



Arrest Status, Suicide-Related Outcomes, and Moderating Social Factors: A Cross-sectional Study of a U.S. Sample (2015–2019)

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Abstract

Individuals impacted by the criminal legal system are at heightened risk for death by suicide. This study aimed to examine the association between arrest status and suicidal thoughts, suicide plans, and suicide attempts among a nationally representative sample in the United States and investigate if this relationship is moderated by social factors. Data were from the National Survey on Drug Use and Health, a nationally representative cross-sectional survey of adults ≥ 18 years old (2015–2019). Logistic regressions were used to examine the relationship between arrest status (never arrested ($n=175,355$), ever arrested but not in the past 12 months ($n=29,956$), or recently arrested in the past 12 months ($n=5,865$)) and suicidal thoughts, plans, and attempts in the past 12 months. Additional analyses explored social moderators (i.e., governmental welfare program receipt, food stamp receipt, financial security, health insurance) of the relationship between arrest status and suicidal thoughts, suicide plans, and suicide attempts. Recently arrested individuals experienced higher rates of suicidal thoughts, suicide plans, and suicide attempts compared to those ever and never arrested. In a fully adjusted model, recently arrested individuals were 5.4% percentage points (95% CI: 4.4–6.5%) more likely to report suicidal ideation, 3.4% percentage points (95% CI: 2.5–4.3%) more likely to report suicide plans, and 2.6% percentage points (95% CI: 2.0–3.2%) more likely to report suicide attempts compared to never arrested individuals. Not receiving welfare significantly increased risk for suicide plans for those ever arrested compared to those never arrested. Arrest history is linked to risk of suicidal thoughts, suicide plans, and suicide attempts. Additional research is warranted to identify what social factors may play a protective or harmful role in suicide-related outcomes among people with past and recent criminal legal involvement.

Highlights

- Individuals arrested within the past 12 months experienced higher rates of suicidal thoughts, suicide plans, and suicide attempts compared to those arrested over 12 months ago and those never arrested.
- The associations between being arrested and higher rates of suicidal thoughts, suicide plans, and suicide attempts are robust against sociodemographic and health covariates.
- Not receiving government welfare was associated with increased likelihood of suicide plans in those with a history of arrest compared to those never arrested.

Introduction

Suicide has increased considerably in the United States (U.S.) over the last 20 years, such that it is among the top 10 leading causes of deaths among adults (Garnett and Curtin 2024, Hedegaard and Warner 2021). One population at heightened risk for death by suicide is those with criminal

legal involvement (Carson 2021, Binswanger et al. 2007, Stoliker and Abderhalden 2023, Miller et al. 2024). In U.S. prisons, the rate of death by suicide among those incarcerated is higher than the general population and the number of deaths by suicide has increased 85% from 2001 to 2018 (Carson 2021). Rates of suicide in jails are even higher, such that rates of suicide are nearly three times higher in jails

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than in prisons or the general public (Mumola 2005). This elevated risk for suicide persists post-release from incarceration (Miller et al. 2024, Morgan et al. 2022, Fitch et al. 2023). For example, the relative risk of death by suicide among those formerly incarcerated is approximately 3.4 times greater (95% CI, 2.4–4.7) compared to the general population (Binswanger et al. 2007), and approximately 20% of suicides among individuals released from jail occur within the first year from release (Miller et al. 2024).

There are several potential drivers of the increased risk for death by suicide among people with criminal legal involvement. The risk of attempting suicide is higher in people with mental health and substance use disorders, which are more prevalent in people with criminal legal histories (Fazel and Seewald 2012, Fazel et al. 2017, Schneider 2009, Borges et al. 2010). Further, mental health conditions may be inadequately treated within the carceral system given treatment variability between systems (Martin et al. 2018, DiRosa et al. 2025). In one study, nearly one in two individuals who were taking medications for mental health conditions upon prison admission reported a discontinuation while incarcerated (Reingle Gonzalez and Connell 2014). Additionally, the conditions of confinement, especially solitary confinement, worsen mental health and increase risk of suicide (Kaba et al. 2014, Brinkley-Rubinstein et al. 2019, Haney 2003). A retrospective study of 229,274 individuals incarcerated in North Carolina found that those who had experienced solitary confinement were 1.8 times more likely to die from suicide after release than those who were not placed in solitary confinement (Brinkley-Rubinstein et al. 2019).

