Selected Findings from the 2011 Survey of Health-Related Behaviors of Active Duty Military Personnel

Department of Defense and Coast Guard

Presentation to

The Defense Advisory Committee on Women in the Services

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2011 Survey of Health Related Behaviors (SHRB): Background

- Funded by Health Affairs/ TRICARE Management Activity with additional support from
  - US Coast Guard (contract extends to January 2014)
  - DoD Drug Demand Reduction Program/ USDP&R Operational Readiness & Safety
- DoD's largest anonymous population-based health survey of active duty (AD) service members.
- Examines lifestyle choices and potential impact on force readiness.
  - Survey started in 1980 and is conducted ~ every 3 years.
  - Active duty Coast Guard added in 2008

2011 SHRB: Methods

- Web-based survey fielded from August 2011 – January 2012.
- A number of changes were made to the questionnaire to update topics of interest, leverage technological efficiency, and reduce respondent burden.
- 100% stratified random sample
  - DoD Services (strata: service, gender, pay grade)
  - US Coast Guard (strata: work setting, gender, pay grade)

	DoD	USCG
Population	1,222,627	39,624
Eligible Sample	154,011	14,355
Useable Responses	34,416	5,461
Overall Response Rate	22.3%	38.0%

Population and Unweighted Sample Distributions

Strata Group	Population Total		Sample Distribution	
	Count	Percent of Total	Count	Percent of Total
Males				
E1-E4	462,766	36.7%	7,548	18.9%
E5-E6	320,310	25.4%	8,157	20.5%
E7-E9	106,777	8.5%	4,629	11.6%
W1-W5	16,189	1.3%	1,453	3.6%
O1-O3	95,576	7.6%	2,919	7.3%
O4-O10	70,032	5.5%	2,740	6.9%
Subtotal	1,071,650	84.9%	27,446	68.6%
Females				
E1-E4	87,021	6.9%	4,905	12.3%
E5-E6	54,622	4.3%	3,410	8.6%
E7-E9	13,240	1.0%	1,547	3.9%
W1-W5	1,482	0.1%	255	0.6%
O1-O3	23,174	1.8%	1,419	3.6%
O4-O10	11,061	0.9%	925	2.3%
Subtotal	190,601	15.1%	12,431	31.2%
Total	1,262,251		39,877	

Note: Differences in respondent distribution from population distribution are due to the oversampling of select strata (including females and officers) and differential response rates by strata. The weighted sample matches the population distribution.

2011 SHRB: Questions on Sexual Abuse

- Adapted questions from the Brief Trauma Questionnaire, developed at the VA National Center For PTSD in the 1990's
- Narrow definition of sexual abuse
  - "Unwanted sexual contact …between someone else and your private parts or between you and someone else's private parts."
- Two time frames
  - Before joining the military
  - Since joining the military by someone in the military/any civilian
  - Since joining the military by any civilian

