

# Never Deployed, But Still at Risk: Substance Use and Mental Health Problems among Reserve/Guard Soldiers

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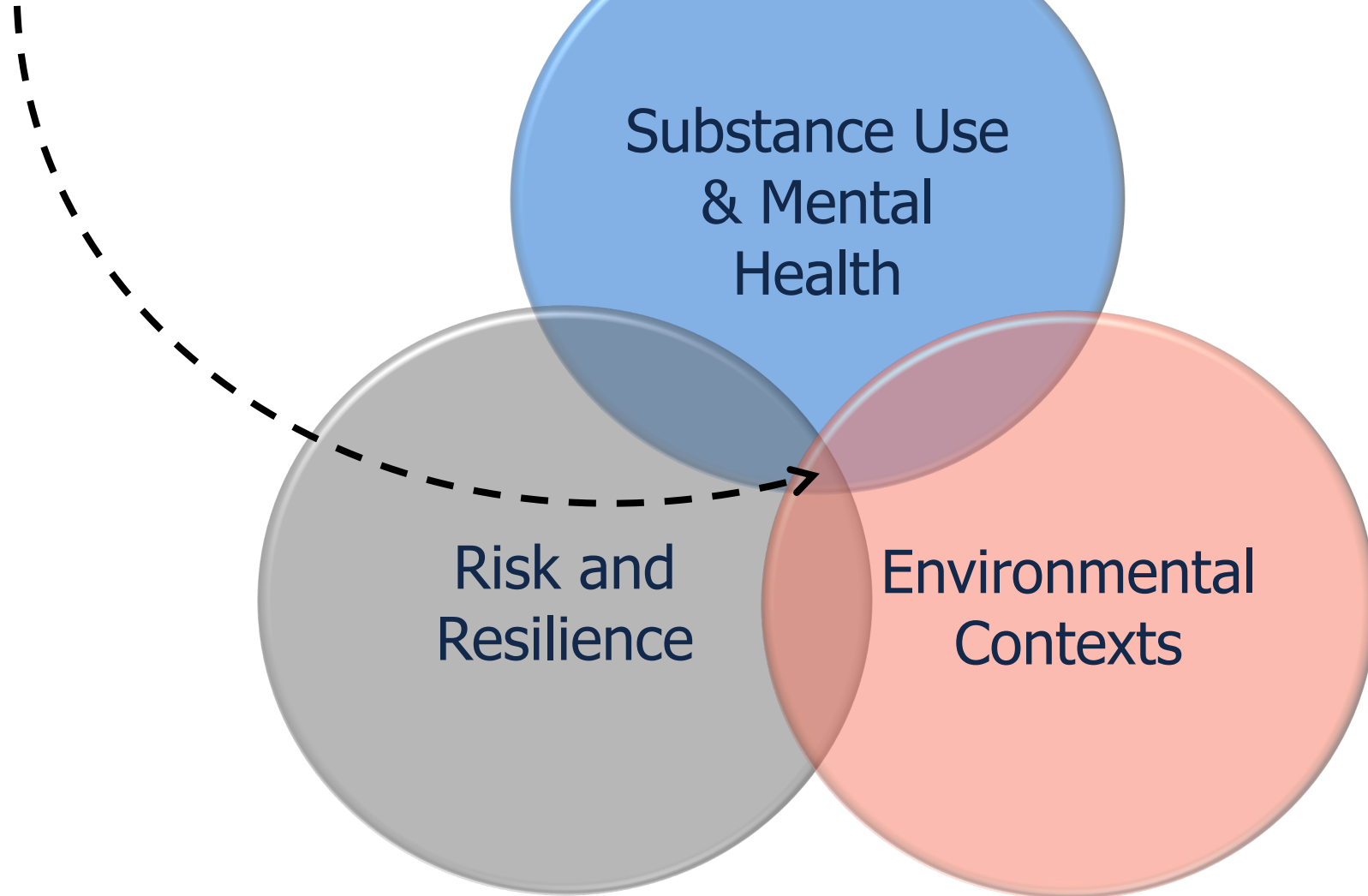
Assistant Professor of Epidemiology

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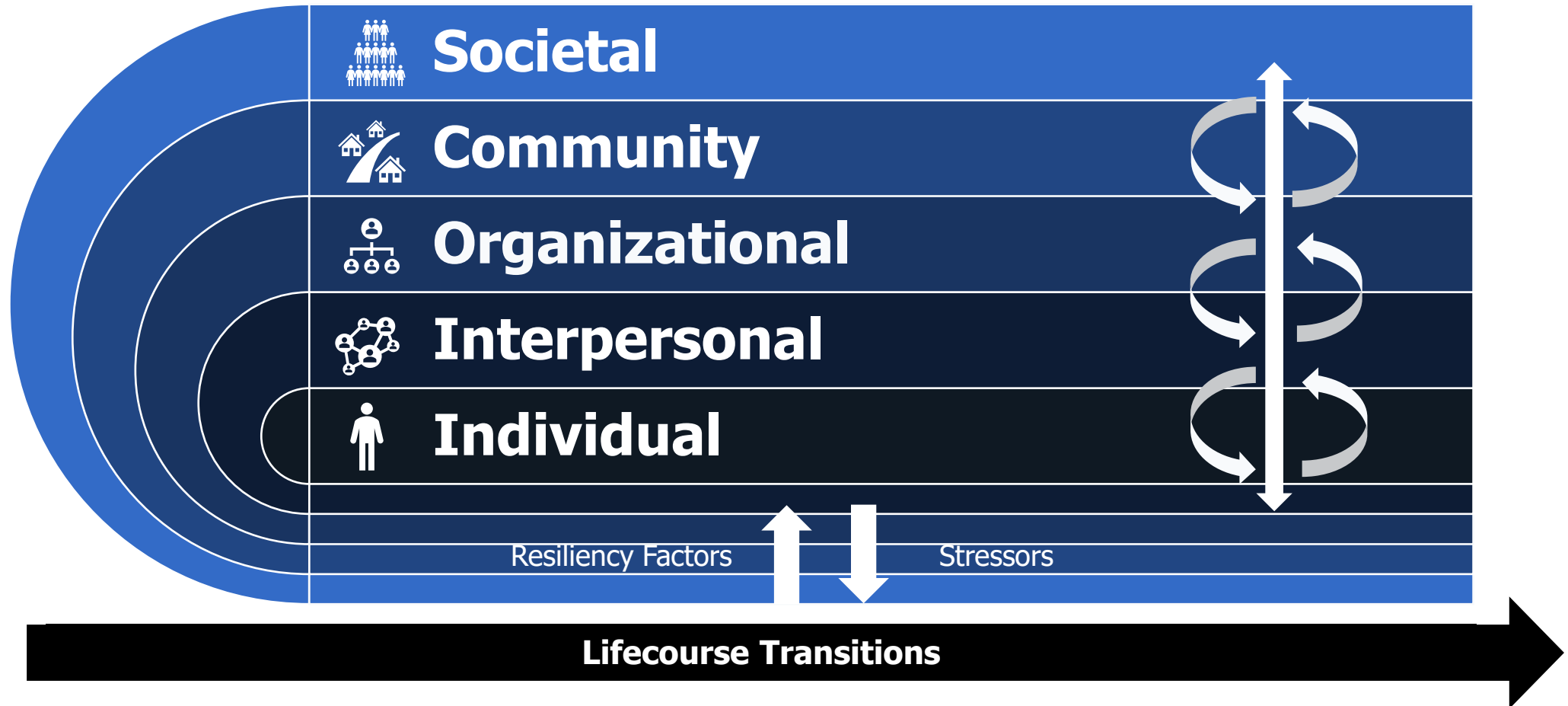


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# Research Program



# Socioecological Framework



# Military-Connected Populations

- Increased risk for poor health outcomes, including substance use and mental illness
- Combat deployment a risk factor for:
  - **Alcohol problems** (Jacobson et al., 2008; Milliken et al., 2007; Seal et al., 2011)
  - **Other substance use** (Hoopsick et al., 2018; Larson et al., 2016; Seal et al., 2011)
  - **Anger and aggression** (Heavey et al., 2017; Milliken et al., 2007; Vest et al., 2017)
  - **Anxiety** (Thomas et al., 2017; Vest et al., 2017)
  - **Depression** (Seal et al., 2011)
  - **Posttraumatic stress** (Milliken et al., 2007; Renshaw et al., 2009; Seal et al., 2011; Vest et al., 2017)



Pexels

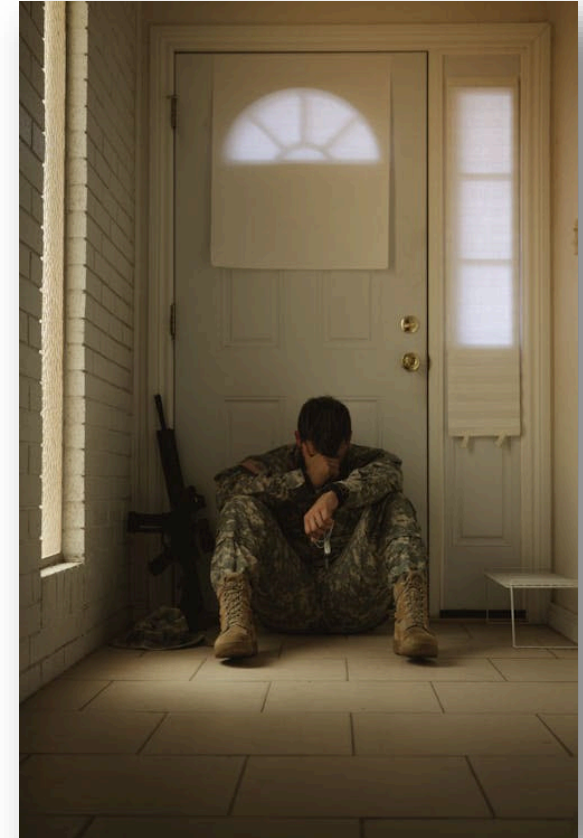
# Military Socioecological Framework



**Lifecourse Transitions:** Joining military, deployment, reintegration, leaving the military

# Reserve/Guard Populations

- 40% of the US Armed Forces (Defense Manpower Data Center, 2017)
- Increasingly relied upon (Defense Science Board Task Force, 2007)
- Compared to active duty service members, Reserve/Guard soldiers:
  - Higher prevalence of substance use disorders (Cohen et al., 2015)
  - Greater risk for post-deployment substance use and psychiatric disorders (Griffith, 2010; Hoge et al., 2006; Hotopf et al., 2006; Jacobsen et al., 2008, Milliken et al., 2007; Thomas et al., 2010)

