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A Daily Diary Study of Positive Experiences and Alcohol Use Among Non-Abstaining Adults Aged 50+ Years

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Abstract

Objective: To evaluate the covariation of daily positive experiences and alcohol use among a national sample of adults aged 50+ years.

Methods: Participants (N = 1,035; M_{age} = 61.62; range = 50–83) were non-abstaining adults aged 50+ years who participated in an 8-day diary project in the National Study of Daily Experiences.

Results: Multilevel regression analyses revealed that alcohol use was more likely on days with greater positive affect (*OR* = 1.32, 95% *CI* [1.12, 1.56]) and any positive events (*OR* = 1.25; 95% CI [1.05, 1.48]). When adjusting for positive affect, positive event exposure was not associated with likelihood of alcohol use. Neither positive affect nor positive event exposure significantly predicted drinking level. However, an age moderation effect emerged (b = −0.01; SE = 0.004; p = .02), showing that older age attenuated the association between positive event exposure and drinking level.

Discussion: Consistent with patterns observed in younger adults, positive experiences and alcohol use often occur on the same days among adults aged 50+ years.

Keywords

alcohol, daily assessment, daily positive experiences, older adults

Introduction

Alcohol consumption, particularly heavy drinking, is linked to substantial morbidity and mortality among older adults (Barry & Blow, 2016). While enduring risk factors shape overall patterns of alcohol use, proximal daily factors, such as anxiety and stressor exposure, can contribute to elevated likelihood of drinking or drinking more than usual on a given day (Vengeliene et al., 2020). For older adults especially, any given drinking occasion carries acute behavioral and health risks, such as fall injuries (Chen & Yoon, 2017) and medication interactions (Moore et al., 2007). Hence, characterizing daily factors contributing to alcohol use variability among older adults can inform efforts to mitigate alcohol-related harm. Previous work has identified that daily positive experiences, including positive affect and positive events (Sin & Almeida, 2018), are separately associated with greater alcohol consumption among younger and middle-aged adults (Carney et al., 2000; Tovmasyan, Monk, Sawicka, & Heim, 2022), but there is limited research examining these processes together in later life. Hence, the current study evaluates whether adults aged 50 years and older are more likely to drink, and to consume more alcohol per occasion, on days with elevated positive affect or the occurrence of positive events.

Positive Affect

Positive affect—a psychological state encompassing feelings of enthusiasm, activity, and alertness (Watson et al., 1988)—is consistently related to greater likelihood and level of alcohol consumption at the daily level (Dora et al., 2022; Tovmasyan et al., 2022a, 2022b). In short, feeling good and drinking alcohol often happen on the same days. Several theories conceptualize affect regulation as a primary motive

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for alcohol use, suggesting that individuals drink to enhance their current positive affect or alleviate their current negative affect (Cooper et al., 2016; Cox & Klinger, 1988). Another explanation for this co-occurrence is that drinking often occurs during shared social activities of celebration that may be experienced positively (Bareham et al., 2019).

Yet, limited existing literature has focused on late middle-aged or older adults (i.e., ages 50 years and older), and evidence that positive affect and alcohol use are linked in the lives of younger adults cannot be generalized to older populations. There are age-related differences in alcohol use patterns: Older adults typically drink more frequently but in smaller quantities than younger adults (Britton et al., 2015). Older adults also endorse different reasons for their alcohol use, such as drinking for habit or perceived health benefits (Fernandez et al., 2021; Immonen et al., 2011; Kelly et al., 2018), and some daily factors linked to alcohol consumption (e.g., boredom, sleep quality, and daily stressors) vary by age (Kuerbis et al., 2018; Miller et al., 2025). Thus, extending the positive affect-alcohol use literature to older adults can deepen understanding of daily factors linked to alcohol consumption in older adulthood.

Positive Events

Importantly, the socio-ecological perspective asserts that variability in drinking behavior is influenced not only by individual internal states, such as positive affect, but also by situational factors outside the person (Stanesby et al., 2019). One notable situational factor, daily positive events (e.g., quality conversation and going for a walk), refers to commonly occurring experiences that are external to one's psychological state (Zautra et al., 2005). Similar to positive affect, moderate-to-heavy drinking adults are more likely to drink alcohol, and to consume it in greater quantities, on days with positive events (Carney et al., 2000; Mereish et al., 2018; Mohr et al., 2001), but it is unclear whether this patterns extends to light drinkers and to alcohol use in older adulthood.