SHRB Results: Unwanted Sexual Contact*

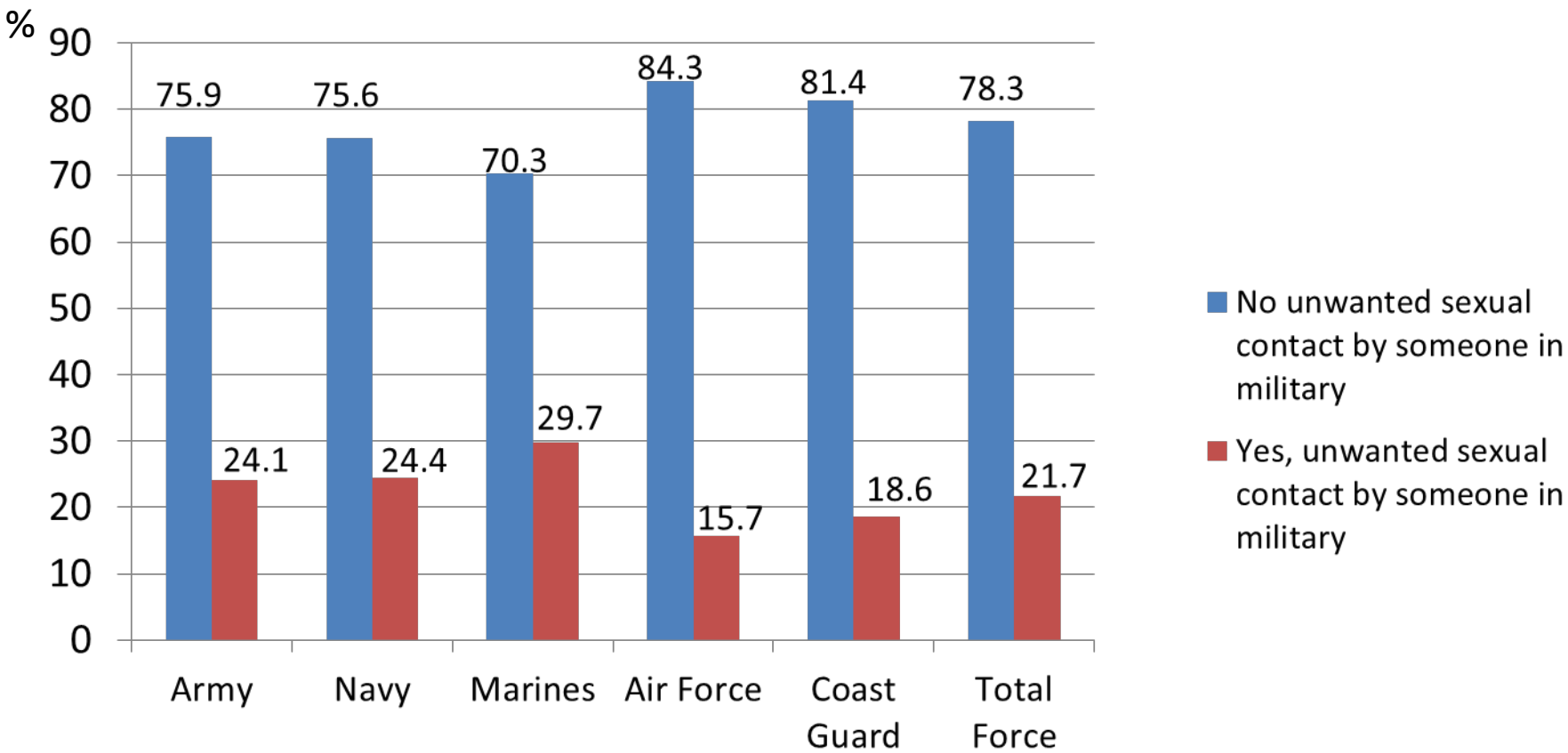
- Before joining the military, 30.2% of active duty (AD) women experienced unwanted sexual contact
- Since joining the military, 21.7% of AD women experienced unwanted sexual contact by someone in the military.
- Since joining the military, 5.8% of AD women experienced unwanted sexual contact by a civilian.
- 42.0% of AD women have a history of unwanted sexual contact, both before and/or after joining the military, higher rate than lifetime physical abuse (24.2%)

In comparison…

- Before joining the military, 6.9% of AD men experienced unwanted sexual contact.
- Since joining the military, 3.3% of AD men experienced unwanted sexual contact by someone in the military.
- Since joining the military, 2.4% of AD men experienced unwanted sexual contact by a civilian.
- 9.2% of AD men have a history of unwanted sexual contact, both before and/or after joining the military, lower rate than lifetime physical abuse (15.8%).

*Results are weighted estimates to reflect the total military force based on stratification categories

