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# Disparities in Adverse Childhood Experiences among Individuals with a History of Military Service

**John R. Blosnich, PhD, MPH**[1,2], **Melissa E. Dichter, PhD, MSW**[3,4], **Catherine Cerulli, PhD, JD**[1,5], **Sonja V. Batten, PhD**[6,7], **Robert M. Bossarte, PhD**[1,8]

[1]University of Rochester, Department of Psychiatry, Rochester NY

[2]Department of Veterans Affairs, Center for Health Equity Research and Promotion, Pittsburgh PA

[3]Department of Veteran Affairs, Center for Health Equity Research and Promotion, Philadelphia PA

[4]University of Pennsylvania, School of Social Policy & Practice, Philadelphia PA

[5]University of Rochester, Susan B. Anthony Center for Women's Leadership, Rochester NY

[6]Department of Veterans Affairs Central Office, Mental Health Services, Washington, DC

[7]Uniformed Services University of the Health Sciences, Department of Psychiatry, Bethesda, MD

[8]Department of Veterans Affairs, VISN2 Center of Excellence for Suicide Prevention, Canandaigua NY

## Abstract

**Importance:** Adverse childhood experiences (ACE) are associated with several adulthood health problems, such as self-directed violence. For some individuals, enlistment in the military may be an instrumental act to escape adverse household environments, however prevalence of ACE among persons with military service histories has not been documented in the U.S. using population-based data.

**Objective:** To compare the prevalence of ACE among individuals with and without histories of military service. We hypothesized that ACE differences between military and non-military groups will be more pronounced during the era when the military became all-volunteer (enlisted on or after 1973) versus the draft era (pre-1973).

**Design, Setting & Participants:** Data are from the 2010 Behavioral Risk Factor Surveillance System. Computer-assisted telephone interviews were conducted with population-based samples of non-institutionalized U.S. adults during January-December 2010. Analyses were limited to respondents who received the ACE module (n=60,598). Participants were categorized by military service history and whether a respondent was 18 years of age in 1973.

Corresponding Author: John R. Blosnich, PhD, MPH; Department of Veterans Affairs; VA Pittsburgh Healthcare System; Center for Health Equity Research and Promotion; University Drive C (151C-U); Building 30; Pittsburgh, PA 15240-1001, john.blosnich@va.gov (p) 412.360.2138 (f) 412.360.2284.

Disclosures

None of the authors have any conflicts of interest to disclose.

**Main Outcomes:** Military service history was defined by active duty service, veteran status, or training for the Reserves or National Guard. The ACE inventory assessed 11 negative experiences before the age of 18. Weighted chi-square and multiple logistic regression analyses were used to examine differences in ACE by military service history, era of service, and gender.

**Results:** Any difference in prevalence of ACE showed greater odds for those with military experience. In the All-volunteer Era, men with military service had higher prevalence of all eleven ACE items than men without military service; in the Draft Era there were only two differences. Notably, in the All-volunteer Era, men with military service had twice the odds of reporting forced sex before the age of 18 (OR=2.19, 95%CI: 1.34–3.57) compared to men without military service. Fewer differences were observed among women in the All-volunteer Era and Draft Era

**Conclusions & Relevance:** ACE differences by era and gender lend preliminary support that enlistment may serve as an escape from adversity for some individuals, at least among men. Further research is needed to understand how best to support service members and veterans who may have experienced ACE.

## Introduction

Recent research about adverse childhood experiences (ACE) clarifies the serious public health ramifications of early-life stressors like divorce, household substance abuse, and sexual abuse on future health and wellness as children transition into adolescence and adulthood.[1, 2] Examples of such adulthood health consequences include posttraumatic stress disorder (PTSD),[3] substance use,[4–6] attempted suicide,[7–10] physical health conditions such as lung cancer,[11] liver disease,[12] and decreased life expectancy by up to 20 years.[13] Persons with a history of military service may be a specific subpopulation of interest regarding ACE since some may enlist to escape personal problems such as household dysfunction or abuse,[14–16] thereby potentially elevating the prevalence of ACE among military populations. Perhaps more importantly, military service may expose persons with a history of trauma to additional trauma (e.g., combat, military sexual trauma), which may additively elevate risks of poor mental health and suicide risk.[17–19] However, the prevalence of childhood adversity among US military and veteran populations is largely unknown.