There are also factors specific to the post-release period that may drive suicide risk. Incarceration disrupts access to health insurance, as Medicare and Medicaid coverage is often suspended or terminated during incarceration, and barriers to employment opportunities for people with a history of incarceration limit access to employer-based health insurance (Fiscella et al. 2017). Insurance status has been linked to suicide risk independent of arrest history, with adults enrolled in Medicaid or uninsured having higher rates of suicidal ideation (Cho and Lee 2024). Prior to arrest and especially upon release, people involved in the criminal legal system also experience high levels of unmet material needs, such as financial and food insecurity, and this strain is a known risk factor in the general population for suicide (Elbogen et al. 2021, Elbogen et al. 2020, Phillips and Nugent 2014). Data suggest that 57% of men and 72% of women lived in poverty prior to their criminal legal involvement (Rabuy and Kopf 2015), and following release, their socioeconomic status remains low (Looney and Turner 2018). However, participation in governmental welfare programs attenuates the risk associated with these material insecurities (Rambotti 2020). For example, higher

participation in Supplemental Nutrition Assistance Program (SNAP), a federal governmental food assistance program, has been linked to lower suicide rates (Rambotti 2020). Last, disruptions of social networks following release from incarceration may lead to social isolation and exponentiate financial strain, which all may exacerbate mental health outcomes (Motillon-Toudic et al. 2022, Kopasker et al. 2018).

While the higher risk of death by suicide among those impacted by incarceration is documented in studies using data within single states, it is largely unknown if the acutely stressful nature of an arrest may exacerbate suicidal ideation, suicide plans, and suicide attempts in a national sample. Conceptualizing suicidality as a process with more common experiences, such as suicidal ideation, to less common more severe experiences, including suicide plans and attempts, allows for identifying specific factors that may exacerbate or mitigate this continuum (Sveticic and Leo 2012). Specifically, research suggests that each stage of this suicidality continuum has unique risk factors (Chan et al. 2025, Richardson et al. 2023, Etherson et al. 2025). For example, a cross-sectional study of 2,343 depressed adolescents in China found factors such as academic stress and hopelessness to be more associated with suicidal ideation than suicide attempts (Wang et al. 2024). This body of evidence suggests that it is imperative to understand each stage of suicidality separately rather than as a cumulative experience, including in populations impacted by being arrested (Sveticic and Leo 2012, Favril 2021, Zhong et al. 2021). The three-step theory of suicide (3ST) is a useful framework for understanding how arrest and associated key risk factors may play into the progression of this continuum (Klonsky and May 2015, Klonsky et al. 2021). Though, to the best of our knowledge, no study has explicitly applied 3ST to justice-involved populations, several mechanisms linking arrest to suicide risk align with each step of the theory. The first step of 3ST proposes that desire for suicide (i.e., suicidal ideation) stems from pain and feelings of hopelessness (Pachkowski et al. 2021). Having an arrest history may contribute to acute stress, stigma, financial strain, and disruptions to employment and housing stability, which could drive increased psychological distress and feelings of hopelessness (Keene et al. 2018, Schnitker and John 2007, Tsuchiya et al. 2020, Pager 2003). In the next step, 3ST proposes that the desire for suicide grows as the cause of pain outweighs one's sense of worth and connectedness (Pachkowski et al. 2021, Dhingra et al. 2019). Arrest can erode social connectedness by disrupting relationships and increase social isolation through stigma, potentially exacerbating vulnerability to suicidal ideation (Schnitker and John 2007, Howell et al. 2022, Western 2006). Last, 3ST posits the progression from ideation to attempts requires the capability to enact lethal self-harm, which is characterized

by reduced fear of death and increased tolerance for point (Klonsky et al. 2021). Experiences associated with being arrested, such as being involved in or witnessing a potentially traumatic environment while arrested, may contribute to the development of this capability (Novisky and Peralta 2020). Importantly, for those with an arrest history, each of these steps could be shaped by access to social factors, such as financial security, that not only facilitate successful reentry but also act as a form of connectedness following release (i.e., connection to community-based resources providing these supports).

In this study, we aimed to (1) examine the associations between arrest status and suicidal thoughts, suicide plans, and suicide attempts in a nationally representative sample, and (2) investigate if any relationship is moderated by social factors, including government welfare program receipt, food stamps receipt, financial security, and health insurance status. We hypothesize that arrest history will be associated with increased risk with each suicide-related outcome and that these factors will moderate this association in the positive direction (i.e., receiving government welfare will be linked with decreased risk of each suicide-related outcome). Understanding the unique risks of suicidal thoughts, plans, and attempts and the association with modifiable factors shaped by policies on resource distribution can guide interventions like food programs or direct cash transfers to reduce suicide risk in high-risk populations.

