Examining profiles of protective strategies for risky sex and alcohol
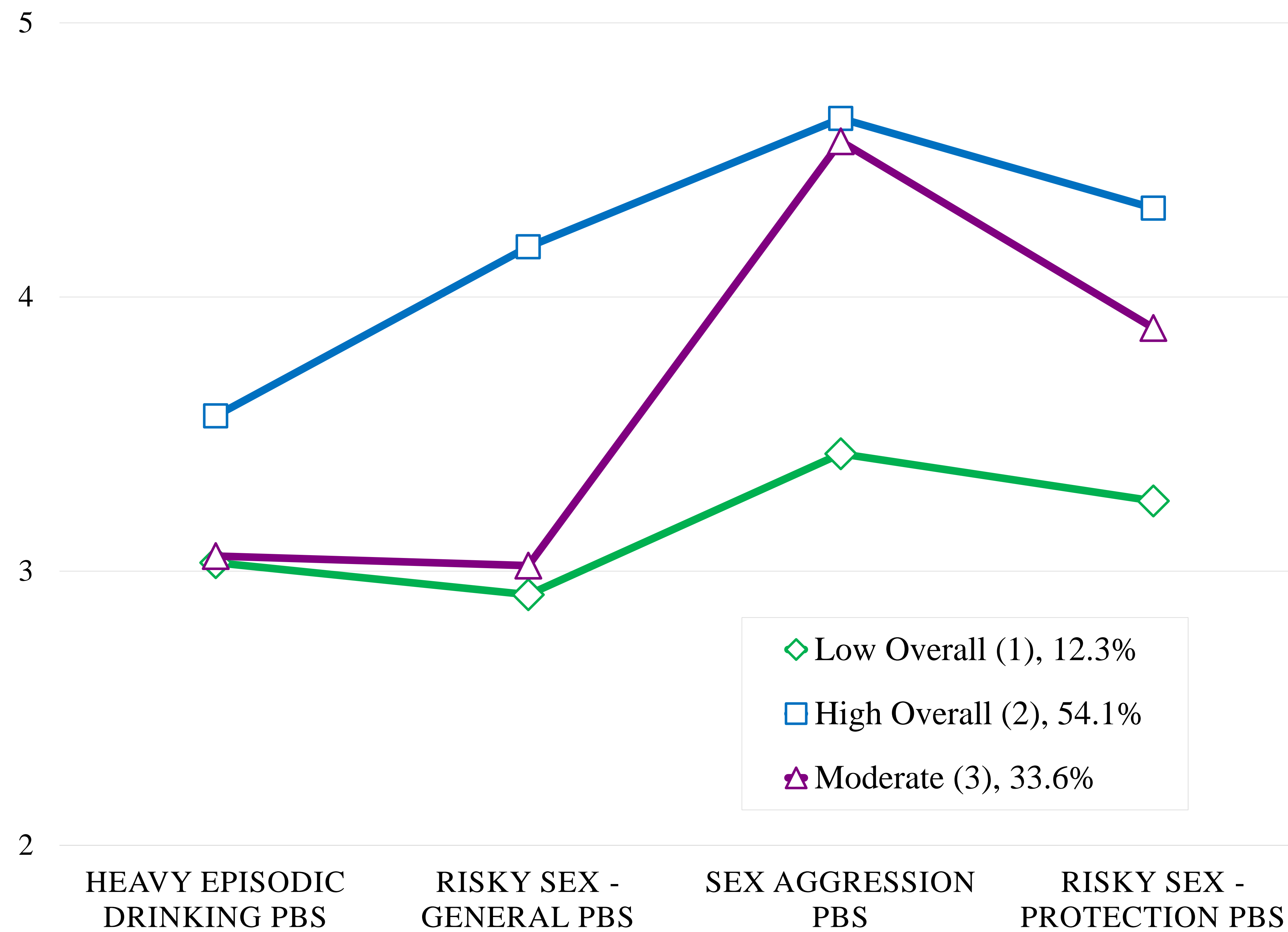
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INTRODUCTION

- Risky sexual behavior (RSB) and sexually aggressive behavior (SAB) are common problems among college men and often co-occur with heavy drinking, posing unique risk for negative consequences.

- People use protective behavioral strategies (PBS), which reduce consequences related to risky behavior, and prevention efforts that focus on normative feedback can be effective at increasing PBS use.