In recent years, both active duty and veteran populations have experienced unprecedented burdens of poor mental health and suicide.[20–23] While there is evidence linking combat exposure and suicidal ideation,[24–26] nearly half of suicides among recent active duty personnel have been among persons who have never deployed to Iraq or Afghanistan,[27] leading to research about salient beacons within the constellation of suicide risk factors, which may be missed by health providers and military line leaders. For over a decade, ACE have been identified as extremely potent correlates of adulthood suicide risk.[10, 28, 29] Dube and colleagues noted both independent and additive associations of experiences of childhood adversity and suicide attempts in adulthood: compared with persons who experienced no ACE, persons with at least one ACE were over twice as likely to report a suicide attempt; those with four or more ACE were nearly four times as likely to report having attempted suicide.[8]

Furthermore, prevalence of ACE may be higher among military populations since some persons may enlist to escape violent, abusive, or dysfunctional home environments.[14, 15, 30] For example, Ginexi and colleagues found that *get away/escape* from "…family problems, a suffocating environment, a poor job market, or a broken relationship"[p.9] was one of eight emergent themes of reasons enlistees provided in interviews about reasons for joining the military."[15] Among a stratified random sample of 520 women veterans receiving care in the Veterans Health Administration (VHA) system at 6 women's health-care centers, Sadler et al. noted over half acknowledged physical or sexual abuse before enlisting in the military; of those 86% indicated enlisting to escape an abusive or distressing environment.[16] Similarly, in a study comparing 142 women veterans with 81 non-veteran women, among survivors of childhood sexual abuse, 90% of veterans cited parents as perpetrators compared to 10% of non-veterans.[31] Other studies note high rates of childhood adversity among current and former military,[32, 33] but the literature remains limited by convenience-based samples, lack of non-military comparison groups, and an overall paucity of research about male ACE survivors.

To address these limitations, we used a large population-based dataset to compare the prevalence of ACE among adult men and women based on military service histories. Moreover, we expand the developing literature about ACE among current and former military personnel by taking into account the change in the U.S. in 1973 from conscription to an all-volunteer force. If some persons enlist to escape ACE, the draft would have masked the escape phenomenon by conscripting men from non-dysfunctional homes. Consequently, we hypothesized that ACE differences between military and non-military groups would be most pronounced during the All-volunteer Era (since 1973) versus the Draft (before 1973). Further, we hypothesized that differences in ACE between cohorts who served in the All-volunteer and Draft Eras will be greater for men than for women since women were not subject to conscription.

## Methods

Data are from Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance System (BRFSS) surveys from eleven states that elected to administer the ACE module in 2010. The BRFSS is the world's largest and longest ongoing annual population-based surveillance project, using computer-assisted telephone interviews with probability-based samples of noninstitutionalized adults ages 18 years and older.[34] Of the states that administered the ACE module, four states (Hawaii, Nevada, Vermont, and Wisconsin) and the District of Columbia administered the module to their entire sample, and six states (Maine, Nebraska, Ohio, Pennsylvania, Utah, and Washington) administered the module to one or more splits of their samples. Sample splits maximize collection of diverse information while reducing the risk of survey fatigue by dividing the entire state sample into two or more equivalent, probability-based samples, requiring implementation of augmented sampling weights. Using the publically available 2010 BRFSS data files from the CDC website, we merged the sample split datasets with the national BRFSS datasets, which permitted the use of augmented weights for participants from sample splits. Further information about sample split methodology and use are available from the CDC.[35] Across the 11 states, 60,598 persons received the ACE module.

Military service history was measured by one item: “Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.” Response options were: “1) Yes, now on active duty; 2) Yes, on active duty during the last 12 months, but not now; 3) Yes, on active duty in the past, but not during the last 12 months; 4) No, training for Reserves or National Guard only; 5) No, never served in the military.” Military service history was defined as yes (responses 1 through 4) versus no (response 5).

Other demographic characteristics included educational attainment, which was recoded into a dichotomy of *high school diploma or lower* vs. *some college or higher*, and race/ethnicity, which was recoded into *white, non-Hispanic* vs. *racial/ethnic minority*). Since the United States moved from the military draft to an all-volunteer force in 1973, a dichotomous category of military service era was created based on age: *Draft Era* persons who were older than 18 years in 1973 (ages ≥56 years in 2010) and *All-volunteer Era* persons who turned 18 years old during or after 1973 (ages 18–55 years in 2010).