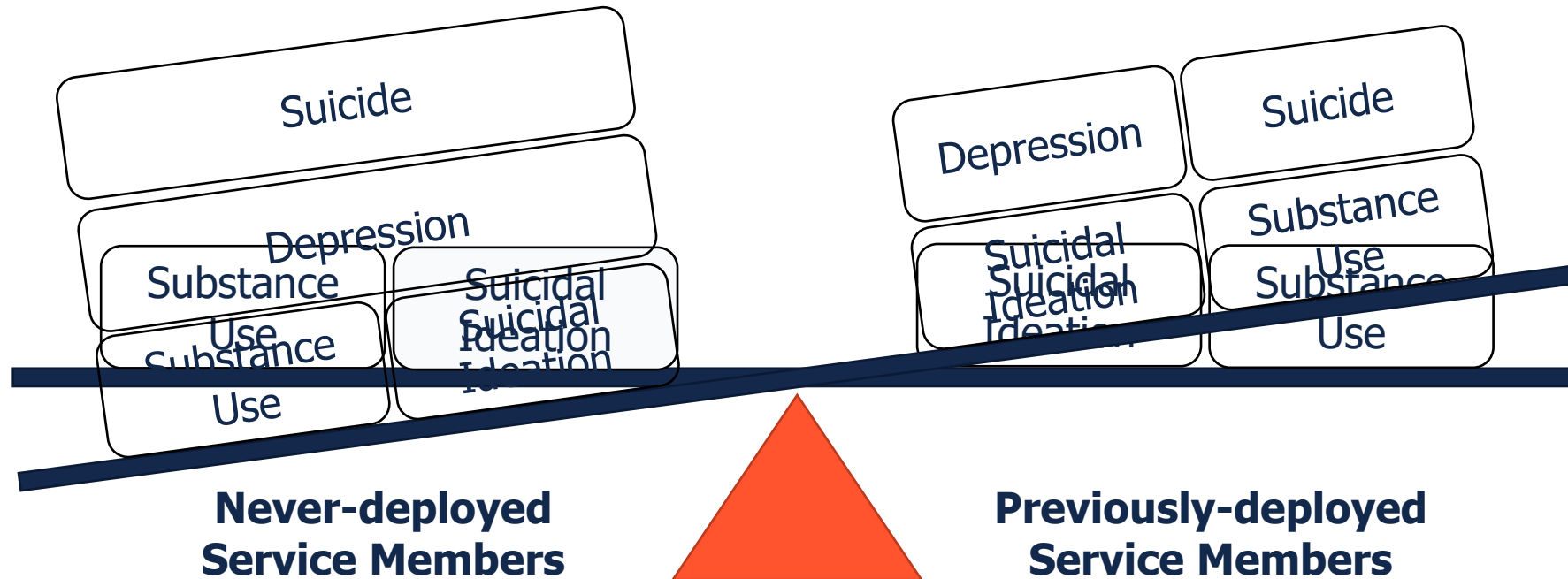


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# Deployment History

- Not all Reserve/Guard service members deploy

(Hoopsick et al., 2019; Hoopsick et al., 2018; Ursano et al., 2016; Trautmann et al., 2014; Kang et al., 2015)





# Research Gaps

- Some groups not well-examined:
  - Reservists
  - Never-deployed service members
  - Women service members
- Additional research can:
  - Identify unique risk/resilience factors
  - Inform future intervention efforts



Pexels





Pexels



- NIDA-funded study of Reserve/Guard soldiers and their partners
- N = 418 couples (836 participants)
- 6 computerized yearly assessments

# Eligibility Criteria

1. The couple was married or living as if married
2. At least one member of the couple was a current U.S. Army Reserve soldier or National Guard soldier
3. The soldier was between the ages of 18 and 45
4. Both partners were able to speak and understand English
5. Both partners were willing and able to participate
6. Both partners had at least one alcoholic beverage in the past year



Majority of U.S. service members are married  
(Office of the Deputy Assistant Secretary of Defense for Military Community and Family Policy, 2019)



Abstainers tend to be different in health behaviors than non-abstainers  
(Green & Polen, 2001)



# Soldier Characteristics

Characteristic	N = 478 Soldiers %(n) or Mean (SD)
Sex	
Male	81.0% (387)
Female	19.0% (91)
Age	31.6 (6.5)
Race/Ethnicity	
Non-Hispanic white	79.7% (381)
Non-Hispanic Black	5.2% (25)
Hispanic	8.8% (42)
Other	4.6% (22)
Education	
<HS – HS Grad	13.0% (62)
Some College	56.5% (270)
College +	30.5% (146)
Median Family Income Category	\$60,000 and \$79,999

- Comparable to national reservist estimates
- Racially and ethnically diverse

# Role of Deployment



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# Findings: Role of Deployment (Study 1)

- Study Aims:
  - Determine if never-deployed and previously-deployed soldiers differed in substance use, mental health, and resiliency factors
  - Determine the relative influence of deployment status and each of these factors on poor psychosocial outcomes



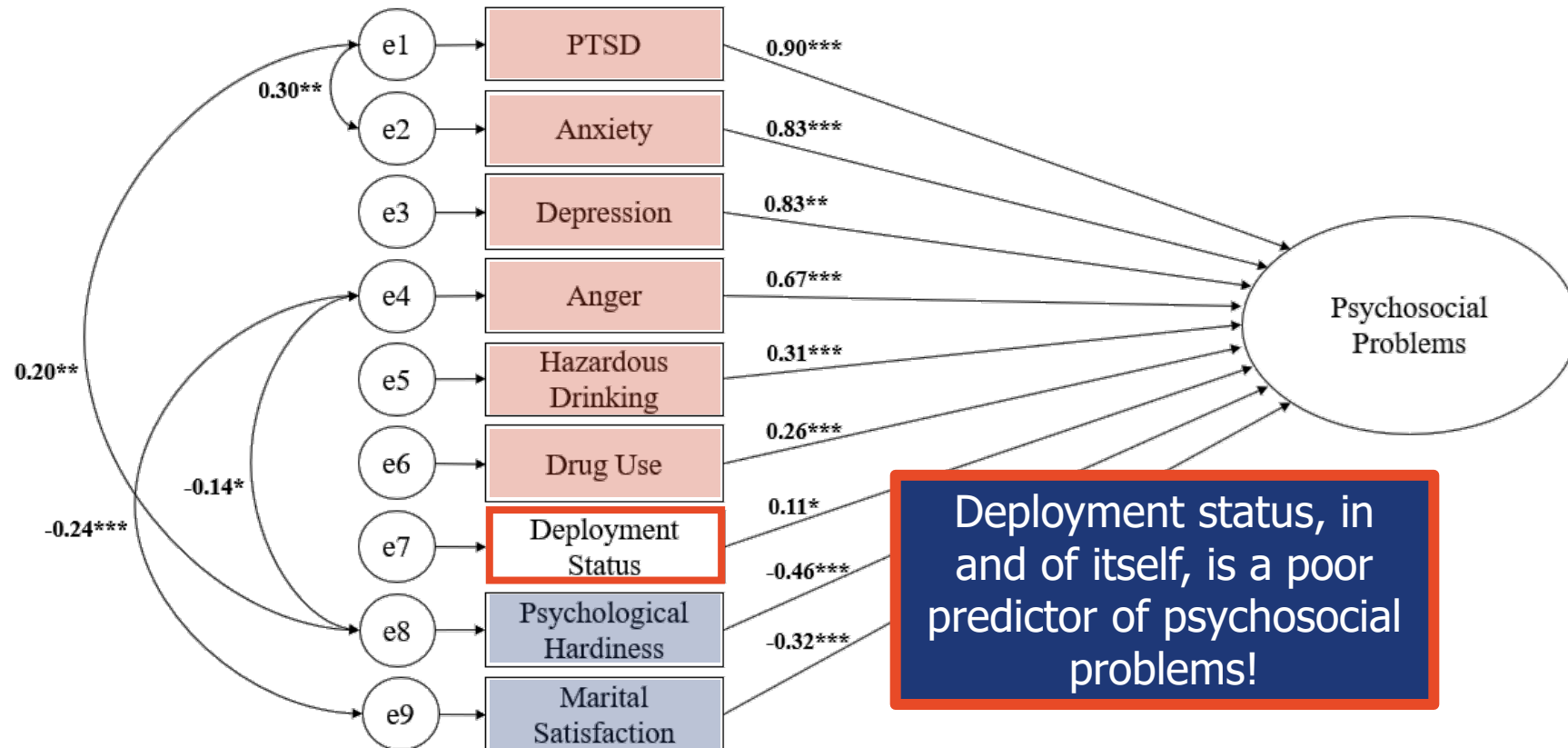
**Hoopsick RA**, Homish DL, Collins RL, Nochajski TH, Read JP, Homish GG. (2020). Is deployment status the critical determinant of psychosocial problems among Reserve/Guard soldiers? *Psychological Services*, 17(4): 461-471.

