



SOAR

STUDY OF ADOLESCENT RESILIENCE
MILLENNIUM COHORT PROGRAM

In partnership with
Military Community & Family Policy, OSD

SOAR 2022: BASELINE RESULTS

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DISCLAIMER



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The study protocol was approved by the Naval Health Research Center Institutional Review Board in compliance with all applicable Federal regulations governing the protection of human subjects. Research data were derived from an approved Naval Health Research Center Institutional Review Board protocol, number NHRC.2021.0018.



BRIEFING OVERVIEW



- Study Design
- Study Results
 - Psychological Health
 - Military Life Experiences
 - Health Related Behaviors
 - School Environment
 - Parental Relationship
 - Family Factors
 - Support Factors



STUDY DESIGN



- SOAR is designed to understand how military life affects military-connected youth's psychological and physical health, academic achievement, and educational/career goals.
 - Most comprehensive study of military-connected adolescents undertaken by the DoD.
- The study will assist the DoD in outlining future programs and services aimed at improving military family readiness and resiliency.



STUDY DESIGN (CONTINUED)



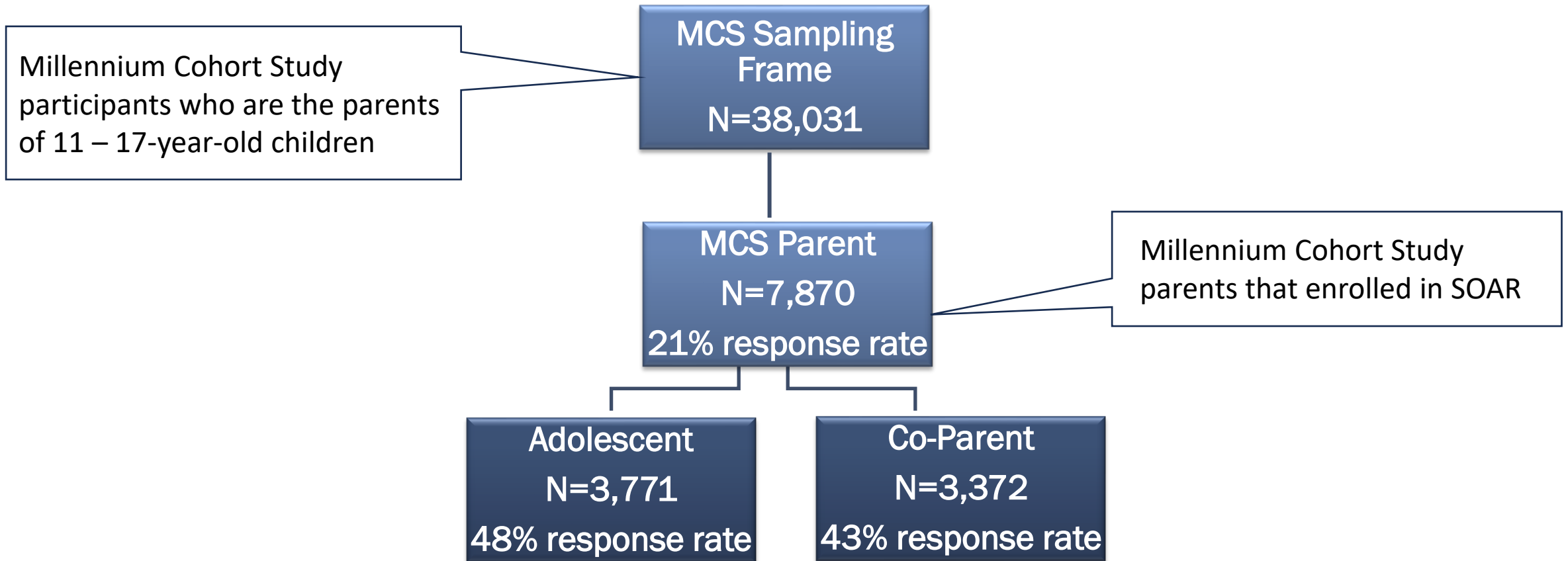
- **Millennium Cohort Program:** SOAR is a longitudinal study recently added to the Millennium Cohort Program, which includes the Millennium Cohort Study (MCS) of service members and veterans (est. 2001) and the Millennium Cohort Family Study (MCFS) of spouses (est. 2011).
- **SOAR Sampling Frame:** Parents are drawn from MCS participants enrolled between 2001 and 2021 with adolescent children between the ages of 11 and 17 during the 2022/23 academic year.
- **SOAR Methodology:** SOAR collected baseline self-report data from military-connected adolescents and from their parent(s) during the 2022/23 academic year. Follow-up surveys fielded every other year collect self-report data from adolescents until emergent adulthood (age 25).





RESPONSE RATES

Survey Fielded November 2022 – July 2023



Note: Survey response rates and population sizes may not exactly match analytic samples.

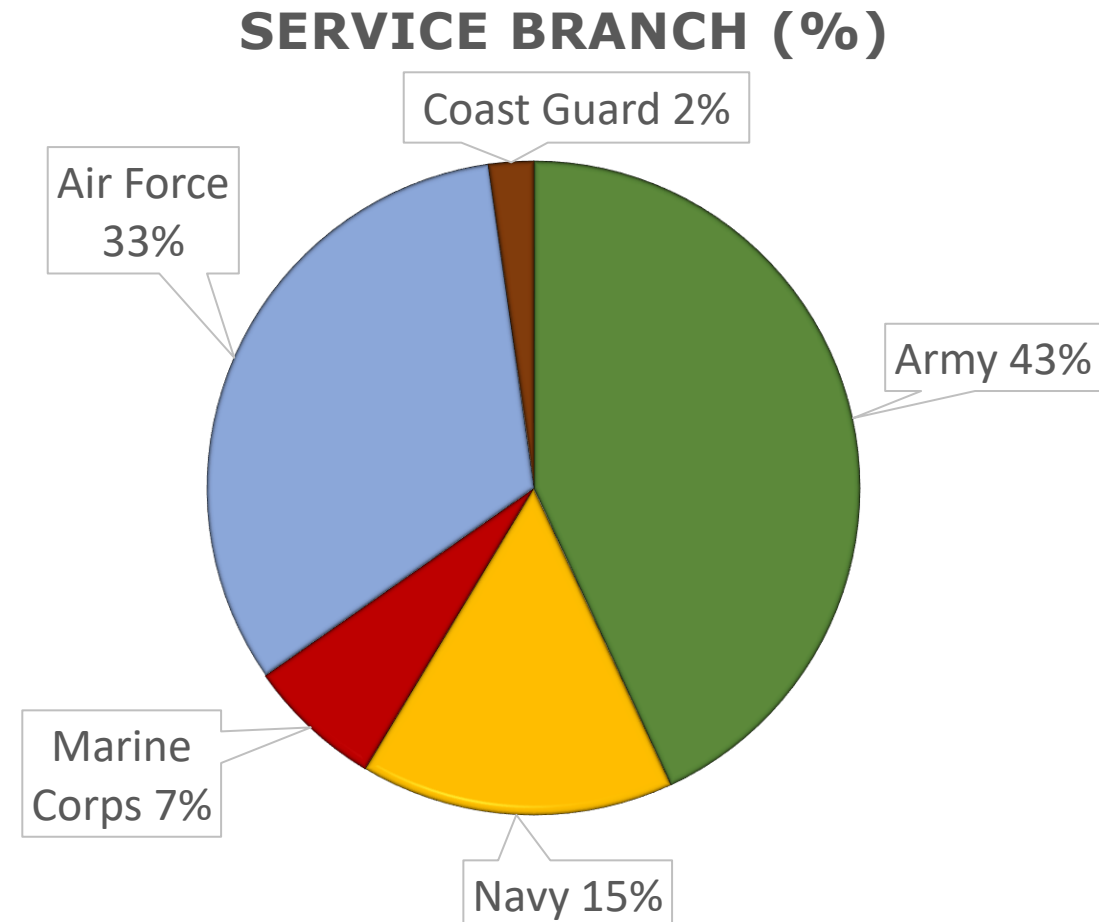


MCS PARENT CHARACTERISTICS

(n=7,870)



MCS Parent Characteristics	%
Female	30.1
White, non-Hispanic	75.2
Enlisted	62.8
Veteran	31.6
Married	80.4
Age	Average 43 years



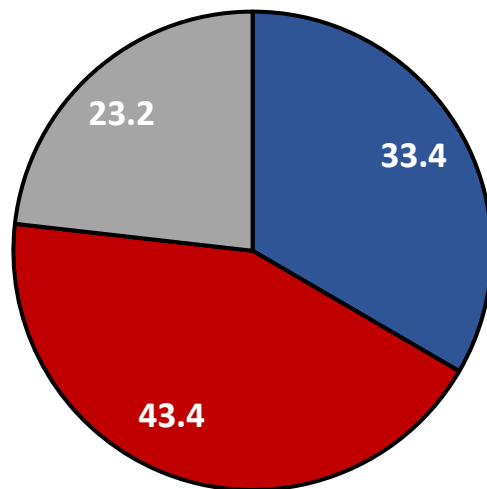


ADOLESCENT CHARACTERISTICS

(n=3,771)

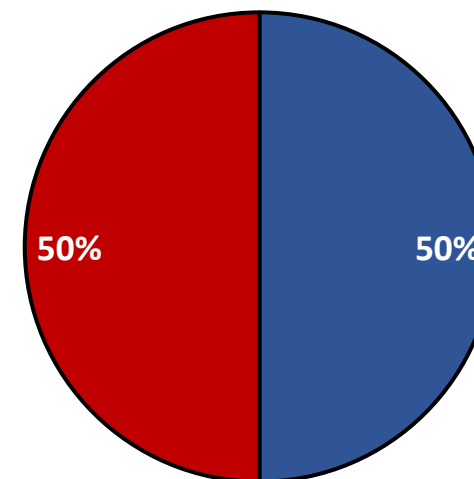
Age

- 11-12 years old
- 13 to 15 years old
- 16-17 years old



Sex

- Male
- Female





ABOUT THE BRIEF



- Throughout the slides in this briefing, we have looked for demographic differences using the comparison groups as defined below:

Demographic Group	Reference	
Adolescent Age	11-12 (younger)	13-15, 16-17 (older)
Adolescent Sex	Male	Female
Service Branch	Army	Navy, Marine Corps, Air Force, Coast Guard
Paygrade	O4–O6 (Sr. Officer)	E1–E4 (Jr. Enlisted), E5–E9 (Sr. Enlisted), WO1- O3 (Jr. Officer)
Current Military Status	Veteran	Active Duty, Reserve

- Significant differences in comparison groups are noted on slides.

Note: If 13-15 and 16-17 groups are both significantly different from the 11-12 group, they are combined and referred to as older children.

Note: If E1-E4 and E5 –E9 groups are both significantly different from the O4-O6 group, they are combined and referred to as enlisted personnel.

