



RUTGERS

New Jersey Gun Violence
Research Center

FIREARM SUICIDE: DATA DRIVEN SOLUTIONS FOR SAVING LIVES

MICHAEL D. ANESTIS, PHD

NEW JERSEY GUN VIOLENCE RESEARCH CENTER

SCHOOL OF PUBLIC HEALTH

RUTGERS UNIVERSITY



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AGENDA

What's Wrong?

The scope of the problem

The 2020-2021
firearm
purchasing surge

What can we do?

Project Safe
Guard

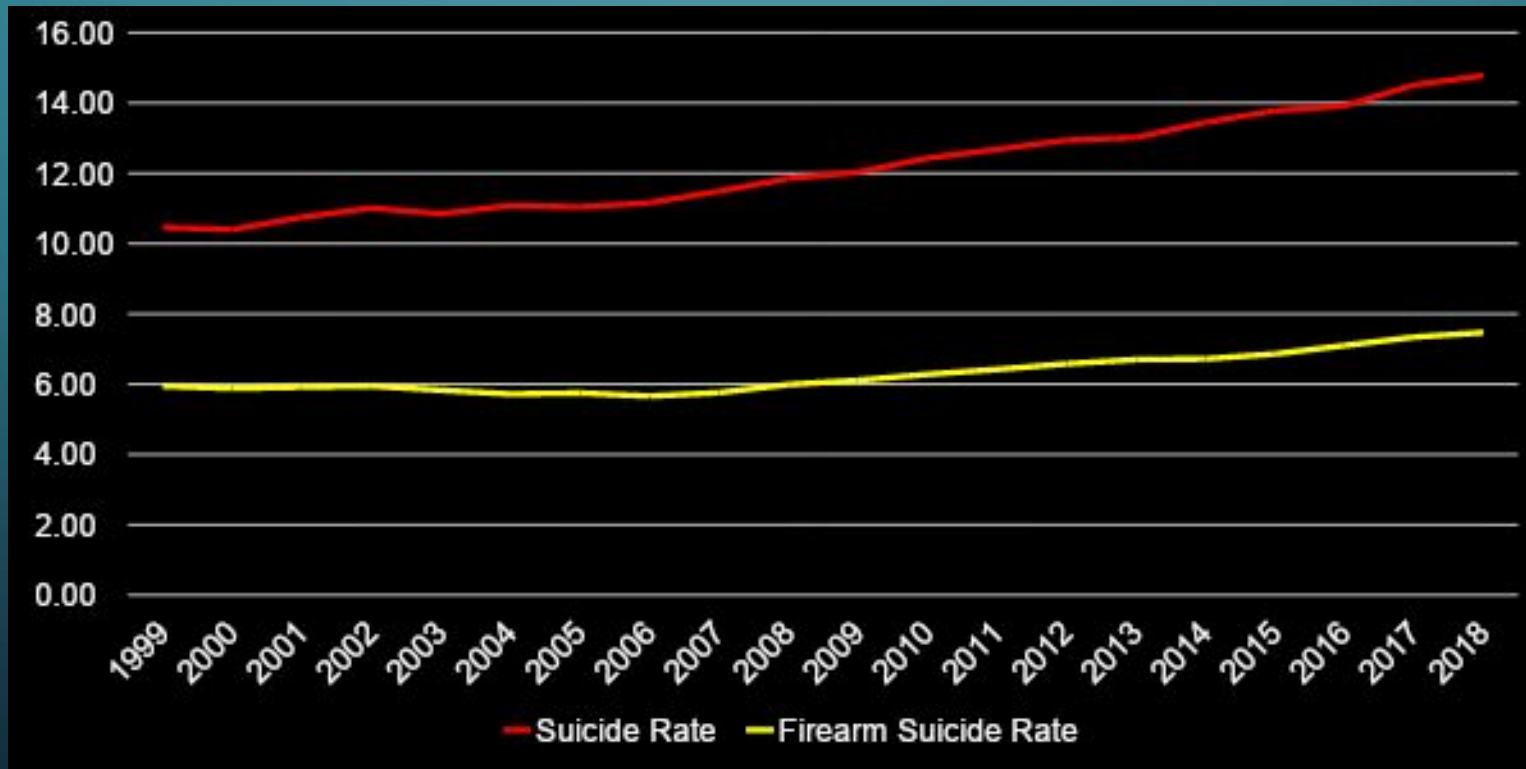
Means Safety
Messaging



THE SCOPE OF THE PROBLEM

48,344 suicide deaths in US (2018)

- 51% by firearms (24,432 deaths)
- Firearms were used in less than 5% of all suicide attempts



THE RISK OF FIREARMS IN THE HOME

- Suicide is up to 5x as common in homes with firearms
 - Risk surges in the year following handgun purchase
 - On average, individual has owned firearm for 11 years prior to using it in suicide
- Risk increases further when firearm is stored unsafely
- Partially a function of violent means
 - 67% of male suicide decedents in the US utilize firearms
 - 33% of female suicide decedents in the US utilize firearms
 - Overdose/poisoning is most common attempt method for women
 - 97% of intentional overdoses are non-fatal – 85-95% of intentional self-inflicted gunshot wounds are fatal



AMONG THOSE WHO SURVIVE A SUICIDE ATTEMPT

70%

Never attempt suicide again

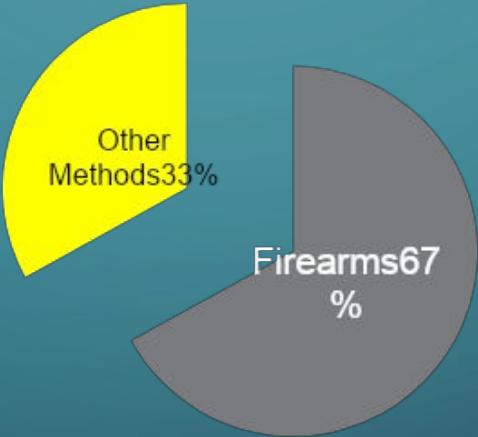
90%

Never die by suicide

Owens et al., 2002

When you prevent somebody from attempting suicide using a specific method on a specific occasion there is a profound chance you have prevented them from ever attempting suicide by any method

