



CHILDREN SERVE TOO: MILITARY LIFE STRESS AMONG THE CHILDREN OF NEWLY ENROLLED MILLENNIUM COHORT FAMILY STUDY PARTICIPANTS



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MILITARY-CONNECTED CHILDREN



A third (35%) of service members have children¹

Children in military families go through the same challenges as the rest of the family, except they do so within their developing understanding of themselves and the world

Military life represents a common developmental experience, impacting predominantly young children

- ⓐ Active-duty families (431,396 service members - 869,007 children)¹
 - Largest group (41.1%) are younger than age 5
- ⓐ Reserve/Guard families (279,245 service members - 561,214 children)¹
 - Largest group (33.3%) between age 5 and 11
- ⓐ Total Force (707,520 service members- 1,423,969 children)¹
 - 37.6% younger than age 5, 70.4% younger than age 11



U.S. Marine Corps photo by LCpl. Jesus Sepulveda Torres/Released



MILITARY CHILD MENTAL HEALTH

Military children may have elevated mental and behavioral health problems relative to the general population



Image courtesy of S. Richardson

- ① Early work on the “military family syndrome”²
- ① Compared to national norms, military adolescents (11-18) have elevated mental health symptoms for both boys and girls³
- ① Work comparing medical data for those charging TRICARE found that military children are almost twice as likely to have a behavioral health diagnosis compared to those uninsured (15.7% vs. 7.9%) and higher than those with commercial (10.7%) or public (13.6%) insurance⁴
- ① Military children have greater general symptom levels compared to civilian children with known risk factors⁵



MILITARY CHILD MENTAL HEALTH



Not all studies have found that military children have increased symptoms relative to the general population

- ⌚ One study found that military children had *less* mental health problems than non-military children⁶
- ⌚ Another found generally similar mental health problems, with elevations on only some isolated measures of anxiety⁷

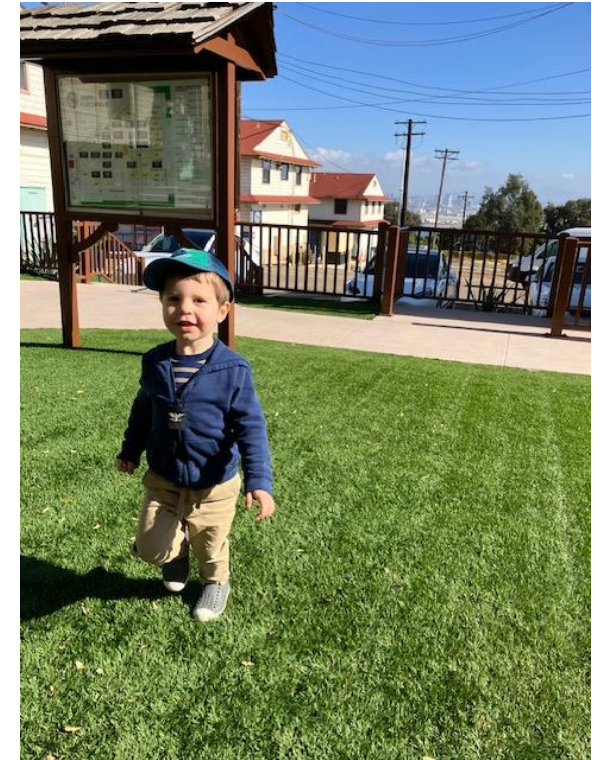


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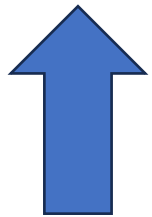


MILITARY CHILD MENTAL HEALTH



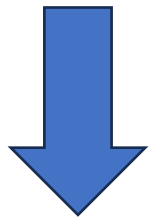
Selection bias may play a role

Some work suggests that those who join the military are not the same as their civilian counterparts from the outset



Healthcare need bias:

ⓐ Families with children with high healthcare needs often stay in the military due to the comprehensive and low-cost TRICARE health insurance⁸



The healthy warrior effect:

ⓐ Those who join/are selected for service are healthier and better adapted than the general population⁹, this may extend to children in the family



