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College-based Social and Situational Predictors of Real-Time Prescription Drug Misuse in Daily Life

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Abstract

Background: This study examined social and situational context predictors of prescription drug misuse among college-students at a large public university in the Midwest. Social and situational context predictors considered were hour of the day, weekend vs weekday, whether participants were at home or another place, and who they were with during instances of misuse. Salient social events, including home football games, city-regulated parties, and the 2019 Midwest polar vortex were also recorded.

Method: Using ecological momentary assessment methodology, 297 students completed momentary reports for 28 days. Participants indicated whether they had misused prescription medication (sedatives or sleeping pills, tranquilizers or anxiety medications, stimulants, and pain relievers) and reported on their social and situational context in the moment of misuse.

Results: Multilevel modeling indicated that participants were more likely to misuse prescription medication earlier in the day vs. the evening, on weekdays vs. weekends, when at home vs. not at home, and while alone vs. with others.

Conclusions: This study provides descriptive information on the social context in which prescription drug misuse is most likely to occur among college students. Our findings suggest that social and situational contexts of prescription drug misuse likely differ as compared to other substances (e.g., alcohol) among college students. Further research aimed at identifying momentary predictors of prescription drug misuse in this population is warranted.

Keywords

prescription drug misuse; college student; ecological momentary assessment; social context

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1. Introduction

Prescription drug misuse – defined as taking a medication intended for someone else, or taking one’s own medication for a different reason or doses other than intended – remains a pressing health concern (Bonar et al., 2020; McHugh et al., 2015). College students have elevated risk for prescription drug misuse (Schepis et al., 2018) and experiencing its physiological, psychological, and social consequences (Chinneck et al., 2018; Meisel & Goodie, 2015). Over a third of college students reported lifetime misuse of prescription medication (Brandt et al., 2014). Such misuse is commonly documented via retrospective reports of behaviors over the past year (McCauley et al., 2011) or previous semester (Chinneck et al., 2018). Researchers (Nargiso et al., 2015; Schepis et al., 2020) have called for ecologically-based investigations of prescription drug misuse to identify its triggers in real-world environments to advance prevention and intervention efforts. Ecologically-based methods, such as ecological momentary assessment (EMA), offer advantages of reducing recall biases and –critically for research on misuse in which the clinical effect of the medications can reinforce expected outcomes—collecting contextual and psychological experiences *prior to* the occurrence of the behavior (Ferguson & Shiffman, 2011; Shiffman et al., 2008). Recent studies assessing substance use behavior close to its occurrence (Papp, Kouros, et al., 2020; Schepis et al., 2020) have been useful for identifying predictors of behavior, offering useful information for prevention and treatment efforts. EMA also allows assessment of the contextual setting of substance use behaviors.

The role of social contexts as important factors shaping the types of substances consumed and frequency of use has been increasingly recognized. As for many substances, the contexts of prescription drug misuse matter among young people. For instance, studies have shown that a range of contexts – including neighborhoods (Ford et al., 2017), college party contexts (Quintero et al., 2006), youth culture participation (Kelly et al., 2015), and other developmentally appropriate contexts (LeClair et al., 2015) – influence not only whether or not these substances are misused, but *how* they are misused. Thus, contexts matter not only for population level prevalence, but also risks related to misuse. These findings on the importance of social contexts for substance use within the wider literature heighten the value of studies that assess substance use within the contexts these behaviors play out, and particularly those using ecologically sensitive methods to capture behaviors as they occur prospectively.

Situational influences of substance use have been documented for alcohol and other drug use among college samples. For example, using EMA, Simmons et al. (2005) reported that alcohol use was more common on weekend days vs. weekdays. Alcohol use is also more likely to occur with others vs. being alone, and both at home and in social situations outside the home (e.g., bars, friend’s house; Labhart et al., 2013; Simmons et al., 2005). Similarly, Phillips et al. (2018) reported that cannabis use is more likely to occur when participants were with others compared to being alone. In addition to these daily contexts, college-based socially relevant events, such as home football games, have been associated with increased alcohol consumption (Glassman et al., 2010), and high-profile games were among the heaviest drinking days of the year (Neal & Fromme, 2007). More generally, college campuses provide unique contexts shaping motivations for prescription drug misuse

(Teter et al., 2006). Despite the prevalence of misuse among college students, little available data examines real-time social and situational factors that predict misuse. Thus, it remains unclear whether the situational contexts of prescription drug misuse mirror those for other substances, or whether they have altogether different patterns.