US Military Suicide Deaths



Not all groups are impacted by firearm suicide equally

FIREARM STORAGE PRACTICES AMONG SERVICEMEMBERS & VETERANS

- Simonetti et al (2019) recruited sample of veterans (n = 3,949)
 - 32.7% stored at least one firearm loaded and unlocked
 - 45.2% stored at least one firearm loaded or unlocked
- Anestis et al (in preparation) recruited sample of firearm owning active duty servicemembers (n = 719)
 - 71.7% always or almost always store all firearms at home
 - 48.4% store 1+ firearm loaded > 50% of time
 - 47.0% store 1+ firearm without locking device > 50% of time
 - 28.2% store 1+ firearm in an unlocked location > 50% of time

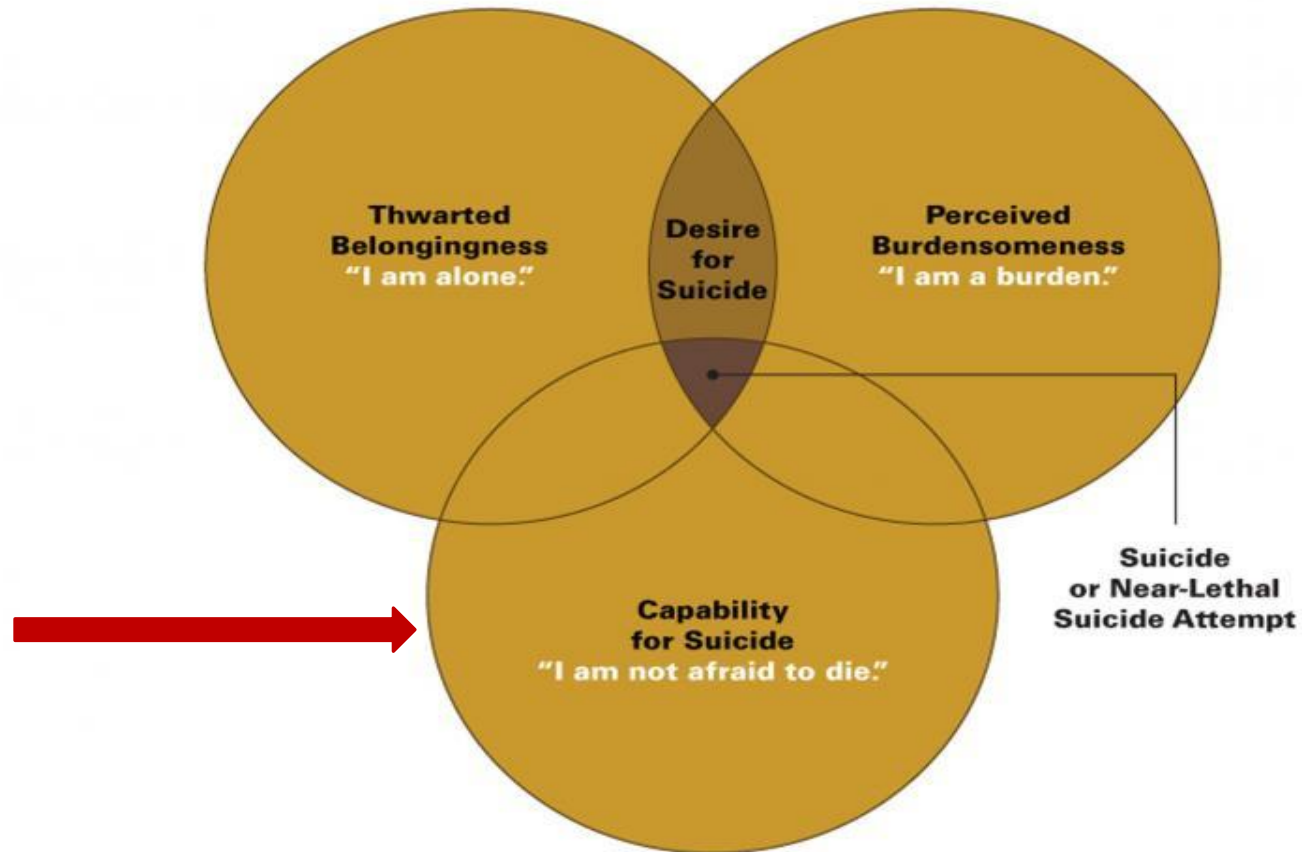
Bryan, Bryan, Anestis, Khazem, Harris, May, & Thomsen (2019).
Firearm availability and storage practices among military
personnel who have thought about suicide: A cross-sectional
study. *JAMA Network Open*.

- Suicidal servicemembers less likely to have a firearm at home
- Suicidal servicemembers with firearms at home were far more likely to store them unsafely (loaded in a non-secure location)
- Anestis et al (2021) replicated these findings in the National Guard

Those at greatest risk – suicidal and with a
firearm at home – are the ones most likely
to store firearms unsafely

