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RESEARCH ARTICLE

Partner Effects: Analyzing Service Member and Spouse Drinking Over Time

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Introduction: Excessive alcohol use is a significant problem in the military. Although there is a growing emphasis on family-centered alcohol prevention approaches, little is known about the interplay between partners' drinking behaviors. This study examines how service members and their spouses influence each other's drinking behavior over time and explores the complex individual, interpersonal, and organizational factors that may contribute to alcohol use.

Methods: A sample of 3,200 couples from the Millennium Cohort Family Study was surveyed at baseline (2011−2013) and follow-up (2014−2016). The research team estimated how much partners' drinking behaviors influenced one another from baseline to follow-up using a longitudinal structural equation modeling approach. Data analyses were conducted in 2021 and 2022.

Results: Drinking patterns converged between spouses from baseline to follow-up. Participants' own baseline drinking had a small but significant effect on changes in their partners' drinking from baseline to follow-up. Results from a Monte Carlo simulation showed that the longitudinal model could reliably estimate this partner effect in the presence of several potential sources of bias, including partner selection. The model also identified several common risk and protective factors for drinking shared by both service members and their spouses.

Conclusions: Findings suggest that changing the drinking habits of one spouse could lead to a change in the drinking habits of the other, which supports family-centered alcohol prevention approaches in the military. Dual-military couples especially may benefit from targeted interventions because they face a higher risk of unhealthy alcohol consumption.
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INTRODUCTION

Excessive alcohol use is a significant problem in the military.[1] A serious threat to force readiness, it is associated with a greater risk of injuries, occupational and legal problems, productivity loss, mental disorders, and suicide among service members.[2,3] Furthermore, unhealthy alcohol use affects both service members and their spouses, and there is a growing emphasis on adopting a family-centered approach toward alcohol prevention in the military.[4−6] This is consistent with interdependence theory,[7] which contends that spouses affect each other's emotions, cognitions, and behaviors and that the interplay between

spouses shapes their drinking behavior over time.[8] However, the existing literature testing this theory among civilians has produced conflicting results, and it is not yet clear how partners influence each other's drinking

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behavior in military settings, which is critical to inform evidence-based prevention strategies.

Studies of civilians have found evidence that romantic partners influence each other's drinking behavior bidirectionally through both direct and indirect behaviors, such as encouraging a partner to drink more or modeling high-risk drinking behavior.[9] However, there are some discrepancies in the literature. For example, 1 study of 519 couples found that husbands' drinking at the outset of marriage significantly predicted their wives' drinking 1 year later but not vice versa.[10] A follow-up study showed that the direction of the spousal influence changed in the second year of marriage, with wives' drinking over the first year predicting husbands' drinking in the second.[11] Studies exploring the relationship between service member and spouse drinking are more limited.[12,13] Given the paucity of research in this area, more work is needed to explore dyadic drinking patterns and verify common risk factors for drinking shared by service members and spouses alike to better understand how to prevent and reduce excessive alcohol use in the military.

Previous studies have not explicitly addressed several potential sources of bias documented in the broader peer effects literature.[14] Most importantly, partners' drinking behavior may be similar owing to correlated unobserved characteristics. For example, individuals with similar drinking behaviors are more likely to marry each other[10]; if a statistical model does not properly account for this selection issue (called endogenous partner choice[14] or assortative mating[10]), it may overestimate how much one person's drinking affects their partner's drinking (i.e., the true partner effect). Partners' drinking may also be positively correlated owing to common shocks (e.g., partners experiencing the same traumatic event) or unobserved contextual effects (i.e., individual characteristics that are correlated with one person's drinking that also affect their partner's drinking, such as family background or SES).[14]

To mitigate these issues, a structural equation modeling (SEM) approach with longitudinal dyadic data from a military cohort was used to examine how service members and their spouses influence each other's drinking behavior over time. On the basis of interdependence theory, it was hypothesized that service members and their spouses would influence each other's drinking behavior over time, resulting in a convergence in alcohol use within couples. The research team tested this hypothesis using an SEM approach and examined the model's ability to address the sources of bias mentioned earlier using a Monte Carlo simulation.

