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Research note

Camping, glamping, and coronavirus in the United States

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**Introduction**

Prior to the novel coronavirus 2019 (COVID-19), interest in camping—an outdoor accommodation and form of recreation (Craig, 2019)—among experienced and new campers was evident (CCG, 2019). Present day travelers prefer distance from others, natural space, and outdoor recreation (Hong et al., 2020; Rice et al., 2020), three drivers of camping decisions (CCG, 2020). Camping is well-positioned with domestic accommodations showing signs of recovery as travel restrictions loosen (Gossling et al., 2020; Ma et al., 2020). Yet, it remains unseen how camping will rebound considering the scale, persistence, and uncertainty of COVID-19. Therefore, this study considers the relationship between COVID-19 and camping—a large but under-researched sector of tourism (Rice et al., 2019)—among recent (since 2019) travelers in the United States for tent camping and glamping (i.e., glamorous camping).

This study examines three components from the theory of planned behavior (Ajzen, 1991) including cognition, behavioral control, and planned behaviors (see Table 1 for measures). The theory of planned behavior provides theoretical and empirical support for direct and indirect pathways where: (1) individual beliefs and experiences precede behavioral control, attitudes, and norms; and (2) behavioral control, attitudes, and norms precede planned and actual behaviors (Ajzen, 1991; Ulker-Demirel & Ciftci, 2020). Attitudes and norms were beyond the exploratory scope of the study. A literature review of 259 publications note the theory’s validity to assess travel and tourism behaviors (Ulker-Demirel & Ciftci, 2020). Accordingly, this study builds on recent COVID-19, tourism, and recreation research (e.g., Li et al., 2020, \( n = 969 \); Rice et al., 2020, \( n = 823 \)) to offer perspectives about camping.

**Data and methodology**

A cross-section of recent travelers was randomly selected for the four United States census regions. Respondents received an email solicitation and the survey was administered online from April 27th until April 30th, 2020. Of the 6,951 United States-based initial respon-
dent, 2685 (38.6%) had taken or planned a leisure trip in 2019 or 2020 and completed the entirety of the survey (ME = 2%, CL = 99%). Sample size and April 30th COVID-19 cases (Johns Hopkins, 2020) are reported in Fig. 1. See Table 1 for measures.

Of the sample, 36.3% and 34.8% were likely or very like to consider tent camping and glamping, respectively. Slightly more had camping plans for 2020 (38.6%) than camped in 2019 (35.6%). Respondents were primarily millennials (1981–1996) or from generation X (1965–1980; 64.4%), 50.5% above average household income, 74.3% white/Caucasian, 52.7% full-time employed, and 58.8% identified female.

Bivariate correlation analysis was conducted to confirm lack of multicollinearity (see Table 2). Informed by health (Osborne, 2006) and tourism (Schroeder et al., 2013) studies, forward stepwise logistic regression was used to determine variables in the model, model fit compared to the null model (Nagelkerke $R^2$), goodness-of-fit (Hosmer-Lemeshow test $X^2$), and odds ratios ($Exp(B)$). Dependent variables were recoded (1) likely to very likely (0) uncertain to very unlikely. 2019 camping experience and 2020 plans were also binary recoded (1) trips/plans (0) no trips/plans. To capture scale of COVID-19 cases the sample was split Northeast/non-Northeast—a natural research design commonly used in disaster studies (e.g., Hein et al., 2019).

**Results**

Significant, good-fit models emerged for tent camping and glamping—the dependent variables—in the non-Northeast (see Tables 3a, 3b). Three factors are significant for tent camping where overcrowding is the strongest predictor. Recent travelers willing to travel to less popular locations to avoid crowds are 1.81 times more likely to consider tent camping. Of the five factors in the glamping model, 2020 camping plans is the strongest predictor. Recent travelers that had 2020 camping plans prior to COVID-19 are 1.83 times more likely to consider glamping. Timing and distance are significant in both models as well. Significant, good-fit models also emerged for tent camping and glamping in the Northeast. For both models, only 2019 camping experience and overcrowding are significant with 2019 experience producing the highest odds-ratios (or likelihood) for tent camping and glamping.

**Discussion and conclusion**

COVID-19 was a “super-shock” (Dolnicar & Zare, 2020) bringing travel and accommodations to a stand-still. As restrictions and time have passed, outdoor recreation and alternative accommodations are showing signs of recovery (Gosling et al., 2020; Rice et al., 2020). Though, traveler camping and glamping decisions differ based on spatial (i.e., Northeast) and temporal (i.e., April 30th) proximity to COVID-19. This study is the first known to explore the impact of COVID-19 on camping and glamping consideration using a natural research design stratifying the United States by severity of COVID-19 cases. Two key contributions emerged:

**Experience and overcrowding**

| Table 1 Measures | Root | Response categories |
|------------------|------|---------------------|
| **Dependent variables** | | |
| Planned behaviors | | |
| Tent camping Glamping | Does the pandemic have any impact on your decision to consider [Tent, Glamping] camping? | (1) much less likely to consider (5) much more likely to consider |
| **Independent variables** | | |
| Cognition Safety beliefs | Which of the following statements best reflects your views on camping following the COVID-19 pandemic? | (1) camping is less safe than other forms of travel to (3) camping is a safer alternative when compared to other forms of travel |
| 2019 camping experience | Number of trips in 2019? | Enter |
| 2020 camping plans | Plans trips for 2020? | Enter |
| Behavioral control Timing | How long will it take for you to go camping once the restrictions in your area are lifted? | (1) now (2) 1 or 2 weeks (3) next month (4) 1–2 months (5) 3–4 months (6) 5–6 months (7) >6 months (8) uncertain |
| Distance | What is the maximum distance [in miles] you are willing to travel for a camping trip once the restrictions are lifted? | (1) <25 (2) 25–50 (3) 51–100 (4) 101–150 (5) 151–200 (6) 201–300 (7) >300 (8) none (9) uncertain |
| Overcrowding | How willing are you to consider traveling to less popular locations and/or attractions in order to avoid overcrowding at some locations such as national parks or national monuments? | (1) much less likely to (5) much more likely |