ACE were gauged by an 11-item inventory, which asked respondents about whether they had a wide array of negative experiences in childhood before the age of 18: 1) living with a person who was depressed, mentally ill, or suicidal; 2) living with a problem drinker or alcoholic; 3) living with a person who used illicit drugs or abused prescription medication; 4) lived with anyone who had been incarcerated; 5) parental separation or divorce; 6) witnessing parental or guardian intimate partner violence; 7) being physically abused (excluding spanking) by a parent or adult in the home; 8) being sworn at, insulted, or put down by a parent or adult in the home; 9) being touched sexually by an adult or anyone who was at least 5 years older than the respondent; 10) made to touch sexually an adult or anyone who was at least 5 years older than the respondent; 11) or being forced to have sex with an adult or anyone who was at least 5 years older than the respondent. A count variable of the 8 categories of ACE (collapsing the three sexual abuse items in a single category) was also generated for persons who indicated 0, 1, 2, 3, or 4+ categories.[36]

All analyses were stratified by gender since forms of ACE, particularly sexual abuse, differ significantly among men and women[36–38] and since military service is overwhelmingly populated with men. Chi-square tests were used to examine differences in demographic information and ACE by military service and no military service in each of the two era categories (e.g., military experience vs. no military experience among Draft Era men). Logistic regression models, adjusted for age, race/ethnicity, and education were used to examine the association between military service history and each of the ACE outcomes. All analyses were conducted using Stata/SE 12 and weighted to account for the complex sampling design and non-response. We report unweighted frequencies, weighted percentages, and weighted adjusted odds ratios with 95% confidence intervals using Taylor linearized standard errors. Missing data were handled with listwise deletion. The Syracuse Veterans Affairs Medical Center institutional review board approved this project.

# Results

## Demographics

Overall, 12.7% (95%CI:12.2–13.3) of the sample reported military service, which was far more common among men (n=8,447; 24.0%) than among women (n=785; 2.0%) (see Table 1). Men with history of military service were significantly older and less racially/ethnically diverse than men who did not serve, though the racial/ethnic differences were mainly driven by the Draft Era group. Though there were slight differences in educational attainment in both eras between men based on military service, in aggregate these educational differences were not statistically significant. Among women, the no-military and military experienced groups were demographically similar, except women with a history of military service had higher educational attainment (75.5% vs. 63.1%, respectively).

## ACE among men with and without military service history

Differences in prevalence of ACE were more pronounced among men by military service in the All-volunteer Era than among men by military service in the Draft Era (see Table 2). In the All-volunteer Era, men with military service histories had significantly higher prevalence of all 11 ACE items than men without military service histories. In particular, All-volunteer Era men with military service histories had twice the prevalence of all forms of sexual abuse than their non-military male peers: being touched sexually (11.0% vs. 4.8%), being forced to touch another sexually (9.6% vs. 4.2%), and being forced to have sex (3.7% vs. 1.6%). Moreover, All-volunteer Era men with military service histories had twice the prevalence of experiencing ≥4 ACE categories than men without military service histories (27.3% vs. 12.9%). Conversely, the only difference among Draft Era men was household drug use, in which men with military service had a significantly lower prevalence than men without military service. In models adjusted for demographics, men with military service in the All-volunteer Era were more likely to report all forms of ACE than their non-military experienced male peers, with odds ratios ranging from 2.00–2.43 on nine individual ACE, including all three items related to sexual abuse (see Table 3).

## ACE among women with and without military service history

There were markedly fewer differences in ACE among women with and without military service histories than among men (see Table 4). Among All-volunteer Era women, those with military experience had higher prevalence of physical abuse, exposure to domestic violence, emotional abuse, and being touched sexually than women without military service. The groups did not differ on the prevalence of the other seven ACE items nor did they differ in number of ACE categories experienced. Fewer differences were noted among women from the Draft Era, with larger proportions of women with history of military service reporting physical abuse, exposure to domestic violence, and emotional abuse than women without military service. After adjusting for demographic information, women with military service histories in both eras had similar patterns of elevated odds for physical abuse, household alcohol abuse, exposure to domestic violence and emotional abuse when compared with their respective female peers without military service (see Table 5). Additionally, women with military service history during the All-volunteer Era were more likely to report being touched sexually than women without military service.

