

Determining the Temporal Direction of Psychological Distress and Substance Use in Female Expatriate Spouses in Turkey



Lauren Hirsch, B.S., Thomas Pankau, B.A., & Lynette Bikos, Ph.D.
Seattle Pacific University, WA

Introduction

- American expatriates have experienced internalizing disorders, such as depression, and externalizing disorders, such as substance abuse, at greater rates than their stateside counterparts (Truman, 2012).
- A contributing factor could be *acculturative stress* -- "the psychological impact on the process of cultural adaptation" (Lueck & Wilson, 2011, p. 187)
- Expatriate spouses may face unique stressors such as leaving a career (Bikos & Kocheleva, 2013; Mohr & Klein, 2004) and studies focusing on expatriate spouses (e.g., Cho, Lee, & Jezewski, 2005; Weise, 2013) have reported increased risk of psychological issues such as depression, insomnia, isolation, and marital distress.
- Because alcohol consumption and psychological distress frequently covary and may be reciprocal (Schutte, Hearst, & Moos, 1997), it can be a challenge for researchers to determine which variable precedes the other. The tendency for psychological distress to precede alcohol use, particularly among women, has been suggested by a number of researchers (Abulseoud et al., 2013; Moscato et al., 1997; Mushquash et al., 2013; Schutte et al., 1997; Tschann et al., 1994).

Current Study

- Prospective analyses compared the direction of the temporal relationship between alcohol use and psychological distress in a sample of female expatriate spouses during the first year of their assignment in Turkey.
- We expected to see psychological distress positively predicting alcohol consumption over time, and for the reverse relationship to be weaker or not exist at all.

Participants and Procedures

Participants

- Female expatriate spouses ($N = 32$) during their first year of assignment in Ankara, Turkey.
- Inclusion criteria included (a) women must have held a U.S. passport and (b) the women could be employed; however, their husband's position must have been the primary reason they moved to Turkey.
- Age ranged between 30 and 50 years ($M = 38.63$, $SD = 2.65$)
- Ethnicity: 82% European American, 6% Hispanic, 3% African American, and 3% as Asian American.
- 66% were in Turkey because of their husband's work with the U.S. government.

Measures

- Participants were administered up to 5 survey packets total. These were administered at just-arrived, 3-, 6-, 9-, and 12-month stages.
- Data was collected by the third author in person using paper-and-pencil measures.
- Measures used:
 - Mental Health Inventory (MHI)** (Stewart & Ware, 1998; Veit & Ware, 1983): Used to measure mental health functioning through concepts of psychological distress and well-being. Scores range from 1 to 6 (low to high distress).
 - Assessment of Alcohol Use** (Conrod, Stewart, & Pihl, 1997; Stewart, Peterson, & Pihl, 1995): Alcohol use was calculated as a product of the number of drinks per occasion and number of occasions per week.

Analysis

Data were prepared via multiple imputation and analyzed using hierarchical linear modeling. We compared the results of two, cross-lagged analyses (with the dependent variable in a lead-1 role) in order to better understand the direction of the temporal relationship between alcohol use and distress.

Cross-lag analysis predicting alcohol use one month later

In the first analysis, current alcohol use, current psychological distress, and aggregated psychological distress (over all waves; grand mean centered) were used to predict alcohol use one month later.