MILITARY STRESS



One potential contributor to military child mental health is military stress

Deployment has been the most heavily studied military stressor in its relation with family adjustment

- Small effect of deployment on child outcome¹⁰
- No effect/positive effects of deployment on child functioning¹¹
- Short-term effects like difficulty during reintegration³

Deployment alone may not tell the whole story when it comes to children's adjustment, and may be sensitive to healthy warrior effects



Photo courtesy of DVIDS



MILITARY STRESS



Military stress may be developmental in its effects

- Younger children may understand and experience military stress more indirectly, while older children may experience military stress more directly¹²
- Child sex may change the outcome of stress, whether expressed through internalizing (i.e., mood and anxiety symptoms) or externalizing (behavioral and conduct symptoms)¹³



Picture courtesy of NHRC MCFS calendar submission 2017



CURRENT STUDY



- ⌚ Using data from the Millennium Cohort Family Study Panel II, this study addressed the following hypotheses:
1. The mental and behavioral health symptoms of a current cohort of military children will be higher on average compared with a population-based sample of U.S. civilian children
 2. Higher mental health symptoms and diagnoses among military children will be predicted by parent-reported military life stress
 3. The effects of military life stress will be moderated by developmental stage and child sex



Photo courtesy of S. Richardson



METHOD

- ① Millennium Cohort Family Study (MCFS)
 - Dyadic data following spouses of junior personnel (2–5 years of service) both during and after service life
- ① Baseline data from 2021 panel of MCFS
 - Eligibility: Participants with focal child age 3-17 (MCFS N=2,637)
- ① Participants completed web-administered questionnaires about their military stress and the mental health of their children
 - A focal child was randomly chosen in families with more than one child



MEASURES

Constructs	Measure	Citation
Military Stress (spouse-report)	MCFS survey, in-house measure	Ozechowski et al. (2026), Six items: whether their service member partners had experienced (a) problems with their unit, (b) noncombat injury, (c) unaccompanied tour of duty, and (d) deployment for >30 days, as well as if their family perceived (e) inability to get military support services or (f) dissatisfaction with pay. Sum score (range = 0–6, median value = 1.0)
Total (Mental/Behavioral) Difficulties – Child	Strengths and Difficulties Questionnaire	Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. <i>Journal of Child Psychology and Psychiatry</i> , 38(5), 581–586. https://doi.org/10.1111/j.1469-7610.1997.tb01545.x
Externalizing – Child	Strengths and Difficulties Questionnaire	Above and: Goodman, A., Lamping, D. L., & Ploubidis, G. B. (2010). When to use broader internalising and externalising subscales instead of the hypothesised five subscales on the Strengths and Difficulties Questionnaire (SDQ): Data from British parents, teachers and children. <i>Journal of Abnormal Child Psychology</i> , 38(8), 1179–1191. https://doi.org/10.1007/s10802-010-9434-x
Internalizing – Child	Strengths and Difficulties Questionnaire	
Any mental/behavioral diagnosis – Child	National Survey of Children's Health	(Gurney et al., 2006) asked if a doctor or health professional had ever diagnosed their focal child with any of a set of common behavioral health conditions across anxiety, depression, attention deficit-hyperactivity disorder, disruptive mood deregulation disorder, and behavior/conduct problems. A yes on any item = 1 on this variable.
Covariates and Moderators		
Self-reported demographics: age of child (moderator), child sex (moderator), number of children in family, spouse minority group status	MCFS Survey	
Administrative demographics: sex of service member, minority group membership for service member, branch, active-duty status	Defense Manpower Data Center demographic data	



RESULTS



Variable	N	Summary value	
Child independent variables			
Child sex			
Female	1285	49.1%	
Male	1334	50.9%	
Child developmental stage, age in years			
Preschool (3–5)	1631	61.9%	
Middle childhood (6–9)	689	26.1%	
Preadolescent/adolescent (10–17)	317	12.0%	
Child minority status			
No	1237	47.1%	
Yes	1391	52.9%	