This paper also explores the complex individual, interpersonal, and organizational factors that may contribute to alcohol use among service members and spouses. Research has identified numerous factors that influence alcohol consumption, including demographic predictors (e.g., being male, race/ethnicity, being married, having a higher income, or smoking[15]), adverse childhood experiences,[16] depression,[17] post-traumatic stress disorder,[18] and stress and marital conflict.[8,19] Military predictors of alcohol use include military-related stress,[20] service branch (Marine Corps), rank (enlisted),[21] and deployment.[2] Despite evidence that these factors are associated with unhealthy alcohol use, less is known about how such risk factors are related within a married couple. This study evaluates these predictors specifically within the context of dyadic alcohol consumption among service members and their spouses.

METHODS

Study Sample

This study used data from the Millennium Cohort Family Study (Family Study),[22] a 21-year prospective cohort of heterosexual married couples including service members enrolled in the larger Millennium Cohort Program[23] and their spouses. From 2011 to 2013, the Millennium Cohort Program enrolled 50,052 service members for its fourth panel of military members from among a sampling frame of 247,266 personnel with 2−5 years of service (a 20.2% response rate), representing all U.S. military service branches and components (active duty, Reserve, and National Guard). Family Study spouses were sequentially recruited after their service member partners enrolled.[24] The Naval Health Research Center IRB reviewed and approved study procedures.

Measures

Drinking behavior, the outcome of interest, was captured with 5 measures of alcohol use at baseline and follow-up (Table 1). The first measure, drinking frequency in the past year, asked how often participants typically drank any type of alcoholic beverage in the past year (*Never, Rarely, Monthly, Weekly,* or *Daily*). The second measure, alcohol-related problems, was coded as Yes if respondents reported that any of the following events had occurred more than once in the past 12 months and No otherwise: (1) drank even though a doctor suggested stopping owing to health problem; (2) drank alcohol, was drunk, or was hung over while working, going to school, taking care of children, or completing other responsibilities; (3) missed or was late for school or work owing to drinking or being hung over; (4) had a problem getting along with others while drinking; or (5) drove a car after having several drinks or drinking too much. These questions were drawn from the 8-item Patient Health Questionnaire alcohol abuse subscale.[25] The third measure, binge drank in the past year, was coded as Yes if the respondent reported having consumed 4 or more drinks in a 2-hour period for women (or 5 or more drinks in a 2-hour period for men) at least once in the past year and No otherwise. The fourth measure, got drunk in the past year, was coded as Yes if the respondent reported getting drunk at least once in the past year and No otherwise. The last measure, number of drinks, was

Table 1. Alcohol Measures at Baseline

Alcohol measure	Spouse				Service member			
	Female		Male		Female		Male	
	Count/mean	Percentage/SE	Count/mean	Percentage/SE	Count/mean	Percentage/SE	Count/mean	Percentage/SE
Drinking frequency past year								
Never	693	27.0%	55	19.1%	64	19.8%	481	17.0%
Rarely	957	35.5%	90	29.1%	111	38.6%	599	24.1%
Monthly	557	19.2%	58	15.6%	61	16.2%	530	19.7%
Weekly	591	16.8%	125	34.2%	92	23.9%	1,061	33.0%
Daily	60	1.5%	14	2.1%	14	1.5%	187	6.2%
Alcohol-related problem in the past year								
No	2,664	92.2%	309	90.2%	329	97.3%	2,621	88.6%
Yes	194	7.8%	33	9.8%	13	2.7%	237	11.4%
Binged past year								
No	2,342	80.6%	276	84.0%	283	79.8%	2062	66.3%
Yes	516	19.4%	66	16.0%	59	20.2%	796	33.7%
Got drunk in the past year								
No	1948	67.8%	202	58.5%	220	63.0%	1378	45.1%
Yes	910	32.2%	140	41.5%	122	37.0%	1480	54.9%
Number of drinks in a typical week[a]	1.60	0.14	3.53	0.76	1.74	0.23	4.58	0.23

Note: N=3,200. Percentages, means, and SEs are weighted to the population of service members with 2−5 years of military experience as of 2010 and their spouses.[24]
[a]Means and SEs are reported for this continuous variable.

the number of alcoholic beverages reported being consumed in a typical week (continuous).

The analyses included several individual, interpersonal, and organizational predictors of alcohol consumption. Each measure is reported in detail in Appendix Table A (available online), and descriptive statistics are provided in Table 2.