The purpose of this study was to assess social and situational contexts of prescription misuse among college students. Specific contextual factors included time of day, day of week (weekend vs. weekday), location (home vs. another place), and presence of others (alone vs. with other people). In addition, salient social events were selected, including home football games and large city-regulated outdoor parties near campus (i.e., annual spring and Halloween block party events), as well as the Midwest polar vortex (January 29–31, 2019). Given the dearth of research on situational contexts of prescription drug misuse among college students, analyses were exploratory and descriptive.

2. Methods

2.1 Participants and Procedures

Institutional Review Board approval and a Certificate of Confidentiality were obtained prior to research. Between September 2017 and September 2019, 355 students at a large U.S. Midwestern university were enrolled into a longitudinal study on behaviors and health in daily life. The current study is drawn from its baseline phase (Papp, Barringer, et al., 2020). Inclusion criteria included (a) being enrolled as 1st and 2nd year college students (verified via campus Registrar) and (b) being 18 to 21 years of age. A screening questionnaire asked participants to consider the prior three months and indicate whether they used listed medications in any way a doctor did not intend, such as use without a prescription, increased amounts, more often, or longer than directed. The screener presented 4 prescription medication classes: pain relievers, tranquilizers, stimulants, and sedatives, with common examples provided. Prospective participants responded to each medication question (Yes=1/No=0), and multiple classes could be endorsed.

Given the main objective of capturing prescription drug misuse in daily life, we oversampled participants who endorsed recent misuse (see also Papp, Barringer, et al., 2020). The current study focuses on 300 participants who endorsed recent misuse. Participants completed consent procedures and lengthier surveys during their first session. The EMA reporting period occurred for 28 days following the first session. Participants received an iPod Touch programmed to sound an EMA notification randomly during four time periods each day (8–11:30am, 11:30am–3pm, 3–7pm, 7–11pm; signal-contingent reports). Participants were also instructed to self-initiate a report if they were about to misuse a prescription drug (event-contingent reports). After the EMA reporting period, participants returned their devices and received their incentive. Two participants did not return, and EMA data for one participant was not retrievable due to a device malfunction, resulting in a final sample of 297 participants. The sample was primarily female (69%) and White (83.2%), with an average age of 19.5 years ($SD=0.71$). More than half (56.6%) were first-year students. Participant information is presented in Table 1.

2.2 Measures

2.2.1 Real-time Prescription Drug Misuse—Participants responded (Yes=1/No=0) on both signal- and event-contingent reports to the question, “Are you about to take a medication listed here, in any way a doctor did not direct you to use it?” for 4 classes of medication (sedatives, tranquilizers, stimulants, and pain relievers). When people endorsed *Yes*, they received a follow-up prompt 15 minutes after the associated report was completed, a timeframe that has successfully captured behavioral triggers of smoking (Thrul et al., 2014). On this follow-up, participants responded (Yes=1/No=0) to the question, “Have you recently taken a medication listed here not as prescribed?” for the 4 classes of medication. Misuse of any of the four medication classes was the outcome of interest, coded as 1 when misuse was endorsed and 0 when misuse was not endorsed or when a follow-up was not administered.

2.2.2 Situational Predictors—Report date and time was automatically recorded by the device. We recoded time continuously as hour of the day, accounting for misuse after midnight (e.g., 1:00am coded as hour 25). In follow-up analyses, we compared three time periods—morning (5–11am), afternoon (12–6pm) and evening (7pm–4am)—by creating two dummy coded variables with afternoon as the reference category. Day of the week was recoded to capture reports completed on a weekend compared to weekdays. Because Friday mornings likely included academic responsibilities and Sunday afternoon/evening likely represented a “school night”, Friday afternoon through Sunday morning were coded as 1 (weekend), and Sunday afternoon through Friday morning were coded as 0 (weekday). Reports completed between midnight until 4am were considered part of the previous day (e.g., Sunday 2am coded as Saturday). On each EMA report, participants answered the question, “Where are you: home, school, work, restaurant, friend’s house, gym, other place?” Being at home was coded as 1, and all other places were coded as 0.

2.2.3 Social Contextual Predictors—On each report, participants responded (Yes=1/No=0) to the question, “Are you alone?” This dichotomous yes/no score was used in the analyses. If participants answered No, they were given the following prompt, “If no, who are you with (select all that apply)” with options: roommate or friends, romantic partner, parent(s), other family, other. As a post-hoc, follow-up analysis, we created two dummy coded variables to represent three groups: being alone (reference group); being with a roommate, friend, or romantic partner (i.e., peer network); or being with parents, other family, or others.