FIREARMS DO NOT MAKE PEOPLE SUICIDAL

JOINER'S THEORY OF SUICIDE



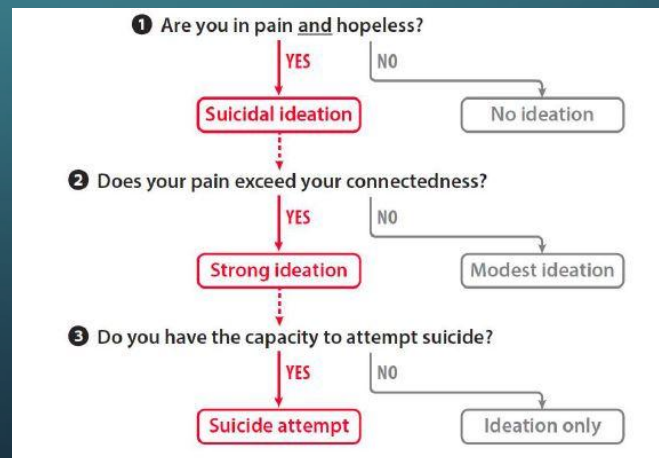
CAPABILITY

- ITS & 3TS propose notion of capability
 - Elevated pain tolerance
 - Diminished fear of death/bodily harm
 - Access to & comfort with lethal means

JOINER'S THEORY OF SUICIDE



KLONSKY & MAY'S 3 STEP THEORY OF SUICIDE



Anestis & Houtsma (2017). The association between gun ownership and statewide overall suicide rates. *SLTB*.

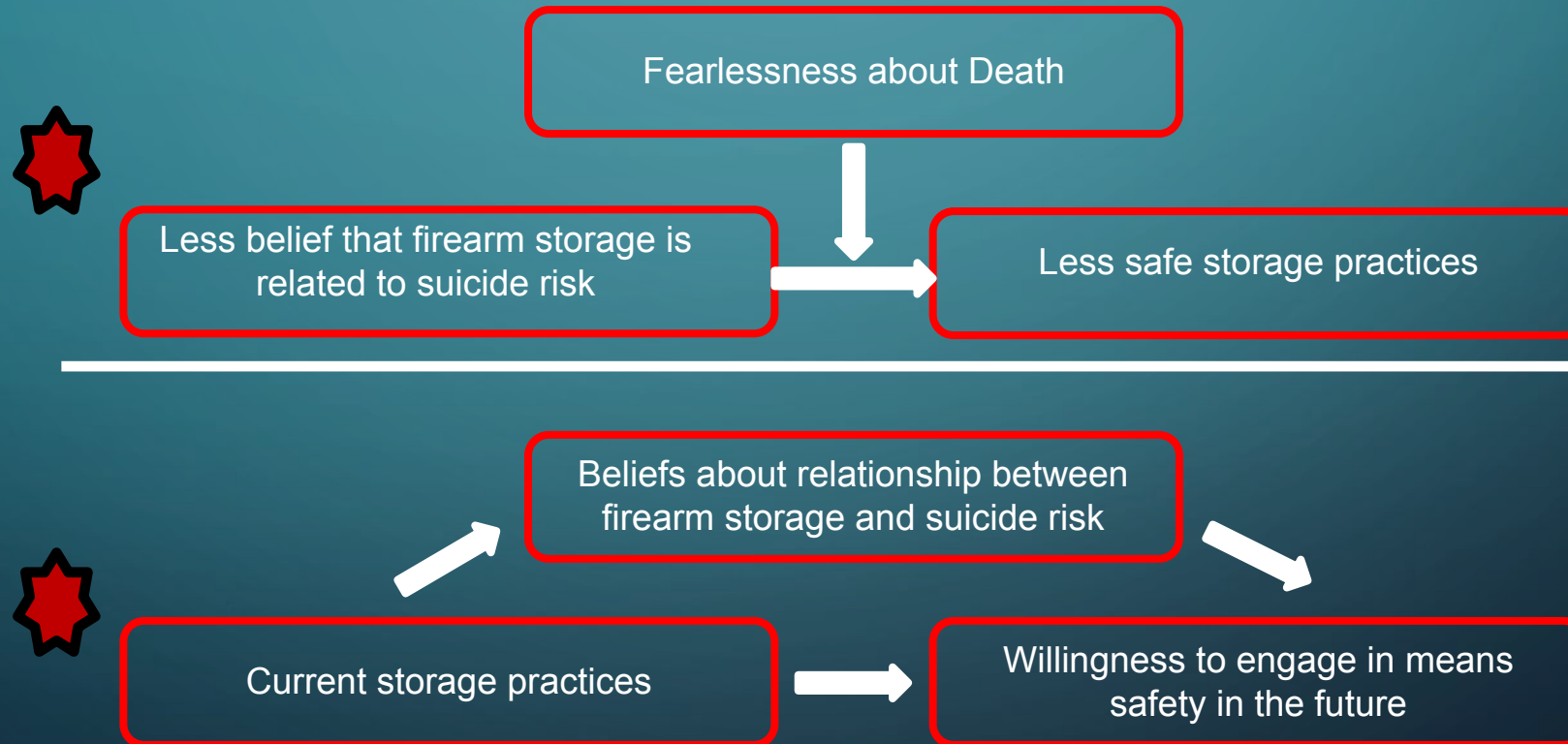
TABLE 3
Gun Ownership Predicting Statewide Overall Suicide Rate

	R^2	ΔR^2	β	p	p^*	f^2
	.901					
% 25+ with college degree			-.38	.007	-.44	
% White			.32	.005	.46	
Median age			-.21	.040	-.34	
Population density			.12	.265	.19	
% Below poverty line			.08	.410	.14	
% Christian			-.74	.098	-.28	
% Religiously unaffiliated			.30	.666	.08	
% Jewish			-.09	.560	-.10	
% Muslim			.01	.909	.02	
% Buddhist			-.04	.744	-.06	
% Hindu			-.06	.536	-.11	
% Atheist			.04	.806	.04	
% Agnostic			-.27	.146	-.25	
% No religion in particular			-.62	.148	-.25	
Veterans per 100,000			.56	.000	.68	
Elevation			.46	.000	.72	
	.905	.004				
Drug/Alcohol use disorder per 100,000			-.02	.886	-.03	
Serious mental illness per 100,000			.16	.449	.14	
Serious suicidal thoughts per 100,000			-.08	.656	-.08	
Depressive episode per 100,000			.00	.984	.00	
% of Residents who own a gun	.926	.021	.33	.008	.47	.28

Note. Psychopathology variables in Step 2 refer to past-year incidence.