Statistical Analysis

All analyses were weighted to account for sample design and non-response (except for that in Table 2, which shows the unweighted characteristics of the sample). The weights allow the findings to be generalized to the population of service members with 2−5 years of military experience as of 2010 and their spouses.[24]

First, the difference between service member and spouse drinking at baseline and follow-up was examined as well as the difference in difference for each of the 5 alcohol use measures (Appendix Table C, available online). This descriptive analysis allowed examination of whether partners' drinking converged from baseline to follow-up, but it did not disentangle the effect of service members' drinking on spouses' drinking and vice versa.

Next, the degree to which partners' drinking behaviors influenced one another from baseline to follow-up was estimated using SEM (Table 3). All estimates were standardized, so coefficients could be interpreted as changes in SD units. The model included 4 latent variables that captured service members' and spouses' drinking behavior at baseline and follow-up (Figure 1). The 5 alcohol use measures served as indicators for each of these latent variables. Using multiple indicators improved the estimates' precision by extracting the information common to them, thus reducing measurement error. Baseline drinking behavior was modeled as a function of several baseline individual, interpersonal, and organizational factors. Drinking behavior at follow-up was modeled as a function of participants' baseline drinking, their partners' baseline drinking (the partner effect of interest), and events that occurred between baseline and follow-up. Summarily, this estimated the effect of participants' baseline drinking on the change in their partners' drinking from baseline to follow-up (see derivation in Appendix D, available online). The research team also examined the SEM model's ability to identify bidirectional partner effects in the presence of several potential sources of bias with a Monte Carlo simulation (Appendix D, available online).

The SEM model was estimated in Stata 16 (StataCorp, College Station, TX) using a 2-step factor score regression approach described in detail in Appendix E (available online).[26] This approach involved estimating nonlinear measurement models for each of the 4 latent variables in a first step to account for skewness in the alcohol measures because 17% of service members and 27% of spouses did not drink at baseline (Table 1). This approach was preferable to dropping nondrinkers, which would have introduced selection bias. Next, the structural model was estimated using predicted factor scores and factor reliability estimates obtained in the first step.[27] Data analyses were conducted in 2021 and 2022.

RESULTS

A total of 9,872 spouses completed their baseline surveys from 2011 to 2013 of 28,603 eligible spouses (a 34.5% response rate).[24] Service members and spouses then completed their first follow-up surveys between 2014 and 2016. Of the 9,872 dyads who responded at baseline, dyads were excluded if either the service member or the spouse did not respond at follow-up (*n*=5,003), responded to a short paper survey at follow-up that did not include all the relevant alcohol questions used in these analyses (*n*=837), or had missing data on the alcohol outcomes (*n*= 671) or the predictors included in the analyses (*n*=161). Thus, the final analytic sample included 3,200 dyads with complete data across the 2 time points.

Table 2 shows unweighted characteristics of the sample at baseline and follow-up (weighted characteristics are provided in Appendix Table B, available online). Most couples were non-Hispanic White and comprised a male service member and a female spouse, with 96.6% of couples still married to the partner they had enrolled with at baseline. Couples had on average 1 child at baseline, and 43.7% had additional children at follow-up. In addition, 77.6% of service members were on active duty at baseline, but only 61.1% were still on active duty at follow-up.

Table 1 shows the 5 alcohol measures at baseline. Male respondents reported drinking more frequently in the past year, were more likely to have alcohol-related problems and get drunk in the past year, and consumed more drinks in a typical week than female respondents. These sex differences in alcohol use were more pronounced among service members than among spouses.

Descriptive evidence of a convergence in drinking behavior between partners is provided in Appendix Table C (available online). The difference between service member and spouse drinking was generally smaller at follow-up than at baseline, and the difference-in-difference between the time points (i.e., follow-up difference minus baseline difference) was negative and statistically significant for binge drinking (−0.083, 95% CI= −0.124, −0.043), getting drunk (−0.050, 95% CI= −0.094, −0.001), and number of drinks (−0.788, 95% CI= −1.388, −0.188).

Results from the Monte Carlo simulation showed that the longitudinal SEM model was able to identify bidirectional partner effects in the presence of endogenous partner choice and unobserved common shocks (Appendix D, available online). Convergence in drinking behavior that had already occurred before baseline owing to these unobserved factors was eliminated by controlling for drinking at baseline and examining the change in drinking between baseline and follow-up. Robustness checks showed that the model also eliminated bias due to unobserved contextual effects to the extent that these effects were captured by baseline drinking and did not have a separate, time-varying effect from baseline to follow-up.