In addition, it remains uncertain whether positive events independently contribute to alcohol consumption beyond their association with positive affect. Since positive event exposure is correlated with positive affect (Zautra et al., 2005), positive events may relate to alcohol use by coinciding with or amplifying positive affect. On the other hand, other situational, interpersonal, and environmental factors surrounding the positive event may also shape drinking behavior. Further examination of the relationship between daily positive events and alcohol consumption, adjusting for daily positive affect, is thus warranted.

Age Moderation

Finally, age may play an important role in shaping these relationships. Among older adults, drinking motives related to improving one's positive mood directly through the biochemical effects of alcohol (i.e., enhancement motives) or indirectly through social functions (i.e., social motives) are more highly endorsed than drinking to alleviate negative affect (i.e., coping motives) (Gilson et al., 2013). Consistent with this pattern, alcohol use in older adulthood is often embedded in social activities and is a valued source of connection and enjoyment in daily life (Kelly et al., 2018). On the other hand, there is also age-related variability in drinking motivation, as some drinking reasons related to affect regulation, such as drinking "Because it's exciting" and "To get high," are infrequently endorsed by older drinkers (Crutzen & Kuntsche, 2013; Gilson et al., 2013). Moreover, age-related shifts in social roles and contexts, including retirement, selective narrowing of social networks (Rook & Charles, 2017), and an increased prevalence of solitary drinking (Skrzynski & Creswell, 2021), may influence drinking correlates and opportunities for drinking. Collectively, these differences suggest that, as adults age, positive experiences in particular may become less linked with alcohol use as other motivating factors gain importance.

Current Study

The current study utilizes daily diary methodology to evaluate short-term fluctuations of daily positive experiences and alcohol use. Daily diaries survey participants once per day across consecutive days in their own everyday environments, thus enhancing ecological validity (Shiffman et al., 2008). The methodology also reduces retrospective recall by only asking participants to recall events from the past 24 hours (Neupert & Bellingtier, 2018). Perhaps most importantly, daily diary designs enable disentangling within-person variability (e.g., *"Are days with positive events linked with greater alcohol use?"*) and between-person variability (e.g., *"Do people who recall more positive events also report greater alcohol use?"*). This within-person approach uses individuals as their own controls within analyses, thus providing confidence that within-person relationships are not confounded by between-person characteristics.

The current study has four primary aims. Among a national sample of adults aged 50 years and older, the first aim is to evaluate within-person associations between positive affect and alcohol consumption (any alcohol use, number of drinks consumed). The second aim is to assess if daily positive event exposure is linked with greater alcohol consumption. The third aim is to examine the unique effects of daily positive events on alcohol consumption while adjusting for daily positive affect. Finally, the last aim is to evaluate whether associations between daily positive experiences and alcohol use are attenuated by advancing age.

Method

Sample and Procedures

The National Study of Daily Experiences (NSDE) is a series of telephone diary studies asking U.S. adults about their daily behaviors and experiences. For eight consecutive evenings, respondents completed short telephone interviews asking about their positive experiences and alcohol use in the prior 24 hours. Data from the NSDE II (N = 2,022; 2004–2009) and NSDE Refresher (N = 782; 2012–2014) diary projects were merged for this analysis (N = 2,804). Abstainers were excluded because their alcohol consumption is time invariant (i.e., consistently zero), so they provide no within-person variability in the outcome. Accordingly, the final analytic sample (N = 1,035) included participants aged 50+ years (N = 1,701) who reported any alcohol use during the 8-day diary period or the prior 30 days (N = 1,035; 61%). These participants were more likely to be White (X^2 (1,2794) = 32.30; $p < .001$), male (X^2 (1,2804) = 8.37; $p < .01$), and have more education (t (2798) = 2.81; $p < .01$) than excluded participants. Ninety-seven percent of participants completed all 8 interview days (M = 7.93 days, range = 1–8), resulting in 8,212 interviews.

Measures

Alcohol Use. The number of drinks was measured daily using a single item asking, "Counting a drink as a bottle of beer, a glass of wine, or shot of liquor, how many drinks did you have since (this time/we spoke) yesterday?". To reduce the influence of extreme values, winsorization was performed by replacing two extreme outlier days (52 and 56 drinks) with the next highest observed value (20 drinks; Wilcox, 2012). Any alcohol use reflected if any drinks were reported that day (1 = Yes; 0 = No).