Anestis, Butterworth, & Houtsma (2018). Perceptions of firearms and suicide: The role of misinformation in storage practices and openness to means safety. *Journal of Affective Disorders*.

300 American firearm owners



THE BOTTOM LINE

- Ready access to firearms dramatically increases the risk of death by suicide
- Means safety is perhaps our most powerful suicide prevention tool, but its use is not widespread
- The intended audience is not buying it – that's a communications problem



THE 2020-2021 FIREARM PURCHASING SURGE

PURCHASING SURGE



- Firearms were purchased in 2020 at a rate that far exceeds any prior year
 - 40-60% increase
 - 332% increase in permit requests in New Jersey
- 6% of US adults purchased firearms March through mid-July 2020 (34% were first time purchasers – 6.5 million new firearm owners)
- 2.9% of US adults became new firearms owners between January 2019 and April 2021
 - More likely than other firearm owners to be female, Black, or Hispanic
- We know very little about who is purchasing these firearms and why
 - If these folks are different, that has substantial implications for suicide prevention in the US
- Purchasing surges can be driven by many factors
 - Presidential elections, supply chain concerns, high profile mass shootings, etc...



Threat perceptions and the intention to acquire firearms

Please cite this article as: **Anestis, M.D., & Bryan, C.J. (2021).** Threat perceptions and the intention to acquire firearms. *Journal of Psychiatric Research* (2021), doi: <https://doi.org/10.1016/j.jpsychires.2020.12.033>

3,500 American adults were enrolled in the study



Males
n = 1,681;
48.3%

Females
n = 1,793;
51.6%



Participants were:
White: n = 2,317; 66.6%
Black: n = 496; 14.3%
Asian: n = 366; 10.5%
Hispanic: n = 476; 13.7%

Participants were demographically matched to US 2010 census data for age, sex, race/ethnicity, income, and education.



Bachelor's degree or less
n = 2,883;
82.9%



Earning less than \$70,000
n = 1,969; 56.6%



2,364 individuals reported not planning to purchase a firearm in the next 12 months.

596 reported being undecided about purchasing a firearm in the next 12 months.

516 reported planning to purchase a firearm in the next 12 months.

What they found

Demographic differences

The following groups were more likely to be planning to purchase a firearm in the next 12 months than to be undecided or planning not to purchase a firearm:



Black adults:
OR = 1.43 vs undecided



Current firearm owners:
OR = 4.28 vs undecided; OR = 2.09 vs plan not to purchase



Essential workers:
OR = 2.17 vs undecided; OR = 1.67 vs plan not to purchase



Current or former law enforcement officers:
OR = 1.90 vs undecided; OR = 1.84 vs plan not to purchase



Individuals with past year suicidal thoughts:
OR = 2.01 vs undecided; OR = 1.73 vs plan not to purchase



Females less likely:
OR = .48 vs undecided; OR = .65 vs plan not to purchase



Those planning not to purchase were younger than those who were undecided or planning to purchase.



Those undecided about purchasing reported lower household incomes than those planning to purchase or not to purchase.

Fear-related outcomes

Compared to those undecided about purchasing and those planning not to purchase a firearm in the coming 12 months, those planning to purchase a firearm reported higher levels of:

COVID-19 CONCERN

- Contamination fears, fears of economic consequences, xenophobic beliefs about the virus, traumatic stress symptoms, compulsive checking and reassurance seeking
- Exaggerated threat perceptions



- Intolerance of uncertainty



Those undecided about purchasing firearms reported living in less safe neighborhoods



Firearm ownership outcomes

Those planning to purchase firearms in the next 12 months were more likely to:

- Already be firearm owners 65.3% planning to purchase vs 39.9% undecided vs 23.3% planning not to purchase



- Have already purchased 1+ firearm since March 2020 26.4% planning to purchase vs 3.5% undecided vs 1.7% planning not to purchase

SURGE IMPLICATIONS

- Firearm sales tend to increase during times of economic stress, particularly for men
 - Some argue firearm purchasing and concealed carry represent effort to conform to and express masculine ideals
- Masculine ideals (autonomy, suppression of emotions) represent obstacles to help-seeking and forthright discussions of negative emotions
 - Firearm access and an unwillingness to seek out and ask for help are a dangerous combination
 - This is highlighted by help-seeking patterns among groups with high firearm access and endorsement of masculine gender norms like the military