2.2.4 Specific Events Predictors—Three specific events were assessed. Reports completed on home football game days were coded 1 (all occurred on Saturday) and other Saturday reports completed (i.e., non-game days and away football games) were coded 0. There were 16 Saturday home football games during the reporting period. Two large *city-regulated party events* included an annual spring block party and an annual Halloween party; both events occurred on Saturdays. Reports completed during these events each year were coded 1 and compared to other Saturday reports coded 0. Reports completed between January 29 and January 31, 2019 during the *Midwest Polar Vortex* and resulting closures

were coded 1 and reports completed on other Tuesdays, Wednesdays, and Thursdays were coded 0.

2.3 Analysis Plan

Multilevel modeling was used to account for the nested structure of the repeated measures. Of the 105 participants who misused prescription medication, 17% reported two instances of misuse on the same day. The majority of misuse reports (84.6%) occurred once per day. Because of minimal within-day variability, two-level models were used, i.e., moments within person. Using HLM v.8.1 software (Raudenbush et al., 2019), hierarchical generalized models (HGM) were specified with a Bernoulli distribution to model the dichotomous outcome of misuse. The potential time effect was accounted for by including a momentary report number indicator (coded 1–112, reflecting the individual's EMA report during the reporting period) at Level 1 (moment-level). Separate models tested each contextual predictor, which were added to Level 1. The dichotomous Level 1 predictors (i.e., home vs. other place, alone vs. with others, weekend vs. weekday) were entered uncentered, whereas the continuous predictor of hour of day was entered person-centered. A person-level ratio variable was created for each dichotomous context variable (i.e., proportion of times across the reporting period the specific context variable was endorsed; grand mean centered) and added as a predictor of the intercept at Level 2 (person-level). Participant sex was included as a level-2 intercept control. Estimates from the population-average models with robust standard errors are reported. Effect size estimates were calculated by converting odds ratios (ORs) to Cohen's d using the following equation from Chinn (2000): $\ln(OR) \times (\sqrt{3\pi})$. Our analysis plan was preregistered on the Open Science Framework (<https://osf.io/86rc9/>).

3. Results

3.1 Preliminary Analyses

Participants' EMA completion rate was calculated by dividing the total number of completed reports by the expected number of reports (i.e., number of reporting days $\times$ 4); the average completion rate was 69%. Participants' completion rates were positively correlated with their reporting any instance of misuse, $r=0.13$, $p=.026$, but not significantly correlated with participants' number of misuse instances during the reporting period, $r=0.08$, $p=.17$.

There were 324 reports of misuse from 105 people on the follow-up reports. The most commonly misused class of medication was stimulants, with 260 (80.2%) reports of misuse; followed by tranquilizers ($n=49$ instances), pain relievers ($n=17$ instances), and sedatives ($n=5$ instances). There were 150 instances ($n=68$ people) when a participant reported misuse intentions, yet did not complete the follow-up report. Additionally, there were 147 instances ($n=71$ people) when participants reported misuse intentions, but indicated on their follow-up report that they did not engage in misuse. Descriptive information on the distribution of misuse by time of day and day of the week are presented in Figure 1. Additional descriptive information about the data can be found in Papp, Barringer, et al. (2020).

3.2 Multilevel Models

A preliminary baseline model with only report number as a predictor indicated that the likelihood of misuse increased across the reporting period, $b=0.003$, $SE=0.001$, $OR=1.003$, 95% CI [1.001–1.004], although this was a negligible effect ($d=0.002$). Results from primary analyses are in Table 2.

3.2.1 Time of Day.—There was a significant within-person negative association between hour of the day and likelihood of misuse, such that individuals were more likely to report misuse earlier in the day, $OR=0.98$, $p<.001$, $d=-0.01$. Follow-up categorical analyses compared the likelihood of misuse in the morning (25%, 81 reports), afternoon (50.3%, 163 reports; reference category), and evening (24.7%, 80 reports). Prescription drug misuse was more likely to occur in the afternoon compared to the evening, $OR=0.78$, $p<.001$, $d=-0.14$; however, there was no significant difference in reporting misuse in the morning compared to the afternoon, $OR=0.89$, $p=.092$, $d=-0.06$.