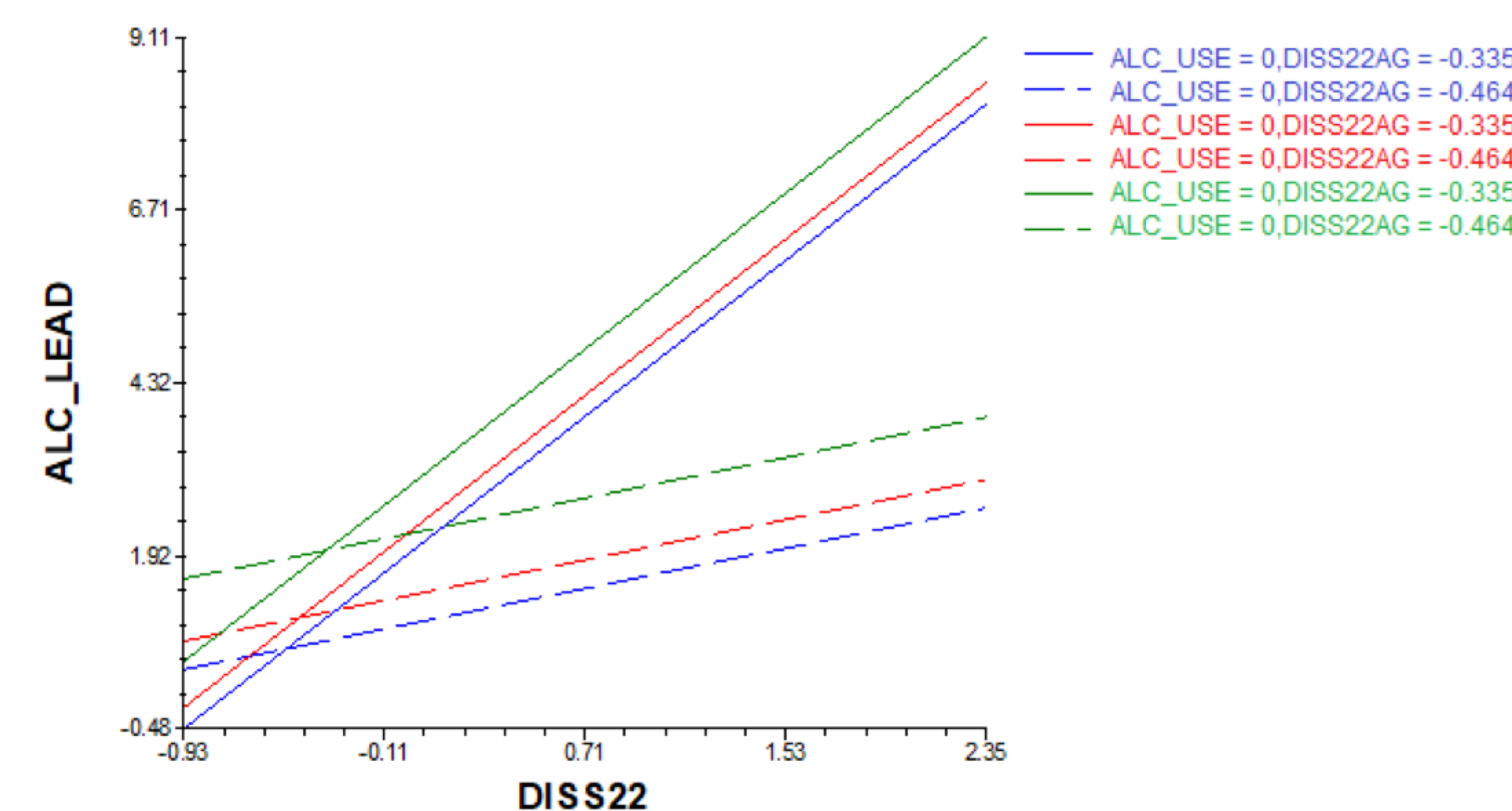
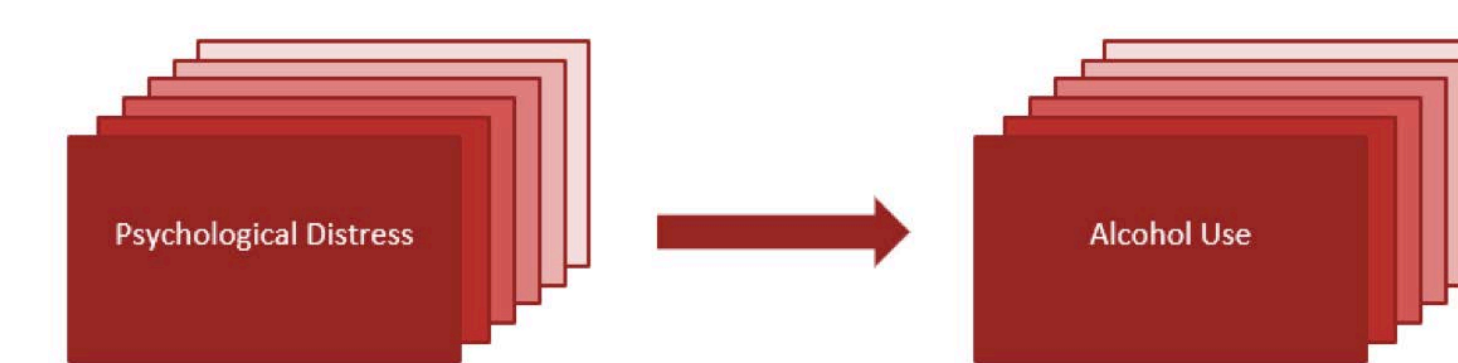