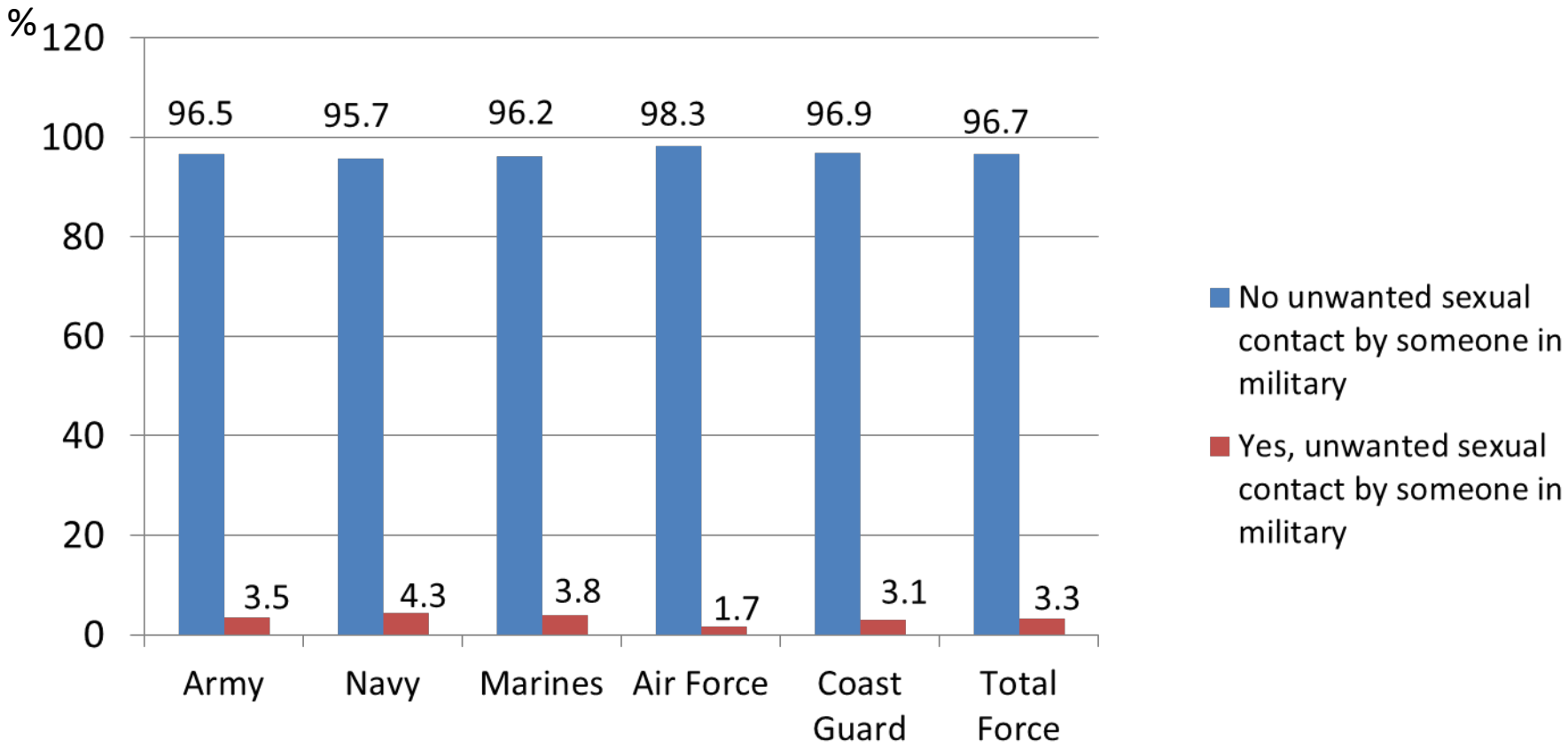
Since Joining the Military, Unwanted Sexual Contact by Someone in the Military:
Branch of Service, Females Only



CONCLUSION: Compared to women in the Air Force and the Coast Guard, women Marines were more likely to have experienced unwanted sexual contact by someone in the military; compared to women in the Air Force, women in the Army or Navy were more likely to have experienced unwanted sexual contact by someone in the military.

Weighted efficiencies/sample weighted, Chi sq = 26.85, df = 4, $p < .001$, Bonferroni adjusted

Since Joining the Military, Unwanted Sexual Contact by Someone in the Military:
Branch of Service, Males Only



CONCLUSION: Compared to other Services, men in the Air Force were less likely to have experienced unwanted sexual contact by someone in the military.

Weighted efficiencies/sample weighted, Chi sq = 35.70, df = 4, $p < .001$, Bonferroni adjusted

Predictors of Unwanted Sexual Contact Since Joining the Military by Someone in the Military: Physical Abuse and Sexual Abuse History

Results of Bivariate Analysis

FEMALES	Chi sq*	MALES	Chi sq*
Physically abused since joining military by someone in military	159.86	Unwanted sexual contact since joining the military by a civilian	3457.41
Unwanted sexual contact before joining the military	137.29	Physically abused since joining the military by a civilian	1797.67
Unwanted sexual contact since joining the military by a civilian	131.62	Physically abused since joining military by someone in military	1646.34
Physically abused before joining the military	89.00	Unwanted sexual contact before joining the military	1282.52
		Physically abused before joining the military	528.17

CONCLUSION: Strongest predictors of unwanted sexual contact since joining the military by someone in the military are history of physical abuse and other categories of unwanted sexual contact, both before and after joining the military.