Positive Affect. Positive affect was self-reported daily using 13 items from the Non-Specific Psychological Distress and Positive Emotions Scale (Kessler et al., 2002). Participants were asked: "How much of the time today did you feel…in good spirits, cheerful, extremely happy, calm and peaceful, satisfied, full of life, close to others, like you belong, enthusiastic, attentive, proud, active, and confident?" (0 = None of the time to 4 = All of the time). Daily positive affect was calculated by taking the average of the 13 items (range = 0–4; α = 0.94).

Positive Events. Positive events assessed daily experiences of five positive events since (this time/we spoke) yesterday: (1) positive interaction, (2) positive work/volunteer event, (3) positive home event, (4) positive event to friend/relative, and (5) other positive event (Sin & Almeida, 2018). Positive event exposure reflected if any of the five events occurred that day (1 = Yes; 0 = No).

Age Moderating Variable. Age was continuous (range = 50–83 years).

Covariates. Sociodemographic covariates included age, biological sex (1 = Male, 0 = Female), *race* (1 = White; 0 = Others), and marital status (1 = Married/cohabitating; 0 = Not married/cohabitating). Participants reported their highest level of education (1 = No school/some grade school to 12 = Advanced/Professional degree), which was converted into continuous years of education (e.g., high school diploma = 12 years). Further, given that alcohol consumption is typically greater on weekend days than weekdays (Arfken, 1988), weekend was included as a Level 1 time-varying covariate (1 = Friday–Sunday; 0 = Monday–Thursday).

Statistical Analysis

A series of multilevel models were implemented using SAS Proc Glimmix. Here, Level 1 consisted of the daily variables (positive affect, positive events, weekend, and alcohol use) nested within Level 2 between-person variables (age, covariates other than weekend). Within-person positive affect was person-mean centered to reflect daily deviations from individuals' own mean level of positive affect. Furthermore, individuals' person means across the 8 study days were included as Level 2 predictors to reflect differences between people in average levels of the Level 1 predictors. For models predicting any alcohol use, we use all study days (N = 8,212 days), while we focus on drinking days for models predicting number of drinks (n = 3,126 days).

For Aim 1, we first fit a multilevel logistic regression model to evaluate the association between positive affect and likelihood of alcohol use:

$$\begin{aligned}\text{Level 1}: \text{Logit}(\text{Odds of Alcohol Use})_{ij} &= \beta_{0j} + \beta_{1j}(\text{Within} - \text{Person Positive Affect})_{ij} \\ &\quad + \beta_{2j}(\text{Weekend})_{ij}\end{aligned}$$

$$\begin{aligned}\text{Level 2}: \beta_{0j} &= \gamma_{00} + \gamma_{01}(\text{Age})_j + \gamma_{02}(\text{Sex})_j \\ &\quad + \gamma_{03}(\text{Race})_j + \gamma_{04}(\text{Education})_j \\ &\quad + \gamma_{05}(\text{Marital Status})_j \\ &\quad + \gamma_{06}(\text{Between} - \text{Person Positive Affect})_j \\ &\quad + U_{0j}\end{aligned}$$

$$\beta_{1j} = \gamma_{10} + U_{1j}$$

$$\beta_{2j} = \gamma_{20}$$

In this model, person j's likelihood of alcohol use on a given day (i) is a function of their positive affect that day (γ_{10}), the day of the week (γ_{20}), average positive affect across the 8-day study period (γ_{06}), and the Level

2 covariates. Random effects for the intercept (U_{0j}) and daily positive affect (U_{1j}) were also included to allow for variability between individuals in alcohol use (intercept) and the effect of positive affect on alcohol use (positive affect slope). We then tested associations between positive affect and number of drinks on drinking days. Given that the number of drinks is a count variable, we modelled a multilevel Poisson distribution with a log link specification and an unstructured variance-covariance matrix. For ease of interpretability, regression coefficients were exponentiated to yield odds ratios and incident rate ratios.