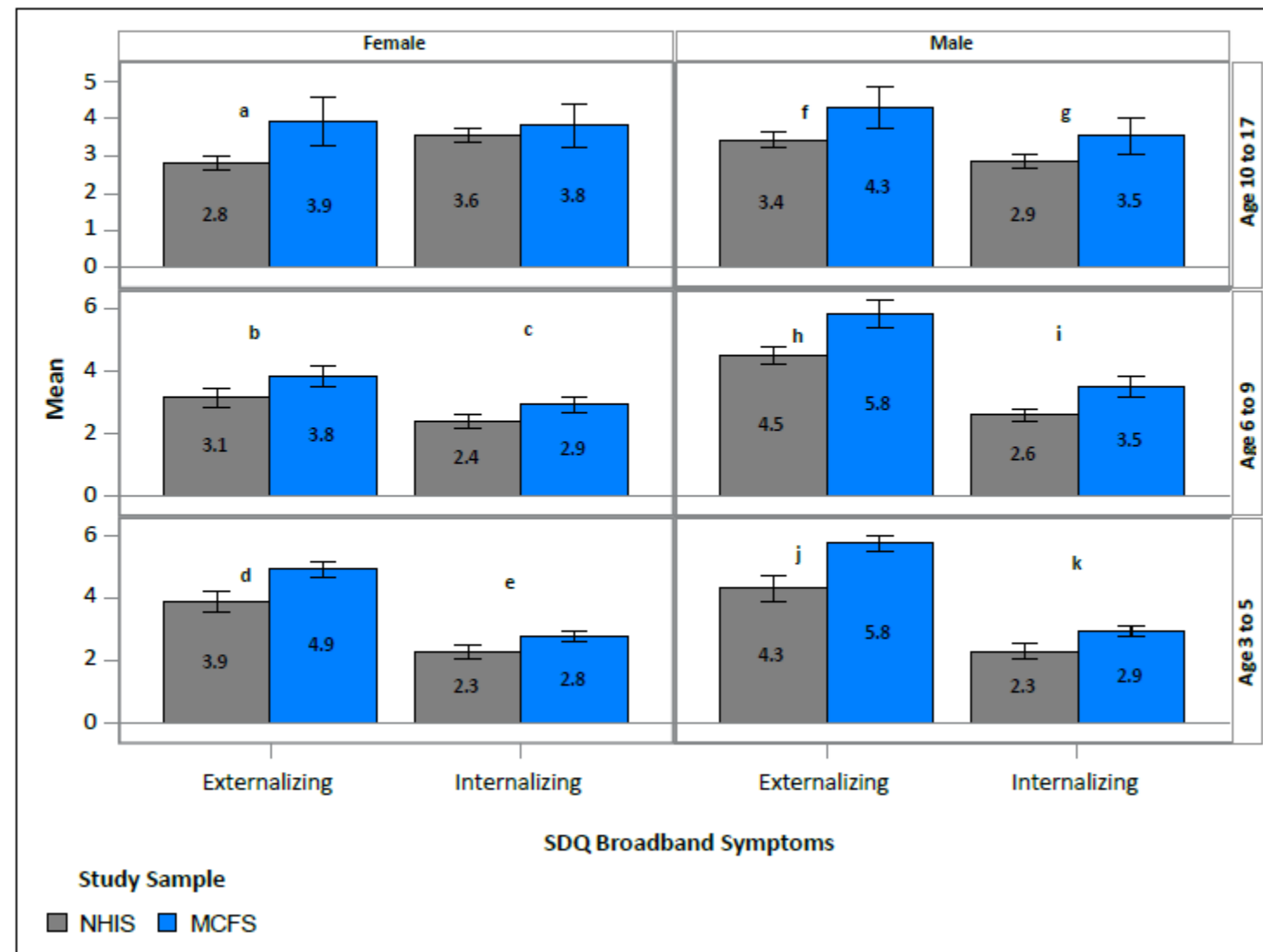
Variable	N	Summary value M (SD) or %	Min	Max
<i>Spouse and service member independent variables</i>				
Spouse sex				
Female	2389	90.6%		
Male	248	9.4%		
Spouse age, years	2629	31.5 (6.1)	20	63
Service member sex				
Female	247	9.4%		
Male	2390	90.6%		
Service member age, years	2612	31.4 (5.5)	20	55
Service branch				
Army	1386	52.6%		
Navy	360	13.7%		
Marine Corps	140	5.3%		
Air Force	697	26.5%		
Coast Guard	51	1.9%		
Service component				
Active duty	2080	78.9%		
Reserve/National Guard	557	21.1%		
Service member rank				
Enlisted	2097	79.5%		
Officer	540	20.5%		