2022 SOAR Adolescent Survey Q1, Q2; DMDC data



ABOUT THE BRIEF (CONTINUED)



- Given the national state of emergency in children's mental health declared in 2021*, we determined the odds of adolescents screening for anxiety or depression (adolescent report) using the following predictors for this briefing:
 - Adolescent behaviors
 - Military experiences
 - Health related behaviors
 - School environment
 - Bullying
 - Parental mental health
 - Parent-child relationship
 - Family factors
 - Adverse childhood events
 - Adolescent caregiving
 - Financial hardship
 - Extracurricular activities
 - Support services
- Cross-sectional analyses controlled for the impact of adolescent age, sex, and service member branch, component, paygrade, and current military status

Note: American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, and the Children's Hospital Association
2022 SOAR Adolescent Survey Q1, Q2; DMDC data

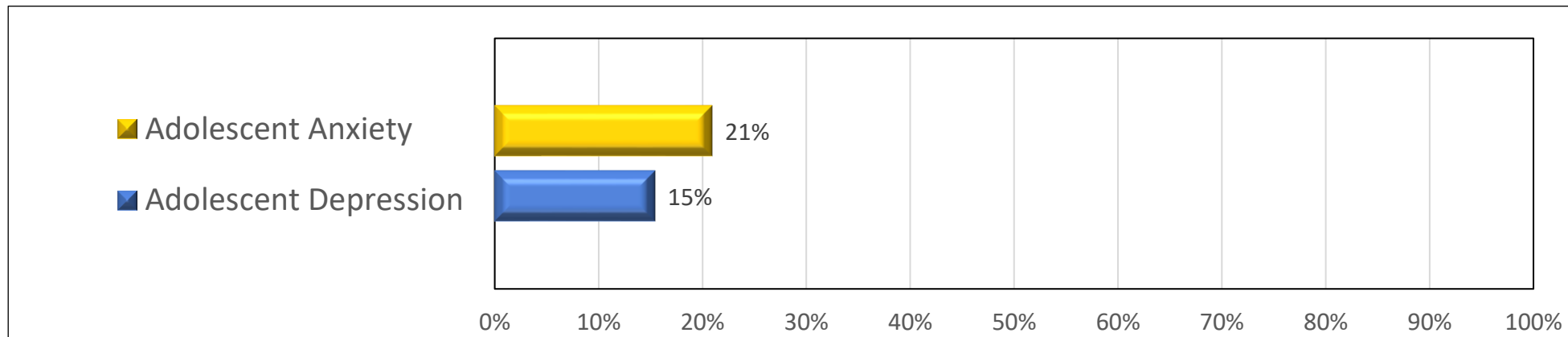


STUDY FINDINGS: PSYCHOLOGICAL HEALTH



CURRENT ADOLESCENT MENTAL HEALTH

ADOLESCENT REPORT



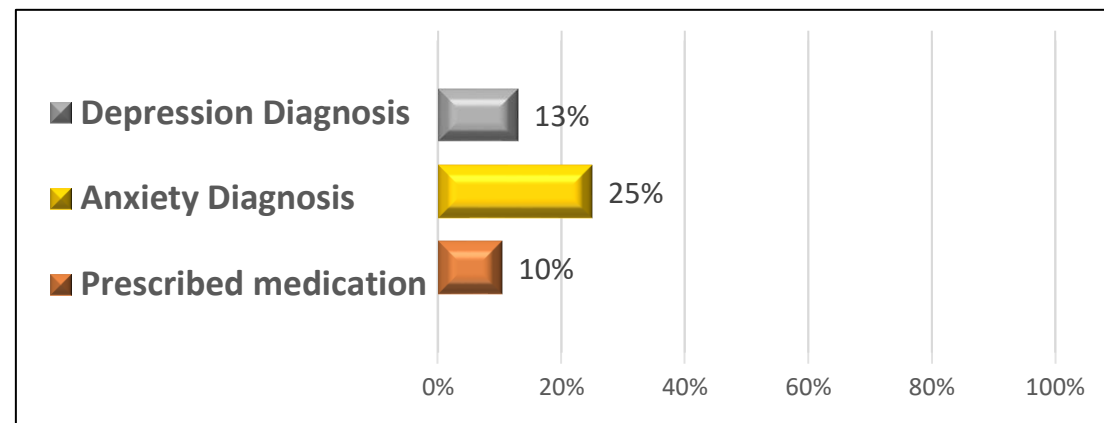
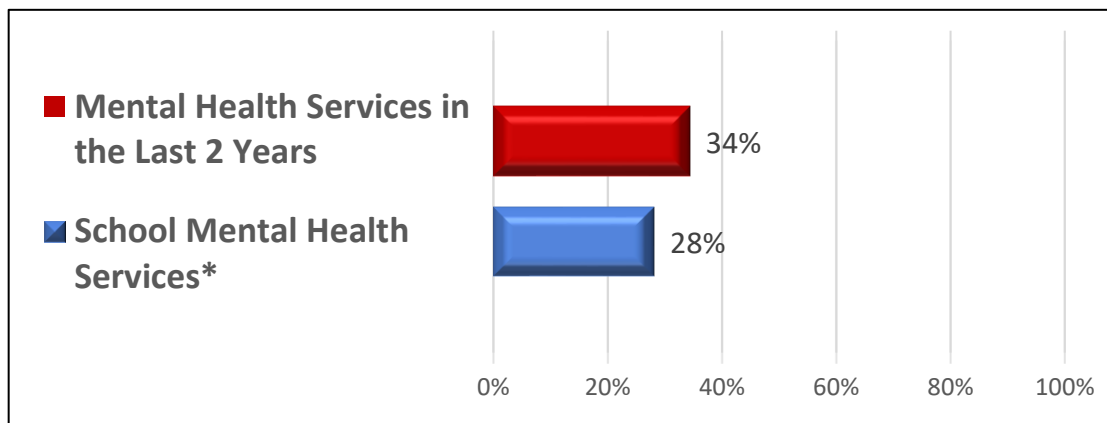
- Adolescent children of **Jr. enlisted personnel, female adolescents, and older adolescents (13-17 years old)** were more likely to screen positive for anxiety.
- Adolescent children of **enlisted personnel, female adolescents and older adolescents** were more likely to screen positive for depression.

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q12



ADOLESCENT MENTAL HEALTH: MEDICATION, DIAGNOSES, AND CARE

PARENT AND ADOLESCENT REPORT



*Adolescent report

- Mental health services were more often used by adolescents of **Jr. enlisted personnel, female adolescents, and older adolescents (13 -17 years old)**.
- Adolescent children of **enlisted personnel, female adolescents, and older adolescents** were also more likely to be diagnosed with anxiety or depression.
- Similarly, **female adolescents and older adolescents** were more likely to take prescription medication for anxiety or depression.

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).

2022 SOAR Parent Survey Q50, Q52, Q53, Adolescent Survey Q23



MENTAL, BEHAVIORAL, AND SOCIAL ADJUSTMENT

ADOLESCENT REPORT

I have many fears...

■ Emotion

I fight a lot

■ Conduct

I am easily distracted

■ Hyperactivity

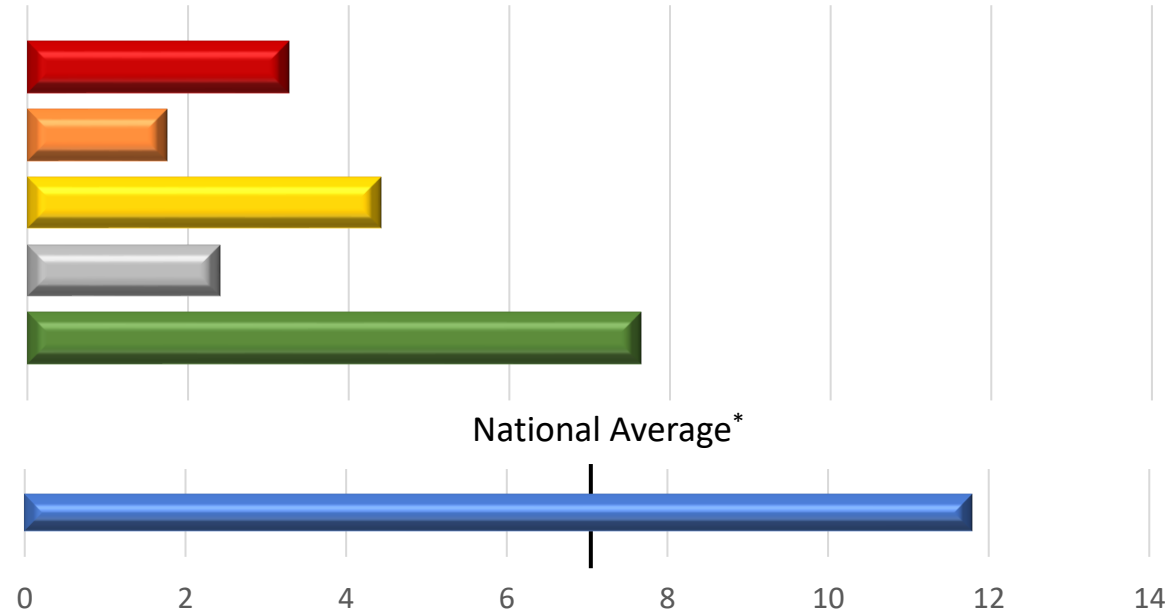
I am usually on my own

■ Peer Problems

I am helpful if someone is hurt...

■ Prosocial

■ Total Difficulties



- Children of **enlisted personnel, female adolescents and older adolescents (13 -17 years old)** had significantly higher average Total Difficulties scores*.

*National Average is based on 4–17-year-olds. Bourdon, K. H., Goodman, R., Rae, D. S., Simpson, G., & Koretz, D. S. (2005). The Strengths and Difficulties Questionnaire: US normative data and psychometric properties. Journal of the American Academy of Child & Adolescent Psychiatry, 44(6), 557-564.



Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).

2022 SOAR Adolescent Survey Q11



ADOLESCENT ADJUSTMENT

ADOLESCENT REPORT

	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
Adolescent Behaviors*	<u>Reference group</u> Continuous	Prosocial Behaviors	 .862	.827	.897
Adolescent Behaviors*	<u>Reference group</u> Continuous	Peer Problems	 1.530	1.464	1.599

*Reported by adolescent

- Adolescent prosocial (helping) behavior was associated with a lower risk for anxiety/depression, while encountering problems with peers was associated with a higher risk of anxiety/depression.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



SELF-ESTEEM AND CHARACTER

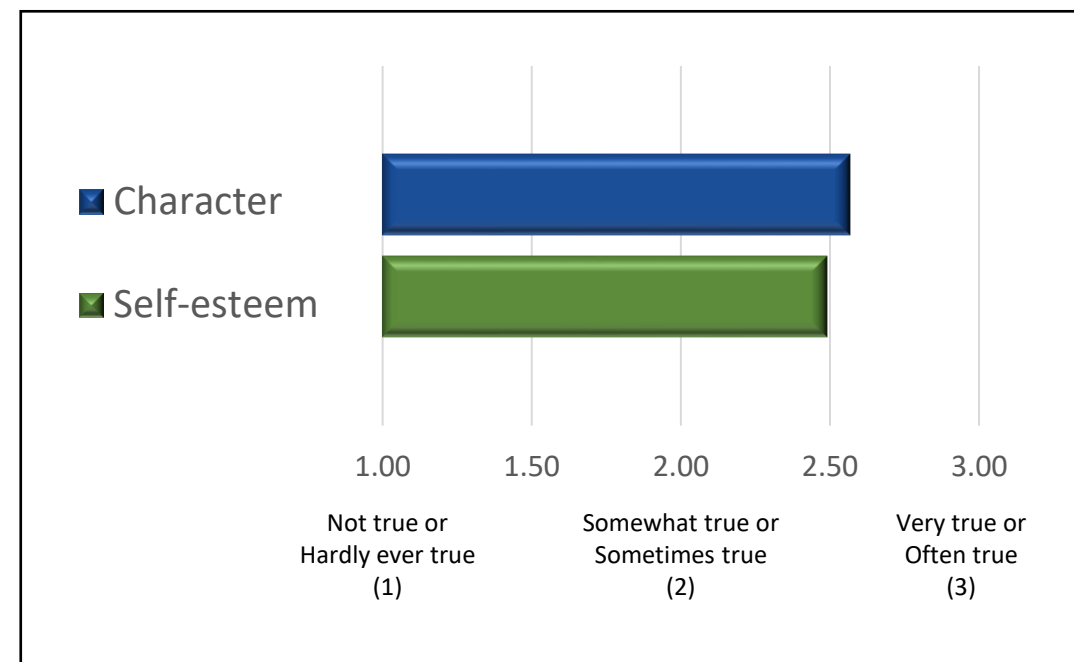
ADOLESCENT REPORT

Character

Helping to make sure all people are treated fairly.
Speaking up for equality.
Standing up for what I believe, even when it's unpopular to do.