Similarly, for Aim 2, we evaluated associations between positive event exposure and alcohol consumption. For Aim 3, we tested associations between positive events and alcohol consumption while adjusting for within- and between-person positive affect. Finally, for Aim 4, we tested cross-level interactions between the predictor variables and age in predicting alcohol consumption. Simple slopes analysis and regions of significance testing using the Johnson-Neyman technique were conducted to probe significant interactions (Johnson & Neyman, 1936). Random effects for the intercept were included in each model. Likelihood ratio tests were performed to test whether model fit improved with inclusion of random slopes (U_{1j}); however, the random slopes were not included in the final analytic models because of poor model fit.

Results

Demographics and Descriptives

Descriptive information on the study variables is summarized in Table 1. Participants were on average aged 61.6 years (SD = 8.27), 47% were male, 72% were married/cohabitating, and 90% were White. Alcohol use was reported on 42% of study days, while daily positive events occurred on 75% of study days. Positive events and alcohol use co-occurred on 32% of study days (n = 2,398 days).

Positive Affect (Aim 1)

Table 2 summarizes associations between positive affect and drinking likelihood (Model 1) and number of drinks (Model 2). Both models included day of the week and six between-person covariates. Alcohol use was 39% more likely to occur on weekend days than weekdays (OR = 1.39, 95% CI [1.24, 1.57], $p < .001$). Additionally, individuals consumed 17% more drinks on weekend drinking days compared to weekday drinking days (IRR = 1.17, 95% CI [1.11, 1.23], $p < .001$). Regarding positive affect, every unit increase in positive affect was associated with 32% greater likelihood of drinking alcohol that day (Model 1; OR = 1.32, 95% CI [1.12, 1.56], $p < .001$). In contrast, within-person fluctuations in positive affect were not associated with number of drinks consumed on drinking days (Model 2; IRR = 1.01; 95% CI [0.94, 1.09]).

Positive Event Exposure (Aim 2)

Table 3 reports the associations between daily positive event exposure and alcohol use, adjusting for day of the week and between-person covariates. For drinking likelihood (Model 3), alcohol use was 25% more likely to occur on days with versus without any positive events (OR = 1.25; 95% CI [1.05, 1.48], p = .012). Yet, number of drinks did not differ across drinking days with versus without any positive events (Model 4; IRR = 1.06; 95% CI [0.98, 1.14]).

Positive Affect and Positive Events (Aim 3)

Table 4 summarizes associations between daily positive affect, daily positive events, and alcohol use, adjusting for day of the week and between-person covariates. On days without any positive events, every unit increase in daily positive affect was associated with 30% greater likelihood of any alcohol use (Model 5; OR = 1.30, 95% CI [1.11, 1.54], p = .002), but was not linked with number of drinks consumed (Model 6; IRR = 1.01, 95% CI [0.93, 1.08]). On days with usual levels of positive affect, experiencing any positive events was not independently

Table 1. Demographics and Descriptive Statistics of Study Variables (N = 1,035)

Variable	M (SD) or n (%)	Range
Age, M (SD)	61.62 (8.27)	50–83
Male, n (%)	484 (47%)	0, 1
White, n (%)	924 (90%)	0, 1
Years of education, M (SD)	14.82 (2.58)	6–20
Married or cohabitating, n (%)	748 (72%)	0, 1
Average number of drinking days, M (SD)	3.02 (2.80)	0–8
Average number of drinks on drinking days, M (SD)	2.09 (1.65)	1–20
Average daily positive affect, M (SD)	2.79 (0.68)	0.14–4
Average number of positive event days, M (SD)	5.64 (2.14)	0–8

Table 2. Multilevel Logistic and Poisson Regression Models Predicting Any Alcohol Use and Number of Drinks from Positive Affect

	Model 1: Any alcohol use			Model 2: Number of drinks[a]		
Parameter	*OR*	*95% CI*	*p*-value	*IRR*	*95% CI*	*p*-value
Level 1						
Within-person positive affect	1.32	1.12, 1.56	<.001	1.01	0.94, 1.09	.78
Weekend	1.39	1.24, 1.57	<.001	1.17	1.11, 1.23	<.001
Level 2						
Age	1.02	1.00, 1.03	.065	0.99	0.98, 0.99	<.001
Male	2.03	1.57, 2.62	<.001	1.22	1.12, 1.32	<.001
White	0.98	0.64, 1.50	.92	1.00	0.88, 1.15	.94
Years of education	1.06	1.00, 1.11	.039	0.96	0.95, 0.98	<.001
Married or cohabitating	1.33	0.99, 1.80	.056	0.91	0.82, 1.00	.052
Between-person positive affect	0.98	0.81, 1.18	.79	0.97	0.91, 1.03	.28
Random effect						
Level 2-intercept		3.07 (0.20)			0.16 (0.01)	
−2LL		—			8832.75	

