Young Adults’ Physical Distancing Behaviors During the Initial Months of the COVID-19 Pandemic: Adherence to Guidelines and Associations With Alcohol Use Behavior

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Abstract
Throughout the COVID-19 pandemic, the scientific and public health communities have become increasingly focused on understanding young adults’ physical distancing behaviors and the role that young adults have on viral potentiation and community spread. In the present study, we surveyed a group of 560 young adults (ages 22-28) from the greater Seattle area in April 2020, during statewide “shelter-in-place” recommendations, to examine young adults’ self-reported adherence to physical distancing guidelines. Self-report measures were used to identify strong adherers and poor adherers, which we then compared in terms of engagement in specific physical distancing behaviors and alcohol use behaviors pertaining to physical distancing adherence. We found that most young adults are classified as strong adherers, and that poor adherers reported more frequent violations of physical distancing guidelines including having friends over to their residence or going over to other residences. Poor adherers were also significantly more likely to engage in high-risk alcohol use behavior, such as heavy episodic drinking, compared to those young adults who were classified as strong adherers. Our results provide initial evidence that young adults who engage in high-risk drinking may be at greater risk for non-adherence to government recommended physical distancing guidelines. This deeper understanding of young adult behavior during the COVID-19 pandemic can better inform public health outreach to increase physical distancing adherence currently, as well as in preparation for future contagious health crises that may require societal-level adherence to behavioral guidelines.

Keywords
SARS-CoV-2 virus, social distancing, CDC guidelines, drinking, quarantine

The SARS-CoV-2 (COVID-19) pandemic has had immediate and potentially long lasting impacts on important domains of young adult life such as education, work, and interpersonal relationships (Settersten et al., 2020). Although young adults are at potentially reduced risk from getting severely ill or dying from COVID-19, they remain an important part of curbing the spread of the virus (Jenco, 2020). As the risks of COVID-19 are evolving, engagement into public health mitigation strategies are imperative, particularly for young adults who may be more likely to be asymptomatic (Kronbichler et al., 2020). Harm reduction and mitigation strategies recommended by the Centers for Disease Control (CDC) and State and local governments include maintaining six feet of distance from non-household members, frequent hand hygiene, and wearing a mask in public spaces (CDC, 2020). Despite the importance of following guidelines, there has been extensive media attention portraying young adults as shirking physical distancing restrictions to engage in drinking and other “partying”

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behavior. For example, a widely circulated video on social media and mainstream media sources included an intoxicated college student declaring “If I get Corona, I get Corona... I’m not gonna let it stop me from partying...” while on Spring Break in Miami in mid-March 2020 (Lewis, 2020). Early descriptions of the virus may have over-emphasized the higher mortality and severe complications among the elderly and people with underlying health conditions (World Health Organization, 2020). High profile early outbreaks in nursing homes (Baker, 2020) and early omission of young people’s susceptibility may have led the general population to believe that only the elderly population was at risk. To date, there is little research on the extent to which young adults adhere to recommended guidelines and mitigation strategies; however, preliminary evidence indicates that most adolescents and young adults do indeed follow physical distancing guidelines (Graupensperger, Lee, & Larimer, 2021; Oosterhoff et al., 2020). Further, little is known about whether there are differences in behaviors between those who perceive themselves as closely adhering to guidelines compared to those who do not. Understanding the distinguishing features and habits between young adults who self-identify as following recommended physical distancing procedures and young adults who do not can better inform public health messaging targeted at increasing physical distancing adherence among young adults.

The public perception of a correlation between young adults disobeying physical distancing orders and engaging in drinking behavior with peers during the pandemic warrants further investigation by the scientific community. Alcohol consumption is a social activity for many young adults, and drinking for social reasons is a principal motivation for alcohol use (Neighbors et al., 2007; Niland et al., 2013). The stay-at-home/shelter-in-place restrictions may have impacted typical young adult drinking behavior by discouraging gatherings and closing bars and restaurants. Options for young adult drinking behavior during the shelter-in-place may have shifted from drinking in public venues such as bars, restaurants, and parties outside the home to more private venues within the home where young adults may drink alone, with roommates, or engage in alcohol use with others through virtual platforms (e.g., Zoom). Alternatively, young adults may opt to continue to drink at in-person gatherings, despite recommendations to refrain from close contact with others. Preliminary research shows that young adults that are engaging in problematic drinking during the pandemic are less likely to be adherent to physical distancing guidelines, and are more likely to disregard distancing guidelines in order to engage in drinking behavior (Suffoletto et al., 2020). Understanding the extent that young adults are engaging in alcohol use and risky (in terms of contracting or spreading COVID-19) drinking contexts can better inform targeted interventions for these potentially high-risk individuals.