Self Esteem

On the whole, I am satisfied with myself.
I feel that I have a number of good qualities.
I take a positive attitude toward myself.





SELF-ESTEEM AND CHARACTER

ADOLESCENT REPORT

Table on Adolescent Resilience Factors

Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
<u>Reference group</u> Continuous	Self-Esteem	.134	↓ .114	.158
<u>Reference group</u> Continuous	Character	.647	↓ .538	.777

- Higher self-esteem and character were associated with significantly lower odds of anxiety or depression.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.




STUDY FINDINGS: MILITARY LIFE EXPERIENCES



MILITARY LIFE EXPERIENCES

PARENT REPORT



	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
PCS Moves	<u>Reference group</u> Continuous	Number of PCS moves experienced by child since birth	1.05	1.00	1.09
Changing Schools	<u>Reference group</u> Continuous	Number of times child has changed schools due to a PCS move	 1.06	1.01	1.12
Parental Absence	<u>Reference group</u> Continuous	Number of times parent was away from home for more than 30 days since child was born	1.02	1.00	1.05

- Changing schools due to a PCS move increased the odds of screening for depression or anxiety.
- PCS moves and Parental Absence were not significant but trend the same direction.
- When we limit our sample to adolescent children of active duty personnel, **parental absence** significantly increased the odds of screening for depression or anxiety.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.

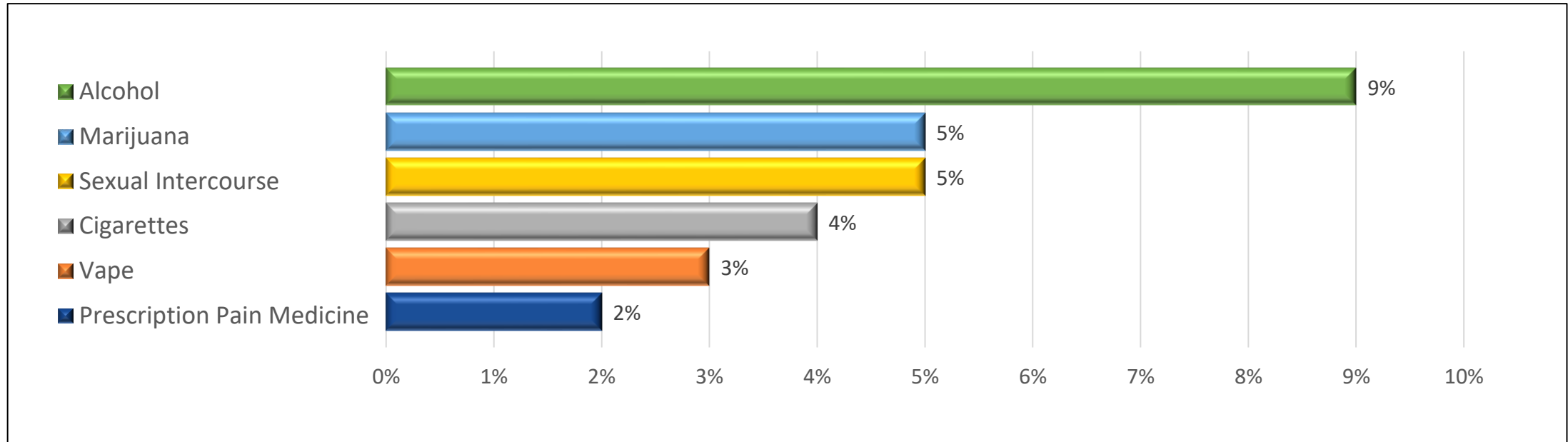


STUDY FINDINGS: HEALTH RELATED BEHAVIORS



HEALTH RELATED BEHAVIORS

ADOLESCENT REPORT



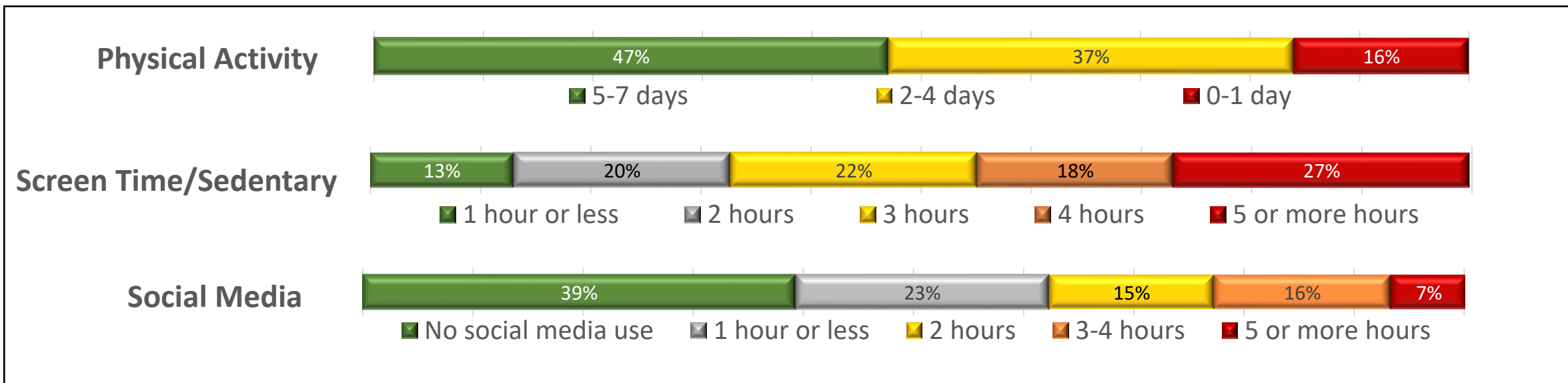
- Risky behaviors were **low overall**.
- Adolescent children of **Jr enlisted personnel** more likely to report risky behaviors compared to Sr officers.
- Almost all risky behaviors were higher in **older adolescents**.
- **Females** were more likely than males to report using prescription pain medicine recreationally and drinking.

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q29, Q30, Q31, Q32, Q33, Q34, Q35



HEALTH RELATED BEHAVIORS

ADOLESCENT REPORT (CONTINUED)



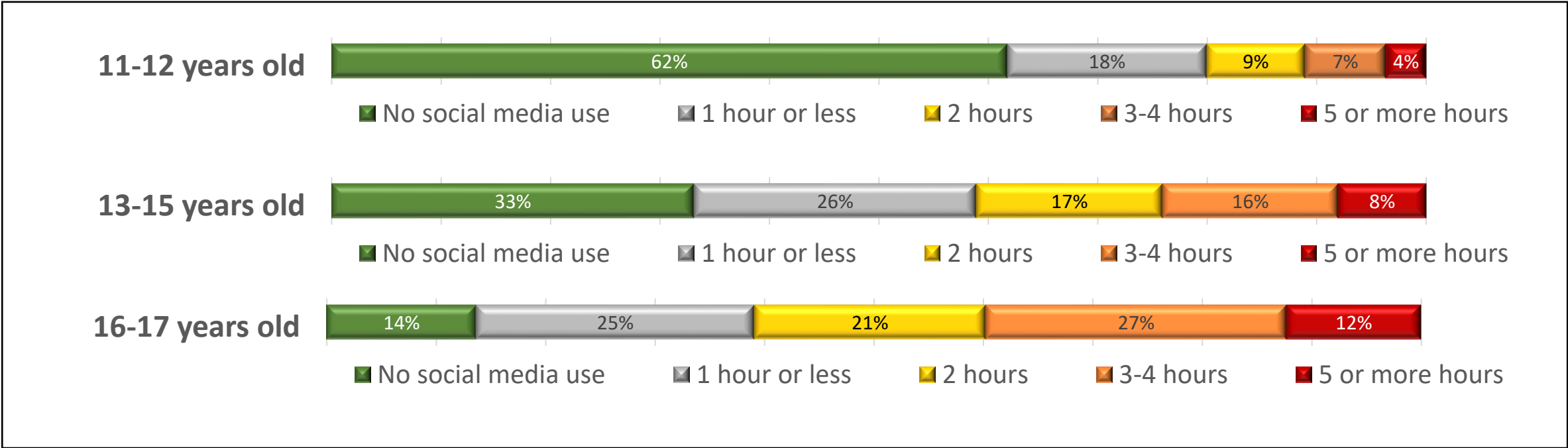
- **Children of enlisted personnel and older adolescents** were more likely to be less physically active and engage in 5 or more hours of sedentary behavior and social media use per day.
- **Female adolescents** were more likely to be less physically active and engage in 5 or more hours of social media.

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q38, Q39, Q40



SOCIAL MEDIA USE BY AGE

ADOLESCENT REPORT



- The percentage of adolescents using **social media for 3 or more hours** each day more than **triples** from early to late adolescence



HEALTH RELATED BEHAVIORS

ADOLESCENT REPORT



Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
<u>Reference group</u> Continuous	Hours of Sleep	.65	0.61 ↓	0.69
<u>Reference group</u> Continuous	Days Physically Active	.92	0.89 ↓	0.95
<u>Reference group</u> No	High Sedentary Behavior	2.38 ↑	2.02	2.81
<u>Reference group</u> No	High Social Media	1.87 ↑	1.44	2.42

- More hours of sleep and more days of physical activity were associated with significantly lower odds of adolescent depression or anxiety.
- More than 5 hours of screen time (high sedentary behavior) and more than 5 hours of social media use were both associated with significantly higher odds of adolescent depression or anxiety

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



STUDY FINDINGS: SCHOOL ENVIRONMENT

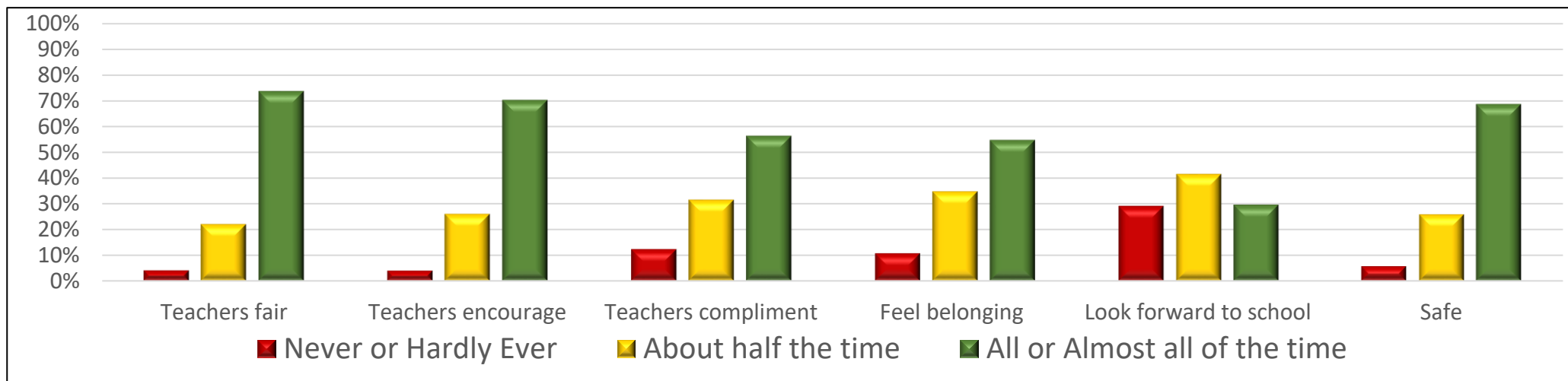


SCHOOL ENVIRONMENT

ADOLESCENT REPORT



During the last 12 months, how often have you felt any of the following ways about your school?