OR = odds ratio; *IRR* = incidence rate ratio; *CI* = confidence interval; *LL* = log-likelihood.
[a]Models calculated using n = 3,126 drinking days.

related to drinking likelihood (Model 5; *OR* = 1.17, 95% *CI* [0.98, 1.39]) or number of drinks consumed (Model 6; *IRR* = 1.06, 95% *CI* [0.98, 1.14]).

Age Moderation (Aim 4)

As shown in Table 5, continuous age moderated the association between positive event exposure and number of drinks (b = −0.01; SE = 0.004; p = .015). Simple slopes analysis revealed that positive event exposure was positively associated with number of drinks consumed for younger individuals (−1*SD*; 53 years; b = 0.13, SE = 0.05; p = .009), while associations were non-significant for average-aged (62 years; b = 0.06, SE = 0.04) and older individuals (+1*SD*; 69 years; b = −0.01, SE = 0.05). Regions of significance testing further specified that the association was only significant among adults aged less than 60 years. Associations between positive experiences and alcohol consumption in the other three models were age-invariant (*ps* > .05).

Discussion

The current study assessed within-person daily associations between positive experiences and alcohol consumption among a U.S. national sample of adults aged 50+ years. Days

Table 3. Multilevel Logistic and Poisson Regression Models Predicting Any Alcohol Use and Number of Drinks from Positive Event Exposure

	Model 3: Any alcohol use			Model 4: Number of drinks[a]		
Parameter	*OR*	*95% CI*	*p*-value	*IRR*	*95% CI*	*p*-value
Level 1						
Within-person positive event exposure	1.25	1.05, 1.48	.012	1.06	0.98, 1.14	.15
Weekend	1.40	1.25, 1.58	<.001	1.17	1.11, 1.23	<.001
Level 2						
Age	1.01	0.99, 1.03	.068	0.99	0.99, 0.99	<.001
Male	2.07	1.59, 2.68	<.001	1.21	1.12, 1.32	<.001
White	0.98	0.64, 1.51	.94	1.01	0.88, 1.16	.88
Years of education	1.05	1.00, 1.11	.064	0.96	0.95, 0.98	<.001
Married or cohabitating	1.31	0.98, 1.76	.067	0.90	0.82, 0.99	.030
Between-person positive event exposure	0.99	0.58, 1.70	.98	0.92	0.79, 1.08	.30
Random effect						
Level 2-intercept		3.05 (0.20)			0.16 (0.01)	
−2*LL*		—			8840.09	

OR = odds ratio; *IRR* = incidence rate ratio; *CI* = confidence interval; *LL* = log-likelihood.
[a]Models calculated using n = 3,126 drinking days.

Table 4. Multilevel Regression Models Predicting Any Alcohol Use and Number of Drinks from Positive Affect and Positive Event Exposure

	Model 5: Any alcohol use			Model 6: Number of drinks[a]		
Parameter	*OR*	*95% CI*	*p*-value	*IRR*	*95% CI*	*p*-value
Level 1						
Within-person positive affect	1.30	1.11, 1.54	.0017	1.01	0.93, 1.08	.85
Within-person positive event exposure	1.17	0.98, 1.39	.077	1.06	0.98, 1.14	.16
Weekend	1.40	1.24, 1.58	<.001	1.17	1.11, 1.23	<.001
Level 2						
Age	1.01	1.00, 1.03	.072	0.99	0.99, 1.00	<.001
Male	2.07	1.59, 2.68	<.001	1.22	1.12, 1.32	<.001
White	0.98	0.64, 1.50	.91	1.01	0.88, 1.15	.94
Years of education	1.05	1.00, 1.11	.071	0.96	0.95, 0.98	<.001
Married or cohabitating	1.33	0.99, 1.79	.060	0.91	0.82, 1.00	.050
Between-person positive affect	0.97	0.80, 1.17	.73	0.97	0.91, 1.03	.29
Between-person positive event exposure	1.07	0.62, 1.84	.81	0.93	0.80, 1.09	.40
Random effect						
Level 2-intercept		3.08 (0.20)			0.16 (0.01)	
−2LL		—			8830.98	

