

Do Protective Behaviors Always Reduce Risk?

An Event-Level Examination of Protective Behavior Use and Alcohol Consumption in First-Year College Women

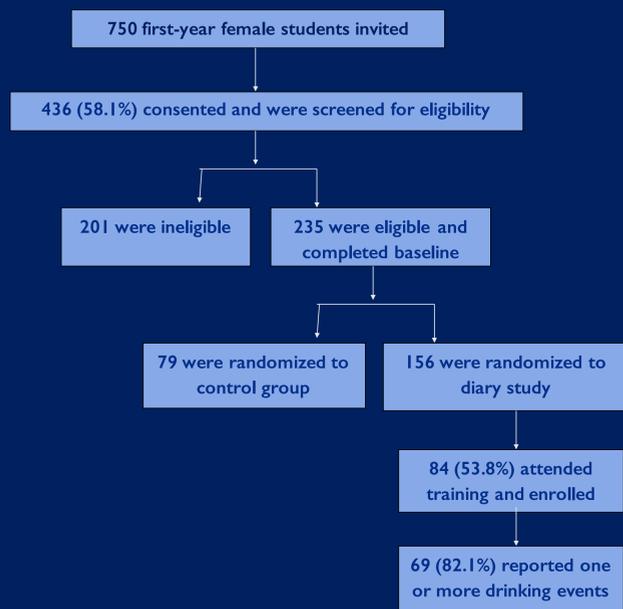
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INTRODUCTION

- Protective behaviors (PBs) have generally been studied as a homogeneous construct and shown to be negatively associated with global reports of drinking (LaBrie, Lac, Kenney, & Mirza, 2011; Martens et al., 2007; Patrick, Lee, & Larimer, 2011; Rice, Haines, & Barker, 2006; Sutfin et al., 2009).
- Recent work has revealed that specific drinking protective behaviors (DPBs; e.g., pacing) and contextual protective behaviors (CPBs; e.g., staying with friends) have differential associations with drinking (DeMartini et al., 2013; Mallett et al., 2015).
- Little to no work has examined the impact of specific PBs on drinking at the event-level.
- To address this gap, the current study examined event-level associations between DPBs, CPBs, and drinking in first-year college women.

SAMPLE & METHODS

- Participants included 69 females from a large Northeastern university who endorsed drinking moderately (e.g., consuming 4+ drinks in one sitting at least once in the past 30 days) and owning a smartphone. At baseline, the sample was 18.06 ($SD = .24$) years old and 84.1% White/Caucasian.



- Data collection included 14 days of smartphone surveys completed each morning upon waking.
- Participants reported on DPB use (Martens et al., 2005; 2007; Ray, Turrisi, Abar, & Peters, 2009), CPB use (Moore & Waterman, 1999), and daily drinking.
- Multilevel modeling was used to examine within- and between-person effects of DPBs (Model A) and CPBs (Model B) on the number of drinks consumed daily (SAS, version 9.4).

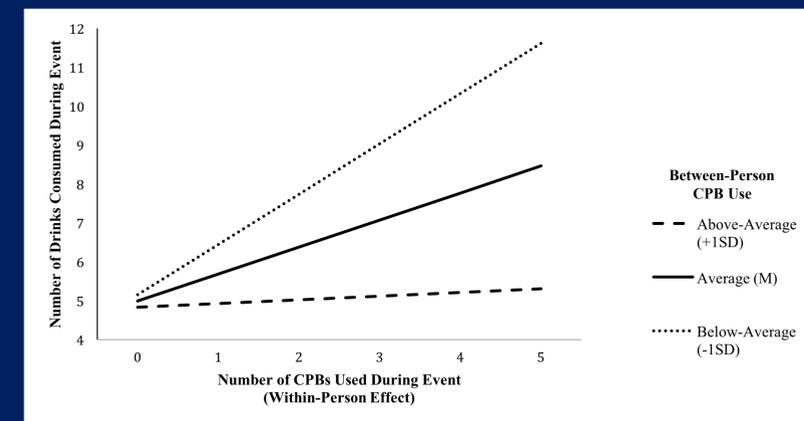
RESULTS

Table 1. Multilevel Models Examining the Effects of Protective Behavior Use on Drinking.

	Model A Drinking Protective Behaviors (DPBs)		Model B Contextual Protective Behaviors (CPBs)	
	Parameter Estimate	Standard Error	Parameter Estimate	Standard Error
Mean level of drinking across occasions (intercept)	4.99***	(0.21)	5.00***	(0.23)
Main effect of between-person (person-level) PB use	-0.43***	(0.12)	-0.11	(0.15)
Main effect of within-person (event-level) PB use	-0.47*	(0.19)	0.53*	(0.21)
Between-person x within-person interaction effect	0.04	(0.14)	-0.39*	(0.16)

Note. DPBs = drinking protective behaviors; CPBs = contextual protective behaviors. Models are based on a total of 215 observed drinking events across 69 participants. *** $p < .001$. ** $p < .01$. * $p < .05$.

Figure 1. Effects of Between-Person CPB Use on the Event-Level (Within-Person) Association Between CPBs and Drinking.



Note. CPB = contextual protective behavior.



- Participants collectively reported 215 drinking events, averaging 3.13 ($SD = 1.59$) events per person.
- Greater DPB use was associated with decreased drinking across people and events.
- On events when individuals used more CPBs, they consumed *more* drinks.
- Women who, on average, reported the lowest levels of CPB use drank significantly more on days when they used more CPBs, but women who, on average, reported the highest levels of CPB use did not drink significantly more (see Figure 1).

DISCUSSION

- Consistent with previous work (e.g., DeMartini et al., 2013; Mallett et al., 2015), findings reveal DPBs and CPBs have different associations with drinking and may be regarded as theoretically distinct constructs.
- Most women, regardless of their average DPB use, consumed fewer drinks on days when they used more than their typical number of DPBs. This suggests DPBs are a viable means of controlling alcohol intake across both people and events.
- Some women consumed significantly more drinks during events when they used more CPBs. A more in-depth examination of CPBs is warranted to understand this finding.
- Future studies should examine decisional and motivational processes underlying the relationship between CPB use and drinking. For example, one possibility is that some individuals purposely use CPBs to create an environment where they feel they can safely drink more.
- As little is currently known about how different types of PBs are used together in the real world, future studies should explore drinkers' utilization of specific combinations of DPBs and CPBs across drinking events. This will help establish patterns of use and identify those patterns that are most effective in reducing drinking.