Methods

Data Source

We used publicly available data from the National Survey on Drug Use and Health (NSDUH), a nationally representative, cross-sectional survey of noninstitutionalized individuals over the age of 12 years old sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) (Abuse and Administration 2016). Each year, the NSDUH surveys approximately 70,000 individuals with a multi-stage area probability sample for each U.S. state and the District of Columbia. The NSDUH uses both computer-assisted personal interviewing with an interviewer and audio computer-assisted self-interviewing to encourage confidential responses to potentially sensitive topics. Beyond collecting information on mental health and substance use, the NSDUH is one of the few nationally representative surveys that collects information on involvement in the criminal legal system (Wang et al. 2019).

We pooled data from years 2015–2019 and limited our sample to anyone over the age of 18 years old. We excluded individuals under the age of 18 given that the juvenile

correctional system is different and more heterogeneous than the adult correctional system. We also did not include data after 2020 because the evaluation of suicide changed in the NSDUH, and the codebook indicated that the new variables from imputed models were less accurate than the direct self-report from 2015 to 2019. Given our use of publicly available, deidentified data, our study was exempted from review according to [blinded] Institutional Review Board policies. We followed the Strengthening the Reporting of Observational Studies in Epidemiology guidelines for cross-sectional studies in reporting this study (Cevallos and Egger 2014).

Measures

Arrested and Booked Status

Respondents were initially asked if they have ever been arrested and booked for breaking the law, excluding minor traffic violations. Respondents who reported lifetime history of arrest were then asked the number of times they had been arrested and booked in the past 12 months. We created a three-level variable of individuals reporting never being arrested (“never arrested”), individuals reporting a lifetime history of arrest but no recent arrest (“ever arrested”), and individuals reporting a recent arrest in the past 12 months (“recently arrested”).

Suicide-related Outcomes

All respondents were asked, “did you seriously think about trying to kill yourself” in the past 12 months. For those reporting recent suicidal ideation, they were asked, “during the past 12 months, did you make plans to kill yourself?” Among those who had reporting making suicide plans, they were then asked, “during the past 12 months, did you try to kill yourself?” We created three binary variables indicating whether individuals reported suicidal ideation, suicide plans, and suicide attempts based on this series of questions.

Moderators

We were interested in four self-reported potential moderators in the relationship between arrest history and suicidal ideation: government welfare program receipt, food stamp receipt, financial security, and health insurance status. We were interested in these factors because they are particularly relevant to successful reentry from incarceration back to community and are also modifiable factors that could be addressed with structural interventions. While food stamps receipt was examined as part of any government welfare program receipt, we also

decided to separately examine food stamps participation given previous research on the high rates of food insecurity among individuals released from incarceration (Wang et al. 2013). Financial security included anyone whose household income was above the federal poverty level. Health insurance status was broken into those who did and did not have any health insurance at some point in the past 12 months.

Covariates

Based on previous literature, we examined several sociodemographic characteristics including age, gender, educational attainment, urban or rural location, marital status, self-reported general health, and presence of a substance use disorder. Race/ethnicity was not included as a covariate because it is a proxy for both socioeconomic and cultural differences (VanderWeele and Robinson 2014, Swilley-Martinez et al. 2023). Given the lack of clarity on the consequences of adjusting for race, and the fact that it modifies our model to answer the question (“if everyone were hypothetically the same race”), we did not see it as an appropriate covariate. Gender was categorized as either female or male. Education level was categorized as less than high school, high school, some college, and college or above. Employment was categorized as employed full-time, employed part-time, unemployed, and other. Given urban-rural disparities in suicide, we categorized location by using rural-urban continuum codes which divide U.S. counties into: large metropolitan, small metropolitan, and nonmetropolitan (Lemke et al. 2022). Marital status was categorized as married, widowed, divorced or separated, and never married. We also assessed whether respondents reported general health (excellent, very good, good, fair, or poor). The presence of a substance use disorder was categorized as any respondent meeting criteria for abuse based on DSM-IV for any illicit drug and/or alcohol.

Statistical Analysis

Among adults over the age of 18 years old, we estimated weighted prevalence of suicidal ideation, suicide plans, and suicide attempts in the past 12 months by arrest status. We then compared prevalence of making suicide plans and attempting suicide by arrest status only among those who had reported suicidal ideation in past 12 months. We compared sociodemographic characteristics by arrest status using a chi-squared test.