The purpose of the present study was to (a) examine the degree to which young adults adhered to public health guidelines aimed at reducing risk of getting and transmitting COVID-19 during the acute phase of the pandemic (in April and May 2020), (b) to compare characteristics of those who self-reported strong adherence to physical distancing guidelines (i.e., outlined in the Washington State Governor’s orders; Inslee, 2020) to those young adults who self-reported less adherence, (c) to explore the specific physical distancing behaviors those who endorsed strong adherence were/were not engaging compared to those who self-endorsed poorer adherence, and (d) to compare the drinking behaviors and contexts of young adults who reported strong adherence to those who reported poorer adherence.

Method

Participants and Procedures

The present study included a community sample of young adults who were originally recruited for a longitudinal study on social role transitions and alcohol use (see Patrick et al., 2020 for description of study). Initial eligibility requirements included being between 18 and 23 years of age at time of screening, reporting drinking at least one alcoholic beverage in the past year, and residing in the greater Seattle, Washington area. In April 2020, 767 young adults were eligible to be invited to this follow-up survey and were e-mailed an invitation to participate in a supplemental survey focused on COVID-19 impacts on mental health and substance use. Participants reviewed an information statement with all elements of consent prior to completing the survey. The survey was open between April 21 and May 18, 2020 and 569 (74.19%) provided consent and completed at least one item. However, the present analyses included only the 560 participants who completed key items pertaining to COVID-19. Of note, the entire window in which surveys were collected was during the statewide “Stay Home, Stay Healthy” mandate, which “prohibited” all people in Washington State from leaving their homes or participating in social, spiritual and recreational gatherings of any kind regardless of the number of participants” (Inslee, 2020).

The 560 participants included in the current analyses ranged in age from 22 to 28 years (mean = 25.09) and 61.43% reported being female. Most participants reported not living with their parents (82.68%) and 31.46% of respondents reported being a student. Specifically, six participants reported currently working towards a high school or GED education, 30 reported being in community college, 66 reported being in 4-year college or university, 73 reported being in graduate or professional school, and 10 reported working towards another type of certification. Participation in this supplemental survey was incentivized with a $15 Amazon e-gift card and all procedures were approved by the authors’ Institutional Review Board.

Measures

Demographics. Participants responded to basic demographic items including age, birth sex, living situation, and education status.

Self-report physical distancing adherence. Participants were asked “How would you describe your social distancing (in terms of
physically isolating) right now in the context of COVID-19?”
and responded on a 5 point scale (1 = Living normally, not
made any changes, 2 = Being cautious, but still going out,
3 = Going out as needed, mostly staying home, still seeing
friends and family in person, 4 = Very limited contact with
people, only going out when unavoidable and very careful con-
tact with people, 5 = Staying home entirely). Based on the WA
state government mandated physical distancing measures at the
time of data collection (Inslee, 2020), participants were dichot-
omized into “strong adherers,” who answered a 4 or a 5, or
“poor-adherers,” who answered a 1, 2, or 3.

Physical distancing and other mitigation-related activities. Participants
were asked “In the past 7 days, have you done any of the follow-
ing?” and responded with a “yes” or “no” to a list of 12 activities
(see Table 1 for activities) ranging from those that are
strongly mandated against (e.g., “Attended a gathering with
more than 10 people”) to those that entail less risk but are never-
theless advised for minimal engagement (e.g., “Gone to a
grocery store or pharmacy”). These activities were based upon
the guidelines given by Washington State officials at the time
in which data were collected (i.e., April of 2020), but also
included additional specific substance use related items such as “Gone to a liquor or grocery store to purchase alcohol.”