Table 2. Unweighted Characteristics of the Service Members and Spouses

Characteristics	Spouse		Service member	
	Count/mean	Percentage/SE	Count/mean	Percentage/SE
Baseline individual factors				
Sex				
Male	342	10.7%	2,858	89.3%
Female	2,858	89.3%	342	10.7%
Age[a]	29.0	0.1	28.7	0.1
Race/ethnicity				
White, non-Hispanic	2,653	82.9%	2,682	83.8%
Black, non-Hispanic	88	2.8%	107	3.3%
Hispanic	233	7.3%	200	6.3%
Other	226	7.1%	211	6.6%
Education				
High school or less	258	8.1%	331	10.3%
Some college	1,195	37.3%	1,333	41.7%
College graduate	1747	54.6%	1,535	48.0%
Cigarette use				
Never	2,380	74.4%	2,081	65.0%
Former	395	12.3%	395	12.3%
Current	425	13.3%	724	22.6%
PTSS and depression				
No PTSS or depression	2,954	92.3%	2,977	93.0%
PTSS only	111	3.5%	118	3.7%
Depression only	55	1.7%	25	0.8%
PTSS and depression	80	2.5%	80	2.5%
Adverse childhood event				
No	1599	50.0%	2,249	70.3%
Yes	1601	50.0%	951	29.7%
Number of stressful life events[a]	2.15	0.03	1.81	0.03
Baseline interpersonal factors				
Difficulties with partner				
No	2,225	69.5%	2,281	71.3%
Yes	975	30.5%	919	28.7%
Social support[a]	3.12	0.01	3.39	0.01
Family satisfaction[a]	3.89	0.01		
Number of children[a]	1.11	0.02		
Baseline organizational/military factors				
Military status				
Never	2,711	84.7%		
Former	246	7.7%		
Current	243	7.6%		
Service branch				
Army			1,417	44.3%
Navy			484	15.1%
Marine Corps			274	8.6%
Air Force			940	29.4%
Coast Guard			85	2.7%
Component				
Active duty			2,483	77.6%
Reserve/guard			717	22.4%

Table 2. Unweighted Characteristics of the Service Members and Spouses (*continued*)

Characteristics	Spouse		Service member	
	Count/mean	Percentage/SE	Count/mean	Percentage/SE
Rank				
Enlisted			2,031	63.5%
Officer			1,169	36.5%
Deployment status				
Deployed without combat			397	12.4%
Never deployed			1,039	32.5%
Deployed with combat			1,764	55.1%
Months away[a]			3.08	0.06
Follow-up interpersonal factors				
Divorced/separated				
No	3,092	96.6%		
Yes	108	3.4%		
Additional children between baseline and follow-up				
No	1801	56.3%		
Yes	1399	43.7%		
Follow-up organizational/military factors				
Deployment between baseline and follow-up				
Deployed without combat			218	6.8%
No deployment			2,561	80.0%
Deployed with combat			421	13.2%
Not on active duty				
No			1,955	61.1%
Yes			1,245	38.9%

Note: N=3,200. All statistics provided in this table are unweighted.
[a]Means and SEs are reported for continuous variables.
PTSS, post-traumatic stress symptom.

Standardized coefficients from the SEM are provided in Table 3. Results showed that increasing the service members' baseline drinking by 1 SD resulted in a small increase of 0.072 SD (95% CI= 0.033, 0.111) in spouses' drinking at follow-up. As explained in Appendix D (available online), this estimate can also be interpreted as the effect of service members' baseline drinking on the change in spouses' drinking from baseline to follow-up. Similarly, spouses' baseline drinking significantly affected the change in service members' drinking (0.089, 95% CI= 0.040, 0.139). These 2 estimates were not statistically different from each other ($t = -0.49$, $p=0.624$), indicating that spouses and service members had a comparable effect on each other's drinking behavior.

Table 3 identifies the characteristics that most strongly predicted service member and spouse drinking. Owing to the large number of statistically significant predictors, only those that were shared by both spouses are listed here (Table 3 for all estimates and SDs). Shared risk factors associated with greater drinking for both spouses included current or past cigarette use, having partner difficulties, both spouses serving in the military, and getting divorced/separated at follow-up. Both spouses were also more likely to drink if the service member was an officer than if enlisted, experienced deployment with combat than deployment without combat, served in the Navy or Coast Guard than in the Army, or transitioned from active duty at follow-up. Shared protective factors included being female, being older, being Black non-Hispanic versus White non-Hispanic, having more children, and having greater social support.