# Findings: Role of Deployment (Study 1)

	Never-Deployed (n = 160) % (n) or mean ( $\pm$ SD)	Previously-Deployed (n = 244) % (n) or mean ( $\pm$ SD)	Significance Test <sup>a</sup> p-values
Hazardous Drinking	3.8 ( $\pm$ 3.4)	4.5 ( $\pm$ 3.8)	0.074
Current Drug Use			
Yes	6.9% (11)	7.0% (17)	
No	93.1% (149)	93.0% (226)	0.963
Anger	17.0 ( $\pm$ 6.2)	17.9 ( $\pm$ 6.8)	0.217
Anxiety	4.0 ( $\pm$ 5.4)	4.8 ( $\pm$ 6.1)	0.190
Depression	2.9 ( $\pm$ 4.0)	3.5 ( $\pm$ 4.4)	0.206
PTSD	7.4 ( $\pm$ 12.2)	10.7 ( $\pm$ 13.2)	<b>0.012</b>
Psychological Hardiness	31.3 ( $\pm$ 5.8)	31.2 ( $\pm$ 5.6)	0.885
Marital Satisfaction	113.7 ( $\pm$ 26.3)	109.1 ( $\pm$ 30.0)	0.121

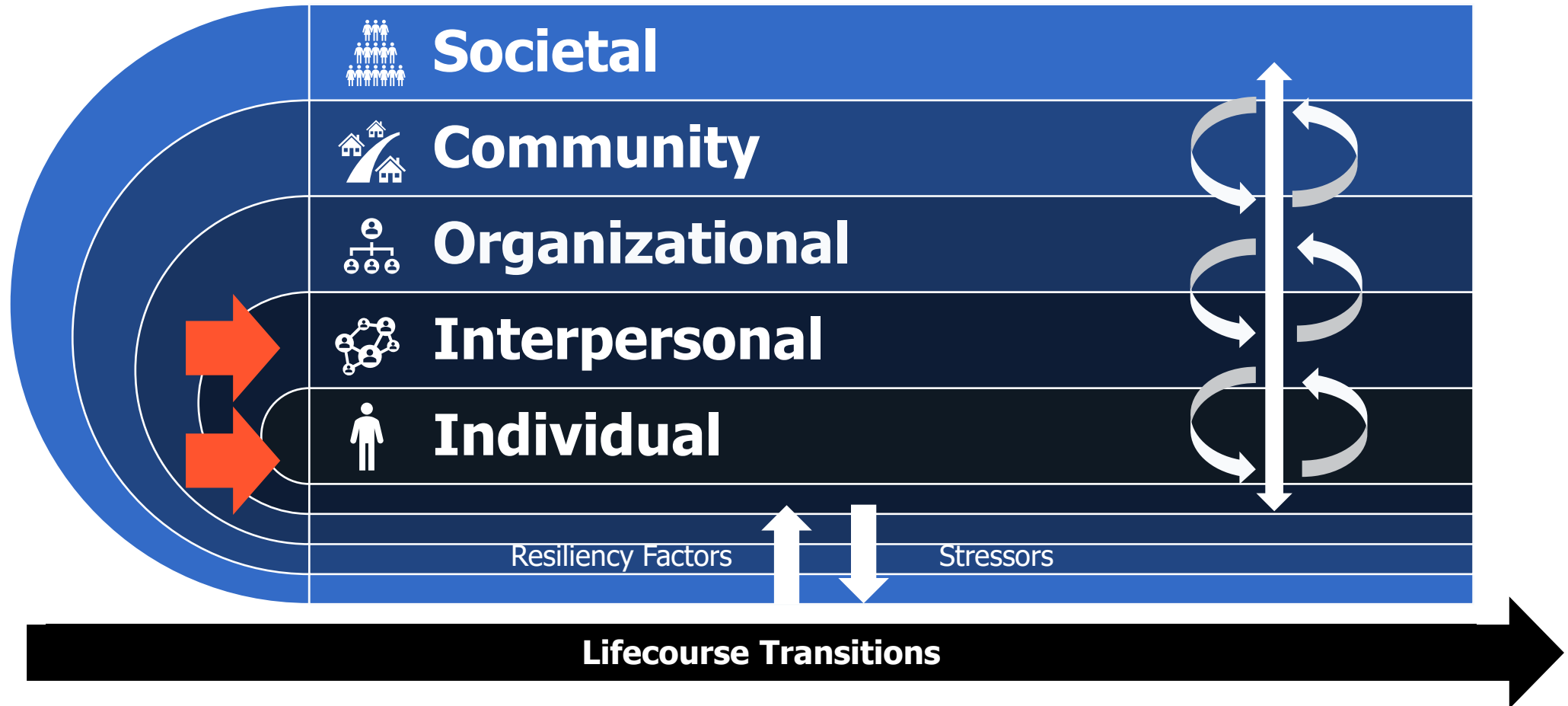
<sup>a</sup>T-tests for differences in means, chi-square tests for differences in distributions

# Findings: Role of Deployment (Study 1)



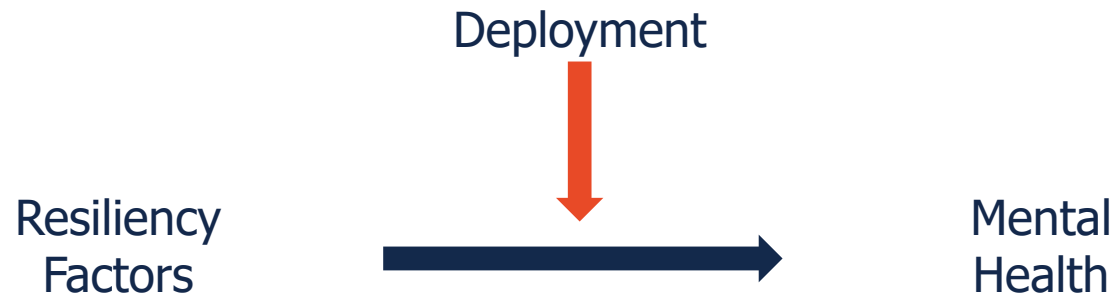


# Findings: Role of Deployment (Study 1)



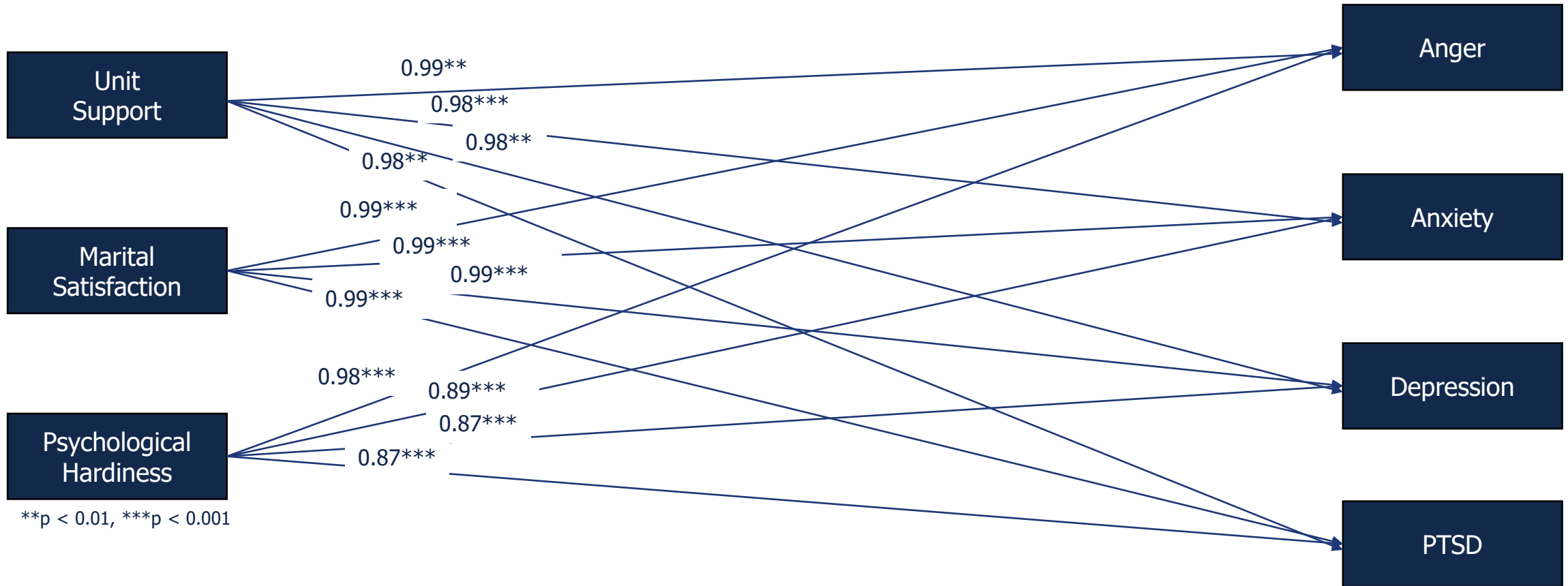
# Findings: Role of Deployment (Study 2)

- Study Aims:
  - Examine the relationships between resiliency factors and a range of mental health outcomes among never-deployed and previously-deployed soldiers
  - Examine for differences in these relationships by deployment status



**Hoopsick RA**, Homish DL, Collins RL, Nochajski TH, Read JP, Bartone PT, Homish GG. (2021). Resilience to mental health problems and the role of deployment status among U.S. Army Reserve and National Guard soldiers. *Social Psychiatry and Psychiatric Epidemiology*, 56, 1299–1310.

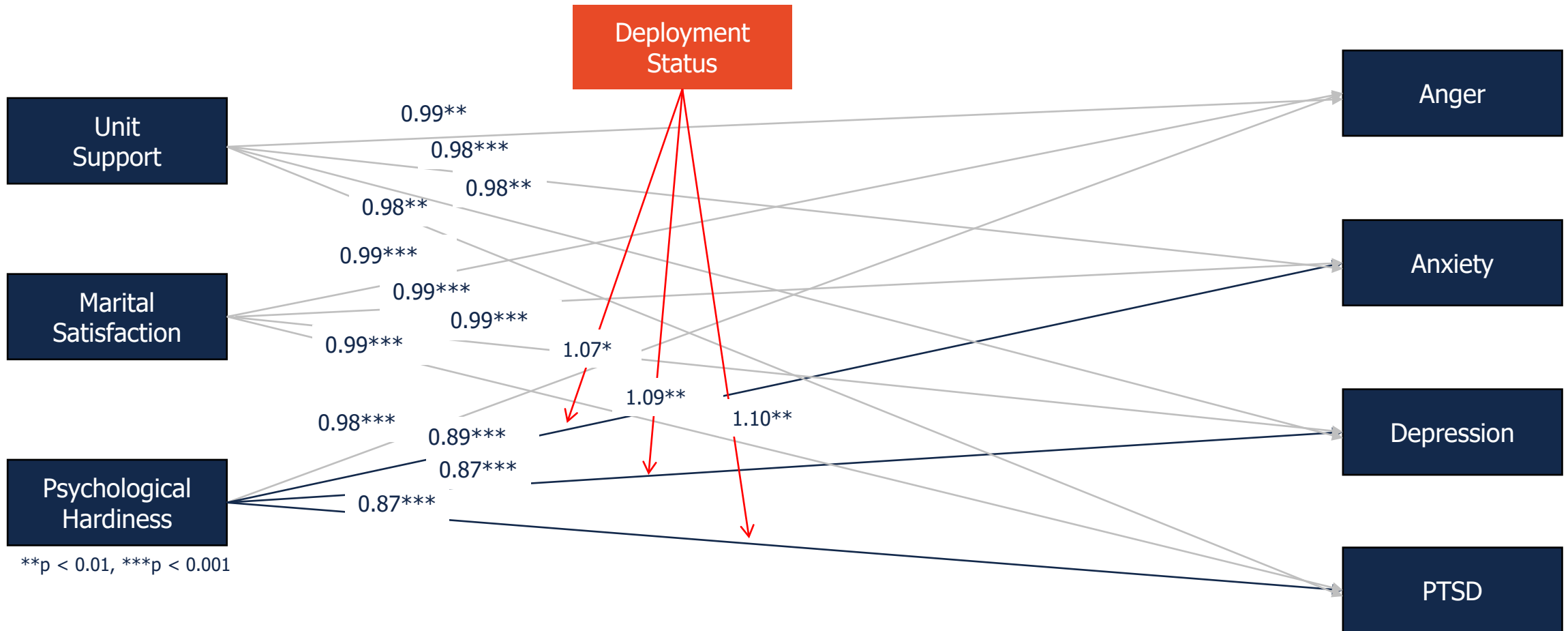
# Findings: Role of Deployment (Study 2)