* $p < .001$; chi squares with Bonferroni adjustment were conducted after weighted efficiencies/sample weighting were applied.

Predictors of Unwanted Sexual Contact Since Joining the Military by Someone in the Military: Physical Abuse and Sexual Abuse History

Results of Logistic Regression Analysis

FEMALES	Odds Ratio* [95% CI]	MALES	Odds Ratio* [95% CI]
Physically abused since joining military by someone in military	5.55 [4.50, 6.84]	Unwanted sexual contact since joining the military by a civilian	16.58 [11.76, 23.37]
Unwanted sexual contact since joining the military by a civilian	4.38 [3.43, 5.57]	Physically abused since joining military by someone in military	5.33 [3.60, 7.88]
Unwanted sexual contact before joining the military	2.37 [2.08, 2.70]	Unwanted sexual contact before joining the military	3.69 [2.64, 5.17]
Physically abused before joining the military	1.46 [1.26, 1.70]	Physically abused before joining the military	1.85 [1.35, 2.53]
		Physically abused since joining the military by a civilian	1.97** [1.25, 3.10]

CONCLUSION: Strong predictors of unwanted sexual contact since joining the military by someone in the military are history of physical abuse and other categories of unwanted sexual contact, both before and after joining the military.

* $p < .001$, ** $p = .004$

Predictors of Unwanted Sexual Contact Since Joining the Military by Someone in the Military: Mood and Reactions to Stress

Results of Bivariate Analysis

FEMALES	Chi sq*	MALES	Chi sq*
Stress reactions – feel very upset+	120.42	Stress reactions – feel jumpy+	184.09
Stress reactions – avoid activities or situations	119.73	Stress reactions – repeated disturbing dreams	175.56
Stress reactions – repeated disturbing dreams	116.69	Emotional difficulties/poor mental health keep from usual activities	175.14
Stress reactions – feel jumpy+	110.35	Stress reactions – have difficulty concentrating+	163.77
Stress reactions – have difficulty concentrating+	109.89	Stress reactions – feel very upset+	148.11
Emotional disturbance – feel anxious/nervous	95.92	Past week emotional tone-sad	143.41
Stress reactions – feel emotionally numb+	94.79	Stress reactions – avoid activities or situations	139.59

CONCLUSION: After physical or sexual abuse history, the strongest predictors of unwanted sexual contact since joining the military by someone in the military are symptoms suggestive of post-traumatic stress and mood disorders.

* $p < .001$; chi squares with Bonferroni adjustment were conducted after weighted efficiencies/sample weighting

Predictors of Unwanted Sexual Contact Since Joining the Military by Someone in the Military: Suicidal Ideation, Suicide Attempt, Self-Inflicted Injury