COVID-19 illness-related concern. To assess participants’ level of
concern regarding the disease itself, we used two items from a
recent scale created to assess COVID-19 concerns and stres-
sors. Participants were asked “How concerned are you about
the novel coronavirus (COVID-19)…. making you sick?… making your friends or family sick?” and responded
on a numeric scale from 1 (“Not at all”) to 5 (“Extremely”).
The two items were treated separately as concern for self and
concern for others.

Alcohol use behavior. Participants’ past month alcohol use was
assessed using the Daily Drinking Questionnaire (DDQ; Collins et al., 1985). Participants reported the typical number
of drinks they consumed on each day of the week over the past
month. For example, “On a typical Monday, I had . . . drinks.”
For each participant, the total number of drinks consumed
in a typical week were calculated as a sum score representing typ-
ical weekly number of drinks. Furthermore, the DDQ was used
to assess participants’ typical number of weekly heavy episodic
drinking occasions (4 or more drinks for women, 5 or more
drinks for men).

Drinking contexts. Participants who endorsed any drinking in the
past month were asked, “When you used alcohol in the past
month, how often did you use it in each of the following
situations?” including “When you were alone,” “When you
were with others in person (in the same location),” and “When
you were with others online/virtually (e.g., Zoom, Facetime),”
and responded numerically on a 5 point scale (0 = Not at all,
1 = A few of the times, 2 = Some of the times, 3 = Most of
the times, 4 = Every time).

Plan of Analysis
We first estimated associations between adherence status (i.e.,
strong adherer vs. poor adherer) and several key demographic
variables. Logistic regression modelling was used to estimate
adjusted odds ratios (ORs) that reflect associations between
adherence status and age, sex, living with parents (Y/N), stu-
dent status (Y/N), concern about getting sick, and concern
about friends/family getting sick.

The second analytic step entailed examining the extent that
young adults engaged in specific physical distancing behaviors. Raw percentages were calculated for the total sample, as well
as stratified percentages by adherence status. The association
between adherence status and endorsement of each behavior
was estimated using logistic regression modeling (i.e., were
strong adherers more/less likely to have endorsed each beha-
vor?). Logistic regression models included age, sex, living
with parents (Y/N), student status (Y/N), concern about getting
sick, and concern about friends/family getting sick as control
covariates. One item (“Remained in your residence at all times,
except for essential activities or exercise”) was reverse scored
to maintain consistency, as all other items were scored such
that “Yes” indicated a higher risk response.

The third analytic step entailed estimating the associations
between adherence status and indices of alcohol use behavior
(i.e., weekly number of drinks and weekly heavy episodic
drinking occasions). Given that these indices of alcohol use are
positively skewed count variables, these associations were esti-
imated using negative binomial regression modelling and con-
trolled for demographic variables described above (age, sex,
living with parents, student status, illness concern for self, ill-
ness concern for others). Negative binomial models produce
a rate ratio that represents a proportional change for each
one-unit increase in the covariate and are interpreted similar
to OR’s. For example, a rate ratio of 1.25 would indicate that
strong adherers engaged in 25% more alcohol use relative poor
adherers, while a rate ratio of 0.75 would indicate that strong
adherers engaged in 25% less alcohol use relative poor ad-
herers (holding all other covariates constant).

The final analytic step entailed estimating associations
between adherence status and drinking in specific contexts
(i.e., in isolation, with others in-person, and online/virtually
with others). Linear regression modelling was used to estimate
these associations while controlling for the demographic vari-
ables as well as participants’ weekly number of drinks. That is,
we estimated the extent that drinking in specific contexts
differed by adherence status, while accounting for how much
weekly drinking each individual engaged in. All statistical
modelling was conducted using R software (R Core Team,
2021).

Results
Although 560 young adults completed the majority of key
items, there were some instances of missing responses, resulting
in minor sample size discrepancies across variables. Data were
ratios were estimated using logistic regressions controlling for all of the covariates shown in Table 2 (e.g., age, sex); Poor adherers were coded as “0,” and strong adherers were not significantly associated with adherence status. Living with parents and student status were not significantly associated with adherence.