Suicidal Ideation Among Individuals Who Have Purchased Firearms During COVID-19



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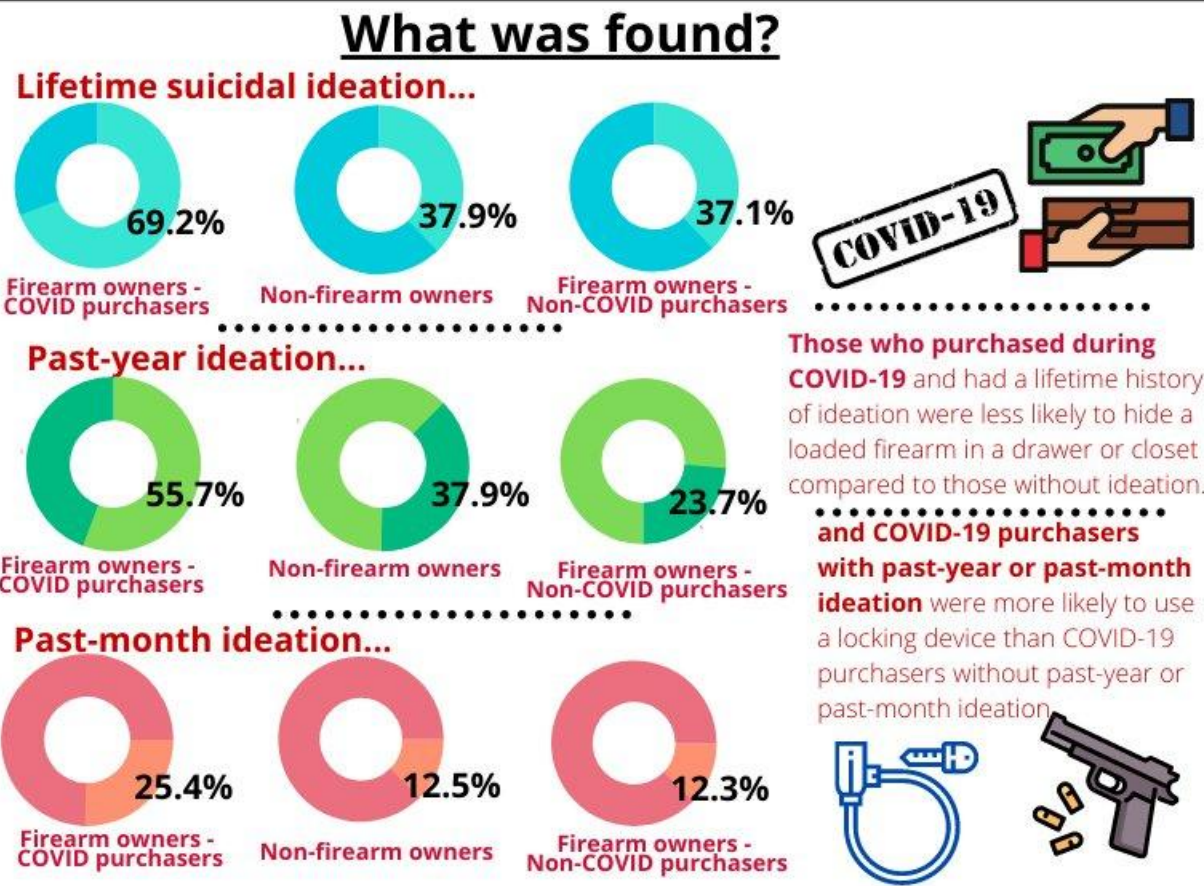
To what extent do those who purchased a firearm during the COVID-19 pandemic differ in terms of suicide risk from non-firearm owners and firearm owners who did not purchase a firearm during COVID-19.

3,500 U.S. residents participated in an online survey examining methods for self-protection.

51.5% female

51.5% white

.....
Participants were demographically matched to US 2010 census data for age, sex, race/ethnicity, income, and education.



What does it mean?

COVID-19 purchasers are more likely to experience suicidal ideation and are less likely to use certain unsafe firearm storage methods.

.....
Understanding suicide risk among individuals driving the surge in firearm sales is vital for the US to develop a national strategy for combatting any potential surge in suicide attempts among firearm owners.

Conclusions

In contrast to firearm owners more generally, COVID-19 firearm purchasers appear far more likely to have experienced suicidal ideation and appear less likely to use certain unsafe firearm storage methods, but also report a greater number of storage changes during COVID-19 that made firearms less secure. Future research should seek to further understand those who purchased a firearm during COVID-19 and determine ways to increase secure storage among firearm owners.

Please cite this article as: Anestis, M.D., Bond, A.E., Daruwala, S.E., Bandel, S.L., & Bryan, C.J. (2020). **Suicidal ideation among individuals who have purchased firearms during COVID-19.** American Journal of Preventive Medicine (2020), doi: <https://doi.org/10.1016/j.amepre.2020.10.013>

MORE ON SUICIDE RISK AND SURGE PURCHASING

- N = 6,404 (New Jersey n = 3,197; Minnesota n = 1,789; Mississippi n = 1,418) – Recruited January-June 2021

	Lifetime Ideation	Past Year Ideation	Past Month Ideation
Non-Firearm Owners	32.3%	23.5%	11.5%
Non-Surge Purchasers	28.6%	17.9%	6.9%
Surge Purchasers	56.1%	42.0%	20.5%
Established Owners	41.8%	27.0%	15.6%
First Time Owners	66.6%	53.1%	24.3%

WHAT DOES THIS MEAN?

- Patterns of firearm purchasing during the surge vary based individual tendencies on political beliefs and various health behaviors
- Firearm purchasing is often driven by anxiety
 - That anxiety is not always tied to tangible threats in the immediate environment
- First time firearm owners who bought during the surge may be at particularly high risk
- Those driving the purchasing surge may be a different cohort, at greater risk for experiencing suicidal thoughts
 - These firearms will remain in the home long after COVID-19, so this is not a momentary problem

PROJECT SAFE GUARD



SAFE FIREARM STORAGE



- A safely stored firearm offers less risk than an unsafely stored firearm, but still represents far more risk than the absence of a firearm.
- Safe storage can mean many different things
 - If an individual owns a firearm for protection, they may refer to “safe” as meaning having a loaded firearm “on the ready” in case of home invasion
- Safe storage ideally involves storing a firearm unloaded, separate from ammunition, in a locked location (e.g. gun safe, lock box), with a locking device (e.g. cable lock, trigger lock) in place.
 - We do not know which storage method or combo of methods bestows the greatest protection
 - There are many idiosyncratic options that exist
 - Storing firearms away from home during times of stress is another key option to consider – statewide safe firearm storage maps are an emerging tool to assist with this