\*\*p < 0.01, \*\*\*p < 0.001



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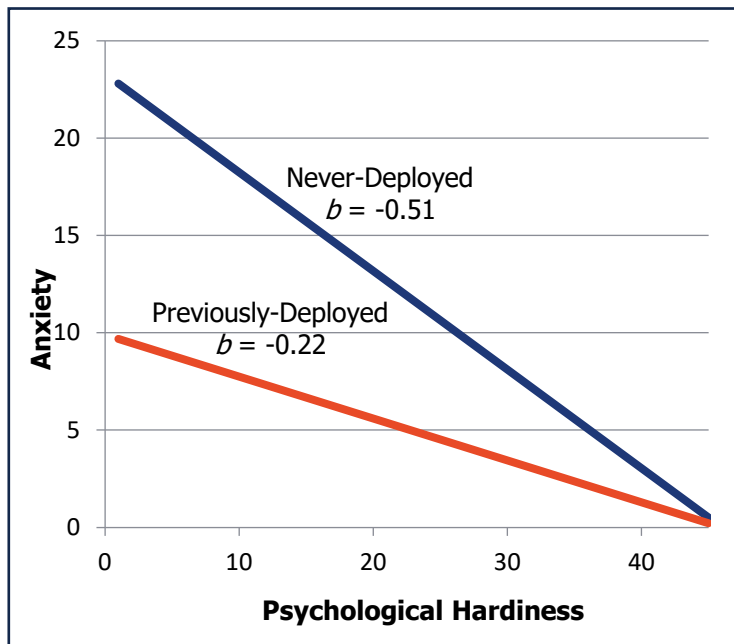


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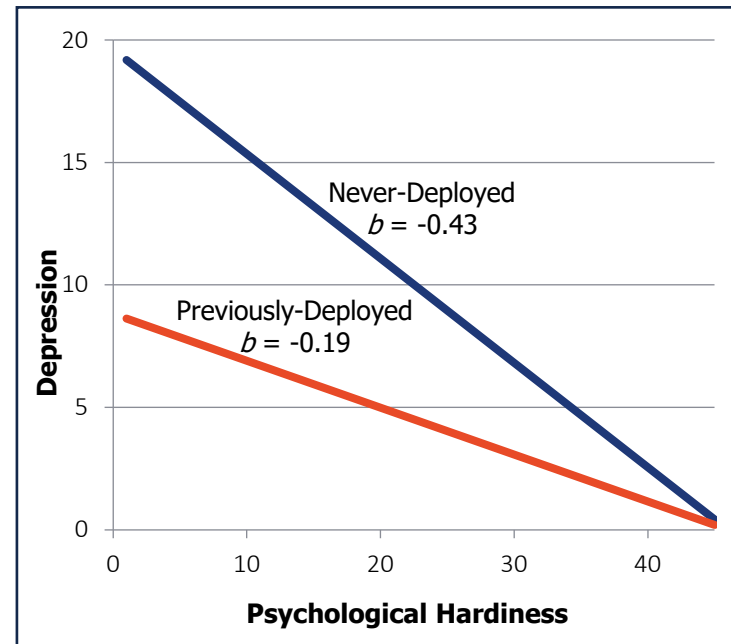


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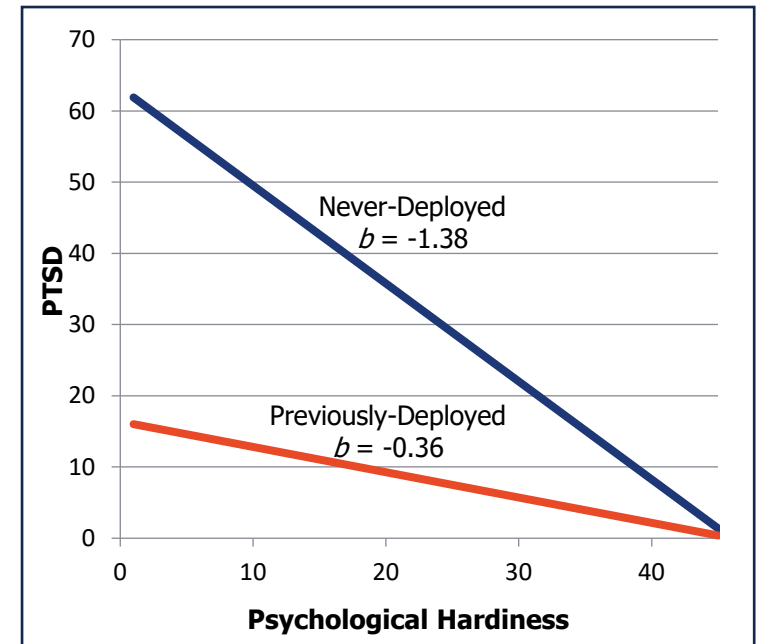
*Conditional Effects of Psychological Hardiness and Deployment Status on Anxiety*



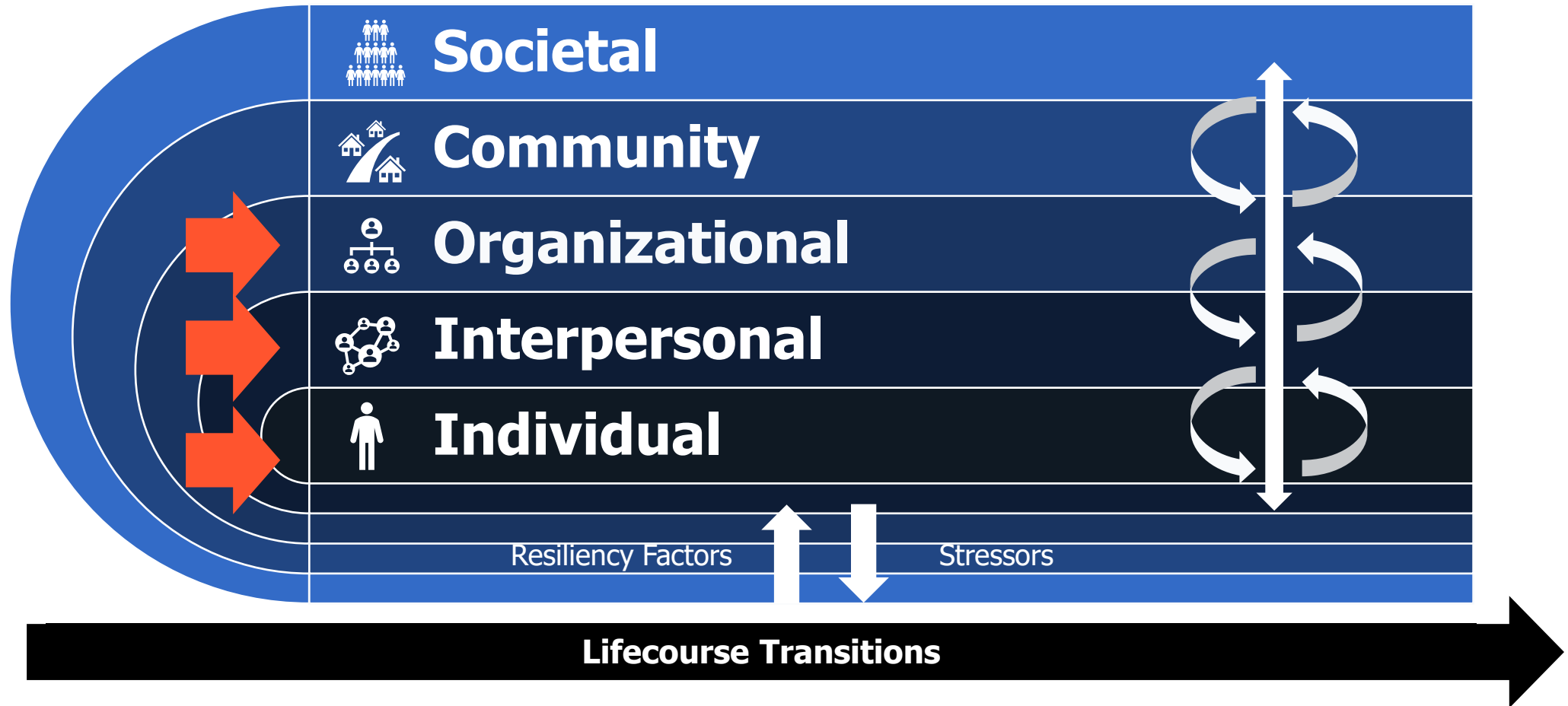
*Conditional Effects of Psychological Hardiness and Deployment Status on Depression*



*Conditional Effects of Psychological Hardiness and Deployment Status on PTSD*



# Findings: Role of Deployment (Study 2)



# Other Data: National Survey on Drug Use and Health



- Nationally representative
- Includes substance use and other health-related topics
- Administered annually since 1990
- 60,000+ people surveyed/year
- Includes people aged 12 and older from all 50 states and D.C.



# Findings: Role of Deployment (Study 3)

- Study Aims:
  - Examine if veterans' likelihood of alcohol screening, alcohol abuse, and alcohol dependence differ based on service history



**Hoopsick RA**, Vest BM, Homish DL, Homish GG. (2021). Differences in alcohol screening and alcohol problems among United States veterans based on military service history. *Psychological Services*. Advance online publication.