## Comment

As the largest US study to examine the prevalence of ACE among men and women by military service history, we found elevated prevalence of ACE among men and women who have served in the military. In particular, we noted pronounced differences in ACE by military service history among men who served in the All-volunteer era; differences not observed among men who would have served during the Draft Era. Thus, it is possible that the influx of men from healthy homes caused by the Draft mitigated detectable differences in ACE between men with and without military service. This patterning of differences lends support to the hypothesis that the military may serve as a route for a subset of persons to escape dysfunctional home environments, at least among men.

The association between military service history and ACE among All-volunteer Era men is further supported by the overall lack in differences among women between these eras. First, since women were not conscripted, the ability to detect ACE among women in the military would not be prone to the effects of the Draft (i.e., influx of persons without exposure to adverse events). Additionally, the overall similarity between military and non-military women across eras suggests that the military may not serve as escape for some women as it may for some men. One explanation may be since men tend to be the perpetrators of interpersonal violence against women,[39] women survivors may not view the military – an institution mostly of men – to be a safe option. Furthermore, military service may provide a socioeconomic advantage for some women, resulting in enlistment as an occupational choice rather than an escape from adverse home environments. For instance, our results showed women with military service had higher educational attainment than women without military service history. Alternatively, the sample size of women with military service history was relatively small, so it possible that limited statistical power may have hampered our ability to detect differences as we did among men. Further research is needed to understand these differences in ACE and enlistment motivations.

Greater awareness of ACE and resulting vulnerabilities may also help in understanding health outcomes among current and former military personnel.[6, 10, 40] For instance, some studies report elevated suicide rates among active duty servicepersons and subgroups of Veterans,[21, 22, 27] and ACE has been associated strongly with suicide risk.[10] Using data from the National Comorbidity Study, Molnar et al. noted that men who reported childhood rape had eleven times the odds of reporting a serious suicide attempt compared with men without abuse.[41] Our results indicated that men with military experience in the All-volunteer Era were more than twice as likely as men without military service history to report being forced to have sex before the age of 18. Potentially unmeasured components of suicide risk among military and veteran populations may be childhood trauma[42] and the potential interaction of it with trauma incurred during military service. Unfortunately the BRFSS does not measure PTSD or suicidality. Future research with these outcomes can elucidate potential consequences of ACE among current and former military personnel.

In addition to types of ACE, All-volunteer Era men with military service had over twice the prevalence of experiencing ≥4 categories of ACE. This is particularly concerning given the strong evidence of a dose-response relationship between ACE and several health outcomes,

including premature mortality.[13] Research about mental health (e.g., depression) – and possibly physical health – among current and former military personnel should consider taking account of ACE, especially when comparing current and former military with non-military individuals.

Identifying the presence of ACE among military service members and veterans may aid in better understanding the etiology of trauma-related mental and behavioral health conditions as well as the cumulative impact of trauma. Furthermore, knowing (1) that there is a high prevalence of ACE among some persons with history of military service and (2) the mental and behavioral health risks associated with ACE,[8,37] it may be helpful to invest in increased community and clinical support services in early adult years for military personnel to mitigate the impacts of ACE.

Several limitations must be noted. First, although a large population-based sample, the constituent samples came from individual US states and may not be nationally representative. Second, the ACE inventory specifically asks respondents about experiences before the age of 18 and may be prone both to recall bias, cohort effects, and social norms (e.g., divorce being less common in the 1960s). Third, military service was self-reported and could not be corroborated with official records of service. Fourth, as cross-sectional data, there is no way to demonstrate causation between ACE and enlistment in military service. Furthermore, the BRFSS does not collect information about motivations to enlist. Although previous reports show that some enlistees cited escaping a negative situation as motivation,[14–16] we are unaware of studies that specifically have examined ACE as a motivation. There are several variables not included in BRFSS that could alternatively explain military enlistment beyond ACE, such as family history of military service or indicators of childhood socio-economic status (e.g., parental income or education). Finally, no data were available to examine whether ACE were associated with current or past trauma, relegating ACE in this study as *potentially traumatic events*. As awareness of retraumatization grows as a salient determinant of individual and public health,[43] it is important that research about ACE evolves to increase the precision of terms used and to examine factors involved in both risk and resilience.