- Most students are reporting a **positive school environment**.
- **Younger adolescents** were less likely to report “**Never or Hardly Ever**” across all items.
- **Females**, children of **Army** and **Marine Corps** personnel, and children of **enlisted personnel** were more likely to report “**never or hardly ever**” feeling like they belong at school.
- **Females** were more likely than males to report “**never or hardly ever**” feeling safe at school.

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q20, Q21

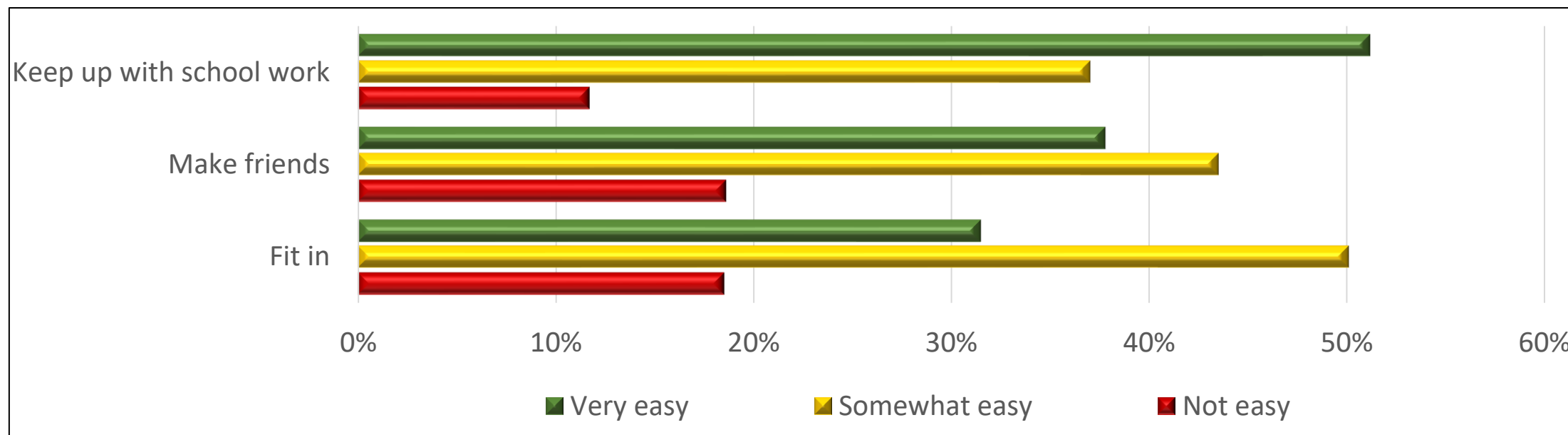


ADAPTING TO SCHOOL

ADOLESCENT REPORT



The last time you changed schools because of your parent's job in the U.S. military, how easy was it for you to...



- Across all three adapting to school items, children of **enlisted personnel** and **older children** were more likely to report that it was **not easy**.
- In addition, **females** were more likely to report that fitting in was **not easy**.

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q25a



GRADES AND SCHOOL ENVIRONMENT

ADOLESCENT REPORT



Grades or School Environment	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
Grades	Reference group Continuous	Grades	0.88 ↓	0.83	0.94
School Environment	Reference group Continuous	Teacher Quality	0.37 ↓	0.32	0.43
School Environment	Reference group Continuous	Sense of Belonging	0.36 ↓	0.32	0.40
School Environment	Reference group Continuous	Looking forward to School	0.38 ↓	0.34	0.43
School Environment	Reference group Continuous	Safety	0.33 ↓	0.29	0.37

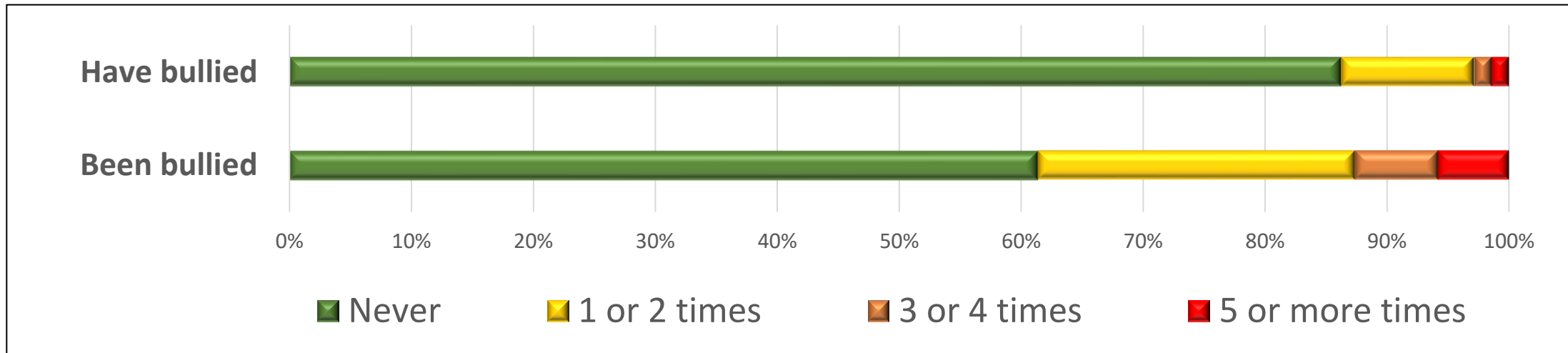
- Higher grades were associated with lower odds of depression or anxiety
- Higher perceptions of teacher quality and school environment were associated with lower odds of anxiety and depression

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



BULLYING

ADOLESCENT REPORT



- Children of **enlisted personnel** and **Army personnel** were more likely to report bullying (perpetration).
- Children of **enlisted personnel, females, and younger children (11-12)** were more likely to report being bullied (victim).

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q54



BULLYING

ADOLESCENT REPORT



	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
Bullying	<u>Reference group</u> No	Bullying (perpetrator)	1.49	1.30	1.71
Bullying	<u>Reference group</u> No	Being Bullied (victim)	1.86	1.70	2.02

- Both being bullied and bullying were associated with significantly higher odds of screening for anxiety or depression.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



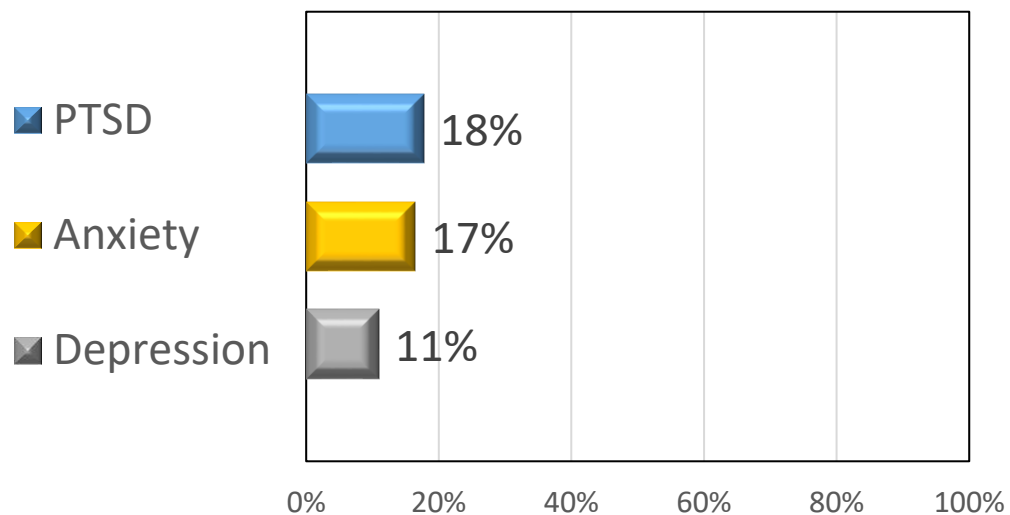
STUDY FINDINGS: PARENTAL RELATIONSHIPS



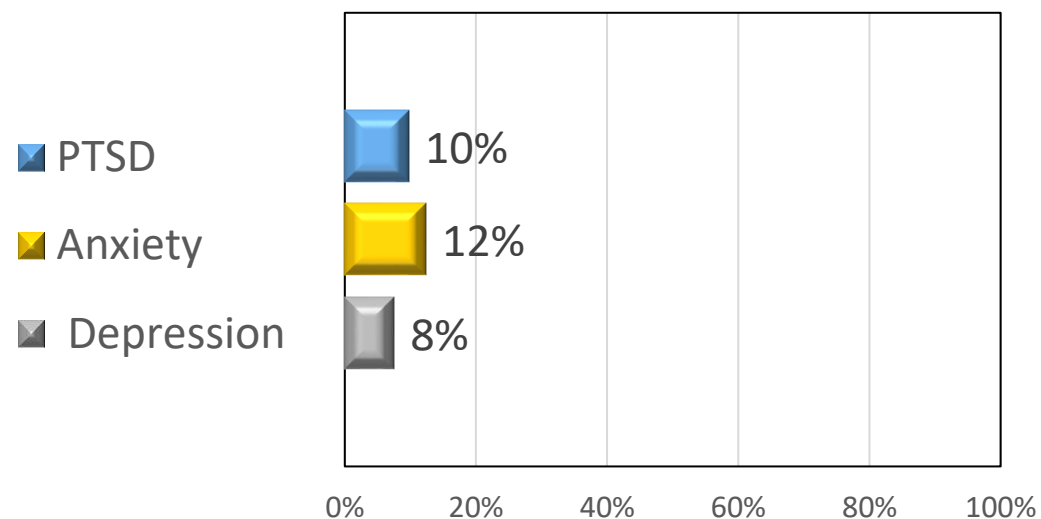
PARENTAL MENTAL HEALTH

PARENT REPORT

MCS Parent





Co-Parent





PARENTAL MENTAL HEALTH

PARENT REPORT (CONTINUED)

	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
Parental Mental Health	<u>Reference group</u> Negative Screen for PTSD/Anxiety/Depression	Service Member Mental Health	 1.441	1.210	1.715
Parental Mental Health	<u>Reference group</u> Negative Screen for PTSD/Anxiety/Depression	Co-parent Mental Health	 1.363	1.099	1.691

- Either parent screening positive for PTSD, Anxiety, or Depression was associated with a higher risk that their child would screen positive for anxiety or depression.