Variable	N	Summary value M (SD) or %	Min	Max
Number of children in family				
1	753	28.56%		
2	1151	43.65%		
3	733	27.80%		
Spouse military life stress score	2399	1.2 (1.1)	0	6
Child psychopathology outcomes				
Externalizing score	2516	5.1 (3.6)	0	20
Internalizing score	2515	3.0 (2.7)	0	18
Any child mental/behavioral diagnosis				
No	2243	91.1%		
Yes	219	8.9%		



Figure 1
SDQ Internalizing and Externalizing Means for the MCFS Sample Compared With Civilian Values, by Child Sex and Developmental Stage





OUTCOME: EXTERNALIZING

Parameter	Standardized estimate	Estimate	SE	t	p
Dependent variable: Externalizing scale					
Child sex female (ref: male)	-0.15	-1.08	0.15	-7.4	.0000
Service member enlisted (ref: officer)	0.06	0.54	0.20	2.7	.0066
Child aged 3–5 years (ref: 10+)	0.12	0.92	0.26	3.5	.0004
Child aged 6–9 years (ref: 10+)	0.06	0.52	0.26	2.0	.0466
Military life stress score	0.16	0.53	0.07	7.7	.0000

Note: Only significant $p < .05$ effects shown, $n = 2,668$. No moderation found by age or sex on the effect of military stress.



OUTCOME: INTERNALIZING

Parameter	Standardized estimate	Estimate	SE	t	p
Dependent variable: Internalizing scale					
Child aged 3–5 years (ref: 10+)	–0.19	–1.06	0.20	–5.4	.0000
Child aged 6–9 years (ref: 10+)	–0.10	–0.61	0.20	–3.1	.0020
Military life stress score	0.15	0.37	0.05	7.2	.0000

Note: Only significant $p < .05$ effects shown, $n = 2,667$. No moderation found by age or sex on the effect of military stress.



OUTCOME: ANY MENTAL/BEHAVIORAL DIAGNOSIS



Parameter	Estimate	SE	Chi-square	p	OR [95% CI]
Child sex female (ref: male)	-0.40	0.16	6.3	.0119	0.7 [0.5–0.9]
Child minority status (ref: non-minority status)	-0.41	0.16	6.2	.0126	0.7 [0.5–0.9]
Service member enlisted (ref: officer)	0.70	0.23	9.2	.0024	2.0 [1.3–3.1]
Child aged 3–5 years (ref: 10+)	-2.20	0.24	80.9	.0000	0.1 [0.1–0.2]
Child aged 6–9 years (ref: 10+)	-0.68	0.20	11.4	.0007	0.5 [0.3–0.8]
Military life stress score	0.25	0.07	12.7	.0004	1.3 [1.1–1.5]

Note: Only significant $p < .05$ effects shown, $n=2,224$. No moderation found by age or sex on the effect of military stress.



DISCUSSION

- ⌚ Findings suggest that military children have higher mental and behavioral health symptoms (internalizing/externalizing) compared to civilian children
- ⌚ Adjusted models show that military stress is a consistent predictor of children's internalizing, externalizing, and likelihood of a diagnosis
- ⌚ Measurement of military risk for children should go beyond deployment to include a greater diversity of factors such as problems with the unit, unaccompanied tours, and problems accessing resources (and more/others)



Photo courtesy of DVIDS



DISCUSSION

Ⓜ Strengths/limitations

- Differences found with the civilian NHIS comparison sample are unadjusted and may show continued signs of selection bias, either the health need bias that may augment symptoms or healthy warrior bias that may downplay symptoms
- Findings with military stress are observational and cross-sectional, longitudinal and intervention work is needed to better point to causality in these relations

Ⓜ Implications

- Youth in military families have mental and behavioral health challenges and this need may be greater than in comparative civilian populations
- Military stress is broader than deployment separations



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