To examine the association between suicidal thoughts, plans and attempts and arrest status, we used logistic

regression and estimated average marginal effects. This approach allowed us to report the probability of suicide-related outcomes at different arrest levels while holding observables constant (Norton et al. 2019). We used a step-wise approach to estimating the association between suicidal thoughts, plans, and attempts with arrest status. First, we estimated the average marginal effects only controlling for age and gender. Second, we sequentially included additional sociodemographic variables (education, marital status, employment, and metropolitan status). In our third model, we included general health, and in our final model, we included the presence of substance use disorder as covariates in our analyses between the association of arrest history and suicidal thoughts, plans, and attempts given the role of substance use in both leading to incarceration given its criminalization but also their potential role in exacerbating these outcomes. To test moderation effect, we included our four moderators as interaction terms between arrest history and our outcomes, each in separate regression models.

For all analyses, we excluded respondents who had missing data for either arrest status or our outcomes variables, which was less than 2% of respondents. For estimating regression output and average marginal effects, we further excluded individuals who had missing data for any of the covariates in any of the models to fully take advantage of all covariate information in our estimations. Analyses were implemented using survey weights, as described by NSDUH, to account for the NSDUH’s complex sampling design, which allows for nationally representative estimations. The statistically significant threshold was $p < .05$, and all tests were two-sided. Our analyses were conducted with R, version 4.4.2 (Core 2023).

Results

Sample

Our sample included 211,176 individuals, representative of adults residing in the U.S. annually between 2015 and 2019. In this sample, 83.0% (95% CI, 83.2–83.8%) reported never being arrested, 14.2% (95% CI, 14.3–14.8%) reported ever being arrested, and 2.9% (95% CI, 1.8–2.0%) reported recently being arrested. Table 1 presents sociodemographic characteristics of the sample.

Among our weighted sample, those who were ever and recently arrested had higher rates of suicidal ideation, plans, and attempts compared to those never arrested. Among those recently arrested, 11.8% (95% CI, 10.8–12.9%) reported suicidal ideation, 5.3% (95% CI, 4.4–6.1%)

Table 1 Sociodemographic characteristics of sample by arrest status in past 12 months, 2015–2019 (*N*=211,176)