# Findings: Role of Deployment (Study 3)

	Past Year Alcohol Screening aOR (95% CI)	Past Year Alcohol Abuse aOR (95%CI)	Past Year Alcohol Dependence aOR (95% CI)
History of Active Duty Service/Activation	--	--	--
No	Referent	Referent	Referent
Yes	<b>1.40* (1.08, 1.84)</b>	1.13 (0.60, 2.13)	1.29 (0.79, 2.13)
Age	0.99 (0.89, 1.11)	<b>0.81** (0.70, 0.93)</b>	<b>0.84* (0.72, 0.98)</b>
Sex	--	--	--
Female	Referent	Referent	Referent
Male	<b>0.46*** (0.35, 0.60)</b>	<b>2.04* (1.09, 3.83)</b>	1.17 (0.75, 1.83)
Race/Ethnicity	--	--	--
White	Referent	Referent	Referent
Black	<b>0.58*** (0.44, 0.77)</b>	0.89 (0.43, 1.83)	0.98 (0.59, 1.63)
American Indian/Alaska Native	0.43 (0.12, 1.56)	0.75 (0.21, 2.74)	3.14 (0.97, 10.20)
Native Hawaiian/Other Pacific Islander	0.66 (0.13, 3.27)	NA	NA
Asian	0.88 (0.35, 2.23)	0.58 (0.07, 4.52)	0.23 (0.04, 1.16)
More Than One Race	1.12 (0.54, 2.29)	1.67 (0.53, 5.31)	0.69 (0.24, 2.00)
Hispanic	0.81 (0.54, 1.22)	0.99 (0.46, 2.11)	0.87 (0.43, 1.77)
Family Income	<b>1.28** (1.12, 1.46)</b>	1.05 (0.85, 1.29)	0.91 (0.73, 1.14)
Health Insurance	--	--	--
No	Referent	Referent	Referent
Yes	1.33 (0.90, 1.96)	0.99 (0.43, 2.28)	0.54 (0.28, 1.04)



# Findings: Role of Deployment (Study 3)

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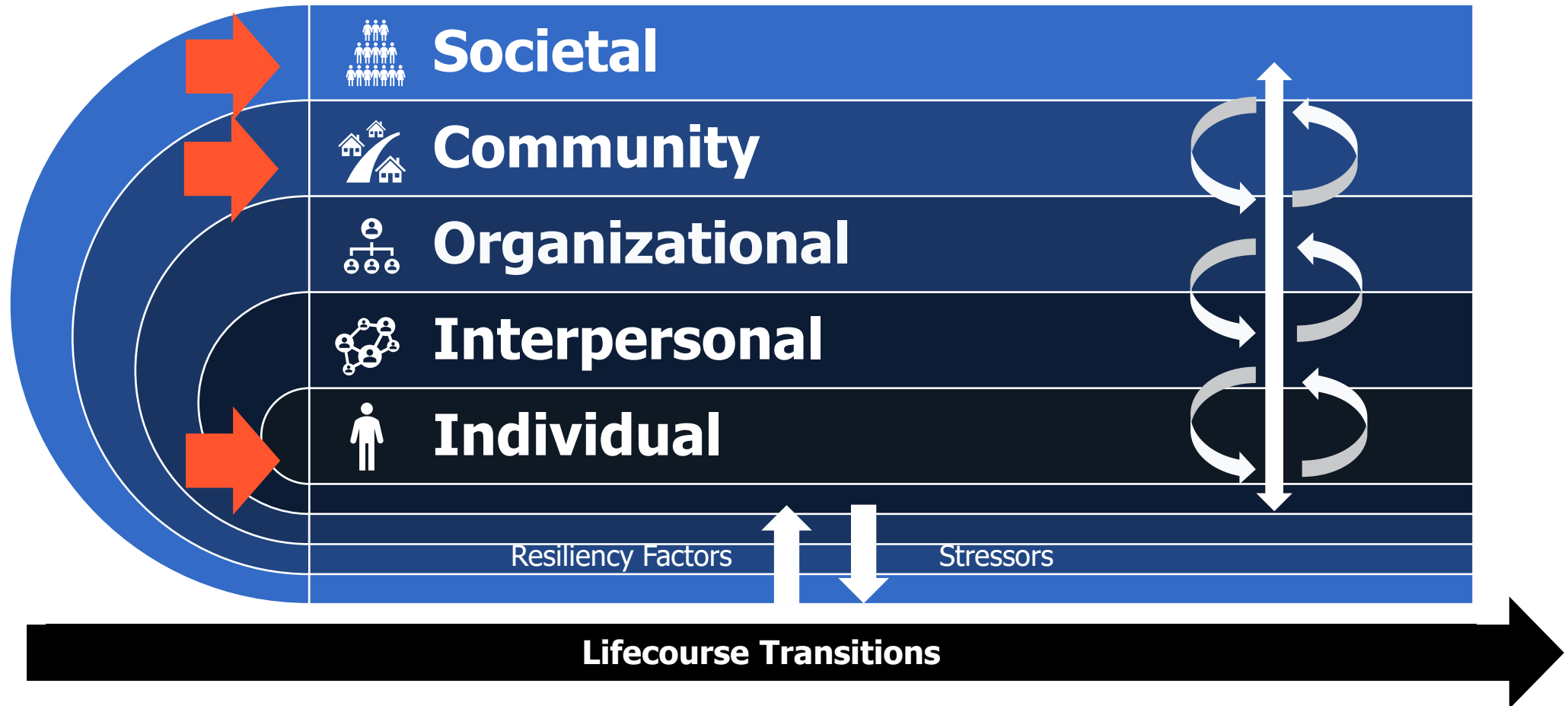
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# Findings: Role of Deployment (Study 3)



# Non-Deployment Emotions



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# Findings: Non-Deployment Emotions (Study 4)



- Study Aims:

- Test a novel measure of emotions related to never having been deployed
- Examine the relationships between non-deployment emotions and measures of mental health symptomatology



**Hoopsick RA**, Homish DL, Bartone PT, Homish GG. (2018). Developing a measure to assess emotions associated with never being deployed. *Military Medicine*, 183(9-10): e509-e517.



# Findings: Non-Deployment Emotions (Study 4)

Construct	Question
<b>Guilt</b>	Do/Did you feel guilty for not having been deployed?
<b>Value</b>	Do/Did you feel less valuable as a member of your unit because you have not been deployed?
<b>Camaraderie</b>	Do/Did you feel less camaraderie with your unit because you have not been deployed?
<b>Connectedness</b>	Do/Did you feel less connected with your unit because you have not been deployed?

<u>3-Class Model</u>
Low (47.6%)
Moderate (33.8%)
High (18.6%)

- Scored on a 5-point Likert scale: 0 (Not at All) to 4 (Extremely)
- Overall score range: 0 – 16
- $\alpha = 0.91$

# Findings: Non-Deployment Emotions (Study 4)

	Anger		Anxiety		Depression		Posttraumatic Stress	
	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)
<b>Non-Deployment Emotions</b>	<b>1.03***</b> (1.01, 1.04)	<b>1.02***</b> (1.01, 1.03)	<b>1.08**</b> (1.03, 1.12)	<b>1.06*</b> (1.01, 1.11)	<b>1.08**</b> (1.03, 1.13)	<b>1.06*</b> (1.01, 1.11)	<b>1.11***</b> (1.05, 1.17)	<b>1.10**</b> (1.04, 1.16)
<b>Years of Military Service</b>		1.00 (0.99, 1.01)		1.02 (0.96, 1.07)		1.03 (0.98, 1.08)		0.99 (0.93, 1.05)
<b>Military Friends in Social Network</b>		1.00 (0.95, 1.05)		0.93 (0.76, 1.13)		0.88 (0.71, 1.08)		0.83 (0.66, 1.04)
<b>Marital Satisfaction</b>		<b>0.99***</b> (0.99, 0.99)		1.00 (0.99, 1.00)		<b>0.99**</b> (0.98, 0.99)		<b>0.98**</b> (0.97, 0.99)
<b>Sex</b>		1.11 (1.00, 1.24)		<b>1.86**</b> <b>1.20, 2.87</b>		1.50 (0.97, 2.32)		1.11 (0.65, 1.90)



# Findings: Non-Deployment Emotions (Study 4)

	Anger		Anxiety		Depression		Posttraumatic Stress	
	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)
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<b>Years of Military Service</b>		1.00 (0.99, 1.01)		1.02 (0.96, 1.07)		1.03 (0.98, 1.08)		0.99 (0.93, 1.05)
<b>Military Friends in Social Network</b>		1.00 (0.95, 1.05)		0.93 (0.76, 1.13)		0.88 (0.71, 1.08)		0.83 (0.66, 1.04)
<b>Marital Satisfaction</b>		<b>0.99*** (0.99, 0.99)</b>		1.00 (0.99, 1.00)		<b>0.99** (0.98, 0.99)</b>		<b>0.98** (0.97, 0.99)</b>
<b>Sex</b>		1.11 (1.00, 1.24)		<b>1.86** 1.20, 2.87</b>		1.50 (0.97, 2.32)		1.11 (0.65, 1.90)