OR = odds ratio; *IRR* = incidence rate ratio; *CI* = confidence interval. *LL* = log-likelihood.
[a]Models calculated using *n* = 3,126 drinking days.

characterized by elevated positive affect or any positive events were more likely to also involve alcohol consumption. None of the positive experiences were related to how much people drank on days they consumed alcohol. However, a significant age moderation effect emerged: positive event exposure was only associated with having more drinks among adults younger than 60.

Affect regulation models of alcohol use propose that people drink to enhance their mood (Cooper et al., 2016; Cox & Klinger, 1988). Accordingly, our finding that adults aged 50+ years were more likely to drink alcohol on days they experience higher positive affect is consistent with Cooper's model, as well as with recent meta-analyses focused on younger and middle-aged adults (Dora et al., 2022; Tovmasyan, Monk, Sawicka, & Heim, 2022). On the other hand, for those aged 60 and above, neither positive affect nor positive events were associated with the number of drinks people consumed on drinking occasions in either the primary analyses or the moderation analyses. Individuals in this study averaged 2.09 drinks per occasion, which aligns with typical drinking levels observed among other samples of older adults (e.g., Han et al., 2017), but is approximately 50% lower than the average drinking levels reported in prior studies of positive affect and alcohol use among younger adults (e.g., 4 drinks on average; Dora et al., 2022). In general, older adults drink more frequently but in smaller quantities than younger adults (Britton et al., 2015). This limited variability in drinking level among older drinkers may relate to more habitual patterns of drinking in later life (Burruss et al., 2015) and preclude a meaningful relationship between positive experiences and drinking level in particular. Alternatively, other daily factors may play a more significant role in shaping how many drinks are consumed for middle-aged and older adults. For example, participants were ∼40% more likely to drink on the weekend than on weekdays and consumed 17% more drinks on weekend than weekday drinking days. Hence, day of the week is an important contextual factor when assessing alcohol use among adults aged 50+ years, and future

Table 5. Multilevel Model Estimates of Positive Experience-Age Interactions Predicting Any Alcohol Use and Number of Drinks

Models	Estimate	*SE*	*t*-value	*p*-value
Any alcohol use				
Age*within-person positive affect	−0.01	0.01	−0.99	.32
Age*within-person positive event exposure	0.003	0.01	0.35	.73
Number of drinks[a]				
Age*within-person positive affect	−0.004	0.004	−0.93	.35
Age*within-person positive event exposure	−0.01	0.004	−2.44	.015

SE = standard error. Covariates included in all models. Age was continuous and mean centered (*M* = 61.6 years).
[a]Models calculated using *n* = 3,126 drinking days.

studies should explore how other daily factors (e.g., family gatherings and boredom) relate to drinking level among older adults.

Consistent with prior research on moderate-to-heavy drinking adults (Carney et al., 2000; Mohr et al., 2001), days with positive events were more likely to also include alcohol use, even after controlling for day of the week, among this sample of relatively light drinking middle-aged and older adults. Days with positive events may provide more opportunities for drinking, such as by involving alcohol use, occurring in environments with greater alcohol availability (e.g., bars), and having permissive social norms around drinking (e.g., weddings). Future studies should differentiate positive events based on context (social and solitary), frequency (e.g., special occasion), drinking norms, and alcohol availability, to better characterize how different types of positive events influence alcohol use within the daily context. On the other hand, the association between positive event exposure and likelihood of alcohol use was no longer significant after adjusting for positive affect, which suggests that experiencing positive events may only relate to drinking behavior if the event enhances or coincides with elevated mood. Future studies with multiple assessments per day can formally investigate the role of positive affect in linking positive event exposure to alcohol use, such as with mediation analysis.