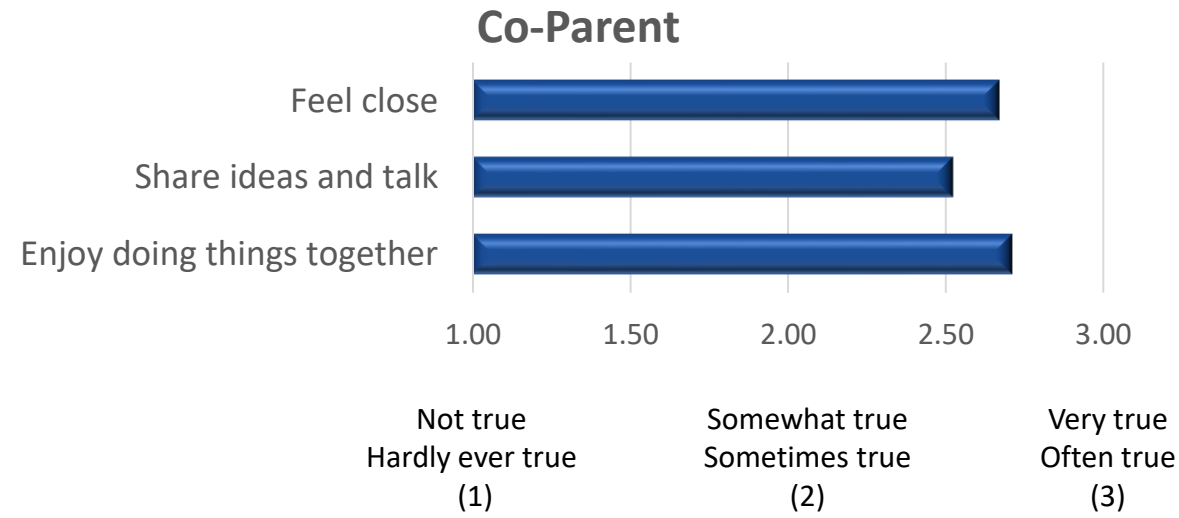
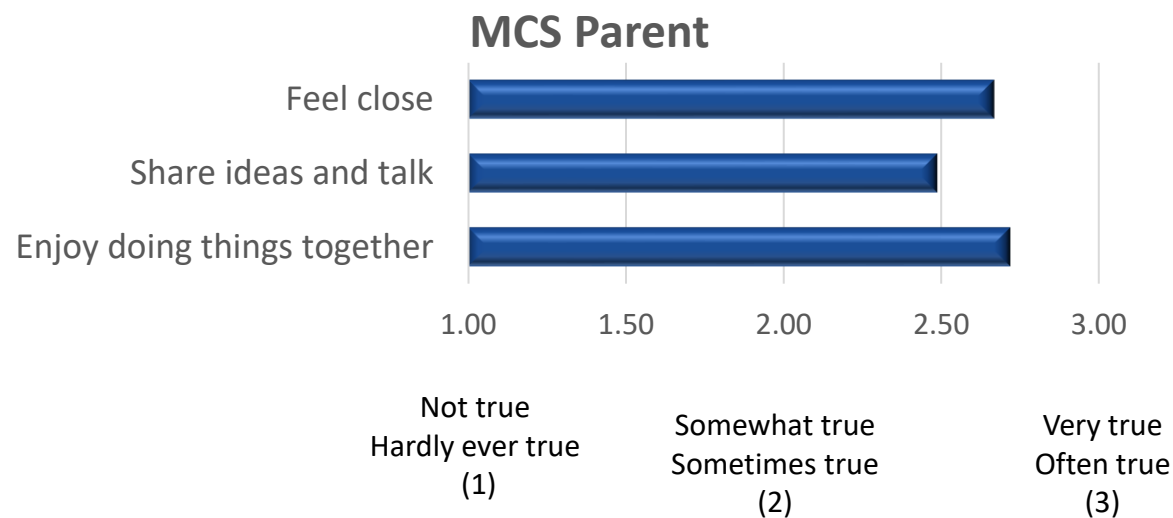
Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



PARENT-CHILD RELATIONSHIP QUALITY

ADOLESCENT REPORT

How true is each of the following statements about your relationship with your parent(s)?



- **Male adolescents, children of Air Force and Navy personnel, and children of Sr. Officers** reported **better** relationship quality across both parents.
- **Children of veterans** reported **worse** relationship quality across both parents.

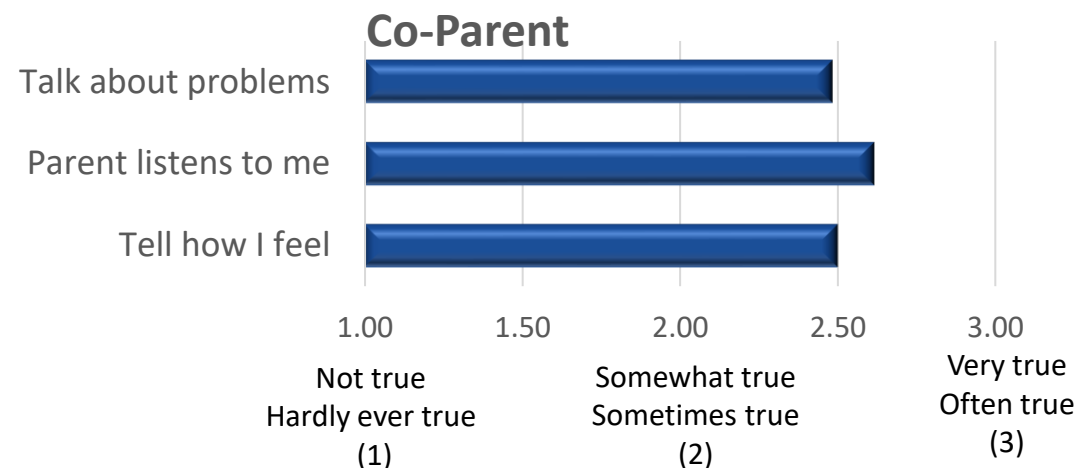
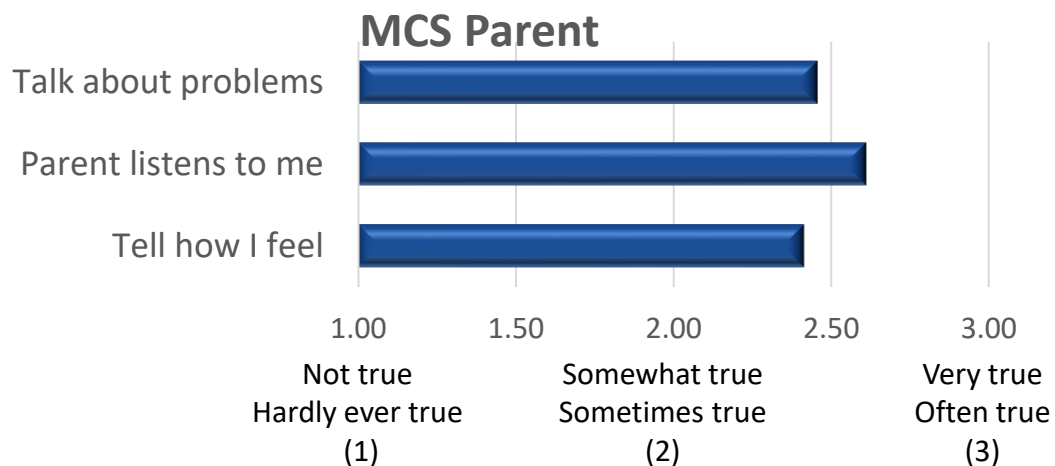
Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q51



PARENT-CHILD COMMUNICATION

ADOLESCENT REPORT

How true is each of the following statements about your relationship with your parent(s)?



- **Male adolescents, children of Navy personnel, and younger children** reported **better** communication across both parents.
- **Children of veteran families** reported **worse** communication.

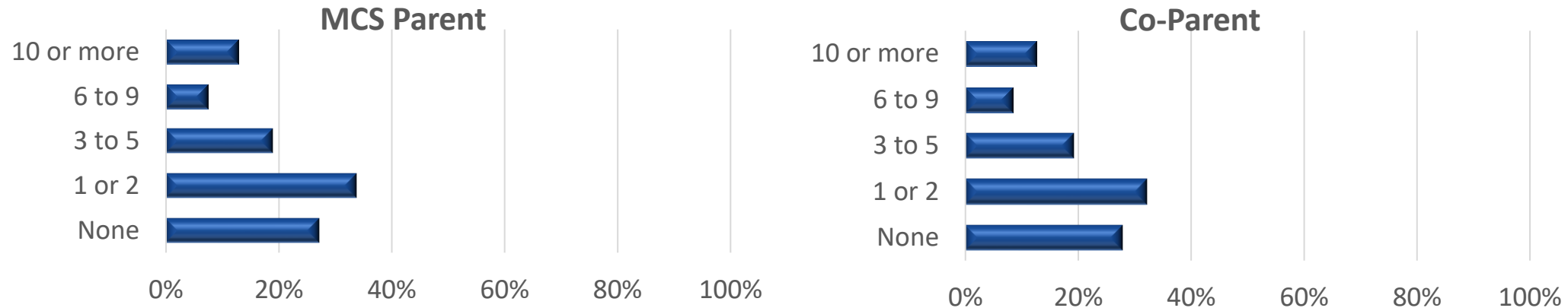
Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).
2022 SOAR Adolescent Survey Q52



PARENT-CHILD CONFLICT

ADOLESCENT REPORT

During the last 12 months, how many times have you argued or had a fight with [parent]?



- The **children of Sr. Officers** reported fighting or arguing with their parents more often than the children of enlisted personnel, however the average number of arguments or fights was low (1 or 2).

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).

2022 SOAR Adolescent Survey Q53



PARENT-CHILD RELATIONSHIP

ADOLESCENT REPORT

	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
MCS Parent	<u>Reference group</u> Continuous	Relationship Quality	.50	.44	.58
MCS Parent	<u>Reference group</u> Continuous	Communication	.44	.39	.50
MCS Parent	<u>Reference group</u> Continuous	Conflict	1.35	1.28	1.43
Co-Parent	<u>Reference group</u> Continuous	Relationship Quality	.51	.44	.59
Co-Parent	<u>Reference group</u> Continuous	Communication	.44	.38	.50
Co-Parent	<u>Reference group</u> Continuous	Conflict	1.37	1.29	1.45