Percentage estimates of young adults’ engagement in specific behaviors consistent with physical distancing and other mitigation-related activities are displayed in Table 1. As anticipated, self-reported poor adherers were much more likely to endorse engaging in specific behaviors that did not follow recommended guidelines. For example, young adults who self-identified as adhering poorly to physical distancing guidelines were over 6 times more likely to go to friends’ or neighbor’s houses, nearly 5 times greater odds of hosting visitors at their own houses, and nearly 4 times greater odds of engaging in close contact with others they do not live with. Those who self-reported strong adherence had nearly six times greater

### Table 1. Specific Behaviors Endorsed by Strong Adherers and Poor Adherers and Logistic Regression Model Estimating Associations Between Behavior Endorsement and Adherence Status.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Total N=560</th>
<th>Poor Adherers N=177</th>
<th>Strong Adherers N=381</th>
<th>Adjusted OR</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended a gathering with more than 10 people</td>
<td>5 (1%)</td>
<td>4 (2%)</td>
<td>1 (0.3%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Went to the grocery store or pharmacy</td>
<td>465 (83%)</td>
<td>154 (87%)</td>
<td>310 (81%)</td>
<td>1.33</td>
<td>[0.78, 2.35]</td>
</tr>
<tr>
<td>Shared items like towels or utensils with other people</td>
<td>144 (26%)</td>
<td>51 (29%)</td>
<td>93 (24%)</td>
<td>1.17</td>
<td>[0.75, 1.81]</td>
</tr>
<tr>
<td>Had close contact (within 6 ft.) with people who live with you</td>
<td>422 (75%)</td>
<td>136 (77%)</td>
<td>285 (75%)</td>
<td>1.04</td>
<td>[0.65, 1.66]</td>
</tr>
<tr>
<td>Went outside to walk, hike, or exercise</td>
<td>488 (81%)</td>
<td>146 (82%)</td>
<td>301 (79%)</td>
<td>1.38</td>
<td>[0.83, 2.36]</td>
</tr>
<tr>
<td>Went to a restaurant to get a take-out</td>
<td>269 (48%)</td>
<td>99 (56%)</td>
<td>169 (44%)</td>
<td>1.73</td>
<td>[1.17, 2.57]</td>
</tr>
<tr>
<td>Went to a marijuana retail shop to purchase marijuana</td>
<td>82 (15%)</td>
<td>36 (20%)</td>
<td>46 (12%)</td>
<td>1.48</td>
<td>[0.85, 2.53]</td>
</tr>
<tr>
<td>Went to a liquor or grocery store to purchase alcohol</td>
<td>148 (26%)</td>
<td>68 (38%)</td>
<td>79 (21%)</td>
<td>2.23</td>
<td>[1.45, 3.43]</td>
</tr>
</tbody>
</table>

Note. Two participants did not complete the self-report adherence item and were thus not included in the estimates for poor vs. strong adherers. *Adjusted odds ratios were estimated using logistic regressions controlling for all of the covariates shown in Table 2 (e.g., age, sex); Poor adherers were coded as “0,” and strong adherers were coded as “1.” An adjusted odds ratio was not calculated for the larger gathering item as <1% of the sample endorsed this behavior.

* p < .05, ** p < .01, *** p < .001.

### Adherence to Physical Distancing Guidelines

After recoding the responses to the self-reported physical distancing item, 68.28% were categorized as strong adherers and 31.72% categorized as poor adherers. Specifically, 11 participants (1.97%) reported ‘Living normally, not made any changes’, 34 (6.09%) reported ‘Being cautious, but still going out’, 132 (23.66%) reported ‘Going out as needed, mostly staying home, still seeing friends and family in person’, 353 (63.26%) reported ‘Very limited contact with people, only going out when unavoidable and very careful contact with people’, and 28 (5.01%) reported ‘Staying home entirely’.

As shown in Table 2, older participants and females were significantly more likely to be categorized as strong adherers. Reported concern about personally getting sick was also significantly associated with strong adherence but reported concern about friends/family getting sick was not significantly associated with adherence status. Living with parents and student status were not significantly associated with adherence.

### Table 2. Logistic regression Estimating Associations Between Covariates and Being a Strong Adherer Versus Poor Adherer to Distancing Guidelines.

