that the variable values themselves are the same, but that the same underlying structural relationship between the variables are the same between times 1 and 2. While there is no way to test stationarity, a large difference between the two synchronous correlations (curved arrows) may indicate that the stationarity assumption has been violated (Kenny 1975). If stationarity has been violated by a change in the structural relationships over time or an omitted variable that wholly accounts for the relationship between X and Y, then results will likely be biased. Violating either synchronicity or stationarity could bias results, which could lead to various incorrect conclusions about the cross-lagged relationships: the model may identify one variable as causally stronger when it is the opposite; it may indicate there are reciprocally causal relationships where there are none; it may fail to detect reciprocally causal relationships when they are present; and it may get the sign of the relationship wrong.

My data were not measured at the exact same times, but the period of data collection is short enough that I argue the synchronicity assumption holds. Specifically, Wave 64 was collected between March 19-24, 2020 while Wave 66 was collected between April 20-26, 2020 and Wave 67 was collected between 29-May 5. Each of these waves lasts approximately six days and it is plausible to consider a six-day window the same time. I argued earlier in the chapter to combine Waves 66 and 67 and consider them one panel instead of two. I believe this argument is a strong one that also satisfies the synchronicity assumption. This makes sense because people taking the survey at the end of Wave 66 (April 20-26) may be taking it closer to those who take

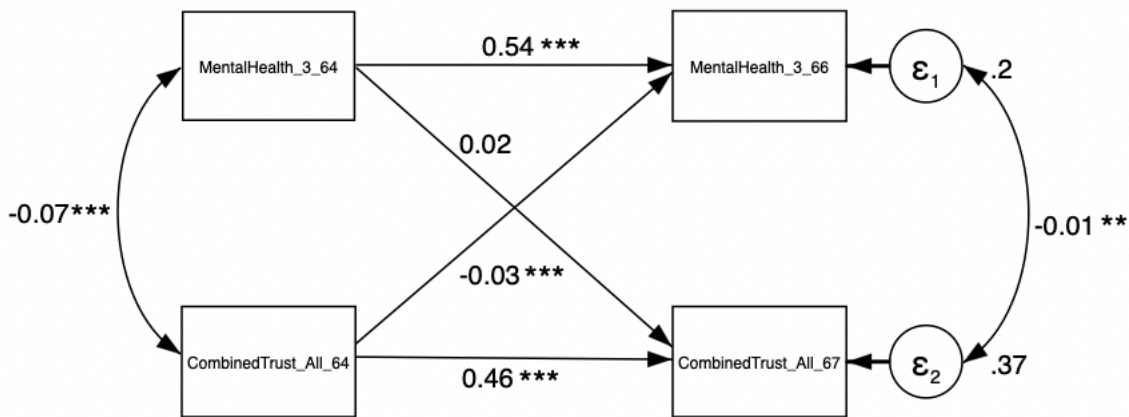
the survey at the beginning of Wave 67 (29-May 5) than those within their own panel. While these panels could be considered the same panel because of timing, they are distinct from Wave 64, which took place about a month before the start of Wave 66. Thus, I argue it is reasonable to say both time points satisfy the synchronicity assumption but are far enough apart to use as two distinct time points for this analysis.

The second assumption, stationarity, requires that variables and relationships stay the same over time. The main dependent, alternative dependent, and main independent variables all use the same exact question wording at both time points and so can reasonably be considered the same variable. The relationships aspect of this is more difficult. The best evidence I have is that throughout this chapter my hypothesized relationships in my main models have held across the different time periods in largely consistent ways and that the differences between the synchronous correlations are not large. Out of all of the many fully combined models I have shown in the body of this chapter and the appendix—excluding separation by partisanship—there are only two that are not statistically significant.<sup>81</sup> I believe this is strong evidence that I satisfy the stationarity and the synchronicity assumptions and can reliably use the cross-lagged panel model.

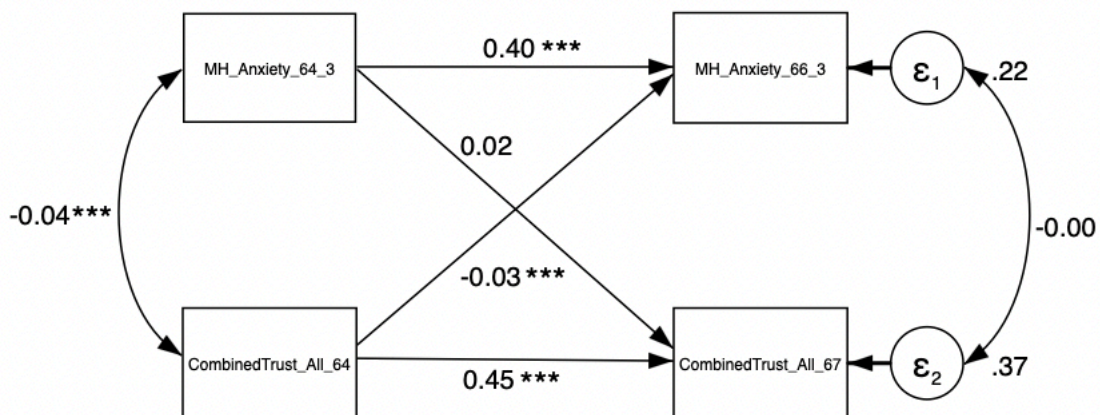
### Maximum Likelihood (ML) Main Dependent Variable (DV)

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<sup>81</sup> The two that are not statistically significant are both in the appendix and are in the expected directions but the first differences are not statistically different from zero. They are the main DV model Wave 66 & 67 with survey weights and the alternative DV model Wave 66 & 67 with survey weights. I question the validity of these results because there was not a combined weight for panels 66 and 67 so I use the weight from wave 66 because there are more variables measured in Wave 66 than variables measured in Wave 67. But there are also many variables carried over from Wave 64 so it is unclear which weight, if any, is appropriate for the second time point.