DISCUSSION

In this longitudinal investigation of service members and their spouses, alcohol drinking patterns at follow-up were more similar between couples than at baseline. In addition, the covariate-adjusted structural model showed that participants' baseline drinking had a small but significant effect on the change in their partners' drinking from baseline to follow-up, and this effect was similar for both service members and spouses. Taken together, these findings suggest that the service member and the spouse influenced each other's drinking behavior over time, resulting in a convergence in drinking

Table 3. SEM Estimation Results for the Relationship Between Service Member and Spouse Drinking Behavior

Variables	Spouse baseline drinking		Service member baseline drinking		Spouse follow-up drinking		Service member follow-up drinking	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Baseline spouse individual factors								
Drinking behavior					0.915***	0.015	0.089***	0.025
Sex								
Male	Reference		Reference					
Female[a]	−0.137***	0.034	0.146***	0.033				
Age	−0.112**	0.035						
Race/ethnicity								
White, non-Hispanic	Reference							
Black, non-Hispanic	−0.091***	0.022						
Hispanic	−0.050*	0.025						
Other	−0.048	0.030						
Education								
High school or less	Reference							
Some college	0.025	0.048						
College graduate	0.132**	0.047						
Cigarette use								
Never	Reference							
Former	0.083**	0.024						
Current	0.352***	0.030						
PTSS and depression								
No PTSS or depression	Reference		Reference					
PTSS only	−0.041	0.027	0.002	0.032				
Depression only	0.002	0.028	−0.003	0.028				
PTSS and depression	0.015	0.029	−0.016	0.028				
Adverse childhood event								
No	Reference							
Yes	0.072**	0.026						
Number of stressful life events	0.078**	0.027						
Baseline spouse interpersonal factors								
Difficulties with partner								
No	Reference							
Yes	0.106***	0.029						
Social support	−0.071*	0.033						
Family satisfaction	0.025	0.033	−0.069*	0.030				
Number of children	−0.124***	0.026	−0.063*	0.026				

(continued on next page)

Table 3. SEM Estimation Results for the Relationship Between Service Member and Spouse Drinking Behavior (*continued*)

Variables	Spouse baseline drinking		Service member baseline drinking		Spouse follow-up drinking		Service member follow-up drinking	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Baseline spouse organizational/military factors								
Military status								
Never	Reference		Reference					
Former	−0.008	0.023	−0.029	0.023				
Current	**0.115*****	0.030	**0.067***	0.026				
Baseline service member individual factors								
Drinking behavior					**0.072*****	0.020	**0.806*****	0.018
Age			**−0.124*****	0.024				
Race/ethnicity								
White, non-Hispanic			Reference					
Black, non-Hispanic			**−0.095***	0.037				
Hispanic			−0.018	0.026				
Other			**−0.116*****	0.030				
Cigarette use								
Never			Reference					
Former			**0.138*****	0.026				
Current			**0.313*****	0.029				
PTSS and depression								
No PTSS or depression	Reference		Reference					
PTSS only	−0.032	0.032	−0.052	0.037				
Depression only	−0.003	0.030	−0.054	0.032				
PTSS and depression	−0.045	0.026	−0.010	0.036				
Adverse childhood event								
No			Reference					
Yes			0.035	0.027				
Number of stressful life events			−0.011	0.029				
Baseline service member interpersonal factors								
Difficulties with partner								
No			Reference					
Yes			**0.122*****	0.029				
Social support			**−0.072***	0.035				
Baseline service member organizational/military factors								
Service branch								
Army	Reference		Reference					
Navy	**0.070***	0.029	**0.086****	0.025				

Table 3. SEM Estimation Results for the Relationship Between Service Member and Spouse Drinking Behavior (*continued*)