Characteristics	Never Arrested (<i>N</i> =175,355; 83.0%)	Ever Arrested (<i>N</i> =29,956; 14.2%)	Recently Arrested (<i>N</i> =5,865; 2.8%)	<i>P</i> -value
Age (years)				<0.001
18–25	14.8% (14.5–15.0)	6.6% (6.3–6.8)	28.4% (27.0–29.7)	
26–34	15.2% (14.9–15.5)	18.9% (18.3–19.5)	27.3% (25.9–28.7)	
35–49	23.4% (23.1–23.8)	31.7% (31.0–32.5)	24.6% (23.4–25.9)	
50+	46.6% (46.1–47.1)	42.8% (41.9–43.8)	19.7% (18.1–21.4)	
Male	43.6% (43.2–43.9)	71.2% (70.4–72.0)	69.7% (67.8–71.5)	<0.001
Race/Ethnicity				<0.001
Hispanic	16.4% (16.0–16.8)	12.9% (12.3–13.6)	18.0% (16.4–19.5)	
Non-Hispanic Black	11.1% (10.8–11.5)	13.8% (13.1–14.5)	23.7% (22.1–25.3)	
Non-Hispanic White	63.7% (63.2–64.2)	68.0% (67.1–68.9)	51.0% (48.8–53.3)	
Other	8.7% (8.5–9.0)	5.2% (4.9–5.5)	7.3% (6.4–8.6)	
Heterosexual	95.2% (95.1–95.3)	94.2% (93.8–94.6)	90.3% (89.0–91.5)	<0.001
Education				<0.001
Less than High School	18.0% (17.6–18.4)	18.0% (17.3–18.7)	29.1% (27.2–31.0)	
High School	36.1% (35.6–36.5)	37.0% (36.2–37.8)	37.8% (35.7–39.9)	
Some College	31.7% (31.4–32.1)	32.6% (31.7–33.6)	26.7% (25.1–28.2)	
College	14.2% (13.9–14.6)	12.4% (11.8–13.0)	6.4% (5.4–7.3)	
Employment				<0.001
Employed Full-time	48.5% (48.1–48.9)	56.2% (55.1–57.4)	43.8% (42.0–45.6)	
Employed Part-time	13.7% (13.4–13.9)	10.1% (9.6–10.5)	10.7% (9.6–11.8)	
Unemployed	3.8% (3.7–3.9)	5.4% (5.1–5.8)	15.5% (14.0–16.9)	
Other	34.0% (33.6–34.4)	28.2% (27.3–29.1)	30.0% (28.3–31.8)	
Poverty Status				<0.001
Living in Poverty	13.0% (12.7–13.2)	16.4% (15.8–16.9)	33.9% (32.0–35.9)	
Income up to 2x Federal	19.1% (18.8–19.4)	22.0% (21.4–22.6)	28.2% (26.0–30.4)	
Poverty Level				
Income more than 2x Federal	67.9% (67.5–68.4)	61.6% (60.7–62.5)	37.9% (35.5–40.2)	
Metropolitan Status				<0.001
Large Metropolitan	56.6% (56.0–57.1)	51.1% (50.0–52.1)	48.7% (46.6–50.8)	
Small Metropolitan	29.4% (28.9–30.0)	32.2% (31.3–33.2)	33.1% (31.1–35.1)	
Nonmetropolitan	14.0% (13.6–14.4)	16.7% (16.0–17.5)	18.2% (16.9–19.5)	
Marital Status				<0.001
Married	54.0% (53.5–54.5)	44.3% (43.4–45.1)	19.9% (18.4–21.5)	
Widowed	6.4% (6.2–6.6)	3.9% (3.6–4.2)	2.4% (1.7–3.0)	
Divorced or Separated	12.3% (12.0–12.5)	21.7% (21.0–22.3)	20.3% (18.7–21.9)	
Never Married	27.4% (27.3–27.7)	30.1% (29.3–30.9)	57.4% (55.8–58.9)	
Health Insurance	91.2% (91.0–91.4)	86.4% (85.9–87.0)	73.7% (72.1–75.3)	<0.001
Received Any Government Welfare Program	15.7% (15.4–16.1)	26.2% (25.4–26.9)	43.5% (41.7–45.2)	<0.001
Received Food Stamps	11.7% (11.4–12.0)	20.7% (20.0–21.4)	38.1% (36.5–39.8)	<0.001
Unstable Housing	21.5% (21.2–21.8)	23.1% (22.5–23.8)	49.9% (48.2–51.6)	<0.001
Suicide Ideation	3.9% (3.8–4.0)	5.7% (5.4–6.1)	11.9% (10.8–12.9)	<0.001
Suicide Plans	1.1% (1.0–1.1)	1.7% (1.5–1.9)	5.3% (4.4–6.1)	<0.001
Suicide Attempts	0.5% (0.4–0.5)	0.6% (0.5–0.7)	3.5% (2.9–4.0)	<0.001

reported suicide plans, and 3.5% (95% CI, 2.9–4.1%) reported suicide attempts in the past 12 months (Fig. 1). Further, among those reporting suicidal ideation, those who had been recently arrested had significantly higher rates of reporting suicide plans (44.6% (95% CI, 39.2–50.1%)) and attempts (29.5% (95% CI, 25.2–33.9%)) compared to both those never and ever arrested.

Association Between Arrest Status and Suicidal Ideation, Suicide Plans, and Suicide Attempts

We found a consistent relationship between arrest status and suicidal ideation, suicide plans, and suicide attempts in Models 1–4 (Table 2). In our fully adjusted model, those ever arrested.

Fig. 1 Suicide-Related Outcomes in Past 12 Months Among a Nationally Representative Sample of Individuals by Arrest Status