<table>
<thead>
<tr>
<th>Covariates</th>
<th>Adjusted OR</th>
<th>95% C.I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.16</td>
<td>[1.05, 1.29]</td>
</tr>
<tr>
<td>Sex (0 = Female, 1 = Male)</td>
<td>0.62*</td>
<td>[0.42, 0.93]</td>
</tr>
<tr>
<td>Living with Parents (0 =No, 1 = Yes)</td>
<td>0.74</td>
<td>[0.45, 1.23]</td>
</tr>
<tr>
<td>College Student (0 =No, 1 = Yes)</td>
<td>0.95</td>
<td>[0.63, 1.44]</td>
</tr>
<tr>
<td>Concern about getting sick</td>
<td>1.25*</td>
<td>[1.01, 1.56]</td>
</tr>
<tr>
<td>Concern about friends/family getting sick</td>
<td>1.14</td>
<td>[0.93, 1.41]</td>
</tr>
</tbody>
</table>

Note. Poor adherers were coded as “0,” and strong adherers were coded as “1.” Adjusted odds ratios control for the other covariates in the model.

* p < .05, ** p < .01.
odds of reporting remaining in their residence at all times except for essential activities or exercise. Very few young adults (<1%) reported attending gatherings of 10 people or more, so adjusted odds ratios were not calculated.

We also explored whether adherence status related to less risky behaviors that were not prohibited but were discouraged if nonessential. Poor adherers were significantly more likely to endorse going to restaurants to get take-out and were nearly twice as likely to endorse going to a store to purchase alcohol. However, poor adherers were no more likely than strong adherers to endorse going to the grocery store or pharmacy, sharing items like towels or utensils, having close contact with people they live with, or going outside to take a walk, hike, or exercise. Finally, strong adherers and poor adherers did not differ significantly in terms of going to marijuana retail shops.

### High-risk Alcohol use During COVID by Adherence Status

Descriptive analyses revealed that the sample, on average, consumed 5.56 drinks per week (SD = 9.32) and engaged in 0.40 heavy episodic drinking occasions per week (SD = 1.21). 29.11% of the sample reported completely abstaining from alcohol use, and 74.46% reported engaging in zero heavy episodic drinking occasions.

The models shown in Table 3 display estimated associations between adherence status and alcohol use. Pertaining to covariates, men engaged in significantly more weekly drinking relative to women, both in terms of weekly number of drinks and number of heavy episodic drinking occasions. The main effect of adherence status revealed that strong adherers engaged in nearly 40% less weekly number of drinks, and over 60% less weekly heavy episodic drinking occasions, relative to poor adherers. Thus, these models show that poor adherence to physical distancing guidelines is associated with heavier alcohol use. We also examined whether alcohol use differed between those who did and did not endorse each specific distancing behavior (i.e., t-tests), but as this was not central to the aims of the current study, we provide these findings in the Online Supplemental Materials (Table S1).

### Drinking Contexts by Adherence Status

In the final set of models (see Table 4), we estimated associations between adherence status and drinking alcohol in several different contexts. The control covariates indicated that older young adults and women (relative to men) engaged in more isolated alcohol use (i.e., drinking alone). As it pertains to drinking with others in-person, those who did not live with their family were more likely to report drinking alcohol in the last 2 weeks.
parents and those with lower concerns about friends/family getting sick engaged in more in-person drinking with others. After controlling for these effects, as well as controlling for participants’ number of weekly drinks, the main effects of adherence status revealed that strong adherers and poor adherers did not differ in terms of drinking alone or drinking in-person with others, but strong adherers reported engaging in more online/virtual drinking with others, relative to poor adherers. That is, after controlling for how much participants drank, strong adherers engaged in more distance drinking with others through online/virtual platforms.

