

## BACKGROUND

Maintaining firearms in homes is associated with increased risk of injury and death. Safe firearm storage practices (e.g., unloaded, use of lockbox or firearm safe) can mitigate these negative outcomes (Grossman et al., 2005).

Lifetime posttraumatic stress disorder (PTSD) has been associated with a 70% increase in unsafe firearm storage practices among Service Members and Veterans (SMV) with children (Cozza et al., 2021).

Family composition (i.e., marital status, having children in the home) of firearm owning SMVs is an important consideration in understanding risk and informing prevention strategies. However, its associations with firearm ownership and unsafe storage practices have not been adequately examined.

**Current study:** Examine associations of lifetime PTSD and family composition (i.e., married/partnered vs. unmarried; children vs. no children) with firearm ownership and unsafe firearm storage practices in a sample of SMVs.

## METHOD

**Sample:** Active duty, reserve, and National Guard SMVs (n=10,027) who completed a survey as part of *The Study to Assess Risk and Resilience in Servicemembers – Longitudinal Study (STARRS-LS)*.

**Analysis:** Weighted logistic regressions adjusted for participant sex and age, lifetime mental health conditions (i.e., ADHD, substance use problems, and mood disorders), and emotion dysregulation. Tests of the interactions between main predictors were also conducted.

**Predictors:** Lifetime PTSD and family composition (i.e., married/partnered, children at home).

**Outcomes:** 1) Firearm ownership, and 2) Unsafe firearm storage (i.e., loaded and unlocked vs. other storage practices).



The authors have no conflict of interest to report.

Lifetime PTSD was associated with greater likelihood of both firearm ownership and unsafe firearm storage.



Being married/partnered and having children in the home diminished risk for firearm-related morbidity and mortality in SMVs with a lifetime PTSD diagnosis.

Understanding intrafamilial mechanisms underlying these associations could inform prevention strategies to address firearm-related risk in families of SMVs with PTSD.

## RESULTS

Multivariate models indicated lifetime PTSD was associated with greater likelihood of firearm ownership (**Figure 1**; odds ratio [OR] = 1.31, confidence interval [CI] = 1.11-1.55) and unsafe firearm storage (**Figure 2**; OR = 1.35, CI = 1.08-1.68).

Having children living in the home was associated with lower likelihood of unsafe firearm storage (OR = 0.38, CI = 0.31-0.48).

Having children was also associated with lower likelihood of firearm ownership, but only in families of SMVs with a lifetime PTSD diagnosis (**Figure 3**; OR = 0.62, CI = 0.47-0.83).

Being married/partnered (versus unmarried) was associated with greater likelihood of firearm ownership (**Figure 1**, OR = 1.85, CI = 1.51-2.25), but lower likelihood of unsafe firearm storage only in families of SMVs with lifetime PTSD diagnoses (**Figure 4**; OR = 0.61, CI = 0.40-0.92).

Figure 1. Predictors of Firearm Ownership Odds Ratios (ORs)

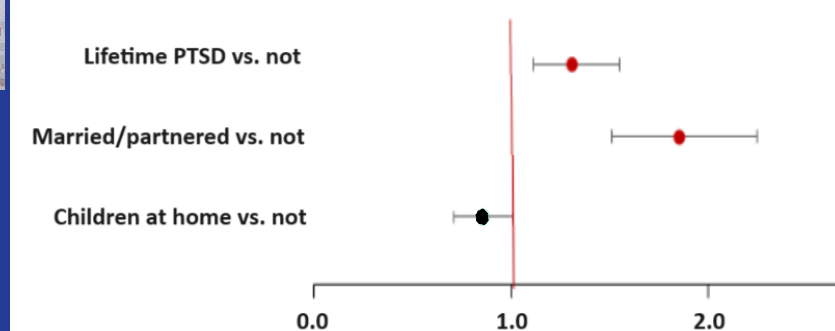


Figure 2. Predictors of Unsafe Firearm Storage Odds Ratios (ORs)

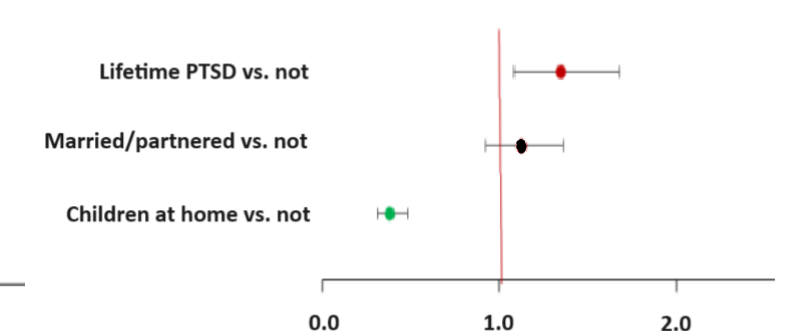


Figure 3. Predicted Probabilities for Firearm Ownership (children at home x lifetime PTSD)

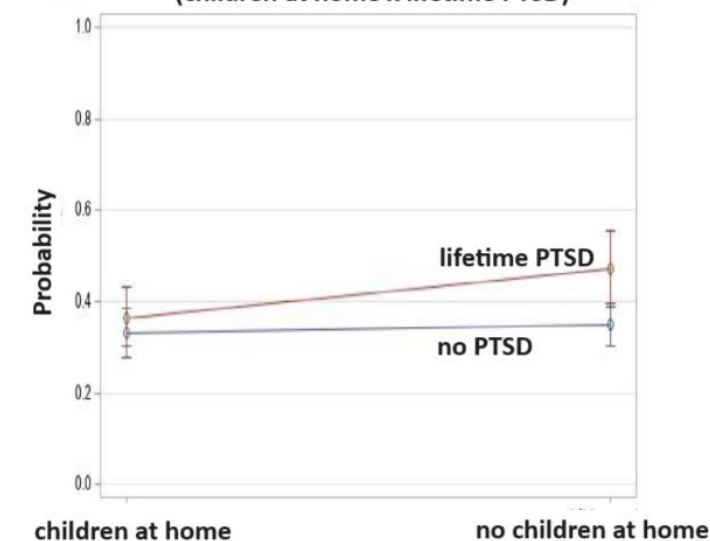


Figure 4. Predicted Probabilities for Unsafe Firearm Storage (married/partnered x lifetime PTSD)

