

# The Role of Unit Cohesion and Perceived Resilience in Substance Use Disorder



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## INTRODUCTION AND HYPOTHESES

- Substance use disorder (SUD) is common among military populations (Bray et al., 2010), which may be in part due to stressors military personnel experience
- Research suggests that two factors reduce the likelihood of SUD: unit cohesion (ability of a group to work together; Anderson et al., 2019) and resilience (ability to respond adaptively to stress; Bartone et al., 2016)
  - Unit cohesion is a resilience factor for many mental health disorders in military populations, such as PTSD, but some studies have found that unit cohesion may increase risk of SUD (Breslau et al., 2016)
  - A large body of research supports resilience as a protective factor against SUD in part due to increasing access to coping skills
- We sought to clarify whether unit cohesion is a risk or resilience factor for SUD, while also looking at how unit cohesion and resilience differentially predict SUD after accounting for overlap between the variables

### Hypotheses:

*H1: Unit cohesion and resilience will both negatively predict likelihood of SUD*

*H2: Unit cohesion and resilience will be positively correlated with each other*

*H3: Unit cohesion will negatively predict likelihood of SUD after accounting for the effects of resilience*

## METHODS

- Participants were 21,449 active duty and army reserve soldiers from the All Army Survey of the Army Study to Assess Risk and Resilience in Servicemembers (STARRS)

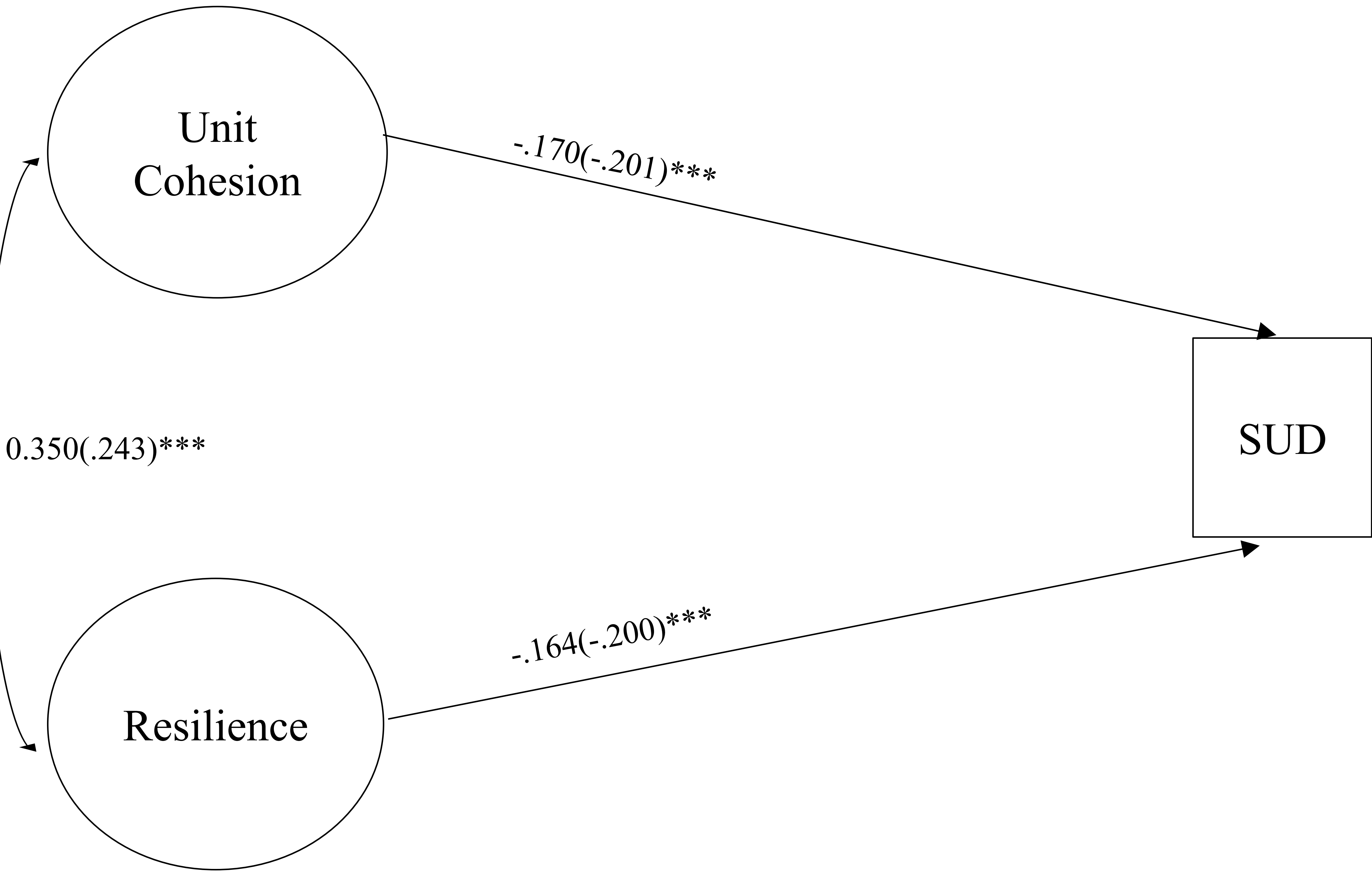
### Sample Demographics:

- Sample was majority male (87.600%) and White (69.500%) with a mean age of 28.660 (SD=7.420)

### Variables:

- Perceived Unit Cohesion:* We used five self-report items to measure unit cohesion. Items were acquired from a questionnaire made by the Joint Mental Health Advisory Team 7 (J-MHAT 7) in 2007-2009. Items were measured using a 5-point scale ranging from ‘strongly disagree’ to ‘strongly agree.’
- Resilience:* We used five self-report items to measure resilience. Items were taken from a questionnaire by the Hurricane Katrina Community Advisory Group. Items were measured using a 5-point scale ranging from ‘poor’ to ‘excellent.’
- SUD:* We measured SUD as a dichotomous variable. Participants rated themselves on symptoms of SUD within 30-days prior to data collection. We used 12-items from the CIDI Screening Scales and items were measured using a 5-point scale ranging from ‘never’ to ‘every day’. Diagnostic threshold was found to have good concordance with the SCID in a clinical reappraisal study (Kessler et al., 2013).

## RESULTS



**Figure 1.** Structural Equation Model of Unit Cohesion, Resilience and SUD.

*Notes: Variances and standard error are shown for each variable. Standardized factor loadings are shown, with unstandardized coefficients in parentheses. Significance indicated by the following:  $p < .05 = *$ ,  $p < .01 = **$ ,  $p < .001 = ***$ . Full diagram with latent variables included in supplementary materials.*

- We used confirmatory factor analyses with MLR to confirm unit cohesion and resilience as latent constructs
  - CFA for unit cohesion (CFI=.964, TFI=.929, SRMR=.028, RMSEA=.099) and resilience (CFI=.968, TLI=.937, SRMR=.026, RMSEA=.096) demonstrated adequate fit
- We used structural equation modeling with WLSMV to analyze the relationship between the latent variables of resilience and unit cohesion with risk of probable SUD
  - SEM demonstrated adequate fit (CFI=.945, TLI=.928, RMSEA=.046, SRMR=.026).