GUN STORAGE MAPS IN THE UNITED STATES

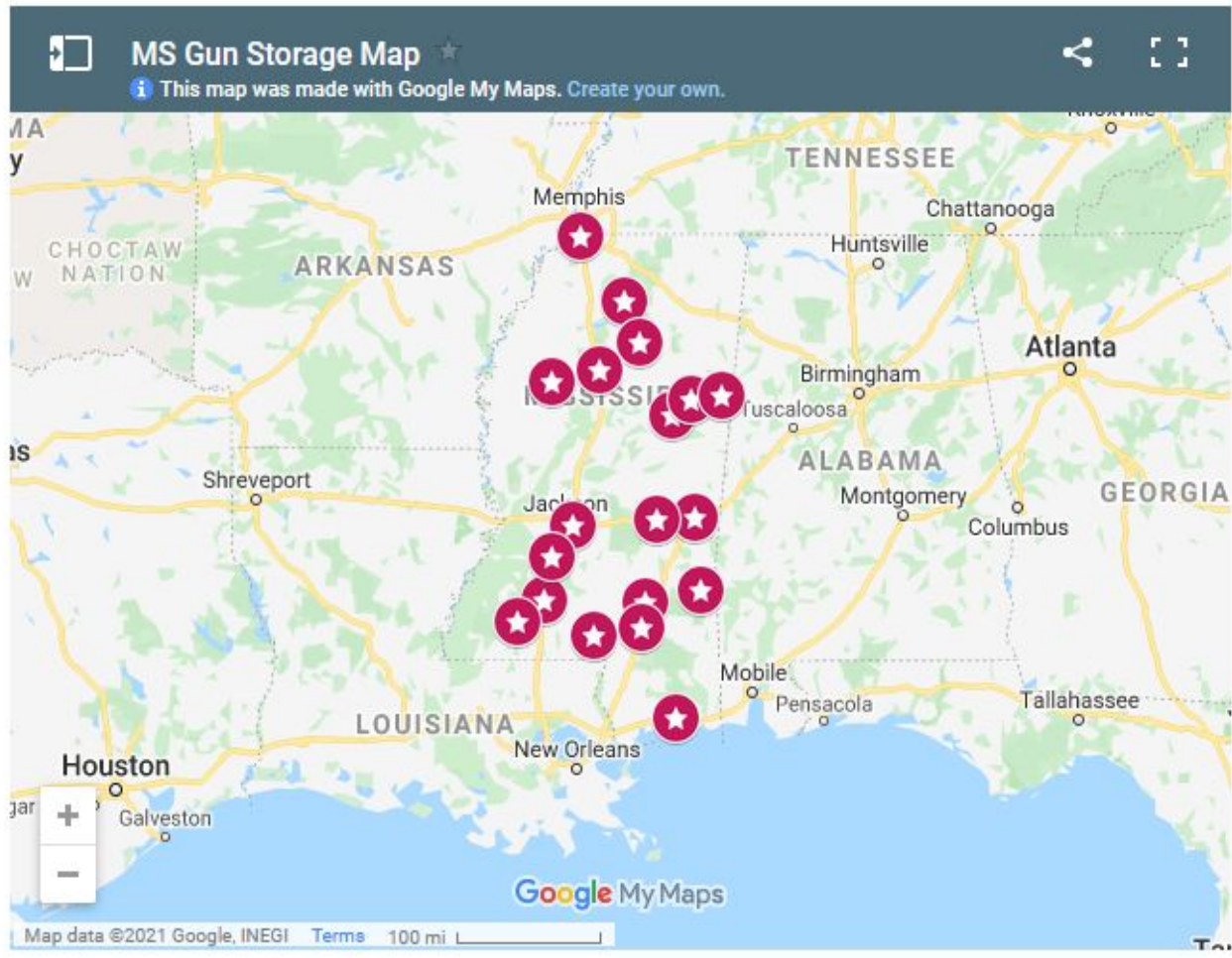
TEMPORARY, VOLUNTARY FIREARM STORAGE



SEVERAL STATES HAVE MAPS OF BUSINESSES AND AGENCIES THAT ARE WILLING TO CONSIDER REQUESTS FOR TEMPORARY AND VOLUNTARY FIREARM STORAGE. THESE RESOURCES ARE PARTICULARLY IMPORTANT FOR PERSONS IN CRISIS AND/OR AT RISK FOR SUICIDE.

Visual Developed by The Suicide and Emotion Dysregulation Laboratory





SAFE FIREARM STORAGE



- PSG was designed as a suicide prevention tool, but safe storage is relevant across forms of gun violence
- Safe storage reduces the odds of:
 - Unintentional shootings
 - Fatal domestic violence
 - Theft & subsequent trafficking for use in homicide

PROJECT SAFE GUARD APPROACH

- Motivational interviewing
 - Clinician is not the expert
 - No arguing
 - Roll with resistance
 - Leverage intrinsic motivation to change
 - Adapt to the values of the firearm owner
 - Consider safety as existing along a spectrum
- Sessions averaged 10-15 minutes