3.2.2 Weekend vs Weekday.—Among reports endorsing misuse, 73.1% occurrences (237 reports) were on a weekday and 26.9% (87 reports) were on a weekend. Prescription drug misuse was less likely to occur on a weekend, $OR=0.83$, $p<.001$, $d=-0.11$.

3.2.3 Home vs Other Place.—Among reports endorsing misuse, 63.6% (206 reports) occurred at home and 36.4% (118 reports) occurred not at home. Results from the multilevel model indicated that there was a higher likelihood of misuse when home as compared to other places, $OR=1.25$, $p<.001$, $d=0.12$.

3.2.4 Alone vs. With Others.—Among reports endorsing misuse, 53.1% (172 reports) occurred while alone, 34.3% (111 reports) occurred while with peers, and 12.7% (41 reports) occurred with parents, other family members, or others. Results from the first multilevel model comparing misuse when alone vs. with others indicated that there was a higher likelihood of misuse when alone compared to being with others, $OR=1.44$, $p<.001$, $d=0.20$. Supplementary analyses compared being alone (reference group) to being with more specific social groups: (a) peers (roommates, friends, or romantic partners), or (b) parents, other family, or others. Prescription drug misuse was less likely to occur when with parents, family members, or others, $OR=0.76$, $p<.001$, 95% CI [0.68–0.86], $d=-0.15$; however, there was no significant difference in the likelihood of misusing prescription drugs when alone compared to being with roommates, friends, or romantic partners, $OR=1.07$, $p=.21$, 95% CI [0.96–1.20], $d=0.04$. Rerunning analyses with peers as the reference category indicated that misuse was also more likely to occur with roommates, friends, or romantic partners compared to being with parents, family, or others, $OR=0.71$, $p<.001$, 95% CI [0.63, 0.81], $d=-0.19$.

3.2.5 Specific Events.—The frequency of reports during specific events were low; therefore, our planned multilevel model could not be conducted. Specifically, of 3,101 reports completed on a Saturday, there were 56 reports of misuse. Only 6 instances of misuse ($n=4$ participants) were reported on a Saturday with a football home game and 5 instances of misuse ($n=3$ participants) were reported on a Saturday of a city-regulated party

event. There was only one instance of misuse reported during the Midwest Polar Vortex. Post-hoc sensitivity analyses examined the day before home football games; only 2 instances of misuse were reported on a Friday before a home football game. Nonetheless, these results indicate that event-based activities may hold less significance for prescription drug misuse than for other substances.

4. Discussion

Prescription drug misuse, and associated negative consequences, are high among college students (Brandt et al., 2014; Chinneck et al., 2018; Meisel & Goodie, 2015; McCabe et al., 2019); yet, the contextual predictors of misuse have been largely undocumented. The present study provides a novel contribution to understandings of contextual predictors of prescription drug misuse. Our approach, which used EMA methodology to assess real-time prescription drug misuse, extends prior research based on retrospective and global reports by allowing for greater temporal precision of contextual predictors of misuse. The findings revealed that prescription drug misuse among college students was most likely to occur earlier in the day (vs. evening) and on weekdays (vs. the weekend). Additionally, misuse was more likely to occur while at home (vs. another place) and while alone (vs. with others).

These descriptive findings suggest that the social and situational contexts of prescription drug misuse likely differ from other substances commonly used among college students. For example, whereas our results showed misuse was more likely to occur on weekdays, alcohol and cannabis use are more likely to occur on weekends (Buckner et al., 2015; Finlay et al. 2012; Maggs et al., 2011; Simmons et al., 2005). Finlay et al. (2012) reported that students consumed more alcohol on social weekends (defined as Thursday, Friday, and Saturday) whereas the number of drinks consumed on a weekday, on average, was nearly zero. Similarly, Buckner and colleagues (2015) found that students used more cannabis during weekends compared to weekdays. Given these distinctions between prescription drugs and other substances, addressing the unique situational contexts of misuse within prevention and intervention work with college students remains important.

We also found that misuse was more likely to occur while at home and when alone (although sensitivity analyses revealed no significant difference in likelihood of misuse when alone vs. peers). In contrast, other studies have found that alcohol and cannabis use occur across more varied contexts and settings. For example, Phillips et al. (2018) found non-daily cannabis users were more likely to report using in moments with others, although daily cannabis users reported use both when alone or with others. Young adults are also more likely to report using alcohol and consuming more drinks when with others versus alone (Monk et al., 2020; O'Donnell et al., 2019; Pilatti et al., 2020) and when in social situations (e.g., bars, nightclubs, parties; Arria et al., 2008; Buckner et al., 2015; Finlay et al., 2012; Labhart et al., 2013; Simmons et al., 2005). The solitary nature of prescription drug misuse may require distinct strategies for intervention, as network-based approaches may be less effective.