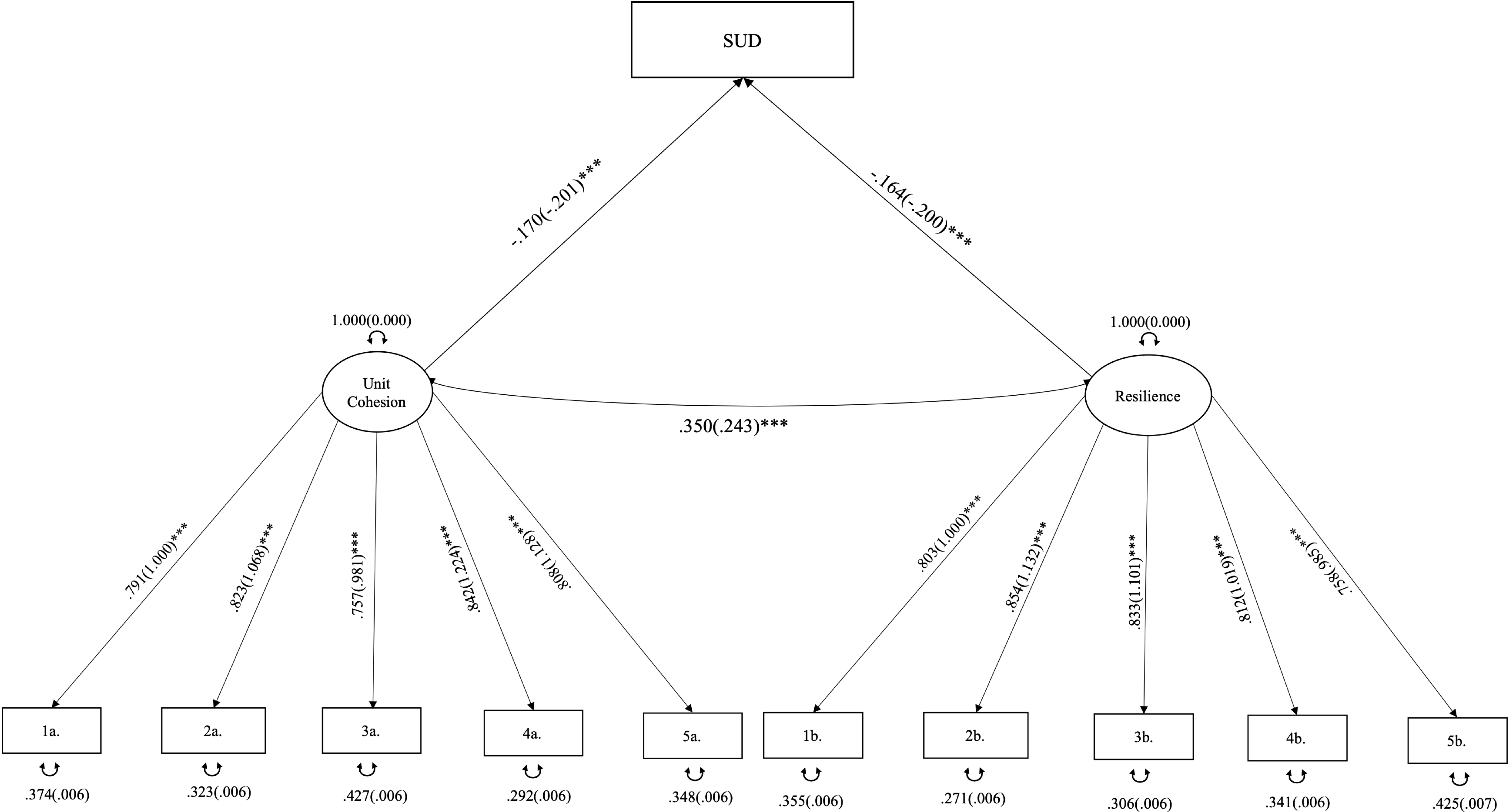
## DISCUSSION

- Results confirm and build upon the existing research that suggests that unit cohesion is a resilience factor for SUD and demonstrates that unit cohesion remains an important predictor of SUD after accounting for the overlap between resilience and unit cohesion
- Future research should further clarify the relationship between substance misuse and unit cohesion as the relationship between unit cohesion and substance use may vary with differing types (i.e. cannabis, alcohol, opioids) and degrees of use (i.e., recreational, heavy, disordered)
- Research should explore how military culture (e.g. beliefs about substance use within unit) and beliefs about substance use held by the individual affect likelihood of using substances and developing SUD
- The the cross-sectional findings and use of self-report measures may limit generalizability to other military branches

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Full Factor Diagram with Latent Variables



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