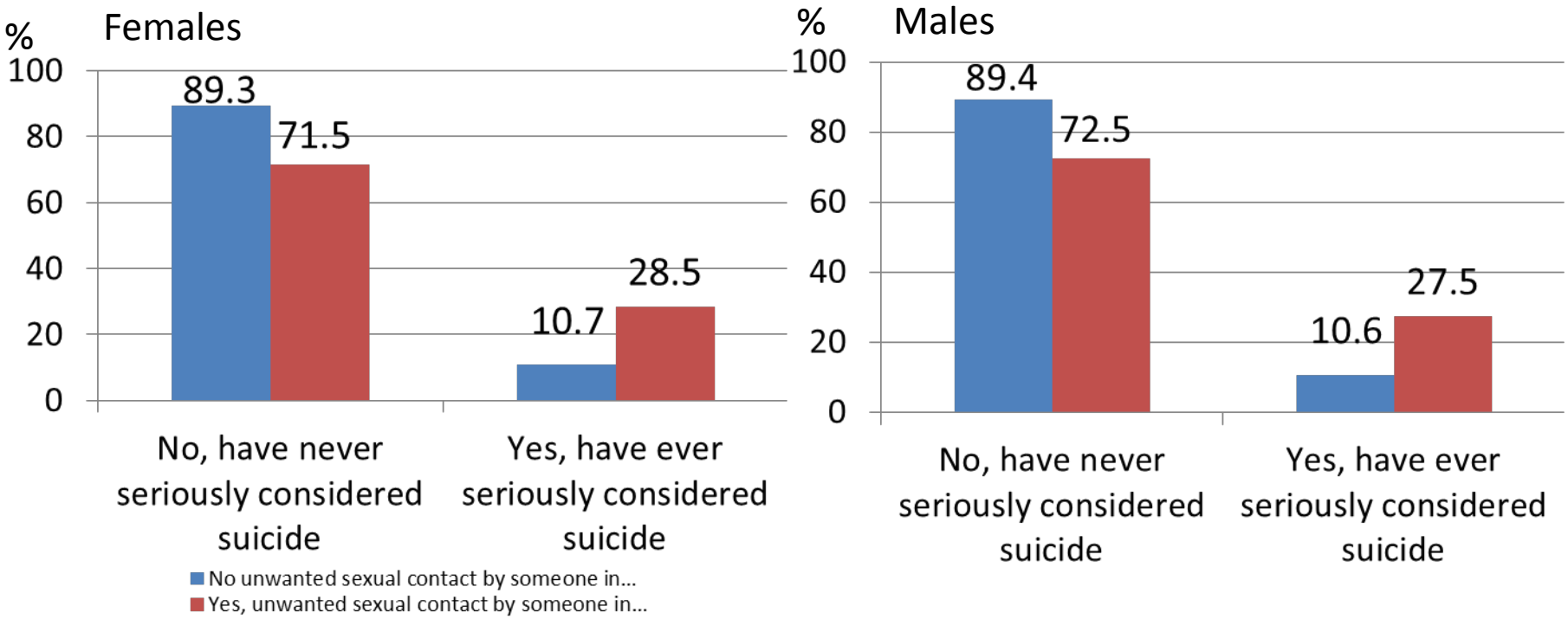
Results of Bivariate Analysis

FEMALES	Chi sq*	MALES	Chi sq*
Suicidal ideation, lifetime	99.31	Self injury-lifetime prevalence	130.47
Self-injury, lifetime prevalence	86.18	Stress reaction - think about hurting or killing self	127.89
Self-injury since joining military: how often	70.34	Suicidal ideation lifetime	114.05
Stress reactions – think about hurting or killing self	63.13	Suicide attempt or ideation in past year	93.39
Suicide attempt or ideation in past year	51.54	Suicide attempt-lifetime prevalence	83.66
Suicidal ideation not in past year but since joining the military	49.38	Suicide attempt past year	65.95
Suicide attempt, lifetime prevalence	35.08	Suicidal ideation not in past year but since joining the military	41.78

CONCLUSION: Suicidal ideation, suicide attempt, and self-injury factors are higher among military personnel who experience unwanted sexual contact since joining the military by someone in the military.

* $p < .001$; chi squares with Bonferroni adjustment were conducted after weighted efficiencies/sample weighting.