Associations between most daily positive experiences and alcohol use were age-invariant, suggesting that the linkage of daily positive experiences and alcohol use persists into later life. This finding aligns with limited but consistent research suggesting that alcohol use among older adults is largely motivated by positive reinforcement motives, including desires for enjoyment, fun, and social connection (Gilson et al., 2013; Immonen et al., 2011; Kelly et al., 2018). The Socioemotional Selectivity Theory posits that as perceived time horizons shorten with age, adults prioritize activities that are emotionally meaningful and enjoyable in the present over future-oriented goals and activities (Carstensen et al., 1999). Thus, for some older adults, the enjoyment of drinking on days with positive experiences may be perceived as more meaningful in the present than the long-term health benefits of abstaining from alcohol use. Consistent with this interpretation, qualitative research identified barriers to alcohol cessation among older adults related to fears of losing an enjoyable part of their lives and it being more difficult to enjoy socializing without drinking (Kelly et al., 2018). Together, these findings underscore an important consideration for intervention design: efforts to reduce alcohol consumption among the aging population should avoid unintended iatrogenic consequences on social connection or the enrichment of positive experiences.

Finally, while most of the study findings were age-invariant, one exception was that age significantly moderated the association between positive event exposure and number of drinks consumed. Specifically, only participants younger than 60 years consumed more drinks on drinking days with any positive events relative to drinking days without any positive events. It may be that the characteristics and contexts of positive events shift with aging: younger older adults may be more likely to encounter positive events characterized by greater alcohol availability or more permissive drinking norms (e.g., work parties). Then again, the apparent age-related weakening of associations between positive events and drinking level could also be linked to overall reductions in drinking levels with aging (Britton et al., 2015). Future studies should replicate this finding and clarify the role of age in links between daily positive experiences and alcohol use.

Limitations and Strengths

The current study has limitations. Participants only reported their positive experiences and alcohol use once per day in the evening, which precludes determining their precise timing and the directionality of the associations. As a result, it is unknown whether daily positive experiences preceded alcohol use, or whether alcohol use contributed to daily positive experiences for some individuals. The current study can thus only capture whether positive experiences and alcohol use occurred on the same day. Future studies should assess these experiences multiple times per day, such as using Ecological Momentary Assessment, to better capture the timing of experiences throughout the day. In addition, while the 8-day study design has many strengths, it includes only one full weekend and may not reflect infrequent episodes of heavy alcohol use. Future studies should assess these associations across longer durations. The NSDE sample is also predominantly White, so findings may not be generalizable to other populations. Finally, responses may have been limited by social desirability biases, with participants under-reporting their alcohol use.

There are also several important strengths, including being among the first studies to assess the daily covariation of positive experiences and alcohol use among a large U.S. national sample of adults aged 50+ years. In addition, daily diary methodology allowed for disentangling within- from between-person variability, which highlighted that associations between positive experiences and alcohol use are not explained by other stable, between-person characteristics. Instead, findings suggest a linkage between fluctuations in daily positive experiences and the likelihood of drinking on a given day, which may elevate the risk of alcohol-related consequences on that occasion (e.g., fall risk, medication interactions).

Conclusion

The current study utilized daily diary methodology to evaluate the within-person covariation between daily positive experiences and alcohol use in a sample of middle-aged and older adults. Study findings indicated that days characterized

by higher-than-usual positive affect and days with any positive events were linked with greater likelihood of same-day alcohol use. These findings highlight that days with alcohol consumption in later life often also include daily positive experiences. While health guidelines increasingly recommend reduction or cessation of alcohol consumption (Anderson et al., 2023), interventions aimed at reducing alcohol-related harm in later life should avoid indirectly undermining the opportunities for social connection and enjoyment that can accompany drinking occasions (Kelly et al., 2018). Instead, harm-reduction approaches can promote alternative strategies and opportunities for mood enhancement, socializing, and celebration.

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Ethical Considerations

All procedures were approved by the Institutional Review Boards of the University of Wisconsin-Madison (IRB Protocol Number: 2016-1051) and Pennsylvania State University (IRB Protocol Number: PRAMS00042558).

Author Contributions

Sara E. Miller: conceptualization, formal analysis, and writing-original draft; Jennifer L. Maggs: conceptualization, writing-original draft, and writing-review and editing; and David M. Almeida: conceptualization, funding acquisition, resources, and writing-review and editing.

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The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data Availability Statement

De-identified data from this study are available in a public archive. The MIDUS study procedure and data documentation are publicly available at https://doi.org/10.3886/ICPSR04652.v8 and https://doi.org/10.3886/ICPSR26841.v2 (Ryff et al., 2021; Ryff & Almeida, 2017).

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