*Note. Single-item questions were developed based on COVID-19 informational needs of a large tourism business that commissioned the study. No additional details are provided to protect confidentiality.*
Table 2
Correlations.

|     | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Tent camping | –   | –   | –   | –   | –   | –   | –   | –   |
| Glamping      | 0.44** | –   | –   | –   | –   | –   | –   | –   |
| Safety belief | 0.19** | 0.10** | –   | –   | –   | –   | –   | –   |
| 2019 experience | 0.21** | 0.14** | 0.11** | 0.03 | 0.40** | –   | –   | –   |
| 2020 plans    | –0.16** | –0.12** | –0.12** | –0.16** | –0.18** | –   | –   | –   |
| Timing        | –0.21*  | –0.16** | –0.21** | –0.28** | –0.17** | 0.34** | –   | –   |
| Overcrowding  | 0.31**  | 0.27**  | 0.21**  | 0.05*  | 0.02  | −0.05* | −0.06** | –   |

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

Table 3a
Tent camping.

Non-Northeast

| Variable | B   | S.E. | Sig.       | Exp(B) |
|----------|-----|------|------------|--------|
| Timing   | −0.17| 0.02 | <0.001     | 0.84   |
| Distance | −0.142| 0.02 | <0.001     | 0.87   |
| Over-crowding | 0.594| 0.05 | <0.001     | 1.81   |
| Constant | −1.45| 0.21 | <0.001     | 0.24   |

Northeast

| Variable | B   | S.E. | Sig.       | Exp(B) |
|----------|-----|------|------------|--------|
| Timing   | 1.46 | 0.19 | <0.001     | 4.29   |
| Distance | −0.21| 0.09 | <0.001     | 1.63   |
| Over-crowding | −1.84| 0.43 | <0.001     | 0.16   |
| Constant | −1.99| 0.23 | <0.001     | 0.14   |

Table 3b
Glamping.

Non-Northeast

| Variable | B   | S.E. | Sig.       | Exp(B) |
|----------|-----|------|------------|--------|
| 2019 experience | 0.35| 0.11 | <0.01     | 1.42   |
| 2019 plans | 0.60| 0.11 | <0.001    | 1.83   |
| Timing   | −0.12| 0.02 | <0.001    | 0.88   |
| Distance | −0.10| 0.02 | <0.001    | 0.90   |
| Over-crowding | 0.52| 0.05 | <0.001    | 1.67   |
| Constant | −1.59| 0.23 | <0.001    | 0.14   |

Northeast

| Variable | B   | S.E. | Sig.       | Exp(B) |
|----------|-----|------|------------|--------|
| 2019 experience | 0.99| 0.18 | <0.001    | 2.70   |
| Over-crowding | 0.45| 0.08 | <0.001    | 1.58   |
| Constant | −2.58| 0.36 | <0.001    | 0.08   |
The two most salient variables are recent camping experience and willingness to travel to less popular destinations to avoid overcrowding. Like previous disaster tourism studies (e.g., Floyd et al., 2008), the results suggest that travelers who have a previous tourism experience (e.g., camping) are more likely to engage in the same experience post-disaster (i.e., COVID-19). This effect is even more stark in the Northeast where recent travelers who camped are 4.29 times and 2.70 times more likely to consider tent camping and glamping, respectively. Overcrowding is the most recurrent theme, significant and comparable in magnitude in all models. This highlights that travelers—regardless of COVID-19 scale or accommodation type (i.e., tent or glamping)—prefer locations that provide social distance.

Scale of COVID-19

Scale of events can have overriding effects (e.g., holidays, natural disasters) on camping (Craig, 2019; Ma et al., 2020). This appears to be the case in the Northeast—where more than double the amount of COVID-19 cases were located at the time the survey was administrated—with only one of the behavioral control variables (i.e., overcrowding) significantly related to tent camping and glamping consideration. Conversely, throughout the remainder of the United States shorter travel distances and willingness to travel soon are both related to tent camping and glamping consideration. Floyd et al. (2008) documented traveler response to the 9/11 terrorist attacks, also finding that disaster experience was adversely related to time and distance of travel.

Limitations and future research

Though novel, the study has limitations. The study was cross-sectional, relied on single-item measures, did not account for traveler attitudes or social norms, and considered planned—not actual—behaviors. Future research should longitudinally explore actual camping behaviors, develop and validate multi-item measures including affect and norms, and directly link past experiences by camping type to future planned and/or actual behaviors. Counter-intuitively, camping safety beliefs were not significant in any model. Future researchers should also assess camping safety beliefs by type of camping including tent, recreational vehicle, cabin, and van life. Further, future COVID-19 research should consider the influence of risk perceptions on camping decisions once actual health risks reside.

Declaration of competing interest

None.

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