Instances of misuse during other salient events (e.g., city-regulated parties) and the Midwest Polar Vortex were too infrequent to analyze, which in and of itself provides important information about the misuse of prescription drugs during event-based activities. Previous

studies have shown that alcohol (Greenbaum et al., 2005; Neighbors et al., 2006) and cannabis use (Buckner et al., 2015) are higher among college students during party-themed holidays such as St. Patrick's Day, Mardi Gras, and Halloween, as well as sporting events (see also Neighbors et al., 2007). The low frequency of misuse in the present study during annual Halloween and Spring break block parties, together with our findings that misuse is more likely to occur while at home and while alone (vs. with others), suggest that misuse is less likely to occur during social events.

One potential explanation for why situational context predictors of misusing prescription medication differ from research on alcohol and cannabis use is distinct motivations underlying substance use behaviors among college students. Similar to Brandt et al. (2014), stimulants were the most commonly misused medications in the present study. Thus, primary motivations for misusing prescription drugs may be to prepare for academic situations, such as studying for or taking an exam (Barringer & Papp, 2021; Teter et al., 2006). Alcohol may serve a social facilitation purpose and is more likely to be used when other role responsibilities have ended. For example, in a recent meta-analysis (in which over 67% of the studies were conducted with undergraduate students), social and enhancement (i.e., drinking to increase positive affect) motives showed the strongest correlations with drinking frequency and quantity (Bresin & Mekawi, 2021). Buckner and colleagues (2019) also found that students' reported motivations for using cannabis differed for weekend vs. weekday use, with social and enhancement motives more prevalent for weekend use.

4.1 Limitations

Limitations of the present study provide directions for future research to advance understandings of contextual predictors of prescription drug misuse among college students. Instances of misuse on the EMA reports were relatively low. Although we recruited participants based on recent misuse, and the protocols were designed to maximize our ability to capture misuse in daily life, our method may not have captured all instances of misuse. Participants' completion rates indicated that the sample was engaged; however, the average completion rate in our sample was lower than pooled compliance rates reported in a recent meta-analysis of EMA studies on substance use (79.06%; Jones et al., 2018). Providing a separate device for EMA data collection increased confidentiality, but having to carry a separate device may have inadvertently resulted in missed reports. Notably, the most frequently reported reason for missing a report was not being awake for the morning report (Papp, Barringer, et al., 2020). Additionally, participants with higher completion rates were *more* likely to misuse prescription medication (although completion was not associated with the number of misuse instances), indicating that participants felt comfortable reporting substance use. With more advanced technologies available for secure data collection, future EMA research taking advantage of participants' own smart phones may increase compliance and improve instances of misuse captured. Collecting information on students' typical wake time and class schedule also can allow for prompts to be sent during windows in which participants are available to respond. Nonetheless, our approach supports the feasibility and utility of collecting real-time misuse behavior in daily life contexts.

Asking participants to report substance use may make them more aware of their behavior and thus inadvertently alter misuse behavior. Indeed, there were instances (albeit infrequent) in which participants indicated they intended to misuse a medication on the EMA prompt and then reported they did not misuse any medications. Of note, we found minimal evidence of reactivity (i.e., whether misuse behavior increased/decreased during the reporting period; Papp, Barringer, et al., 2020). Further, among participants who reported misuse intentions but did not actually misuse, 59% indicated misuse on a subsequent report; thus, any potential preventive effect of completing the EMA protocol (if occurring) appears to have been short-lived. Future EMA studies could have settings embedded to assess why participants decided not to engage in substance use. For example, in addition to potential preventive effects, participants' lack of misuse may have resulted from lack of medication access or being disrupted by others.

We combined misuse reports across multiple classes of medication, given the low frequency of some medications in our sample; therefore, we were unable to test whether predictors varied by type of medication (e.g., pain vs. stimulant). Also, rates of misuse in our study were lower compared to studies assessing other commonly used substances among college students (e.g., alcohol, cannabis). Thus, it was not possible to assess subgroups based on patterns of misuse (e.g., weekend-only users, regular but infrequent users). In our sample, there were no cases of daily users, and approximately 37% ($n = 39$) of participants who endorsed misusing prescription medication reported a single instance of misuse during EMA reports. Approximately 8.5% ($n = 9$) of participants who endorsed misusing medication on the EMAs misused at least once per week (i.e., weekly misusers). Studies with larger samples that capture more instances of misuse, and can assess subgroups based on patterns of misuse, will be important for targeted preventive efforts tailored to a heterogeneous pool of students who misuse medications.

