

Spring 2019

What Gun Safety and Access Policies did Participants Think would be Effective in Preventing Accidental Gun Deaths?

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Recommended Citation

O'Keefe, Bridget and White, Stephen, "What Gun Safety and Access Policies did Participants Think would be Effective in Preventing Accidental Gun Deaths?" (2019). *Thinking Matters Symposium*. 181.
https://digitalcommons.usm.maine.edu/thinking_matters/181

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What Gun Safety and Access Policies did Participants Think would be Effective in Preventing Accidental Gun Deaths?

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Background

The goal of our research is to collect information on gun safety and access policies that may lead to strategies to prevent accidental gun deaths in children and adults as well as to investigate perceptions of safety in one's own neighborhood.

22.3 % of gun-owning households in the United States keep at least one of their guns loaded and of those 22.3 %, 60.7 % store their loaded weapons unlocked².

26 million children in the US are living in homes with firearms. Of these children, 4.6 million children live in homes with unlocked and loaded firearms³.

1 in 3 Veteran firearm owners stores at least one firearm loaded and unlocked¹.

"About three-quarters of gun owners who say the community where they live is not too safe or not at all safe (74%) – and 66% of those who say they live in a community that is very or somewhat safe – cite protection as a major reason they own gun."¹

"Men and women are about equally likely to say protection is a major reason they own a gun: 65% and 71%, respectively."¹

Research Questions

What are the Relationships Among:

- Gender
- Age
- Ethnicity
- Military service
- US Census region of origin
- Presence of children in the home
- Gun ownership status

AND

- One's feelings of personal safety in their current neighborhood?
- One's perceptions of the effectiveness of five gun storage and access prevention policy ideas?

Methods

Researchers developed an IRB-approved survey tool that included 7 demographic questions and 6 questions asking participants to rate:

- their feelings of personal safety in their current neighborhood and
- their perceptions of the effectiveness of five gun storage and access prevention policy ideas.

Participants were recruited via Facebook using convenience and snowball sampling. Researchers also directly emailed affiliated agencies.

Researchers administered the survey tool using USM's SNAPSURVEY software to protect the anonymity of respondents.

Of the 1045 total responses collected, 1021 (97.7%) of participants answered at least 11 out of 14 questions. Researchers excluded cases in which three or more answers were left blank. This much missing information made them undesirable for use in quantitative data analysis.

All cases with available data for relevant variables were included in all analyses unless the participant did not answer two or more questions.

Data was analyzed in SPSS using linear regressions.

References

- Azrael, D., Miller, M., Rowhani-Rahbar, A., & Simonetti, J. (2018). Firearm Storage Practices Among American Veterans. *American Journal of Preventive Medicine*, 53(4), 445-454.
- Hamilton, D., Lemeshow, S., Saleska, J. L., Brewer, B., & Strobino, K. (2018). Who owns guns and how do they keep them? the influence of household characteristics on firearms ownership and storage practices in the united states. *Preventive Medicine*, 116, 134-142. doi:10.1016/j.ypmed.2018.07.013
- Hemenway, D., & Solnick, S. (2015). Children and unintentional firearm death. *Injury Epidemiology*, 2(26), 1-6. http://dx.doi.org/10.1186/s40621-015-0057-0

Participant Ratings of their Feelings of Personal Safety in their Current Neighborhoods

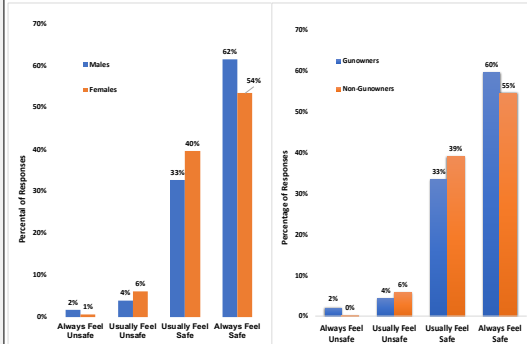


Figure 1. Perception of Safety by Gender

Figure 2. Perceptions of Safety by Gun Ownership Status

Participant Ratings of the Effectiveness of Five Gun Safety and Access Policies for Reducing Accidental Gun-Related Deaths

4 = Extremely Effective at Reducing Accidental Deaths
 1 = Not Effective At All at Reducing Accidental Deaths

Variable	Gun Safety and Access Policies	Mean	SD	N
LOCKDEV	Requirement to Store all Firearms with a Trigger Lock	2.61	1.19	995
CHLDTRNG	Requirement for Children to Attend Gun Safety Training	2.59	1.16	997
COGDIS	Requirement to Surrender Guns with Dementia Diagnosis	2.43	1.17	995
STORSEP	Requirement to Store Guns Separately from Ammunition	2.40	1.25	998
DOCTOR	Requirement for Doctors to Talk about Guns with Patients Yearly	1.84	1.09	998
SMRYSORE	Total Score on 5 Policy Questions (Scores Range from 5 to 20)	11.87	4.68	987