Table 1
Alcohol Use and Aggregated Distress

Fixed Effect	Coefficient	SE	p-value
For INTRCPT1, π_0			
INTRCPT2, β_{00}	1.553 †	0.565	0.010
DIS22AG, β_{01}	-1.245	1.157	0.291
For DIS22 slope, π_1			
INTRCPT2, β_{10}	1.823	1.197	0.138
DIS22AG, β_{11}	-2.452	2.262	0.287
For ALC_USE slope, π_2			
INTRCPT2, β_{20}	0.053***	0.099	<.001
DIS22AG, β_{21}	0.203	0.196	0.308

Note. *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$
ALCUSE = Alcohol Use; DIS22 = Distress subscale; DIS22AG = Distress subscale aggregate

- The ICC for the empty model predicting one-month lead alcohol use was 0.428. This suggests that 42.8% of the variance associated is between-subjects variance and 57.2% is within-subjects variance.
- The average one-month lead alcohol use score (across all participants and all waves) was 1.6. For every 1-point increase in current alcohol use, participants reported one-month lead alcohol use increased by .05 points.
- Although strong beta weights suggested that overall distress and current distress had strong effects on one-month lead alcohol use, these values were not significant. Closer inspection shows standard error values that were nearly as large as the coefficients, themselves.
- The relationship between distress and future alcohol use was strongest for those with the lowest overall distress. That is, among those individuals who had the least distress, increases in alcohol use and increases in distress predicted alcohol use the following month.

Limitations

- Small sample size; study may not be adequately powered to detect effects.
- Excludes male expatriate spouses and thus nothing is known about their experiences.
- Sample is disproportionately Caucasian.

Cross-lag analysis predicting psychological distress one month later

In the second analysis, current alcohol use, current psychological distress, and aggregated alcohol use (over all waves; grand mean centered) were used to predict psychological distress use one month later.