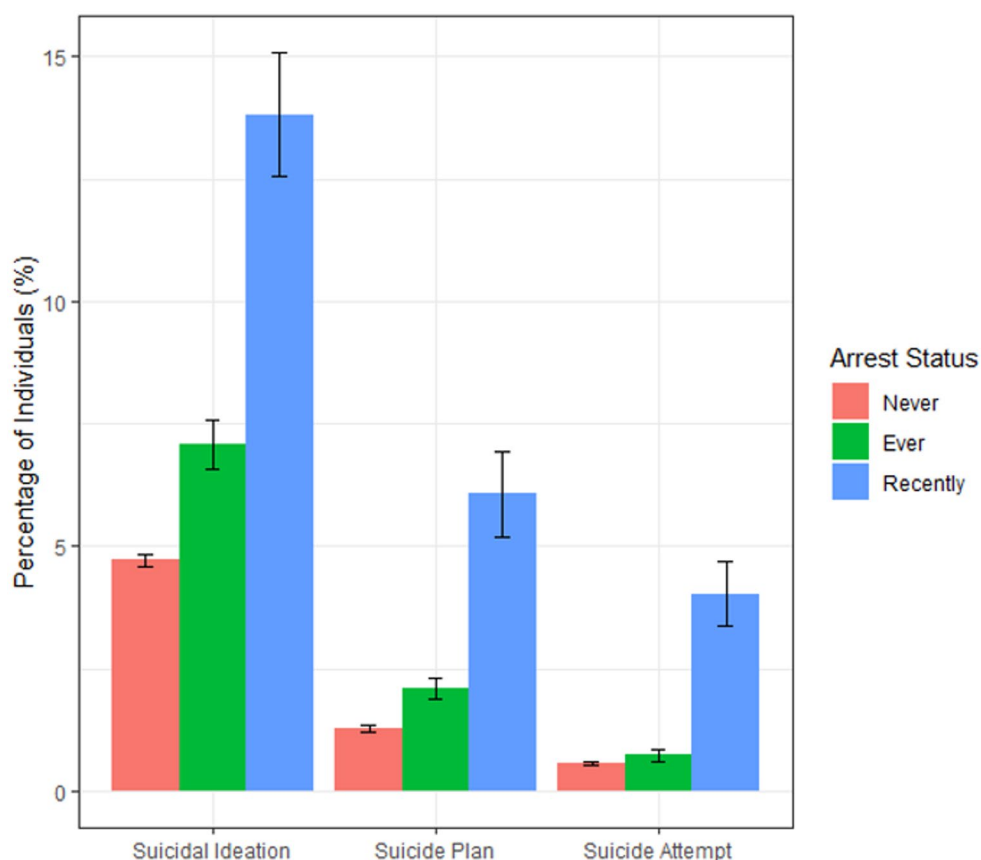


Table 2 Average marginal effect estimates for logistic regression model between arrest status and suicide-related outcomes among full sample ($N=208,959$)

Covariates	Model 1	Model 2	Model 3	Model 4
	Age, Gender	Age, Gender, Income, Education, Martial Status, Employment, Metropolitan Status	Age, Gender, Income, Education, Martial Status, Employment, Metropolitan Status, General Health	Age, Gender, Income, Education, Martial Status, Employment, Metropolitan Status, General Health, Substance Use Disorder
Suicidal Ideation				
Arrest Status				
Never	Ref	Ref	Ref	Ref
Ever	2.4% (2.1–2.8)***	2.2% (1.8–2.5)***	1.9% (1.5–2.2)***	1.8% (1.4–2.1)***
Recently	6.7% (5.7–7.8)***	6.0% (4.9–7.1)***	5.8% (4.7–6.9)***	5.4% (4.4–6.5)***
Suicide Plans				
Arrest Status				
Never	Ref	Ref	Ref	Ref
Ever	0.9% (0.7–1.1)***	0.8% (0.6–1.1)***	0.7% (0.5–1.0)***	0.7% (0.5–0.9)***
Recently	3.8% (3.0–4.7)***	3.6% (2.7–4.4)***	3.5% (2.6–4.4)***	3.4% (2.5–4.3)***
Suicide Attempts				
Arrest Status				
Never	Ref	Ref	Ref	Ref
Ever	0.3% (0.2–0.4)***	0.2% (0.1–0.4)***	0.2% (0.1–0.3)**	0.2% (0.1–0.3)**
Recently	2.8% (2.2–3.4)***	2.6% (2.0–3.2)***	2.6% (2.1–3.2)***	2.6% (2.0–3.2)***

** $p < .01$ *** $p < .001$

had an increased probability in reporting suicidal ideation (1.8%, 95% CI 1.4–2.1%), suicide plans (0.7%, 95% CI 0.5–0.9%), and suicide attempts (0.2%, 95% CI 0.1–0.3%)

compared to those never arrested. Further, those recently arrested also had an increased probability of reporting suicidal ideation (5.4%, 95% CI 4.4–6.5%), suicide plans

Table 3 Moderating factors of the relationship between arrest status and suicide-related outcomes in past 12 months