Similar to other college samples, our sample was predominantly female and White, which limits generalizability. Replication with more diverse samples is needed. Finally, the social context predictor was whether students were alone or with others; next steps in this line of research include taking a more comprehensive approach. For example, assessing students' social connectedness and quality of relationships, as well as their affective state, may provide more nuanced information for understanding processes and motivations underlying misuse in this population.

4.2 Conclusions

Prescription drug misuse among college students remains a public health concern, yet contextual influences remain less well-studied compared to other substances. The findings from this study identified real-time social and situational predictors of misusing prescription medications. Specifically, among students recruited based on a recent history of medication misuse, misuse was more likely to occur earlier in the day, on weekdays, when at home, and when alone. The results suggest that the social and situational predictors of prescription drugs differ from other substances. Further research focused on real-time predictors and motives of misusing prescription medications among college students is warranted.

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Highlights

- Contexts of college students' prescription drug misuse were assessed via EMA
- Prescription misuse was more likely to occur earlier during the day and on weekdays
- Misuse was more likely to occur when at home and when alone (vs. with others)
- Social/situational contexts of prescription misuse are unique from other substances

Figure 1. Instances of Prescription Drug Misuse by Day of the Week and Time of Day

Note. 324 reports of prescription drug misuse from 105 people on the follow-up EMA reports.

Table 1

Participant Demographic Information for Analytic Sample

Variable	<i>M (SD) or N (%)</i>
Age	19.5 years (<i>SD</i> = 0.71)
Female	205 (69%)
Race	
White	247 (83.2%)
Asian	17 (5.7%)
Black ^a	<2%
American Indian or Alaska Native ^a	<2%
Selected more than one race	21 (7.1%)
Selected "Other"	<2%
Not Reported	1 (0.3%)
Ethnicity	
% Latinx/Hispanic background	20 (6.7%)
Year in School	
First Year	56.6%
Second year	43.4%

N = 297 participants

^aExact sample size and percent not reported due to low frequencies

Table 2

Results from Multilevel Models Testing College Students' Situational and Social Context of Prescription Drug Misuse in Daily Life

Predictors	OR	p value	95% CI
Model 1: Time of Day			
Intercept	0.040	<.001	[0.038, 0.041]
Momentary report indicator	1.005	<.001	[1.004, 1.006]
Hour of Day	0.983	<.001	[0.978, 0.989]
Level 2 (between-person)			
Average Hour of Day	1.081	.006	[1.023, 1.141]
Sex	1.286	<.001	[1.180, 1.400]
Model 2: Weekend vs. Weekday ^a			
Level 1 (within-person)			
Intercept	0.040	<.001	[0.038, 0.041]
Momentary report indicator	1.005	<.001	[1.004, 1.006]
Weekend	0.825	<.001	[0.787, 0.866]
Level 2 (between-person)			
Proportion of Weekend Reports	0.360	.06	[0.124, 1.043]
Sex	1.272	<.001	[1.159, 1.395]
Model 3: Home vs. Other Place			
Level 1 (within-person)			
Intercept	0.035	<.001	[0.033, 0.037]
Momentary report indicator	1.005	<.001	[1.004, 1.006]
Home	1.245	<.001	[1.187, 1.316]
Level 2 (between-person)			
Proportion of Home Reports	1.136	.33	[0.879, 1.467]
Sex	1.301	<.001	[1.197, 1.415]
Model 4: Alone vs. With Others			
Level 1			
Intercept	0.032	<.001	[0.030, 0.033]
Momentary report indicator	1.006	<.001	[1.005, 1.007]
Alone	1.444	<.001	[1.379, 1.511]
Level 2 (between-person)			
Proportion of Reports Alone	1.156	.32	[0.870, 1.536]
Sex	1.313	<.001	[1.196, 1.442]

Note. *N* = 297 participants. OR = Odds Ratio; Sex coded -0.5 = male, 0.5 = female

^aWeekend coded Friday afternoon through Sunday morning = 1 (weekend) and Sunday afternoon through Friday morning = 0 (weekday)