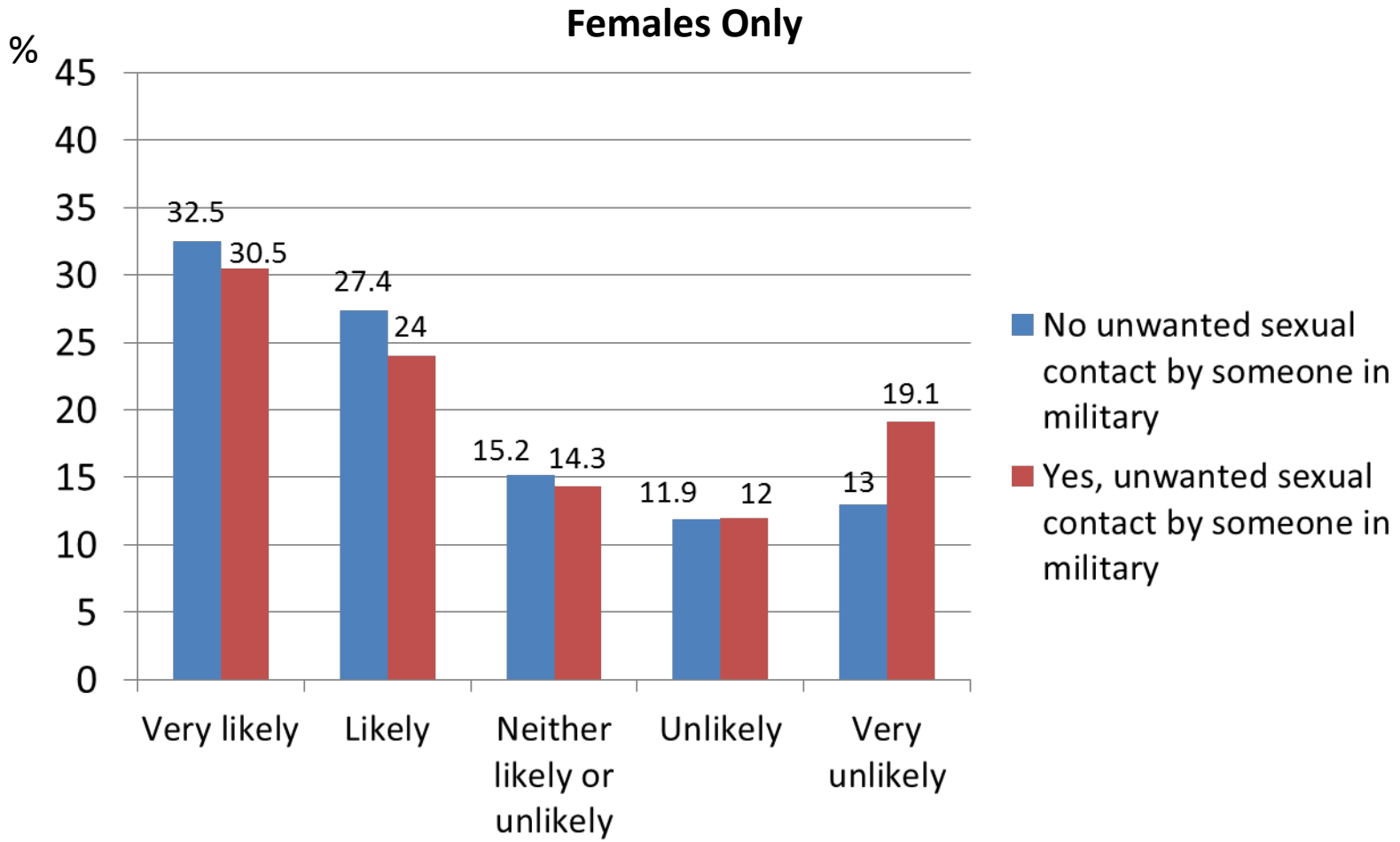
Since Joining the Military, Unwanted Sexual Contact by Someone in the Military: *Lifetime Suicidal Ideation*



CONCLUSION: AD military personnel who experienced unwanted sexual contact by someone in the military were more likely to have ever seriously considered suicide.

Weighted efficiencies/sample weighting, Chi sq = 99.311/114.05 (females/males), df = 1, $p < .001$, Bonferroni adjustment

Since Joining the Military, Unwanted Sexual Contact by Someone in the Military: Likelihood to Remain on Active Duty Beyond Current Enlistment Term