Discussion
To inform public health efforts to reduce the acute burden of the COVID-19 pandemic, and in-preparation for similar future epidemics/pandemics, it is critical to examine the extent that people adhere to government-mandated restriction and associations with other health concerns such as alcohol use. Contrary to common portrayals in the media, most young adults (68.28%) in our sample reported strongly adhering to physical distancing guidelines. These results align with other recent findings that, indeed most American teenagers (Oosterhoff et al., 2020) and college students (Graupensperger, Lee, & Larimer, 2021) report relatively strong adherence to physical distancing guidelines. Overall, we found that the one self-report item asking young adults to characterize their physical distancing adherence differentiated young adults on important behaviors that were recommended by state and national governmental agencies at lowering risk of intention and transmission of COVID-19. It is encouraging that there was very low endorsement across groups for attending a gathering with more than 10 people; however, it is also important to consider that 31.72% of our sample did not report strongly adhering to physical distancing mandates—representing a significant portion of young adults that could be a key target for public health interventions to increase adherence. Indeed, some estimates indicate that young adults are reporting the poorest adherence (e.g., Jørgensen et al., 2020), which may be because young adults feel less at-risk for the consequences of COVID-19 (Park et al., 2020) and discount how critical the physical distancing mandates are (Farber & Johnson, 2020).

Strong physical distance adherers were more likely to be older and female, indicating the need to study younger college-aged adults, and whether they are adhering to physical distancing guidelines as much as their older peers. Another study of American adults has found a similar correlation between female sex and increased physical distancing adherence (Okten et al., 2020). Not surprisingly, the main activities that poor adherers were differentially engaging in were going to others’ residences, having people over to their residence, and being in close contact with non-household members. These results indicate the need for public health messaging focused on reducing social contact with others at private residences (both own and others’). The scientific community now considers COVID-19 an airborne virus (CDC, 2020; Morawska & Milton, 2020), which indicates that gathering with any number of others is high risk behavior for disease transmission. Shelter-in-place recommendations may have shifted young adults from meeting outside, generally considered to be relatively low risk in small, physically distanced numbers, to meeting indoors, a considerably higher risk with the same number of people. As the virus continues to spread and mutate, and as the public health community begins to prepare for future pandemics, it becomes more vital to have clear and consistent messaging surrounding risks.

Strong adherers in our sample were less likely engage in heavy drinking during the early months of the pandemic compared to poor adherers. There are several possible explanations for this, limited by the fact that the data were collected cross-sectionally and do not provide longitudinal insight on any individual’s drinking behavior. It is possible that young adults that drink more socially in general tended to physically distance less during the pandemic, either because of a higher risk pattern of behavior or to continue social connections by drinking in the presence of others. It is also possible that young adults who are less likely to physically distance are more likely to be exposed to social drinking contexts, thereby increasing their drinking consumption. This finding should also be considered alongside recent evidence that many young adults have increased drinking frequency but decreased in drinking quantity per occasion during the COVID-19 pandemic, and drinking motives have shifted as well—notably, social motives have significantly decreased while depression coping motives have significantly increased (Graupensperger, Fleming, et al., 2021). Relatedly, college students who moved back in with their parents during the pandemic reported drinking less than they did while on campus (White et al., 2020). Taken together, these findings could provide evidence to refute the notion that physical distancing measures have increased overall drinking behavior, but perhaps altered the patterns and motives for alcohol use. Our data nevertheless support the association between heavy drinking and poor physical distancing adherence among young adults. Therefore, messaging designed to encourage physical distancing should also consider alcohol consumption as an associated risk behavior, possibly targeting both simultaneously. The localized COVID-19 outbreaks across college campuses in Fall 2020 as college and universities began the academic year demonstrate the need for effective messaging to highlight alternative strategies for maintaining the important social connections while maintaining strategies that reduce risk of COVID-19 infection and spread.

Strong adherers and poor adherers reported similar drinking behavior across contexts, with similar levels of drinking alone and drinking with others. It should be noted that our study did not distinguish between drinking with other household members and drinking with non-household members, which could explain why strong adherers and poor adherers had non-significant differences. Interestingly, strong physical distancing adherers were more likely than poor adherers to engage in drinking with others virtually. This is a new pattern of behavior emerging in the pandemic that warrants further study, as
“virtual happy hours” may be an effective coping skill for maintaining socially connected while physically isolated, or they may be maladaptive and increase drinking behavior.