Variables	Spouse baseline drinking		Service member baseline drinking		Spouse follow-up drinking		Service member follow-up drinking	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Marine Corps	0.056	0.033	**0.157*****	0.031				
Air Force	−0.007	0.024	−0.035	0.022				
Coast Guard	**0.061***	0.029	**0.104*****	0.021				
Component								
Active duty	Reference		Reference					
Reserve/guard	−0.003	0.024	0.024	0.026				
Rank								
Enlisted	Reference		Reference					
Officer	**0.094*****	0.016	**0.156*****	0.014				
Deployment status								
Deployed without combat	Reference		Reference					
Never deployed	0.019	0.037	0.007	0.041				
Deployed with combat	**0.112****	0.036	**0.114****	0.042				
Months away	0.027	0.027	**−0.052***	0.024				
Follow-up interpersonal factors								
Spouse divorced/separated at follow-up								
No					Reference		Reference	
Yes					**0.134*****	0.023	**0.107*****	0.023
Spouse new children between baseline and follow-up								
No					Reference		Reference	
Yes					**−0.166*****	0.017	−0.021	0.018
Follow-up organizational/military factors								
Service member deployment between baseline and follow-up								
Deployed without combat					Reference		Reference	
No deployment					−0.010	0.023	−0.002	0.024
Deployed with combat					**0.055***	0.022	−0.005	0.022
Service member not on active duty at follow-up								
No					Reference		Reference	
Yes					**0.035***	0.017	**0.045***	0.020

Note: Boldface indicates statistical significance (*p<0.05, ***p*0<0.01, and ***p<0.001).
N=3,200. Coefficient estimates are standardized and weighted to the population of service members with 2−5 years of military experience as of 2010 and their spouses.[24]
[a]The spouse female indicator corresponds to a service member male indicator (the survey included only heterosexual married couples).
PTSS, post-traumatic stress symptom; SEM, structural equation modeling.
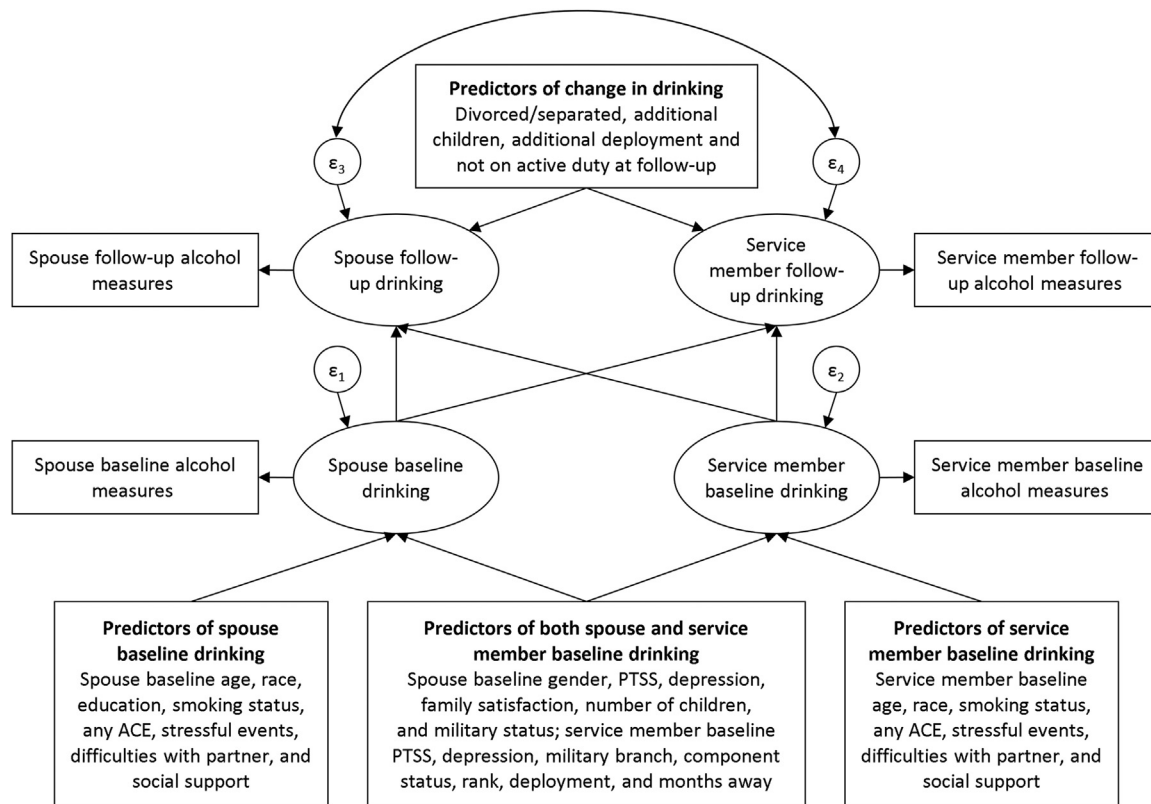
Figure 1. SEM model for the relationship between service member and spouse drinking behavior.