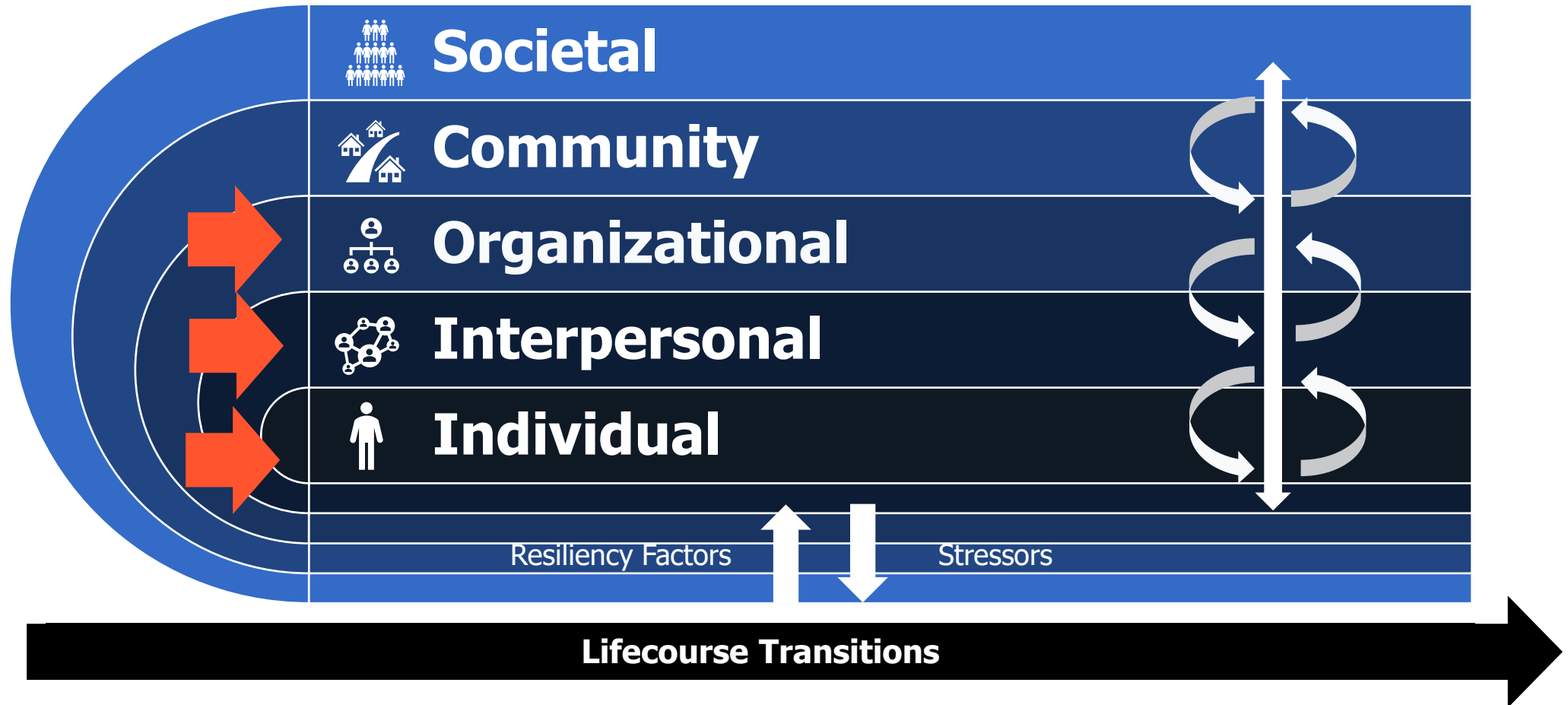


# Findings: Non-Deployment Emotions (Study 4)

	Anger		Anxiety		Depression		Posttraumatic Stress	
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<b>Years of Military Service</b>		1.00 (0.99, 1.01)		1.02 (0.96, 1.07)		1.03 (0.98, 1.08)		0.99 (0.93, 1.05)
<b>Military Friends in Social Network</b>		1.00 (0.95, 1.05)		0.93 (0.76, 1.13)		0.88 (0.71, 1.08)		0.83 (0.66, 1.04)
<b>Marital Satisfaction</b>		<b>0.99*** (0.99, 0.99)</b>		1.00 (0.99, 1.00)		<b>0.99** (0.98, 0.99)</b>		<b>0.98** (0.97, 0.99)</b>
<b>Sex</b>		1.11 (1.00, 1.24)		<b>1.86** 1.20, 2.87</b>		1.50 (0.97, 2.32)		1.11 (0.65, 1.90)

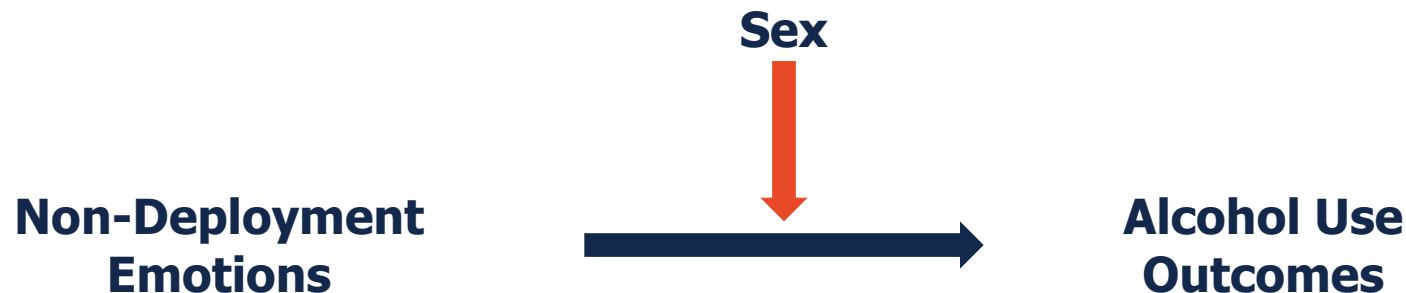


# Findings: Non-Deployment Emotions (Study 4)



# Findings: Non-Deployment Emotions (Study 5)

- Study Aims:
  - Examine the relationships between non-deployment emotions and a range of alcohol use outcomes
  - Examine for differences in these relationships by sex



**Hoopsick RA**, Homish DL, Vest BM, Homish GG. (2018). Alcohol use among never-deployed U.S. Army Reserve and National Guard soldiers: The effects of non-deployment emotions and sex. *Alcoholism: Clinical and Experimental Research*, 42(12):2413-2422.

# Findings: Non-Deployment Emotions (Study 5)

	Hazardous Drinking		Frequency of Getting Drunk		Typical Number of Drinks		Percent of Days Drinking	
	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	OR (95% CI)	aOR (95% CI)
<b>Non-Deployment Emotions</b>	<b>1.05**</b> (1.02, 1.08)	<b>1.04*</b> (1.01, 1.07)	<b>1.03*</b> (1.01, 1.05)	<b>1.02*</b> (1.01, 1.04)	<b>1.02**</b> (1.01, 01.04)	<b>1.03**</b> (1.01, 1.04)	<b>1.07**</b> (1.02, 1.13)	1.05 (1.00, 1.11)
<b>Years of Military Service</b>		1.00 (0.97, 1.03)		0.98 (0.96, 1.01)		0.99 (0.97, 1.02)		1.04 (0.97, 1.11)
<b>Military Friends in Social Network</b>		0.96 (0.86, 1.08)		0.98 (0.90, 1.07)		1.01 (0.95, 1.08)		1.09 (0.88, 1.35)
<b>Marital Satisfaction</b>		0.94 (0.61, 1.42)		0.86 (0.68, 1.09)		1.12 (0.94, 1.34)		0.61 (0.32, 1.18)
<b>Depression</b>		1.03 (0.99, 1.08)		<b>1.03*</b> (1.01, 1.06)		1.00 (0.97, 1.03)		1.03 (0.97, 1.09)





# Findings: Non-Deployment Emotions (Study 5)

	Hazardous Drinking		Frequency of Getting Drunk		Typical Number of Drinks		Percent of Days Drinking	
	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	OR (95% CI)	aOR (95% CI)
<b>Non-Deployment Emotions</b>	<b>1.05** (1.02, 1.08)</b>	1.04* (1.01, 1.07)	<b>1.03* (1.01, 1.05)</b>	1.02* (1.01, 1.04)	<b>1.02** (1.01, 1.04)</b>	1.03** (1.01, 1.04)	<b>1.07** (1.02, 1.13)</b>	1.05 (1.00, 1.11)
<b>Years of Military Service</b>		1.00 (0.97, 1.03)		0.98 (0.96, 1.01)		0.99 (0.97, 1.02)		1.04 (0.97, 1.11)
<b>Military Friends in Social Network</b>		0.96 (0.86, 1.08)		0.98 (0.90, 1.07)		1.01 (0.95, 1.08)		1.09 (0.88, 1.35)
<b>Marital Satisfaction</b>		0.94 (0.61, 1.42)		0.86 (0.68, 1.09)		1.12 (0.94, 1.34)		0.61 (0.32, 1.18)
<b>Depression</b>		1.03 (0.99, 1.08)		1.03* (1.01, 1.06)		1.00 (0.97, 1.03)		1.03 (0.97, 1.09)

\*p < 0.05, \*\*p < 0.01



# Findings: Non-Deployment Emotions (Study 5)

	Hazardous Drinking		Frequency of Getting Drunk		Typical Number of Drinks		Percent of Days Drinking	
	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	RR (95% CI)	aRR (95% CI)	OR (95% CI)	aOR (95% CI)
<b>Non-Deployment Emotions</b>	<b>1.05**</b> (1.02, 1.08)	<b>1.04*</b> (1.01, 1.07)	<b>1.03*</b> (1.01, 1.05)	<b>1.02*</b> (1.01, 1.04)	<b>1.02**</b> (1.01, 01.04)	<b>1.03**</b> (1.01, 1.04)	<b>1.07**</b> (1.02, 1.13)	1.05 (1.00, 1.11)
<b>Years of Military Service</b>		1.00 (0.97, 1.03)		0.98 (0.96, 1.01)		0.99 (0.97, 1.02)		1.04 (0.97, 1.11)
<b>Military Friends in Social Network</b>		0.96 (0.86, 1.08)		0.98 (0.90, 1.07)		1.01 (0.95, 1.08)		1.09 (0.88, 1.35)
<b>Marital Satisfaction</b>		0.94 (0.61, 1.42)		0.86 (0.68, 1.09)		1.12 (0.94, 1.34)		0.61 (0.32, 1.18)
<b>Depression</b>		1.03 (0.99, 1.08)		1.03* (1.01, 1.06)		1.00 (0.97, 1.03)		1.03 (0.97, 1.09)