	Never Arrested	Ever Arrested (OR (95% CI))	Recently Arrested (OR (95% CI))
Suicidal Ideation			
Government Welfare Program Receipt	Ref	1.87 (0.86–1.17)	2.67 (0.82–1.47)
Food Stamps Receipt	Ref	1.82 (0.92–1.27)	2.41 (0.77–1.40)
Financial Security	Ref	1.60 (0.95–1.34)	1.90 (0.71–1.19)
Health Insurance	Ref	1.75 (0.80–1.18)	2.51 (0.77–1.40)
Suicide Plans			
Government Welfare Program Receipt	Ref	2.18 (0.58–0.94)*	4.35 (0.65–1.27)
Food Stamps Receipt	Ref	2.08 (0.62–1.01) ⁺	3.83 (0.57–1.21)
Financial Security	Ref	1.74 (0.65–1.25)	2.98 (0.58–1.22)
Health Insurance	Ref	2.03 (0.61–1.24)	3.03 (0.49–1.21)
Suicide Attempts			
Government Welfare Program Receipt	Ref	2.21 (0.63–1.20)	6.55 (0.60–1.54)
Food Stamps Receipt	Ref	2.02 (0.59–1.16)	6.18 (0.59–1.53)
Financial Security	Ref	1.81 (0.66–1.48)	5.23 (0.61–1.65)
Health Insurance	Ref	1.81 (0.61–1.48)	5.23 (0.61–1.65)

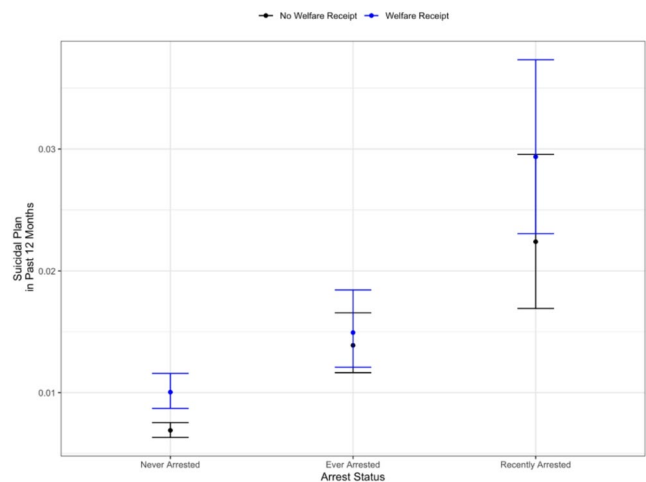
Note: All models were adjusted Age, Gender, Income, Education, Marital Status, Employment, Metropolitan Status, General Health, Substance Use Disorder. Effects remained significant when removing covariates. Odds Ratio=OR is for the group who receives social support. Confidence Interval=CI is the 95% CI for the interaction term.

⁺ $p < .06$ * $p < .05$

(3.4%, 95% CI 2.5–4.3%), and suicide attempts (2.6%, 95% CI 2.0–3.2%) compared to those never arrested.

Moderators of the Association Between Arrest Status and Suicidal Ideation, Plans, and Attempts

Receipt of government welfare significantly moderated the association between arrest status and suicide plan in our fully adjusted model (Table 3; Fig. 2). Specifically, presence of a suicide plan was more likely among individuals who were ever arrested and who received government welfare compared to those who were never arrested and received government welfare; however, the risk was higher for those ever arrested not on welfare compared to those never arrested and not on welfare. No other moderation effects were significant.

**Fig. 2** Interaction between the Receipt of Welfare on the Probability of Suicide Plan by Arrest Status

Discussion

Our results revealed elevated rates of suicidal thoughts, suicide plans, and suicide attempts among those ever and recently arrested compared to those never arrested in a nationally representative sample. Our findings are unique in documenting higher prevalence of both suicidal thoughts and suicide plans in those who have been arrested, which are outcomes that have typically been overlooked in this high-risk sample in lieu of suicide attempts and death by suicide. For those recently arrested, nearly 12% had recent suicidal thoughts as compared to 3.5% of those never arrested reporting recent suicidal thoughts. Our estimates complement those described in other study findings of individuals currently incarcerated; for example, an analysis of 511 individuals within a U.S. found that 16% met clinical indication for suicidal ideation (Schaefer et al. 2016). Nonetheless, national data on suicidal ideation and suicide plans within legal system involved individuals remain limited.

