

Reducing Firearm Access for Youth At-Risk for Suicide in a Pediatric Emergency Department

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Background:

Firearm-related suicide is the second leading cause of pediatric firearm death. Lethal means counseling (LMC) can improve firearm safe-storage practices and be a critical intervention for families with youth at-risk of suicide. Our study objectives are to evaluate feasibility and acceptability of pediatric emergency department (ED) behavioral health (BH) specialists providing LMC to caregivers of youth presenting with BH complaints and to investigate practice changes pre- to post-intervention.

Study Methods:

Prospective feasibility study of caregivers of youth presenting to pediatric ED with BH complaints. Caregivers completed a self-administered electronic survey regarding self-reported demographics and firearm safe-storage knowledge/practices. All participants received LMC from BH specialist after primary BH concerns were addressed. Gun-owners were offered a free lockbox and/or trigger lock. 1-week follow-up electronic surveys gathered self-reported data on firearm-safety practices and intervention acceptability. Primary outcomes include proportion of gun-owning participants, follow-up survey response, and acceptability of LMC. Secondary outcomes include reported change in firearm-safety practices. Descriptive statistics were used for univariate and paired data responses. Likert-scale acceptability responses were dichotomized to strongly agree/agree (affirmative) vs. neutral/disagree/strongly disagree.

Results:

81 subjects were approached with 50 (62%) enrolling (96% female, 47% Black, mean age 40 years (SD± 8.3)). 60% had no prior gun-safety counseling/education; 44% had at least one gun at home. Among gun-owners (n=22), 81% had handguns, 45% had shotguns, and 27% had rifles. 63% always used safe-storage device. 45% used gun-safe, 27% used lock box, and 23% used trigger lock. 59% of gun-owners requested safe-storage devices.

78% (n=39/50) of enrolled participants completed follow-up, where 69% of participants asked about household guns prior to child visiting other homes compared to 46% pre-intervention (+23%). >80% affirmed at intake and follow-up that ED gun-safety education was useful and 85% affirmed at intake and follow-up that ED is appropriate place for gun safety discussions. Among gun-owners that completed follow-up (n=19), 100% stored all guns locked at 1-week compared to 74% pre-intervention (+26%). Ten families removed guns temporarily or permanently after the ED intervention.

Conclusions:

Our study shows that it is feasible to provide LMC in the ED via BH specialists to families of high-risk youth. Caregivers report finding this intervention useful, acceptable, and appropriate. Additionally, LMC and device distribution led to reported changes in safe-storage practices. This

study further informs the need for not only safe storage legislation but also state-level resources for provision of firearm safe-storage devices.