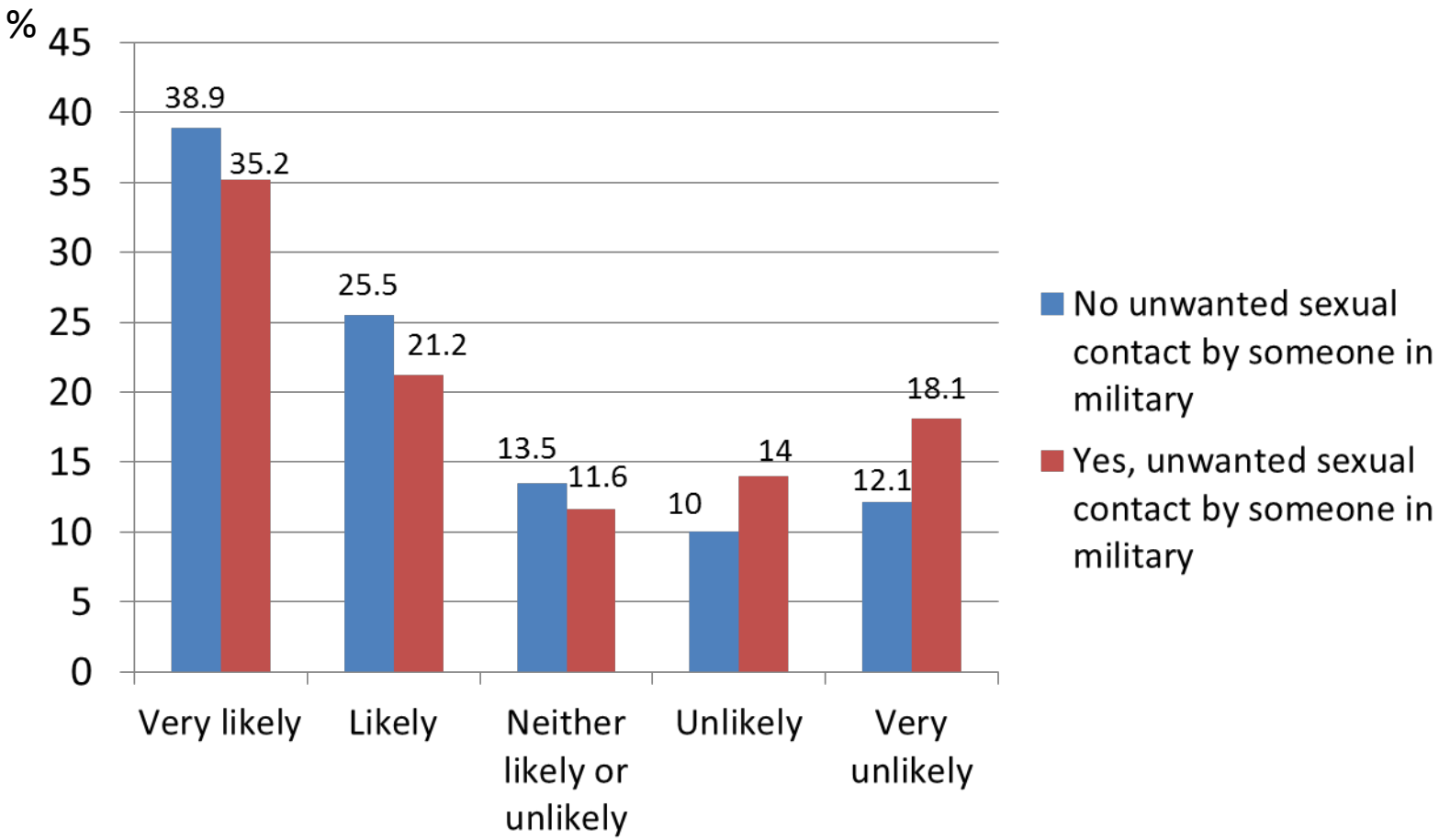


CONCLUSION: AD military women who experienced unwanted sexual contact by someone in the military were <u>somewhat</u> less likely to endorse that they will remain on active duty.

Weighted efficiencies/sample weighting, Chi sq = 12.44, df = 4, p = .014, Bonferroni adjustment

Since Joining the Military, Unwanted Sexual Contact by Someone in the Military: Likelihood to Remain on Active Duty Beyond Current Enlistment Term

Males Only



CONCLUSION: AD men who experienced unwanted sexual contact by someone in the military were less likely to endorse that they will remain on active duty.

Weighted efficiencies/sample weighting, Chi sq = 23.28, df = 4, $p < .001$, Bonferroni adjustment

Overall Conclusions of Selected Findings

- Present findings are the first step in conducting analysis to identify predictors of unwanted sexual contact; need further analyses with multivariate models.

- Past history of sexual and physical abuse appears to be the strongest predictor of 'unwanted sexual contact by someone in the military,' followed by mental health factors commonly associated with post-traumatic stress and mood disorders, and suicidal ideation/attempt or self-injury behavior.

- Unwanted sexual contact by someone in the military appears to have an adverse effect on military retention for both AD women and men.

Thank You

- We appreciate the opportunity to present these 2011 SHRB findings to the Defense Advisory Committee on Women in the Services.

- We express our sincere thanks to the AD personnel who took time from their normal duties to participate.