**Limitations**

The present findings should be viewed alongside several limitations. The sample included young adults between 22 and 28 years of age mostly from Washington State and, as noted earlier, future research should extend these findings by studying younger adults. This age group is of particular interest as many college students are in this age range and with recent outbreaks on college campuses are of high concern for infection and community spread. Although our sample included a number of participants who are currently students, we note that these participants are older than most traditional college students and may not accurately reflect ‘typical’ college students (i.e., aged 18-22). Additionally, it is important to note that of the 68.28% of our sample that did report strongly adhering to physical distancing mandates, 19% went to a friend, neighbor, or relative’s residence, 14% had visitors at their own residence, and 30% had close contact with people from outside their household. While the strong adherers and poor adherers differed significantly on key social distancing behaviors, adherence is a spectrum and not a dichotomy. Given these results, it is possible for an individual who identifies as a strong adherer to still contribute to further spread of COVID-19. Further, our study did not examine face mask usage, as masks were not widely recommended or used in April 2020 when the survey was initially launched. Future research could explore whether young adults are using masks, what types of masks they are using, and whether they are using masks correctly (covering both nose and mouth, not touching the face while wearing a mask, etc.).

**Implications**

The current study holds several implications for ongoing COVID-19 response efforts and will be valuable literature should we face future circumstances requiring societal adherence to public health mandates. Our findings underscore the need to consciously develop public health messaging strategies regarding physical distancing to better target young adult behavior. Mixed messaging about younger adults’ susceptibility to COVID-19 may have created long lasting public misconceptions about young adult behavior during the pandemic. We support other experts’ calls to leverage peer influences to increase physical distancing adherence among adolescents and young adults (Andrews et al., 2020; Graupensperger, Lee, & Larimer, 2021), and using evidence that the majority of young adults are following physical distancing guidelines establishes a norm for others to adhere to. Although publicly denouncing instances of non-adherence to government mandates may be necessary, repeated portrayals of young people as “partying” and “irresponsible” in the media may establish these behaviors as the norm, increasing pressure to conform in the opposite way as the media intends. Indeed, normative perceptions of others’ drinking patterns during COVID-19 may be a strong correlate to one’s own alcohol use behavior (Graupensperger, Jaffe, et al., 2021). There is also evidence that teenagers are concerned that distancing may affect their social status by missing out on social events that they think peers are still attending (Dumas et al., 2020), so changing the public narrative to highlight that most young people are not, in fact, attending social events may mitigate this potential effect even among young adults. In addition to norms-based public health messages, future research could develop statistics-based public health messaging targeted at young adult drinking behavior, for example “Being in a crowded bar increases your risk of viral transmission XX times compared to a reduced capacity bar/outdoor seating.”

**Conclusions**

In sum, there is no question that young adults’ lives have been impacted by the current coronavirus pandemic; however, it is important to recognize that many young adults are engaging in recommended mitigation strategies. We found the use of a single self-report item asking about physical distancing adherence was able to differentiate young adults and identified those at greater risk for not following recommended public health guidelines and engaging in riskier alcohol use. These individuals may benefit from targeted prevention messages. Beyond the immediate scope of the COVID-19 pandemic, these data illuminate the need for behavioral scientists to better understand societal adherence to empirically supported guidelines (i.e., who is more/less likely to adhere), and the need to improve strategies that motivate adherence.

**Authors’ Note**

The content of this manuscript is solely the responsibility of the author(s) and does not necessarily represent the official views of the National Institute on Alcohol Abuse and Alcoholism, National Institute on Drug Abuse, and the National Institutes of Health.

**Author Contributions**

Clare Einberger has contributed to conception, design, analysis, and interpretation; drafted the manuscript; gave the final approval; and agreed to be accountable for all aspects of work ensuring integrity and accuracy. Scott Graupensperger has contributed to conception, design, acquisition, analysis, and interpretation; critically revised the manuscript; gave the final approval; and agreed to be accountable for all aspects of work ensuring integrity and accuracy. Christine M. Lee has contributed to conception, design, acquisition, analysis, and interpretation; critically revised the manuscript; gave the final approval; and agreed to be accountable for all aspects of work ensuring integrity and accuracy.

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Open Practices
Data and materials for this study have not been made publicly available. The design and analysis plans were not preregistered

Supplemental Material
Supplemental material for this article is available online.

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