Note. Per standard SEM nomenclature, observed variables are displayed in boxes, latent variables are displayed in ovals, and error terms are displayed in circles. Service member and spouse latent drinking behavior at baseline and follow-up are estimated using 5 alcohol measures shown in Table 1. Each alcohol measure has its own equation and error term (not represented in the diagram). All exogenous observed variables are assumed to be correlated. Service member education was not included as a predictor of service member baseline drinking because it was highly correlated with rank.

ACE, adverse childhood experience; PTSS, post-traumatic stress symptom; SEM, structural equation modeling.

among couples. Thus, reducing the drinking of 1 spouse may help reduce their partner's drinking over time.

The Monte Carlo simulation showed that the longitudinal model could reliably estimate these partner effects by addressing several potential sources of bias, including partner selection and unobserved common shocks. Simulation results suggest that the model captured the cumulative partner effect that occurred between the baseline and follow-up surveys (approximately a 3-year span) and that this effect would likely be greater if more time had elapsed between baseline and follow-up. Similar longitudinal SEM models have been used in the Actor−Partner Interdependence Model literature,[10,13] but to the authors' knowledge, this study is the first to examine this type of model's ability to tease out partner effects using a Monte Carlo simulation, which contributes methodologically to both the Actor−Partner Interdependence Model literature[28,29] and the broader peer effects literature.[14]

The convergence in drinking behavior found among military couples is consistent with interdependence theory and has been documented for other health domains. For example, 1 study tested couples' cortisol levels around a conflict discussion 6 months after marriage and 2 years into marriage and found significant convergence in couples' cortisol trajectories over time.[30] Similar findings have been published on depression,[31] cognitive abilities,[32] and other health indicators and behaviors.[33]

Most of the previous research examining risk and protective factors for military drinking has focused on either service members or their spouses.[2,6,21,34] By simultaneously modeling service members' and spouses' drinking behavior, this study revealed shared risk factors associated with greater drinking for both spouses. In contrast with the literature and some of the research team's previous work,[34,35] post-traumatic stress symptoms (PTSSs) and depression were not predictive of alcohol consumption after adjusting for other covariates

in the model. Additional sensitivity analyses showed that PTSS and depression no longer had a significant positive association with alcohol use once the model was adjusted for social support, family satisfaction, difficulties with partner, or number of stressful life events. This suggests that degradations in factors such as interpersonal relationships may be important channels through which PTSS and depression affect alcohol use.

Finally, these findings suggest that dual-military couples especially could benefit from targeted interventions given that they face a higher risk of unhealthy alcohol consumption. Spouses who are also serving in the military may be more reluctant to report or seek help for problematic alcohol use than those who are not in the military and have different career consequences. Indeed, evidence suggests that even among veteran spouses, a reluctance to access care may linger.[36] This suggests a need to focus on the whole military family, given the additional touchpoints within the military context that can be used as opportunities to screen, educate, and intervene.

Limitations

This study provided a unique opportunity to explore dyadic influences of alcohol use among a stratified random sample of married military couples representing all service branches and components. However, several limitations should be noted. There were only 2 observation points approximately 3 years apart, thus it was not possible to assess changes in consumption patterns over a longer period or assess more complex trajectories using multiple observation points. Alcohol misuse measures were self-reported, which may have led to over or underestimation of use. There may also be factors that contributed to changes in drinking behavior not captured in this survey; however, the longitudinal model accounted for many factors likely shared across dyadic pairs. This sample included only heterosexual married couples, so findings may not be generalizable to same-sex couples or those cohabiting but not married. Finally, the sample was generally younger and early in their military service career, so findings may not generalize to older couples or those with longer military service.

CONCLUSIONS

There are multiple pathways to prevent and reduce excessive alcohol consumption in the military. One option is to develop programs and interventions that specifically target service members and/or their partners.[4,37] These study results suggest that changing the drinking habits of 1 marital partner could lead to a change in the drinking habits of the other, which supports family-centered alcohol prevention approaches involving both partners. Dual-military couples especially could benefit from targeted interventions given that they face a higher risk of unhealthy alcohol consumption.

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SUPPLEMENTAL MATERIAL

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