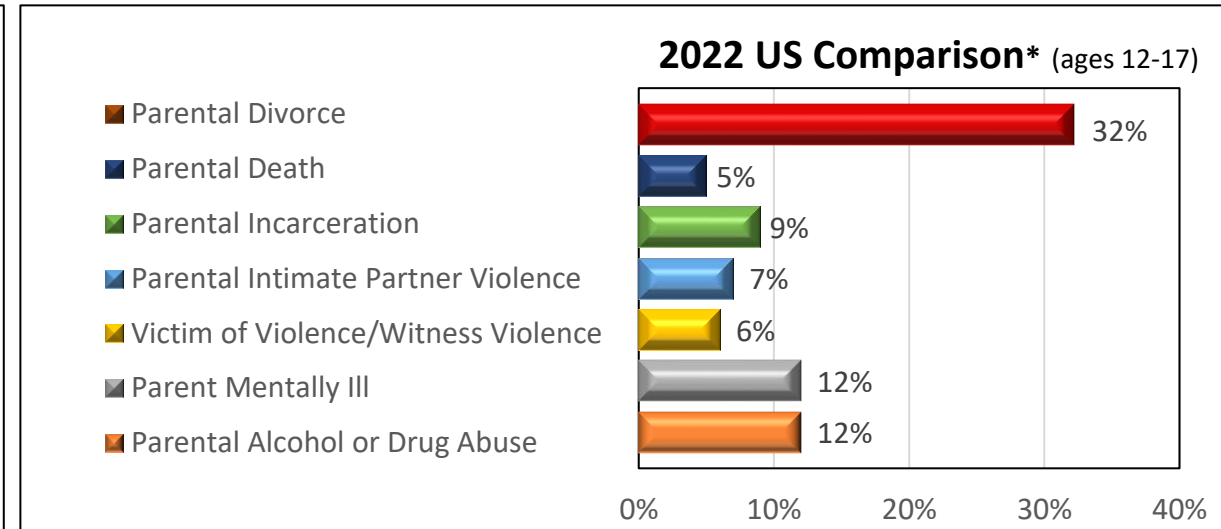
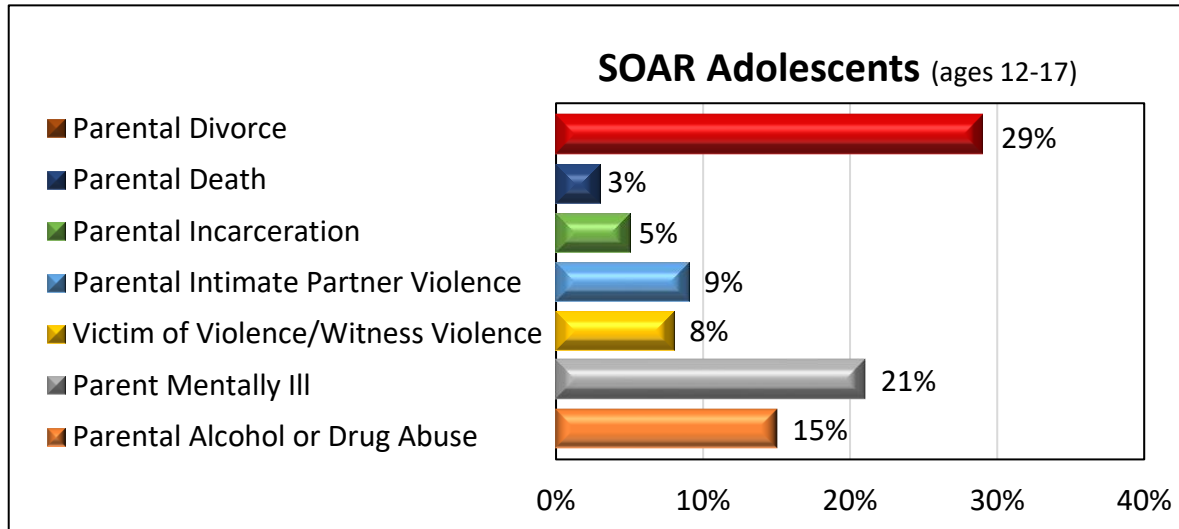
- Adolescent-reported dimensions of parent-child relationship quality were all significantly associated with adolescent mental health.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



ADVERSE CHILDHOOD EVENTS

PARENT REPORT



- **Children of enlisted personnel, older adolescents, and children of soldiers** were more likely to have higher total scores.
- This pattern was consistent across individual items.

Note: ANOVA used for significance testing and all differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).

*National Survey of Children's Health (2022), Health Resources and Services Administration, Maternal and Child Health Bureau. <https://mchb.hrsa.gov/data/national-surveys>

2022 SOAR Parent Survey Q68



ADVERSE CHILDHOOD EVENTS

PARENT REPORT

Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
<u>Reference group</u> Continuous	Adverse Childhood Events	 1.20	1.13	1.27

- The odds of screening positive for anxiety and depression are higher for adolescents with exposure to adverse childhood events.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



STUDY FINDINGS: FAMILY FACTORS



FAMILY FACTORS

ADOLESCENT REPORT



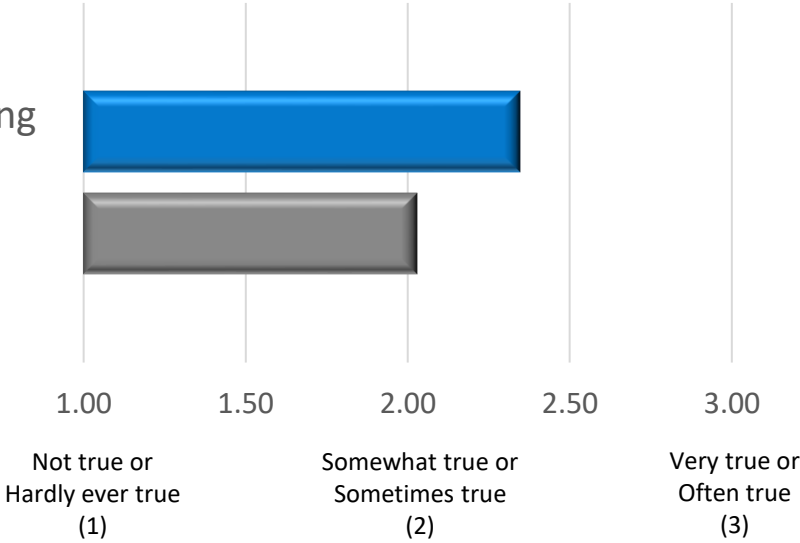
Civic Modeling

- My parents vote in elections.
- My parents follow news about politics and current events.
- My parents are active in improving our neighborhood.
- My parents volunteer in our community.
- My parents take actions to protect the environment (e.g., recycle, use less electricity).
- My parents would take action when they see others being treated unfairly

Sociopolitical Discussions

- We talk about politics and current events.
- We talk about times when people are treated unfairly.
- We talk about problems facing our community.

- Parental civic modeling
- Family sociopolitical discussions





FAMILY FACTORS

ADOLESCENT REPORT



Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
<u>Reference group</u> Continuous	Family Sociopolitical Discussions	.809 ↓	.707	.925
<u>Reference group</u> Continuous	Civic Modeling	.644 ↓	.536	.774

- Sociopolitical discussions were associated with significantly lower odds of screening for anxiety or depression.
- Family civic modeling was associated with significantly lower odds of screening for anxiety or depression.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.

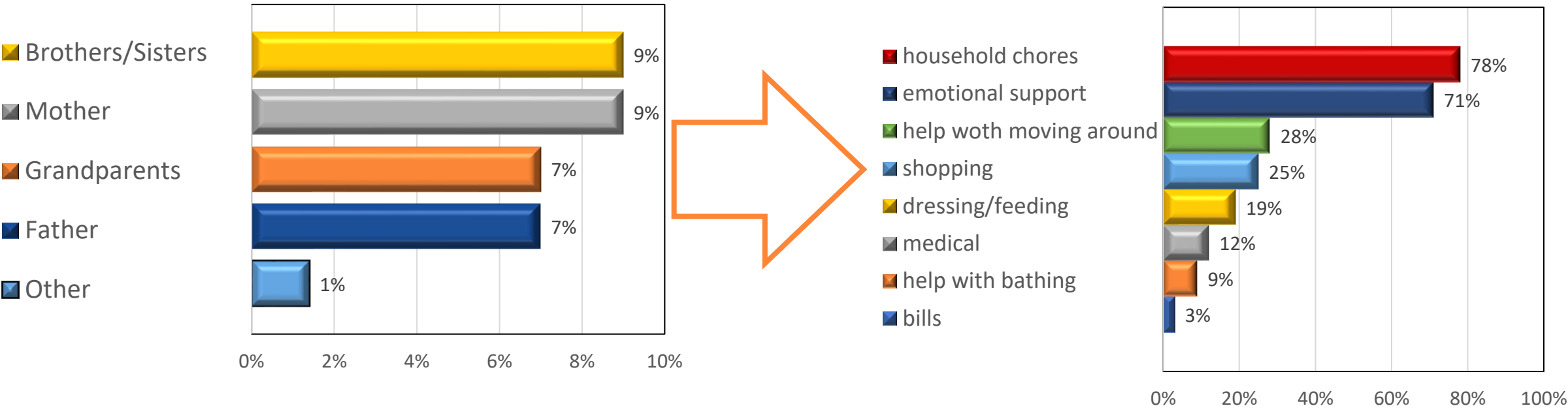


ADOLESCENT CAREGIVING

PARENT REPORT



During the last 12 months, has your child cared for any of the following people in your household who are sick, elderly, frail, disabled, or mentally ill?




- 21% of SOAR adolescents provided care for someone in their household during the last 12 months.



ADOLESCENT CAREGIVING

PARENT REPORT

Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
<u>Reference group</u> No	Adolescent Caregiving	 1.26	1.05	1.51

- Adolescent caregiving was associated with a significantly higher risk for adverse mental health.

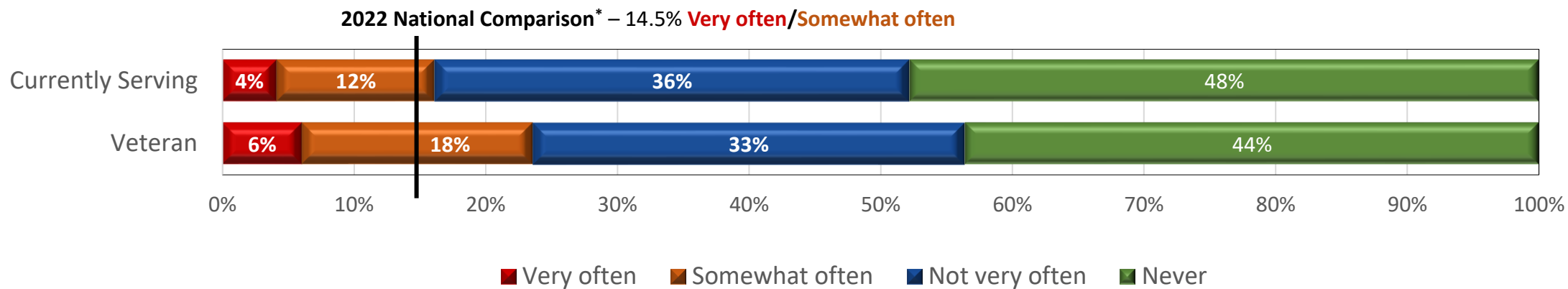
Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



FINANCIAL HARDSHIP

PARENT REPORT

Since your child was born, how often has it been very hard to get by on your family's income, for example, it was hard to cover the basics like food or housing?



- Most parents report that they have **never** had difficulty covering the basics like food or housing.
- **Currently Serving** – Parents of **older children, enlisted personnel and Jr officers** were more likely to report **Very often/Somewhat often** having financial hardship.
- **Veteran** – **Enlisted and Jr officers** were more likely to report **Very often/Somewhat often**.


*National Survey of Children's Health (2022), 12-17 years olds, Health Resources and Services Administration, Maternal and Child Health Bureau. <https://mchb.hrsa.gov/data/national-surveys>

Note: All differences presented on the slide are statistically significant bivariate associations ($p < 0.05$).

2022 SOAR Parent Survey Q67



FINANCIAL HARDSHIP

	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
Risk Factor	<u>Reference group</u> Not often/never	Financial Hardship	 1.30	1.07	1.58

- Reporting financial hardship since child was born was associated with significantly higher odds of an adolescent screening for anxiety or depression.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.



STUDY FINDINGS: SUPPORT FACTORS



SUPPORT SERVICES

PARENT REPORT (ACTIVE-DUTY SAMPLE)

During the last 12 months, have you used any of the following sources of support to help you or your family cope with difficult challenges or solve problems?