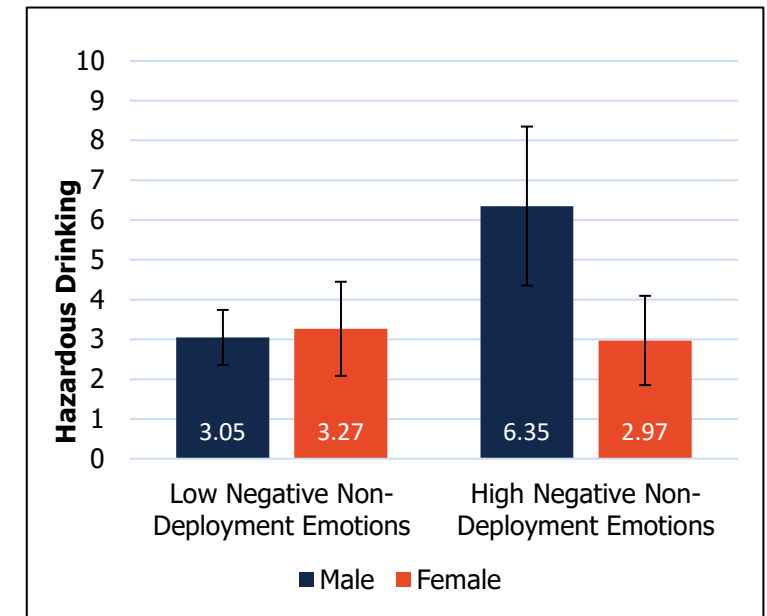
\*p < 0.05, \*\*p < 0.01



# Findings: Non-Deployment Emotions (Study 5)

	Hazardous Drinking aRR (95% CI)	Freq. of Getting Drunk aRR (95% CI)	Typical Number of Drinks aRR (95% CI)	Percent of Days Drinking aOR (95% CI)
<b>Non-Deployment Emotions X Sex</b>	<b>0.93*</b> <b>(0.88, 0.99)</b>	0.97 (0.93, 1.01)	0.98 (0.95, 1.01)	0.91 (0.81, 1.02)
<b>Non-Deployment Emotions</b>	<b>1.06**</b> <b>(1.02, 1.10)</b>	<b>1.03*</b> <b>(1.01, 1.05)</b>	<b>1.03**</b> <b>(1.01, 1.06)</b>	<b>1.09*</b> <b>(1.02, 1.16)</b>
<b>Sex</b>	1.07 (0.70, 1.64)	1.05 (0.79, 1.40)	0.94 (0.78, 1.15)	1.31 (0.59, 2.88)
<b>Years of Military Service</b>	0.99 (0.96, 1.02)	0.98 (0.96, 1.01)	0.99 (0.97, 1.01)	1.03 (0.96, 1.10)
<b>Military Friends in Social Network</b>	0.94 (0.84, 1.05)	0.97 (0.90, 1.05)	1.01 (0.95, 1.08)	1.06 (0.85, 1.32)
<b>Marital Satisfaction</b>	0.97 (0.64, 1.45)	0.87 (0.69, 1.11)	1.13 (0.95, 1.34)	0.63 (0.32, 1.24)
<b>Depression</b>	1.03 (0.99, 1.08)	<b>1.03*</b> <b>(1.01, 1.06)</b>	1.00 (0.98, 1.03)	1.03 (0.97, 1.10)

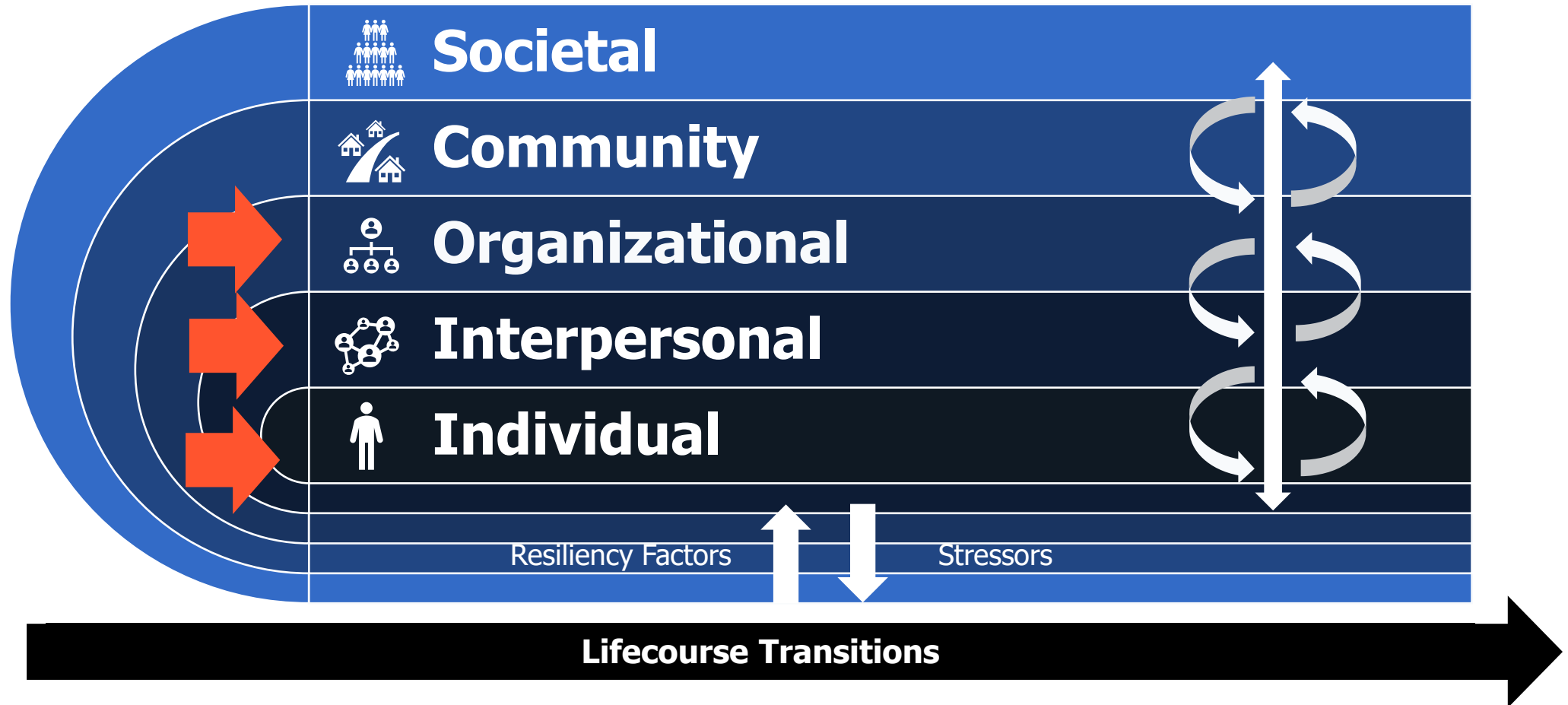
*Interaction Effects of Non-Deployment Emotions and Sex on Hazardous Drinking*



\*p < 0.05, \*\*p < 0.01

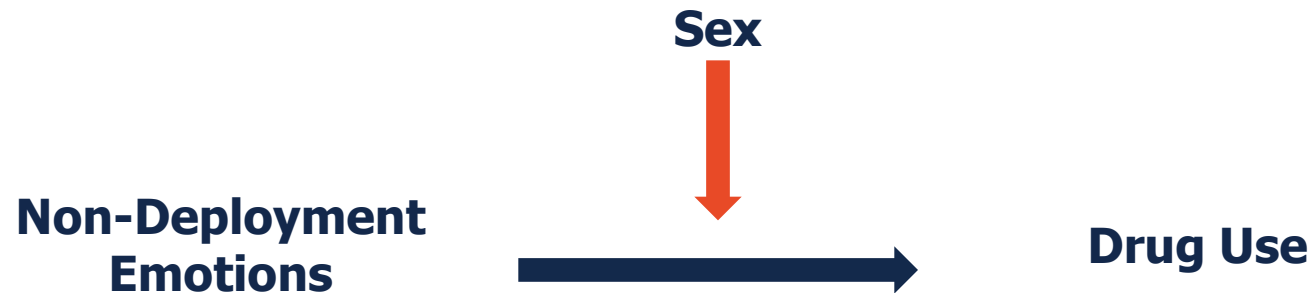


# Findings: Non-Deployment Emotions (Study 5)



# Findings: Non-Deployment Emotions (Study 6)

- Study Aims:
  - Examine the longitudinal relationships between non-deployment emotions and drug use
  - Examine for differences in these relationships by sex



**Hoopsick RA**, Homish DL, Lawson SC Homish GG. (2022). Drug use over time among never-deployed US Army Reserve and National Guard soldiers: The effects of non-deployment emotions and sex. *Stress and Health*. Advance online publication.

# Findings: Non-Deployment Emotions (Study 6)

	Current Tobacco Use		Current NMUPD		Current Illicit Drug Use	
	OR (95% CI)	aOR (95%)	OR (95% CI)	aOR (95%)	OR (95% CI)	aOR (95%)
<b>Non-deployment Emotions</b>	1.04 (0.99, 1.09)	1.03 (0.98, 1.08)	<b>1.12*</b> <b>(1.01, 1.26)</b>	1.09 (0.97, 1.22)	<b>1.07*</b> <b>(1.01, 1.15)</b>	1.07 (0.99, 1.15)
<b>Time</b>	<b>0.74**</b> <b>(0.62, 0.88)</b>	<b>0.73**</b> <b>(0.61, 0.88)</b>	0.72 (0.44, 1.19)	0.59 (0.33, 1.07)	1.32 (0.90, 1.92)	1.10 (0.70, 1.74)
<b>Clinically Significant Depression</b>		1.51 (0.86, 2.67)		<b>4.44**</b> <b>(1.45, 13.62)</b>		1.16 (0.32, 4.25)
<b>Military Status</b>		0.97 (0.59, 1.60)		1.53 (0.42, 5.56)		<b>2.58*</b> <b>(1.09, 6.11)</b>

\*p < 0.05, \*\*p < 0.01



# Findings: Non-Deployment Emotions (Study 6)

	Current Tobacco Use		Current NMUPD		Current Illicit Drug Use	
	OR (95% CI)	aOR (95%)	OR (95% CI)	aOR (95%)	OR (95% CI)	aOR (95%)
<b>Non-deployment Emotions</b>	1.04 (0.99, 1.09)	1.03 (0.98, 1.08)	<b>1.12*</b> <b>(1.01, 1.26)</b>	1.09 (0.97, 1.22)	<b>1.07*</b> <b>(1.01, 1.15)</b>	1.07 (0.99, 1.15)
<b>Time</b>	<b>0.74**</b> <b>(0.62, 0.88)</b>	<b>0.73**</b> <b>(0.61, 0.88)</b>	0.72 (0.44, 1.19)	0.59 (0.33, 1.07)	1.32 (0.90, 1.92)	1.10 (0.70, 1.74)
<b>Clinically Significant Depression</b>		1.51 (0.86, 2.67)		<b>4.44**</b> <b>(1.45, 13.62)</b>		1.16 (0.32, 4.25)
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\*p < 0.05, \*\*p < 0.01