CONSORT Diagram

999 Assessed for eligibility

767 Excluded

364 Not meeting inclusion criteria
47 Declined to participate
115 Other reasons
241 Did not schedule appointment

232 Randomized

Lethal Means Counseling

59 Allocated to intervention
59 Received intervention

2 Lost at 3-month Follow Up
2 No contact
0 Declined to participate
0 Only completed interview

1 Lost at 6-month Follow Up
1 No contact
0 Declined to participate

LMC + Gun Locks

55 Allocated to intervention
55 Received intervention

8 Lost at 3-month Follow Up
4 No contact
2 Declined to participate
2 Only completed interview

1 Lost at 6-month Follow Up
0 No Contact
1 Declined to participate

Control

56 Allocated to intervention
56 Received intervention

2 Lost at 3-month Follow Up
2 No contact
0 Declined to participate
0 Only completed interview

1 Lost at 6-month Follow Up
1 No contact
0 Declined to participate

Control + Gun Locks

62 Allocated to intervention
62 Received intervention

5 Lost at 3-month Follow Up
5 No contact
0 Declined to participate
0 Only completed interview

1 Lost at 6-month Follow Up
0 No contact
1 Declined to participate

Category		N (%) / M (SD)
Age		35.01 (10.23)
Sex		
	<i>Male</i>	203 (87.5%)
	<i>Female</i>	29 (12.5%)
Race		
	<i>White</i>	179 (77.2%)
	<i>Black</i>	51 (22.0%)
Political Views		
	<i>Extremely Liberal</i>	1 (0.4%)
	<i>Somewhat Liberal</i>	9 (3.9%)
	<i>Moderate</i>	101 (43.5%)
	<i>Somewhat Conservative</i>	93 (40.1%)
	<i>Extremely Conservative</i>	28 (12.1%)
Rank		
	<i>Enlisted</i>	141 (60.8%)
	<i>Non-Commissioned Officer</i>	28 (12.1%)
	<i>Warrant Officer</i>	7 (3.0%)
	<i>Officer</i>	53 (22.8%)

Category	N (%) / M (SD)
Diagnostic Status	
<i>Past or Recurrent Depressive Episode</i>	73 (31.4%)
<i>Current or Lifetime Panic Disorder</i>	24 (10.3%)
Suicidality	
<i>Lifetime Suicidal Ideation</i>	49 (21.1%)
<i>Past Year Suicidal Ideation</i>	14 (6.0%)
<i>Past Month Suicidal Ideation</i>	1 (0.4%)
<i>Lifetime Suicide Plan</i>	15 (6.5%)
<i>Plan Involved Firearms</i>	11 (73.3%)
<i>Lifetime Suicide Attempt</i>	*8 attempts involved firearm* 13 (5.6%)

Most firearm attempts were aborted or interrupted, although one involved Russian Roulette

On average, participants own 5.91 firearms (range = 1-80)

Type

- Handgun – 91.4%
- Shotgun – 57.8%
- Rifle – 70.7%
- Other – 3.4%

Storage Practices

- At home – 96.1%
- Gun safe – 31.0%
- Locking device – 28.4%
- Unloaded – 49.6%

Primary reason for ownership

- Safety at or away from home – 52.6%
- Recreational purposes (e.g. hunting) – 25.4%
- Basic interest (e.g. maintaining a collection) – 1.3%
- Expression of freedom – 5.2%
- Other – 15.6%



Lethal Means Counseling, Distribution of Cable Locks, and Safe Firearm Storage Practices Among the Mississippi National Guard: A Factorial Randomized Controlled Trial, 2018–2020



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Does providing lethal means counseling and firearm cable locks prompt safe firearm storage among a sample of firearm-owning Mississippi National Guard members?

Participants

232

Firearm owning

Mississippi National Guard Members

87.5%
Male

77.2%
White

m=35.01 years

Participants were randomized to one of four groups:

Lethal means counseling with cable locks

Lethal means counseling without cable locks

Control with cable locks

Control with no cable locks

WHAT WAS FOUND?

Relative to the control, those who had lethal means counseling or were provided cable locks had greater adoption of safe firearm storage methods and these storage changes persisted through 3- and 6-month follow-ups.

WHAT DOES IT MEAN?

Providing lethal means counseling and cable locks can result in safer firearm storage practices over time.

The use of lethal means counseling and distribution of cable locks might be an important avenue for suicide prevention.

Successful conversations about safe firearm storage should validate the perspective of firearm owners and involve collaborative efforts to find solutions that map onto the firearm owner's values.

Conclusions

- Distribution of cable locks and lethal means counseling both increase safe firearm storage, and this increase persists over time.
- Cable lock distribution and lethal means counseling can prompt meaningful and sustained changes in firearm storage behavior.
- Acceptability of both a cable lock distribution and lethal means counseling was high, indicating they may be practical tools for firearms safety intervention.
- Successful conversations about firearm storage are possible, even when individuals do not actively seek out such conversations and do not see a connection between firearms and suicide. However, this success requires a nonjudgmental approach that validates the perspective of the firearm owner and works within his or her value system.

Please cite this article as: **Michael D. Anestis, PhD, Craig J. Bryan, PsyD, Daniel W. Capron, PhD, and AnnaBelle O. Bryan, MS (2021).** Lethal Means Counseling, Distribution of Cable Locks, and Safe Firearm Storage Practices Among the Mississippi National Guard: A Factorial Randomized Controlled Trial, 2018–2020 *American Journal of Preventive Medicine* (2021), doi: <https://doi.org/10.2105/AJPH.2020.306019>

FINDINGS



Did it work?

- Lethal means counseling resulted in greater adoption of gun safes and locking devices relative to control
- Distribution of cable locks resulted in greater adoption of locking devices relative to control

Did service members like it?

- >90% of baseline sample completed all three sessions
- 100% of those who received LMC or cable locks said they would recommend the intervention to a peer



MEANS SAFETY MESSAGING

WHAT SHOULD BE SAID AND WHO SHOULD SAY IT?

- Firearm suicide prevention likely requires a primary prevention approach with upstream adoption of behavior changes
- Inspiring such changes at scale is a challenge, particularly when the topic is politicized and the intended audience views the issue in a manner that is not data-informed
- We not only need the right message – we need it delivered by the right person in the right way
 - Science has not yet told us how to do that...



THE RIGHT MESSAGE?



- “Gun culture friendly”
- Acknowledgement of need for home protection
- Use of “firearm” vs “gun”

An examination of preferred messengers on firearm safety for suicide prevention

Anestis, M.D., Bond, A.E., Bryan, A.O., & Bryan C. J. (2021). *Preventive Medicine*, doi: <https://doi.org/10.1016/j.ypmed.2021.106452>



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Who do firearm owners and non-firearm owners deem most credible to discuss safe firearm storage for suicide prevention?
Do demographic differences within the sample of firearm owners impact the ranking of sources?