Figure 3. Perceptions by Ownership and Gender

Participant Ratings of the Effectiveness of Five Gun Safety and Access Policies for Reducing Accidental Gun-Related Deaths

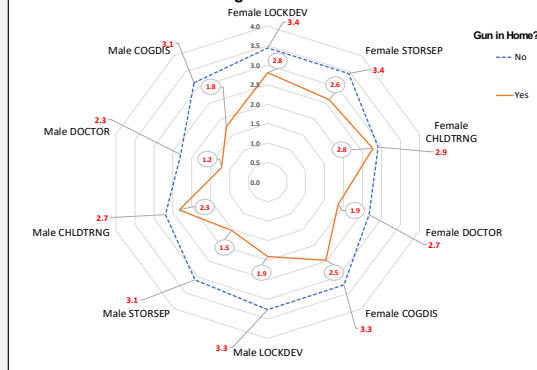


Figure 4. Perceptions of Policy Effectiveness

Key Findings – Feelings of Personal Safety

61.0% of respondents (N = 609) reported having at least one gun in the home.
 32.5% of respondents (N = 322) reported living with children under the age of 8.
 19.3% of respondents (N = 192) indicated prior military experience.

Using a 4-point Likert scale, participants were asked: "How safe do you feel in the neighborhood in which you currently live?" (Figures 1 & 2)

- 57.8% (N = 573) indicated that they ALWAYS FEEL SAFE (4 out of 4)
- 35.7% (N = 354) selected a 3 out of 4

A linear regression analysis showed that none of the independent variables these researchers tested (gender, age, ethnicity, military service, US Census region of origin, presence of children in the home, or gun ownership status) predicted participants' feelings of safety in their current neighborhoods.

Key Findings – Perceptions of Effectiveness of Policies

(See Figure 3 for variable definitions)

A linear regression was calculated to predict perceptions of policy effectiveness (SMRYSORE) based on Age, Ethnicity, Gender, Gun Ownership Status, Military Service, and US Census Region of Origin.

Independent Variables	B	SE B	β	t	p
(Constant)	18.401	0.626		29.386	0.000
Military Service	(0.106)	0.308	(0.009)	(0.343)	0.732
Children in Home	(0.058)	0.262	(0.006)	(0.223)	0.824
Gender	(1.855)	0.210	(0.254)	(8.827)	<0.001
Gun in Home	(4.435)	0.264	(0.462)	(16.771)	<0.001
Age	0.015	0.009	0.043	1.689	0.092
Ethnicity	(0.878)	0.351	(0.068)	(2.647)	0.008
Region of Origin	(0.106)	0.043	(0.064)	(2.477)	0.013

A significant regression equation was found: (F(7, 950) = 100.15, p < 0.001), with an R² of 0.425.

When these researchers used a linear regression to control for all independent variables, gun ownership, gender, ethnicity, and Region of Origin were all significant predictors of participants' perceptions on the effectiveness of gun safety and access policies. (Figure 4)

When asked about a policy that would require that primary care providers ask annually about clients' gun ownership (DOCTOR), 56.1% responded that the policy would be: NOT EFFECTIVE AT ALL at reducing accidental gun deaths. This question elicited the lowest mean, median, and mode, 1.84, 1.0, and 1.0, respectively, from survey participants.

55.0% of participants thought that LOCKDEV would be EXTREMELY (4) or SOMEWHAT Effective (3) at Reducing Accidental Deaths, 32.4% and 22.6%, respectively.

36.5% of participants thought that STORSEP would be NOT EFFECTIVE AT ALL (1) at Reducing Accidental Gun Deaths.

30.2% of participants thought that COGDIS would be EXTREMELY EFFECTIVE (4) at Reducing Accidental Gun Deaths.

Discussion

Only 6.5% (N = 65) indicated that they did not feel safe in their current neighborhood which is not consistent with findings from Azrael, Miller, Rowhani-Rahbar, and Simonetti (2018)²

Other researchers found most gun owner report that they live in a community that is unsafe¹, The data collected by these researchers suggests that gun ownership is not associated with [or does not predict] feelings of personal safety when controlling for other demographic variables.

Further research is needed to investigate deeper into the finding that about 2/3 of gun owners cite personal protection as their most important reason to own a gun.¹

In further analysis, responses from Non-White participants (N=152) will be compared to responses from White participants (N=845). These researchers also plan to analyze responses from people who grew up in different parts of the US.

Acknowledgements

Bridget and Stephen would like to thank Dr. Casey and all the participants that gave their time and opinions for this study.