It is paramount to emphasize two critical points in appraising the present results. First, most people who survive ACE can lead healthy lives.[4, 7] For instance, Afifi et al. showed that among respondents who experience both parental divorce and child abuse, less than 25% had PTSD and only 34% had any mood disorder.[7] Although these percentages are elevated, an untold story is that the majority of people who experienced both forms of ACE did not have adulthood mental health problems, and the research community has little to no understanding what fosters this resiliency. Second, the overwhelming majority of persons who enlist in the military do so for positive reasons, including patriotism, altruism, and self-improvement.[14] Balanced messaging that incorporates findings in both directions can ensure that support and resources are available to service members who are ACE survivors, with the goal of supporting their successful military careers rather than inadvertently increasing stigma toward ACE survivors.

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**Table 1.**

Demographics among men and women, by military history and service era

| | Overall | | | All-volunteer Era[1] | | | Draft Era[2] | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Military Hx n (%)** | **No Military Hx n (%)** | ***p*** | **Military Hx n (%)** | **No Military Hx n (%)** | ***p*** | **Military Hx n (%)** | **No Military Hx n (%)** | ***p*** |
| Men | n=8,447 | n=15,404 | | n=1,586 | n=9,355 | | n=6,861 | n=6,049 | |
| Age (Mean, SD) | 59.6 (0.44) | 42.9 (0.24) | <.001 | 41.3 (0.39) | 36.9 (0.21) | <.001 | 70.2 (0.18) | 64.6 (0.18) | <.001 |
| Race/Ethnicity | | | | | | | | | |
| White, non-Hispanic | 6,882 (87.5) | 12,146 (83.3) | <.001 | 1,212 (78.8) | 7,228 (76.6) | .268 | 5,670 (87.4) | 4,918 (84.5) | .009 |
| Racial/Ethnic Minority | 1,385 (12.5) | 3,041 (16.7) | | 341 (21.2) | 2,014 (23.4) | | 1,044 (12.6) | 1,027 (15.5) | |
| Education | | | | | | | | | |
| <High school diploma | 3,067 (37.5) | 5,386 (38.2) | .285 | 551 (33.3) | 3,352 (38.8) | .014 | 2,516 (38.8) | 2,034 (35.6) | .030 |
| Some college or higher | 5,356 (62.5) | 9,977 (61.8) | | 1,031 (66.7) | 5,987 (61.2) | | 4,325 (61.2) | 3,990 (64.4) | |
| Women | n=785 | n=35,742 | | n=426 | n=15,709 | | n=359 | n=20,033 | |
| Age (Mean, SD) | 49.3 (0.97) | 49.4 (0.18) | .927 | 41.3 (0.64) | 39.1 (0.15) | .001 | 70.3 (1.15) | 68.9 (0.12) | .206 |
| Race/Ethnicity | | | | | | | | | |
| White, non-Hispanic | 606 (82.2) | 28,306 (83.6) | .521 | 310 (80.2) | 11,877 (80.9) | .806 | 296 (87.5) | 16,429 (88.9) | .670 |
| Racial/Ethnic Minority | 172 (17.8) | 6,989 (16.4) | | 110 (19.8) | 3,698 (19.1) | | 62 (12.4) | 3,291 (11.1) | |
| Education | | | | | | | | | |
| <High school diploma | 185 (24.5) | 12,975 (36.9) | <.001 | 85 (20.3) | 4,777 (31.6) | .003 | 100 (35.6) | 8,198 (47.1) | .015 |
| Some college or higher | 600 (75.5) | 22,681 (63.1) | | 341 (79.7) | 10,904 (68.4) | | 259 (64.4) | 11,777 (52.9) | |

Note: Frequencies are unweighted; means, standard deviations, and percentages are weighted; Hx=history

[1]= Persons 18 years old on or after 1973 (ages 18–55 years in 2010)

[2]= Persons older than 18 years in 1973 (ages ≥56 years in 2010)

**Table 2.**

Prevalence of Adverse Childhood Experiences (ACE) among men, by military history and service era