6,200
United States residents
participated in the study

Participants matched to 2010 Census data



65.2%
White

51.0%
Female



WHAT WAS FOUND?

White firearm owners:

- **Top three most credible sources to discuss firearm safety for suicide prevention:** law enforcement, current military personnel, military veterans.
- **Least credible sources to discuss firearm safety for suicide prevention:** celebrities, casual acquaintances, and physicians/medical professionals.



Female and male firearm owners

- **Top three most credible sources to discuss firearm safety for suicide prevention:** law enforcement, current military personnel, military veterans.
- **Least credible sources to discuss firearm safety for suicide prevention:** celebrities, casual acquaintances, and physicians/medical professionals.



WHAT DOES IT MEAN?

The **similar ranking of the top three sources** shows that the groups agree on the relative credibility of many sources, but the average level of credibility for particular sources varies. **The findings highlight that the effectiveness of messaging on safe firearm storage for suicide prevention may depend on the identity of the individual delivering the message.** Not every individual will find the same messenger equally credible, even if the message itself remains the same. **It is vital to ensure that both the content of the message and the individual delivering the message reflect the needs and perspective of the intended audience.**



Firearm owners and non-firearm owners:

- **Top three most credible sources to discuss firearm safety for suicide prevention:** law enforcement, current military personnel, military veterans.
- **Least credible sources to discuss firearm safety for suicide prevention:** celebrities, casual acquaintances, and physicians/medical professionals.



Black firearm owners:

- **Top three most credible sources to discuss firearm safety for suicide prevention:** law enforcement, family members, current military personnel.
- **Least credible sources to discuss firearm safety for suicide prevention:** celebrities, hunting or outdoor magazines and physicians/medical professionals.



Additional findings

- White and Black respondents significantly differed from one another on their average rankings of (1) **law enforcement**, (2) **military veterans**, (3) **current military personnel**, (4) **the National Rifle Association**, (5) **casual acquaintances**, (6) **friends or coworkers**, (7) **gun show managers or coordinators**, (8) **physicians or medical professionals**, and (9) **celebrities**.



PRELIMINARY DATA



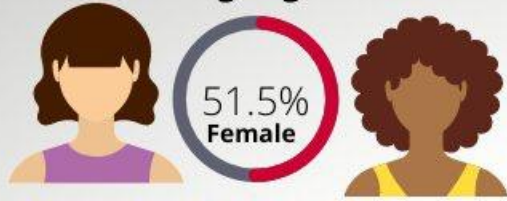
- Allie Bond recently published data from her thesis that expanded on these findings
 - 1 national sample, 1 sample of 3 states (NJ, MS, MN), plus analyzed each of the 3 states individually
 - Latent class analysis – are there different groups of firearm owners defined by demographic, psychosocial, and firearms-related variables?
 - Single handgun class
 - Few firearms class
 - Many firearms class
 - Long gun class
 - Who do those classes want to hear from?
- Law enforcement, family members, suicide prevention groups, and physicians largely rated as highly credible
- Firearms groups (lobbying groups, manufacturers, retailers) and celebrities frequently rated as not credible

Public Perception of Gun Violence-Related Headline Accuracy and the Credibility of Media Sources

Is the source or the content of firearms related headlines associated with how accurate U.S. adults perceive headlines to be?



Average age - 45.52



Participants were randomized to see two mock headlines reportedly from Fox News or MSNBC

"Gun violence is the result of mental health problems" – Gun violence headline

"Storing firearms in a safe can help prevent suicides" – Firearm suicide headline



50% of participants were told the gun violence headline was from Fox News and the firearm suicide headline was from MSNBC.

The other 50% were told that the gun violence headline was from MSNBC and the firearm suicide headline was from Fox News.

Within the full sample, the only factor that predicted how credible individuals considered the headlines to be was the extent to which they believed the news source itself was credible.



Among firearm owners, the extent to which they believed a news source to be credible was associated with how accurate participants believed headlines to be and the mental health headline was perceived to be more accurate when presented from MSNBC.

Secondary analyses found several demographic factors to be associated with the perceived credibility of both news networks in the total sample...



Individuals who rated Fox News as more credible were:

- Less likely to be Asian, relative to white
- More likely to own firearms

Individuals who rated MSNBC as more credible were:

- Younger in age
- Had greater educational attainment
- More likely to live in an urban relative to a rural area



Firearm owners who rated Fox News as more credible:

- Had greater educational attainment



Firearm owners who rated MSNBC as more credible were:

- Younger in age
- Less likely to identify as a race classified as Other relative to white



These results emphasize the importance of having media perceived as credible by the target audience serve as messengers of accurate information on gun violence prevention. No matter how accurate, the information presented by a messenger seen as non-credible is unlikely to prompt behavior change. Perhaps more alarmingly, inaccurate information presented by a messenger seen as credible may prompt individuals to accept that inaccurate information as factual, thereby creating a substantial public health obstacle.

MOST RECENT STUDY



- 719 firearm owning active duty service members
 - Recruited via IPSOS/KnowledgePanel
 - 2x2x3 design
 - All participants received a visual message with text describing importance of safe firearm storage for suicide prevention
 - 50% get “gun culture friendly” addition/50% do not
 - 50% get “enhanced safety messaging” addition/50% do not
 - Safe stock photo of service member presented to all, but participants randomized to receive 1 of 3 potential military professions describing the person in the image (e.g. purported messenger)
- Will examine immediate shifts in openness to safe firearm storage

OVERALL SUMMARY



- Firearms play a pivotal role in US suicide
- We have many viable options or addressing the issue, but most are not widely used
- Need to better understand how to promote meaningful and sustainable behavior change
 - This likely involves shifts in cultural norms akin to drunk driving shifts
- A ton of work remains to be done – lots of room for young scientists to make their mark



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THANK YOU

MDA141@SPH.RUTGERS.EDU

@PSYCHBROWNBAG

@NJGVRC