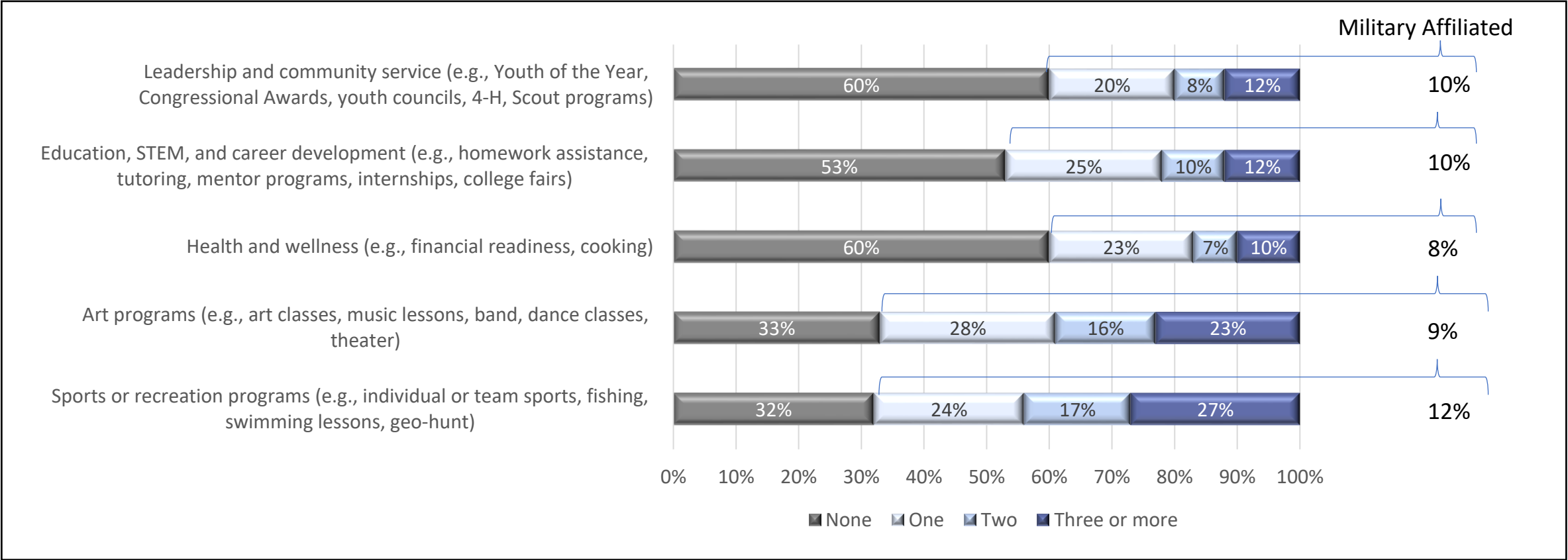




EXTRACURRICULAR ACTIVITIES

PARENT REPORT

During the last 12 months, in how many of the following kinds of activities has your child participated?





ACTIVITIES AND SUPPORT SERVICES

	Category	Predictor	Effect Size (Odds Ratios) >1 = Higher Odds	95% CI Lower Bound	95% CI Upper Bound
Extracurricular Activities	<u>Reference group</u> No	Leadership and community service	0.73 ↓	0.63	0.86
Extracurricular Activities	<u>Reference group</u> No	Sports or recreation programs	0.58 ↓	0.49	0.68
Support Services	<u>Reference group</u> No	Support Services (All)	↑ 1.25	1.07	1.47
Support Services	<u>Reference group</u> No	Support Services (Military)	↑ 1.23	1.03	1.48

- Participation in leadership programs/community service and sports/recreation were associated with significantly lower odds of anxiety or depression.
- Participation in support services were associated with significantly higher odds of anxiety or depression.

Note: Education, STEM, career development, Health and wellness, and Art programs were not significantly associated with adolescent screen for anxiety or depression.

Note: These logistic regressions analyses controlled for adolescent age, sex, and service member branch, component, paygrade, and current military status. The predictor variables indicated by reference groups are separate models; the data are presented to show the controlled impact of these predictors irrespective of the presence of the other key predictor variables.

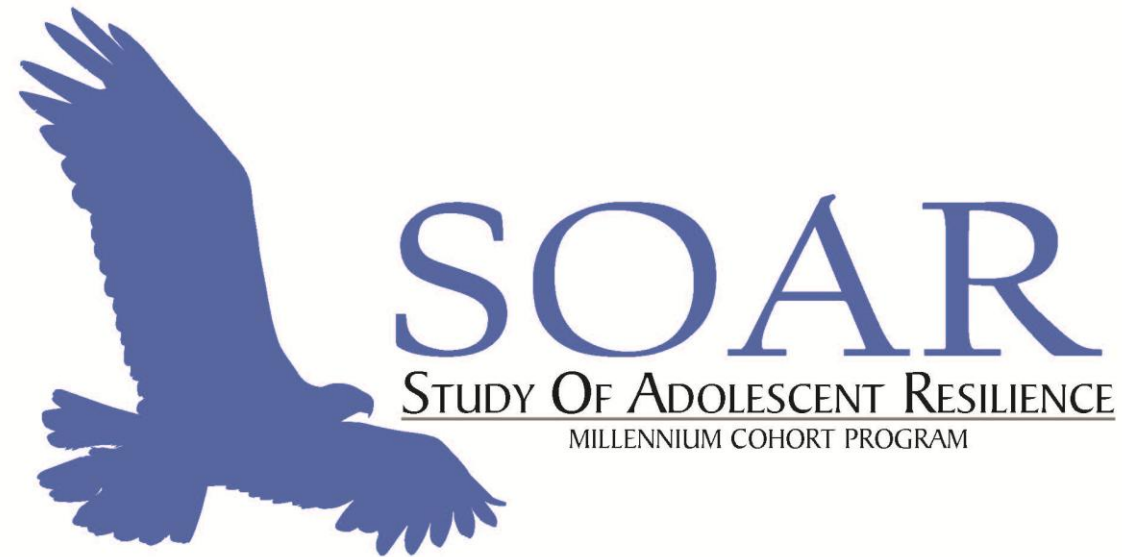


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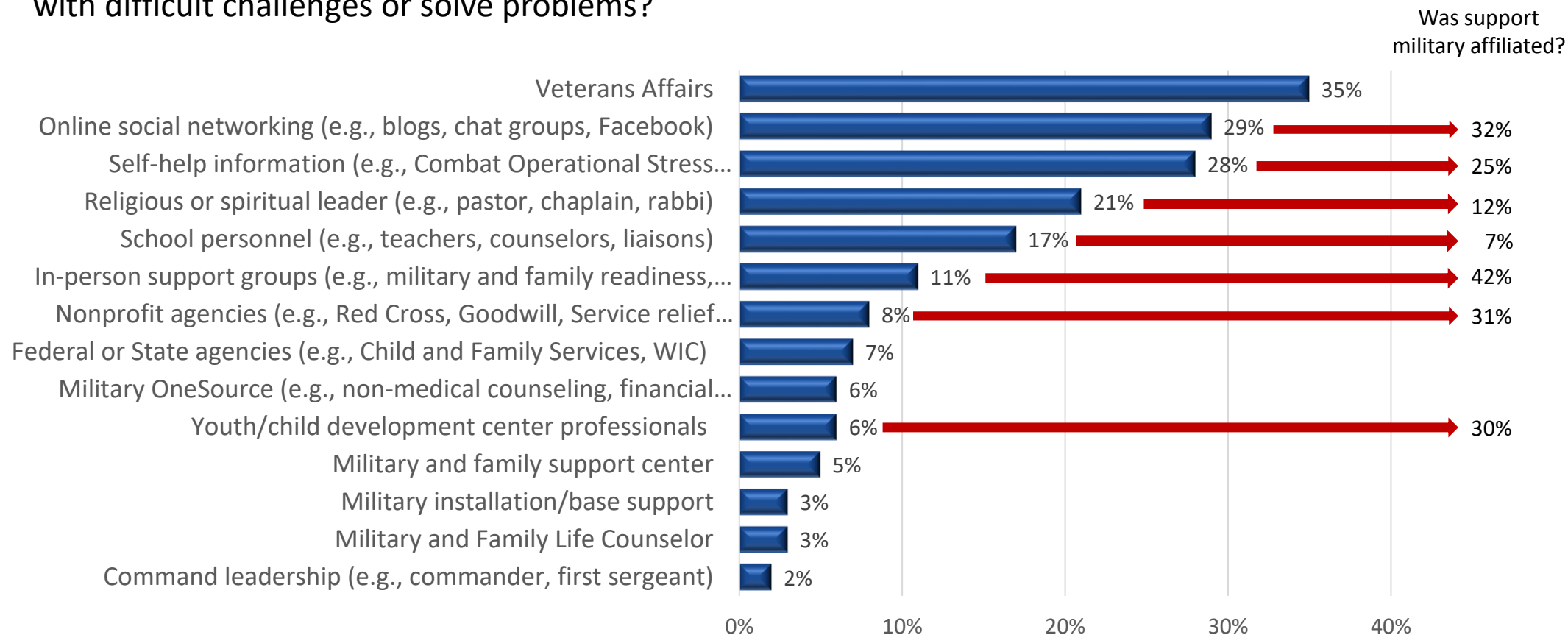
ADDITIONAL SLIDES



SUPPORT SERVICES

PARENT REPORT (VETERAN SAMPLE)

During the last 12 months, have you used any of the following sources of support to help you or your family cope with difficult challenges or solve problems?

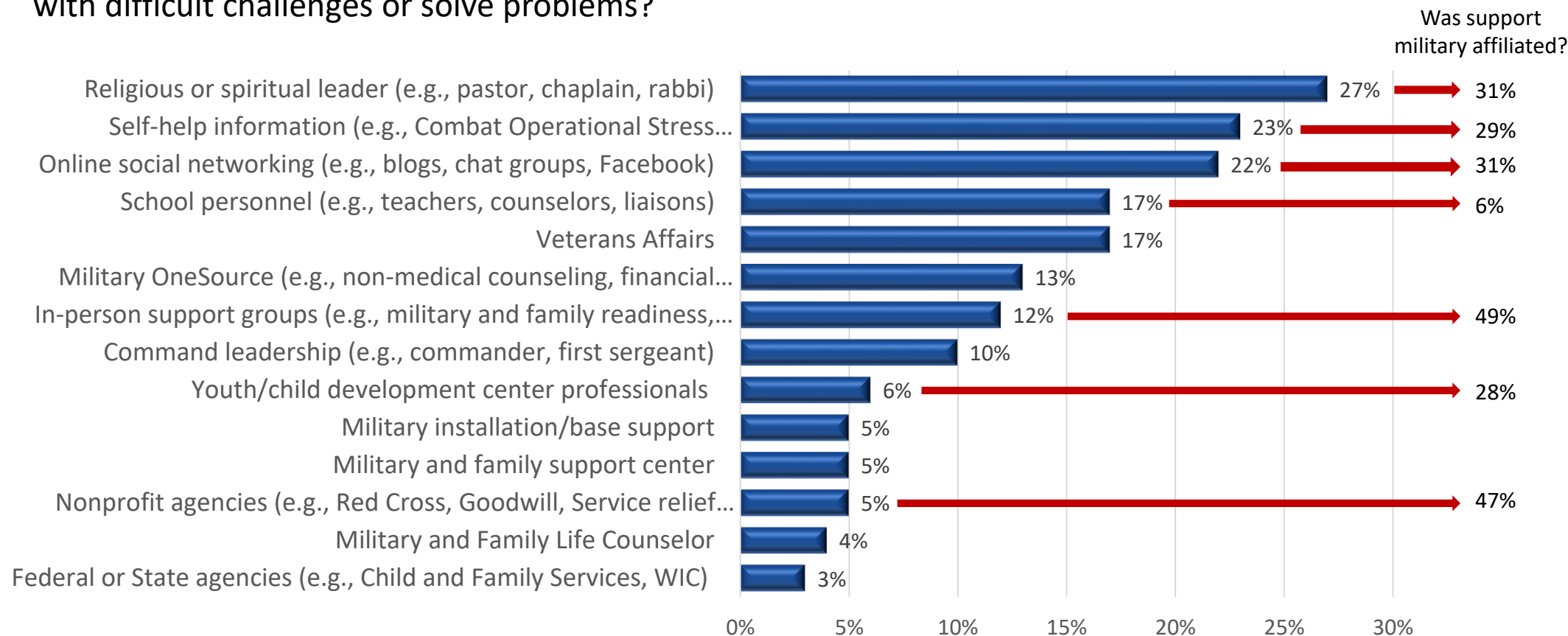




SUPPORT SERVICES

PARENT REPORT (RESERVE/NATIONAL GUARD SAMPLE)

During the last 12 months, have you used any of the following sources of support to help you or your family cope with difficult challenges or solve problems?