We found the relationship between arrest status and suicidal thoughts, suicide plans, and suicide attempts to be robust against the influence of sociodemographic and health covariates. These results suggest that, regardless of the presence of general health problems or a substance use disorder, the reentry period immediately following an arrest is a space to intervene on suicide-related outcomes. Thus, efforts to screen for suicidal thoughts, suicide plans, and suicide attempts and prevent the progression from suicidal ideation-to-action is important among those who have been recently arrested. Specifically, training primary care and other providers to better recognize and treat those at high risk for suicide and its associated risk factors, providing cognitive behavioral and dialectical behavior therapy following release from arrest, and real-time monitoring of suicidality

using digital technology are potential avenues for improved identification and care of legal system involved individuals (Mann et al. 2021, Nordentoft 2011, Kleiman and Nock 2018). These efforts to screen and intervene are consistent with the 3ST framework that would prevent further progression to suicide-related deaths.

Research suggests that indicators of material insecurity undermine successful reentry following arrests (Negi et al. 2026). In our fully adjusted model, we found that government welfare receipt moderates the association between ever being arrested and suicide plans. Those receiving governmental welfare had a higher likelihood of suicide plans compared to those not; however, the risk of suicide plans was greatest for those not receiving welfare and who had been arrested versus those not receiving welfare and who had never been arrested. This finding suggests that having a history of arrest and lacking financial support through welfare enhances risk for having a suicide plan, which may be interpreted as being aligned with hopelessness as outlined in 3ST. It is well-documented that experiences of poverty increase risk for suicidality (Mathieu et al. 2022). Though suicide risk increased in those ever arrested who were not on welfare compared to those never arrested and not on welfare, there was no consistent evidence of other social factors mitigating suicide-related outcomes in our moderation analyses. Our finding that financial insecurity did not moderate the association between arrest history and suicide-related outcomes may seem contradictory to our findings that receiving any government welfare did moderate this association. However, it could be possible that receiving any governmental welfare reflects dimensions of economic vulnerability not fully reflected by financial earnings alone. It is also possible that increased access to other resources, such as health insurance, does not necessarily lead to reductions in these outcomes for this population. For example, previous work documented that the increases in insurance coverage associated with the implementation of the Affordable Care Act did not lead to increases in reported mental health treatment in individuals with legal system involvement (Howell et al. 2019). This discrepancy between insurance and mental health treatment access may highlight a pattern that improved material resources may not translate to utilization of those resources. Therefore, it may be necessary to investigate objective structural determinants and perceived experiences following arrest that could influence suicide-related outcomes and the use of social support.

Several limitations of our study should be noted. All NSDUH measures are self-reported, which could be susceptible to recall bias and, especially, underreporting given the stigma associated with legal system involvement and suicide (Howell et al. 2022, Kučukalić and Kučukalić 2017, Raphael 1987). The NSDUH also does not allow

us to capture lifetime history of suicidal thoughts, suicide plans, nor suicide attempts as its measure is limited to the past 12 months and captures suicide-related outcomes using a single-item question, which may lead to increased false positives (Millner et al. 2015, Hom et al. 2016, Plöderl et al. 2011). Further, given how the NSDUH captures legal system involvement, we were unable to differentiate different types or degree of exposure to the criminal legal system, such as type and number of convictions, jail versus prison incarceration, length of incarceration, or how the types of degree of exposure could influence suicidality outcomes, which should all be explored in future research. The NSDUH does not include currently institutionalized individuals (i.e., those within prisons and jails) nor those experiencing homelessness. Given that both populations are at elevated risks for legal system involvement and suicidality, this suggests our estimations could be biased towards the null. Last, given the cross-sectional nature of the NSDUH, we are unable to infer casual inference or the directionality of the relationship between arrest status and these outcomes. Relatedly, we were unable to consider other mental health conditions, such as depression, which may exacerbate this association and warrants further research exploring the temporal nature between arrest history and mental health outcomes.

Conclusions

Our results indicate that arrest status is associated with suicide-related outcomes, with those recently arrested at particularly heightened risk of thinking about, planning, and attempting suicide compared to those never arrested or ever arrested. Our findings suggest additional research is warranted to better understand the unique factors driving suicidal thoughts, suicide plans, and suicide attempts following a recent arrest. Future work should then evaluate the impacts of interventions and policies targeting social determinants of health at improving the mental health of those arrested.

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Data Availability All data from this manuscript can be accessed on the publicly accessible NSDUH website: <https://www.samhsa.gov/data/ata-we-collect/nsduh-national-survey-drug-use-and-health/datafiles>.

Declarations

Competing interests The authors declare no competing interests.

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