| | All-volunteer Era[1] | | | Draft Era[2] | | |
|---|---|---|---|---|---|---|
| | Military Hx n (%) | No Military Hx n (%) | *p* | Military Hx n (%) | No Military Hx n (%) | *p* |
| Individual ACE items | | | | | | |
| Household mental illness | 269 (23.3)* | 1,418 (15.2) | <.001 | 493 (6.8) | 626 (8.4) | .071 |
| Parental separation or divorce | 538 (38.5)* | 2,240 (25.9) | <.001 | 955 (13.9) | 799 (12.1) | .164 |
| Household drug use | 218 (18.5)* | 1,033 (11.5) | <.001 | 188 (2.1)* | 279 (3.3) | .003 |
| Household alcohol abuse | 473 (34.3)* | 1,953 (19.4) | <.001 | 1,211 (17.1) | 1,094 (16.1) | .448 |
| Physical abuse | 396 (29.1)* | 1,514 (15.7) | <.001 | 936 (13.7) | 804 (14.2) | .696 |
| Incarcerated household member | 129 (12.3)* | 609 (8.0) | .016 | 161 (2.3) | 160 (2.2) | .934 |
| Exposure to domestic violence | 375 (27.3)* | 1,349 (13.8) | <.001 | 843 (12.1) | 711 (12.0) | .896 |
| Emotional abuse | 620 (43.0)* | 2,752 (30.3) | <.001 | 1,358 (19.9) | 1,346 (22.3) | .089 |
| Touched sexually | 138 (11.0)* | 443 (4.8) | <.001 | 365 (4.4) | 315 (5.2) | .320 |
| Made to touch another sexually | 116 (9.6)* | 390 (4.2) | <.001 | 240 (3.1) | 245 (3.6) | .361 |
| Forced to have sex | 62 (3.7)* | 177 (1.6) | <.001 | 106 (1.1) | 104 (1.5) | .239 |
| Total number of ACE categories | | | | | | |
| 0 | 455 (26.6)* | 3,535 (42.3) | <.001 | 3,362 (53.5) | 2,829 (52.4) | .962 |
| 1 | 321 (22.4) | 2,045 (23.8) | | 1,532 (23.4) | 1,344 (24.0) | |
| 2 | 214 (14.4) | 1,185 (12.2) | | 744 (11.3) | 739 (11.7) | |
| 3 | 155 (9.3) | 842 (8.8) | | 386 (5.5) | 386 (5.4) | |
| 4 | 354 (27.3) | 1,197 (12.9) | | 494 (6.3) | 440 (6.5) | |

Note: Frequencies are unweighted; percentages are weighted; Hx=history

[1] = Men 18 years old on or after 1973 (ages 18–55 years in 2010)

[2] = Men older than 18 years in 1973 (ages ≥56 years in 2010)

**Table 3.**

Adjusted odds of Adverse Childhood Experiences (ACE) among men, by military history and service era

| | All-volunteer Era[1] | | Draft Era[2] | |
|---|---|---|---|---|
| | Military Hx vs. No Military Hx | | Military Hx vs. No Military Hx | |
| | AOR | (95%CI) | AOR | (95%CI) |
| Individual ACE items | | | | |
| Household mental illness | 1.88 | (1.38–2.56) * | 0.94 | (0.73–1.21) |
| Parental separation or divorce | 2.00 | (1.58–2.55) * | 1.31 | (1.02–1.67) * |
| Household drug use | 2.00 | (1.46–2.75) * | 0.86 | (0.63–1.18) |
| Household alcohol abuse | 2.24 | (1.74–2.88) * | 1.26 | (1.02–1.55) * |
| Physical abuse | 2.28 | (1.74–2.99) * | 1.16 | (0.93–1.43) |
| Incarcerated household member | 2.07 | (1.37–3.15) * | 1.24 | (0.78–1.97) |
| Exposure to domestic violence | 2.37 | (1.78–3.16) * | 1.28 | (1.00–1.65) |
| Emotional abuse | 1.81 | (1.43–2.28) * | 1.09 | (0.91–1.30) |
| Touched sexually | 2.43 | (1.47–4.02) * | 0.97 | (0.71–1.32) |
| Made to touch another sexually | 2.43 | (1.41–4.19) * | 1.03 | (0.73–1.44) |
| Forced to have sex | 2.19 | (1.34–3.57) * | 0.86 | (0.55–1.36) |

Note: All analyses are weighted and adjusted for age, race/ethnicity, and education; Hx=history

[1]=Men 18 years old on or after 1973 (ages 18–55 years in 2010)

[2]=Men older than 18 years in 1973 (ages ≥56 years in 2010)