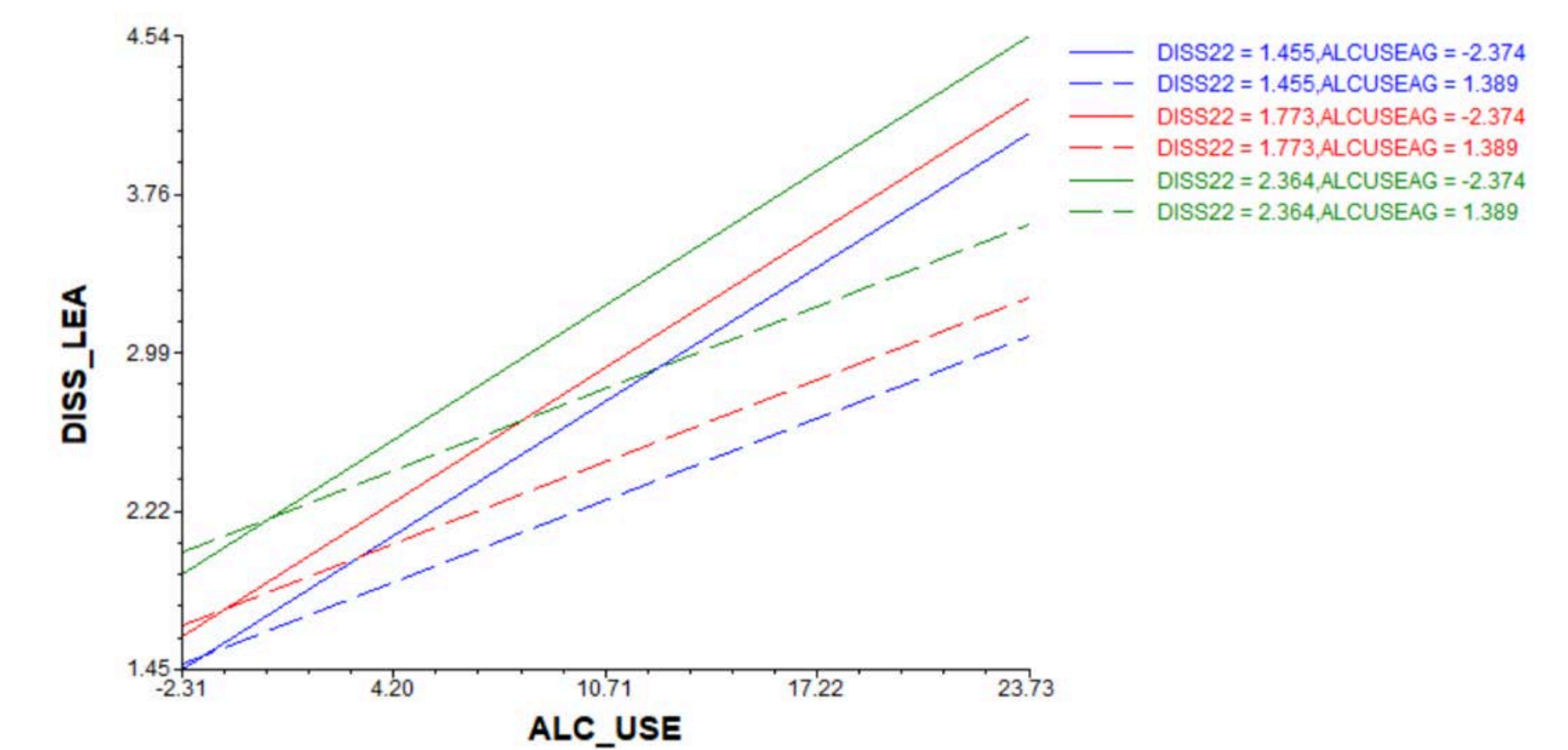
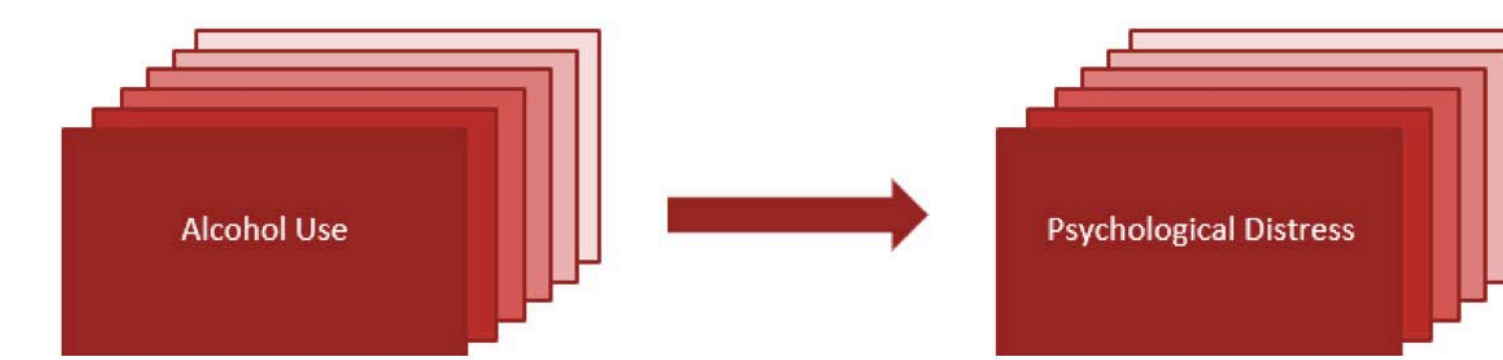


Table 2
Distress and Aggregated Alcohol Use

Fixed Effect	Coefficient	SE	p-value
For INTRCPT1, π_0			
INTRCPT2, β_{00}	0.818***	0.165	<.001
ALCUSEAG, β_{01}	-0.051	0.054	0.347
For DIS22 slope, π_1			
INTRCPT2, β_{10}	0.568***	0.080	<.001
ALCUSEAG, β_{11}	0.023	0.026	0.377
For ALC_USE slope, π_2			
INTRCPT2, β_{20}	0.076 †	0.045	0.106
ALCUSEAG, β_{21}	-0.010	0.006	0.119

- Note. *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$
ALCUSE = Alcohol use; ALCUSEAG = Alcohol use aggregate; DIS22 = Distress subscale.
- The ICC for the empty model predicting one-month lead psychological distress was 0.512. This suggests that 51.2% of the variance associated is between-subjects variance and 48.8% is within-subjects variance.
 - The average one-month lead psychological distress score was .82. For every 1-point increase in current distress, participants reported one-month lead distress increased by .57 points. Further, within-persons current alcohol use increased one-month lead distress by .08 points; this was tempered a bit for those whose overall alcohol use was heavier.
 - The relationship between alcohol use and future distress was strongest for those with the lowest overall alcohol use. That is, among those individuals who drank the least, increases in alcohol use and increases in distress predicted distress the following month.
 - The highest one-month lead psychological distress was observed for those with the lowest overall alcohol use, with a current use of alcohol that is higher than normal, and who is reporting higher levels of current psychological distress.

Future Research

- Analyze a sample with more gender and ethnic diversity.
- Analyze the process of acculturation across different nationalities and in different countries/cultures.

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