# Findings: Non-Deployment Emotions (Study 6)

	Current Tobacco Use		Current NMUPD		Current Illicit Drug Use	
	OR (95% CI)	aOR (95%)	OR (95% CI)	aOR (95%)	OR (95% CI)	aOR (95%)
<b>Non-deployment Emotions</b>	1.04 (0.99, 1.09)	1.03 (0.98, 1.08)	<b>1.12*</b> (1.01, 1.26)	1.09 (0.97, 1.22)	<b>1.07*</b> (1.01, 1.15)	1.07 (0.99, 1.15)
<b>Time</b>	<b>0.74**</b> (0.62, 0.88)	<b>0.73**</b> (0.61, 0.88)	0.72 (0.44, 1.19)	0.59 (0.33, 1.07)	1.32 (0.90, 1.92)	1.10 (0.70, 1.74)
<b>Clinically Significant Depression</b>		1.51 (0.86, 2.67)		<b>4.44**</b> (1.45, 13.62)		1.16 (0.32, 4.25)
<b>Military Status</b>		0.97 (0.59, 1.60)		1.53 (0.42, 5.56)		<b>2.58*</b> (1.09, 6.11)

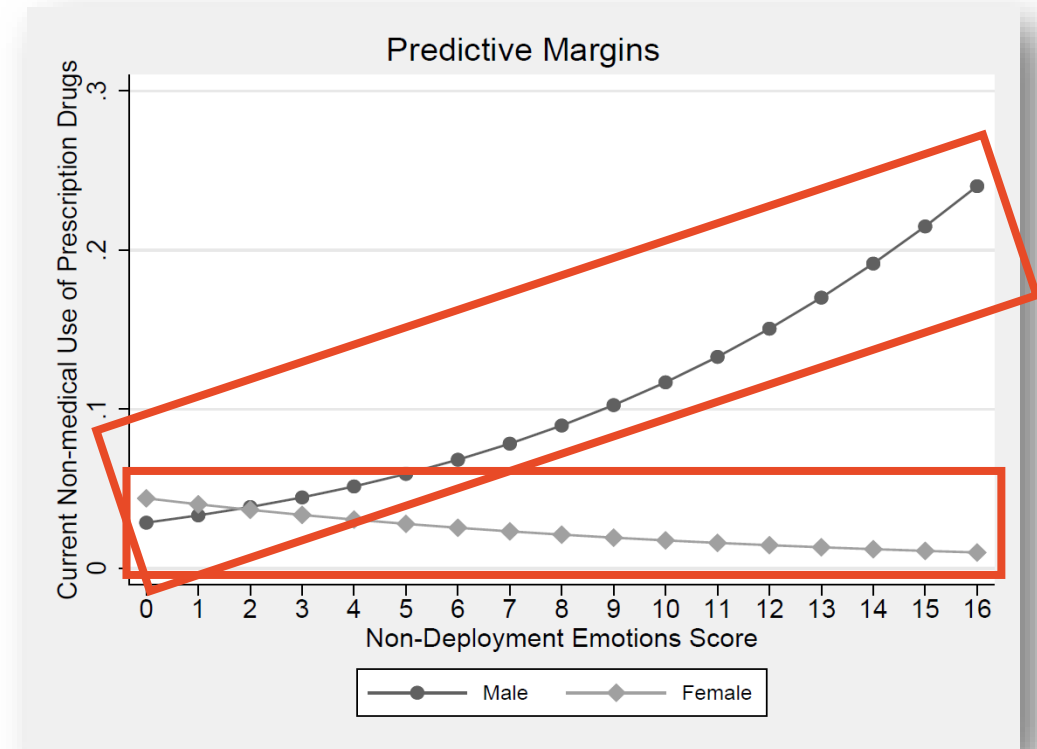
\*p < 0.05, \*\*p < 0.01



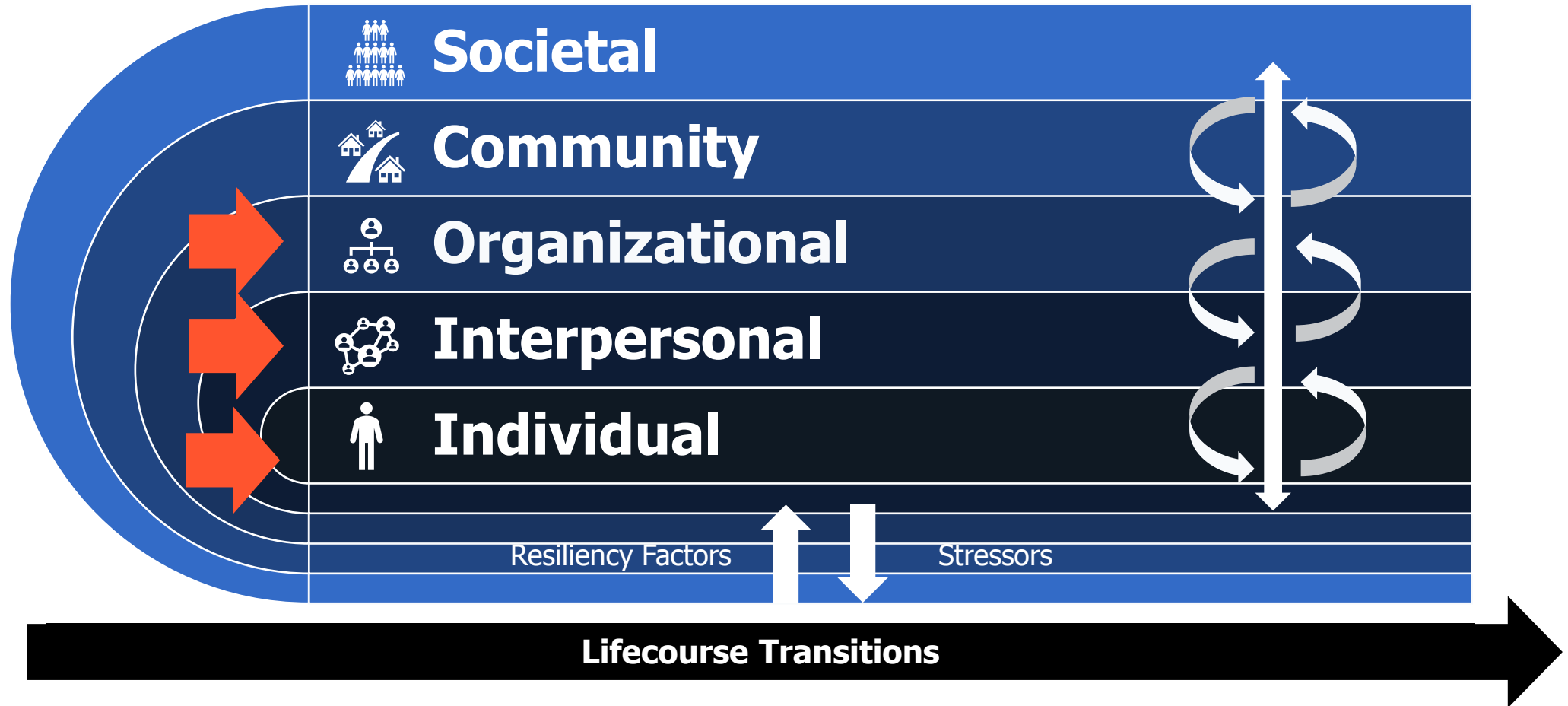


# Findings: Non-Deployment Emotions (Study 6)

	Current Tobacco Use aOR (95%)	Current NMUPD aOR (95%)	Current Illicit Drug Use aOR (95%)
<b>Non-deployment Emotions X Sex</b>	1.00 (0.90, 1.11)	<b>0.78*</b> <b>(0.62, 0.98)</b>	1.04 (0.89, 1.20)
<b>Non-Deployment Emotions</b>	1.04 (0.98, 1.09)	1.17* (1.03, 1.33)	1.06 (0.96, 1.17)
<b>Sex</b>	0.58 (0.22, 1.49)	1.58 (0.26, 9.73)	0.50 (0.14, 1.79)
<b>Time</b>	<b>0.73**</b> <b>(0.60, 0.87)</b>	0.65 (0.34, 1.23)	1.09 (0.68, 1.74)
<b>Depression</b>	1.57 (0.85, 2.88)	<b>5.58**</b> <b>(1.76, 17.72)</b>	1.17 (0.31, 4.51)
<b>Military Status</b>	1.03 (0.62, 1.70)	1.65 (0.42, 6.51)	<b>2.74*</b> <b>(1.10, 6.80)</b>

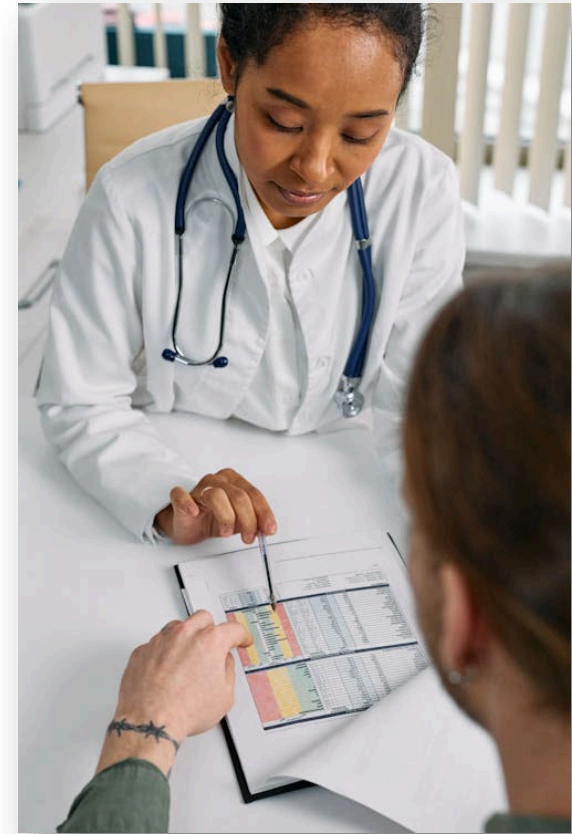


# Findings: Non-Deployment Emotions (Study 6)



# Implications of Research

- Non-Deployment Emotions Questionnaire may have clinical utility to identify high-risk service members
- Never-deployed reservists ineligible for health benefits under the U.S. Department of Veterans Affairs (Veterans Benefits Administration)
- Intervention and prevention strategies should use a socioecological perspective
- Applicability to other populations



Pexels

# Achieving Equity

- Prevention and intervention efforts should be universal, regardless of reserve/active duty service and deployment history/potential
- Multi-level, multi-modal approach:
  - Individual
  - Interpersonal
  - Organizational
  - Community
  - Policy



Pexels

**Thank You!**  
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National Institute  
on Drug Abuse



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- Research collaborators
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- Research participants