*=p<.05

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**Table 4.**

Prevalence of Adverse Childhood Experiences (ACE) among women, by military history and service era

| | All-volunteer Era[1] | | | Draft Era[2] | | |
|---|---|---|---|---|---|---|
| | **Military Hx n (%)** | **No Military Hx n (%)** | ***p*** | **Military Hx n (%)** | **No Military Hx n (%)** | ***p*** |
| Individual ACE items | | | | | | |
| Household mental illness | 107 (27.5) | 3,593 (23.9) | .315 | 40 (16.0) | 2,472 (11.9) | .268 |
| Parental separation or divorce | 126 (27.7) | 4,301 (28.9) | .759 | 55 (11.7) | 2,823 (13.6) | .542 |
| Household drug use | 54 (17.0) | 1,876 (13.3) | .255 | 14 (2.1) | 597 (2.9) | .595 |
| Household alcohol abuse | 136 (33.9) | 4,314 (26.8) | .059 | 85 (29.2) | 4,136 (21.0) | .052 |
| Physical abuse | 112 (29.1)* | 2,989 (18.7) | .001 | 69 (23.5)* | 2,364 (12.1) | <.001 |
| Incarcerated household member | 27 (6.0) | 988 (7.2) | .469 | 9 (1.9) | 406 (2.2) | .782 |
| Exposure to domestic violence | 103 (26.5)* | 1,079 (18.0) | .009 | 61 (19.2)* | 2,247 (11.8) | .025 |
| Emotional abuse | 171 (43.3)* | 4,985 (31.6) | .004 | 94 (30.8)* | 4,018 (20.0) | .009 |
| Touched sexually | 93 (25.9)* | 2,644 (16.0) | .002 | 48 (16.4) | 2,188 (10.5) | .059 |
| Made to touch another sexually | 72 (15.8) | 1.905 (11.8) | .115 | 27 (10.7) | 1,279 (6.0) | .084 |
| Forced to have sex | 41 (10.2) | 1,085 (6.9) | .142 | 19 (6.1) | 705 (3.4) | .194 |
| Total number of ACE categories | | | | | | |
| 0 | 121 (30.7) | 5,178 (37.4) | .087 | 148 (41.4) | 9,609 (52.3) | .060 |
| 1 | 62 (17.1) | 3,195 (20.8) | | 74 (21.1) | 4,091 (21.2) | |
| 2 | 58 (12.3) | 2,051(13.0) | | 39 (15.2) | 2,238 (11.7) | |
| 3 | 50 (11.6) | 1,434 (8.5) | | 28 (6.6) | 1,297 (6.1) | |
| 4+ | 109 (28.3) | 3,062 (20.2) | | 56 (15.6) | 1,810 (8.7) | |

Note: Frequencies are unweighted; percentages are weighted; Hx=history

[1]=Women 18 years old on or after 1973 (ages 18–55 years in 2010)

[2]=Women older than 18 years in 1973 (ages ≥56 years in 2010)

*=p<.05

**Table 5.**

Adjusted odds of Adverse Childhood Experiences (ACE) among women, by military history and service era

| | All-volunteer Era[1] | | Draft Era[2] | |
|---|---|---|---|---|
| | Military Hx vs. No Military Hx | | Military Hx vs. No Military Hx | |
| | AOR | (95%CI) | AOR | (95%CI) |
| Individual ACE items | | | | |
| Household mental illness | 1.31 | (0.89–1.92) | 1.47 | (0.76–2.83) |
| Parental separation or divorce | 1.08 | (0.73–1.31) | 0.88 | (0.50–1.53) |
| Household drug use | 1.56 | (0.93–2.60) | 0.72 | (0.23–2.30) |
| Household alcohol abuse | 1.47 | (1.03–2.10) * | 1.66 | (1.05–2.63) * |
| Physical abuse | 1.95 | (1.35–2.81) * | 2.37 | (1.45–3.89) * |
| Incarcerated household member | 1.01 | (0.56–1.84) | 0.93 | (0.33–2.60) |
| Exposure to domestic violence | 1.77 | (1.21–2.57) * | 1.91 | (1.09–3.35) * |
| Emotional abuse | 1.67 | (1.19–2.37) * | 1.94 | (1.16–3.23) * |
| Touched sexually | 1.80 | (1.23–2.64) * | 1.73 | (0.97–3.11) |
| Made to touch another sexually | 1.45 | (0.95–2.21) | 1.97 | (0.88–4.42) |
| Forced to have sex | 1.73 | (0.98–3.05) | 1.87 | (0.70–4.98) |

Note: All analyses are weighted and adjusted for age, race/ethnicity, and education; Hx=history

[1]=Women 18 years old on or after 1973 (ages 18–55 years in 2010)

[2]=Women older than 18 years in 1973 (ages ≥56 years in 2010)

*=p<.05