- While knowledge of PBS for heavy drinking is well developed, knowledge of PBS for general RSB and SAB is still growing.

- We expect that a lack of PBS use in one domain may predict risky behavior in another, since the various domains are related.

- PBS measures for SAB and general RSB have recently been developed, but to our knowledge no prior studies have examined how patterns of these PBS relate to RSB outcomes and alcohol use.

- The current work uses a pattern-centered approach to determine how patterns of PBS use relate to overall levels of risk, with emphases placed on RSB/SAB and alcohol use, as such findings may allow for the development of personalized interventions based on PBS use.

CLASS-SPECIFIC PBS MEANS

Legend:
- Low Overall (1), 12.3%
- High Overall (2), 54.1%
- Moderate (3), 33.6%

X-axis: HEAVY EPISODIC DRINKING PBS, RISKY SEX - GENERAL PBS, SEX AGGRESSION PBS, RISKY SEX - PROTECTION PBS

Mean Outcomes by Latent Profile

Class	Sex/Week Mean(SE)	RSB-Avg. Mean(SE)	AUDIT-Sum Mean(SE)	AUDIT-C Mean(SE)
1	3.92(0.32)	2.16(0.23)	7.26(0.65)	6.06(0.31)
2	3.47(0.12)	0.66(0.09)	3.40(0.19)	4.80(0.15)
3	3.59(0.16)	1.87(0.12)	6.43(0.33)	6.84(0.19)

Equality Tests of Means

Class	Sex/Week χ^2	RSB-Avg. χ^2	AUDIT-Sum χ^2	AUDIT-C χ^2
Overall	1.63	72.43**	72.27**	61.52**
1 vs. 2	1.58	35.88**	31.45**	12.69**
1 vs. 3	0.78	1.19	1.23	4.26*
2 vs. 3	0.26	52.71**	51.60**	59.48**

$* p < .05, ** p < .01$

Model Fit

Model	BIC	Δ BIC	ENTROPY	LMR
1	11472.19	-	-	-
2	5405.78	6066.41	0.83	0.02
3	**5295.06**	**110.72**	**0.71**	**0.04**
4	5258.38	36.68	0.73	0.12
5	5235.67	22.71	0.76	0.51
6	5209.97	25.70	0.79	0.23

METHOD

- Participants (N=711) were undergraduate college men, ages 18-24, from three large state universities who completed an online study on PBS use for RSB/SAB. Surveys were completed for course credit.

- Sample was mostly White (81.7%) and Heterosexual (83.3%), 14.7% identified as Hispanic, 14.4% as Asian, 5.2% as Black or African American, 5.4% as Bisexual, 3.6% as Gay, and 2.9% as Asexual.

- Participants who reported no sexual activity or alcohol use, and those who failed attention checks or spent less than 10 minutes on the survey, were excluded from analyses.

- PBS were assessed for RSB (general and protection) and SAB based on recently developed measures currently in the process of being revised (Treat, Corbin, & Viken, 2021). PBS for heavy episodic drinking were assessed via the PBSS-20 (Treloar, Martens, & McCarthy, 2015). Drinking outcomes included AUDIT total scores and AUDIT-C scores (Bush et al., 1998; Saunders et al., 1993). RSB outcomes were assessed using scores from a general RSBS (Treat, Corbin, & Viken, 2021).

- Latent Profile Analyses were conducted using Mplus version 8.4. Past-year sexual activity and alcohol use frequency were included as covariates.

DISCUSSION

- A three-profile model was determined to provide the best theoretical and empirical fit to the data.

- Latent profiles distinguished patterns of alcohol use, frequency of sexual activity, and engagement in RSB.

- Participants who reported higher overall PBS were less likely to engage in risky sex or heavy drinking, and less likely to experience alcohol-related problems, compared to the other two profiles.

- Participants in the moderate PBS profile consumed less alcohol than those in the low PBS profile, but they did not significantly differ in sex frequency, general RSB, or other drinking outcomes.

- Results suggest that prevention efforts, such as normative feedback interventions, targeting overall PBS use may have potential to reduce overall risk. Further, future interventions that focus on increasing PBS use in one domain might lead to PBS increases in other domains.

- Future studies should examine characteristics of PBS use profiles to facilitate the development of personalized prevention and intervention efforts.

REFERENCES