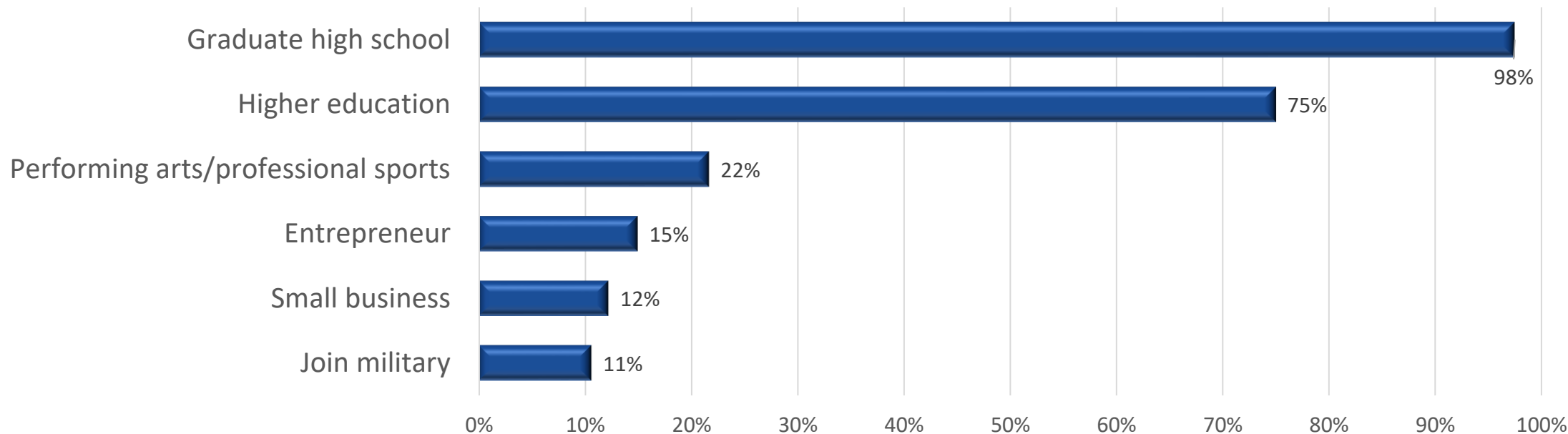




EDUCATION AND CAREER ASPIRATIONS

ADOLESCENT REPORT

Do you plan to...





CONGRESSIONAL REPORT ANALYSES



CONGRESSIONAL REPORT ANALYSES



- The STRONG Veterans Act requires the Secretary of Veteran Affairs and Secretary of Defense to prepare a report to Congress on the impacts of **servicemember PTSD and depression** on spouses, children, and caregivers.

Tables of Descriptive Statistics for Military Parent and Adolescent Characteristics

Table 1. MCS Parent Mental Health

PTSD/Depression	%(n) or M(SD)
Probable MCS Parent PTSD (% yes)	17.19 (648)
Probable MCS Parent depression (% yes)	10.61 (400)
Chronic PTSD ^a (% yes)	7.98 (269)
Chronic depression ^a (% yes)	4.07 (137)
Comorbid PTSD-Depression	-
Neither PTSD or Depression	79.01 (2981)
PTSD only	10.29 (388)
Depression only	3.71 (140)
Both PTSD and depression	6.90 (260)
Chronic PTSD/depression (% yes)	10.71 (338)

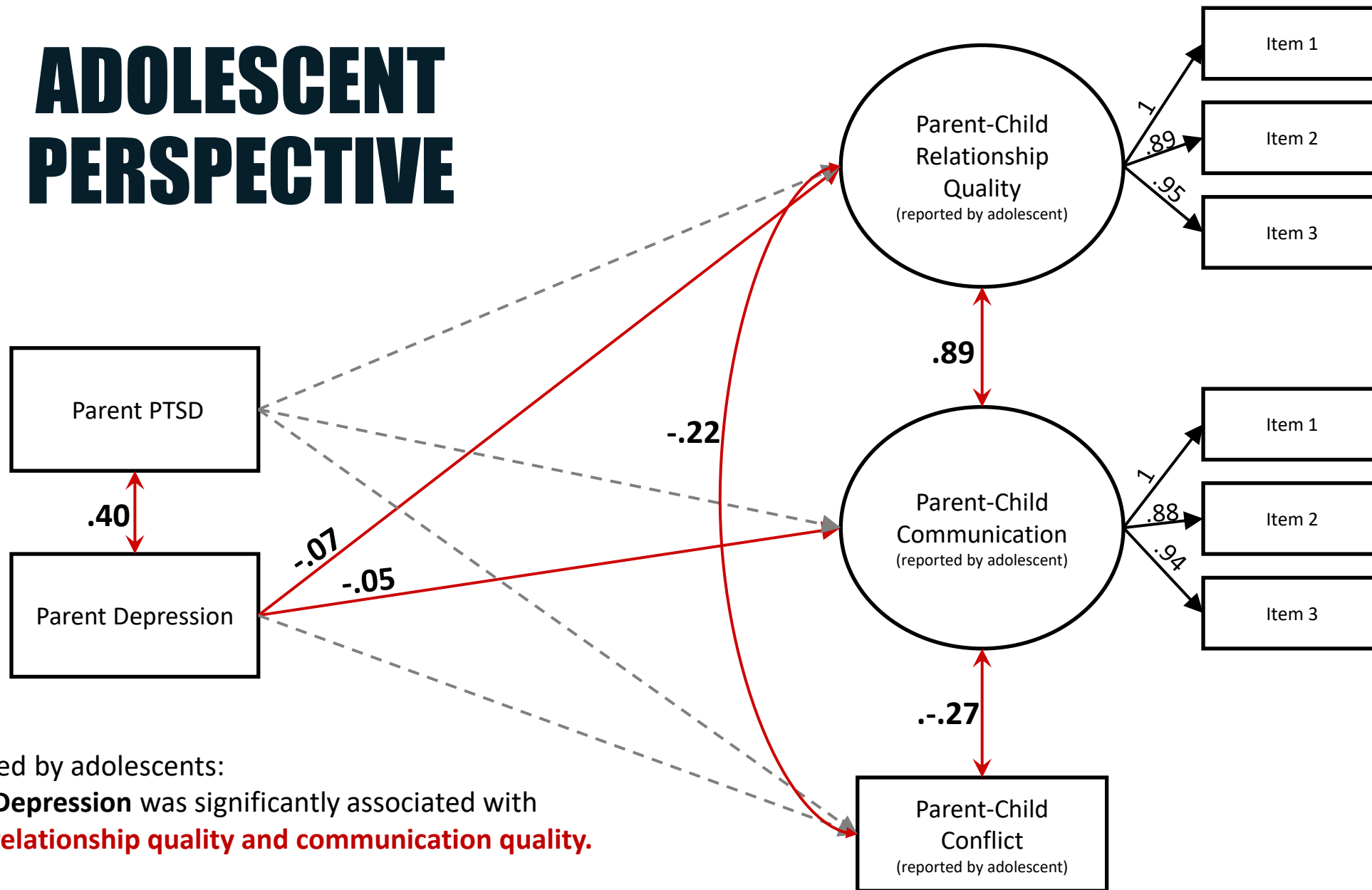
^aChronic conditions were derived from data linkage to the 2019-21 Millennium Cohort Study survey assessment with the 2022-23 SOAR baseline survey assessment. Mean time between assessments was 2.78 years.

Table 2. Parent-Child Relationship Quality

Parent-Child Dynamics	%(n) or M(SD)
Parent-Child Conflict (1-5) – Parent Self-reported	2.49 (0.87)
Parent-Child Communication (1-5) – Parent Self-reported	4.09 (0.76)
Parent-Child Conflict (0-4) – Adolescent Self-reported	1.45 (1.31)
Parent-Child Communication (1-3) – Adolescent Self-reported	2.49 (0.58)
Parent-Child Relationship Quality (1-3) – Adolescent Self-reported	2.63 (0.50)



ADOLESCENT PERSPECTIVE

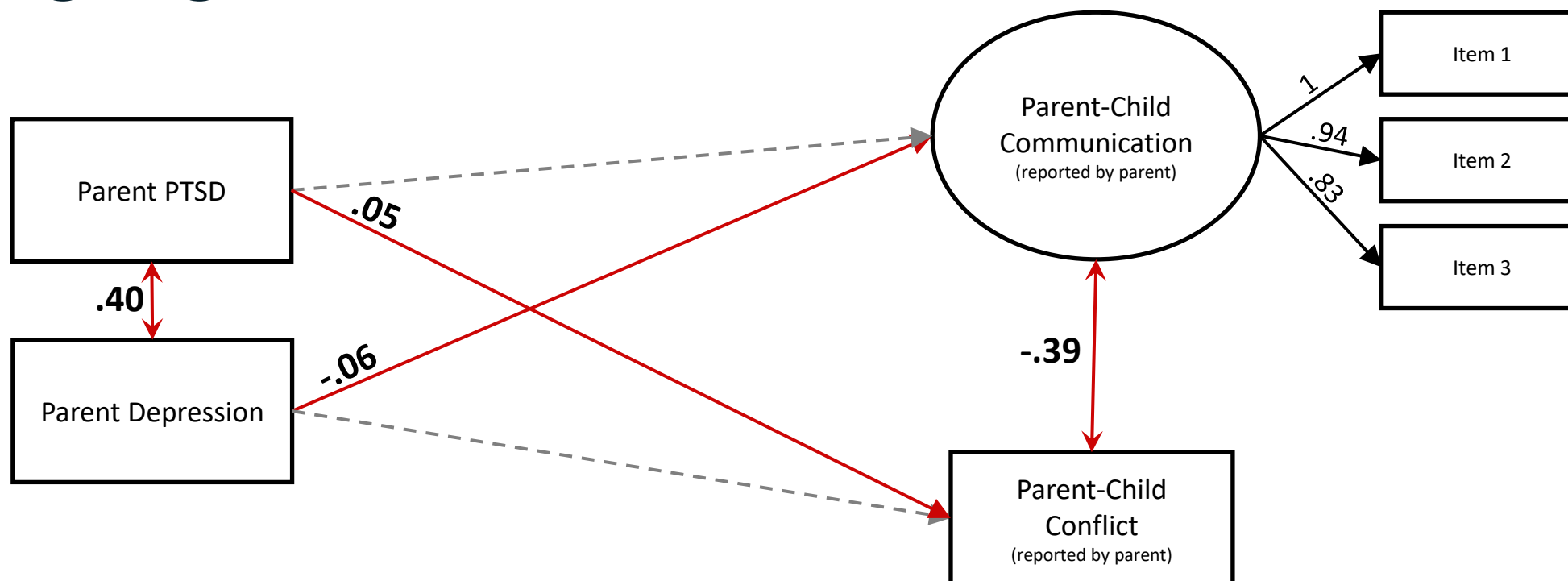


When reported by adolescents:

- **Parental Depression** was significantly associated with **reduced relationship quality and communication quality.**



PARENT PERSPECTIVE



When reported by parents:

- **Parental Depression** was significantly associated with **decreased communication quality**.
- **Parental PTSD** was significantly associated with **increased conflict**.