ML Alternative Dependent Variable (ADV)



Survey Questions<sup>82</sup>

**SOCTRUST2 (Wave 64)**

Generally speaking, would you say that... [RANDOMIZE OPTIONS]

Most people can be trusted

<sup>82</sup> Only the variables included in the analysis are presented. The full codebook can be accessed here: <https://www.pewresearch.org/wp-content/uploads/2018/05/Codebook-and-instructions-for-working-with-ATP-data.pdf>

Most people can't be trusted

No answer

**GSSTRUST2 (Wave 64)**

Do you think most people... [RANDOMIZE OPTIONS]

Would try to take advantage of you if they got a chance

Would try to be fair no matter what

No answer

**GSSTRUST3 (Wave 64)**

Would you say that most of the time people... [RANDOMIZE OPTIONS]

Try to help others

Just look out for themselves

No answer

**MH\_TRACK (Waves 64 & 66)**

In the past 7 days, how often have you... [DISPLAY ITEMS IN ORDER]

a. Felt nervous, anxious, or on edge?

- Rarely or none of the time (less than 1 day)
- Some or a little of the time (1-2 days)
- Occasionally or a moderate amount of time (3-4 days)
- Most or all of the time (5-7 days)
- No answer

b. Felt depressed?

- Rarely or none of the time (less than 1 day)
- Some or a little of the time (1-2 days)
- Occasionally or a moderate amount of time (3-4 days)
- Most or all of the time (5-7 days)
- No answer

c. Felt lonely?

- Rarely or none of the time (less than 1 day)
- Some or a little of the time (1-2 days)
- Occasionally or a moderate amount of time (3-4 days)
- Most or all of the time (5-7 days)
- No answer

d. Felt hopeful about the future?

- Rarely or none of the time (less than 1 day)
- Some or a little of the time (1-2 days)
- Occasionally or a moderate amount of time (3-4 days)
- Most or all of the time (5-7 days)
- No answer

e. Had trouble sleeping?

- Rarely or none of the time (less than 1 day)
- Some or a little of the time (1-2 days)
- Occasionally or a moderate amount of time (3-4 days)
- Most or all of the time (5-7 days)
- No answer

### **COVIDFOL (Waves 64 & 66)**

How closely have you been following news about the outbreak of the coronavirus strain known as COVID-19?

- Very closely
- Fairly closely
- Not too closely
- Not at all closely
- No answer

### **COVIDEGFP (Waves 64 & 67)**

How would you rate the job each of the following is doing responding to the coronavirus outbreak? [RANDOMIZE]

- Donald Trump
- Your state elected officials
- Your local elected officials
- Public health officials such as those at the CDC (Centers for Disease Control and Prevention)

- e. Ordinary people in your local community
- f. The news media

For each, choices were: Excellent, Good, Only Fair, Poor, and those that did not answer.

**MH\_TRACK\_CV (Waves 64 & 66)**

In the past 7 days, how often have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when THINKING about your experience with the coronavirus outbreak?

- a. Rarely or none of the time (less than 1 day)
- b. Some or a little of the time (1-2 days)
- c. Occasionally or a moderate amount of time (3-4 days)
- d. Most or all of the time (5-7 days)
- e. No answer

**COVID\_CRISIS (Wave 64)**

Would you say the coronavirus outbreak is...

- a. A significant crisis
- b. A serious problem but not a crisis
- c. A minor problem
- d. Not a problem at all
- e. No answer

**COVIDWORK (Wave 64)**

For each of the following, indicate whether or not it is something that happened to YOU OR SOMEONE IN YOUR HOUSEHOLD because of the coronavirus outbreak. [DISPLAY ITEMS IN ORDER]

- 1. Been laid off or lost a job
  - 1. Yes, has happened
  - 2. No, has not happened
  - 3. No answer
- 2. Had to take a cut in pay due to reduced hours or demand for your work
  - 1. Yes, has happened
  - 2. No, has not happened
  - 3. No answer

**COVID\_MENTAL (Wave 64—not used in analysis)**

Has a doctor or other healthcare provider EVER told you that you have a mental health condition?



- a. Yes
- b. No
- c. No answer

Demographic Questions for American Trends Panel

**F\_SEX** Self-reported sex.

Are you male or female?

1 Male

2 Female

**F\_AGE** CAT

1 18-29

2 30-49

3 50-64

4 65+

99 Refused

**F\_RACE** ETHN

Four-way category combining race and ethnicity.

1 White, non-Hispanic

2 Black, non-Hispanic

3 Hispanic

4 Other

9 (VOL) Don't know/Refused

**F\_PARTY\_FINAL** Self-reported party identification.

In politics today, do you consider yourself a...

1 Republican

2 Democrat

3 Independent

4 Something else