



## Research note

## Travel craving

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## Introduction

Tourists have not been able to travel during the lockdowns imposed to contain the spread of COVID-19. This unprecedented confinement has put travel in a new perspective, representing, for some at least, an intense desire which cannot be fulfilled. It seems that the effects of travel deprivation can be likened to the cognitive and emotional states experienced by behaviour addicts undergoing conditioned withdrawal (Savci & Griffiths, 2019). Travel is not an addiction, although expectations of travel and people's desire to modify current cognitive experiences make the concept of travel craving useful to understand individuals' subjective states. It is important to investigate the phenomenon of travel craving because the construct can potentially be applied in tourism studies to explore any situation in which travel is impossible.

Pearce and Packer (2013) called for the study of the psychological, cognitive and mental processes that underlie tourists' motivations and travel intentions. Sporadic attempts have been made to investigate some travel-related addictive behaviour, specifically excessive flying (Cohen et al., 2011), but the application of the behavioural addiction framework has been criticized by Young et al. (2014), and Griffiths (2017). The contribution of this research note is to conceptualise the travel craving phenomenon, to advocate the concept as a measurable construct in tourism, and to assess its relevance in an empirical cross-cultural study.

*Travel craving: concept definition*

In clinical psychology, 'craving' is used across a spectrum of meaning, from an extreme liking for, to the compulsory use of a substance (Kavanagh et al., 2013; Flannery et al., 1999). Craving has been (narrowly) defined as a 'very strong desire for a psychoactive substance' (WHO, 2020). Kavanagh et al. (2013:1572) broadened the concept, stating it to be 'a cognitive-emotional event in time', describable in terms of duration and frequency. A craving can have an object other than a substance and should

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not be confused with its consequences or causes. [Toneatto \(1999:529\)](#) argued that a craving is a ‘strong desire to modify ongoing cognitive experiences’ and does not relate only to addictions. In periods of abstinence, a craving, prior to initiating the necessary behaviour to assuage it, can lead to discomfort. To stimulate the scientific investigation of travel craving we propose a definition:

**Travel craving is a travel focused cognitive-emotional event with aversive or incentive properties experienced when a person who wishes to travel cannot do so, for reasons beyond their control.**

Cognitive events are subjective mental experiences such as discursive thinking, memories, feelings, dreams and mental images ([Kavanagh et al., 2013](#); [Toneatto, 1999](#)). In tourism, mental images of anticipated memories and memorable experiences have been acknowledged to influence pre-trip expectations ([Wood, 2019](#)). ‘Craving’, if taken to mean the anticipation of an experience, can alleviate the distress caused by the ‘unpleasant conditioned withdrawal experience’ ([Drummond, 2001:36](#)). Travel craving involves affect, sensory experiences of other - mostly pleasurable - cognitive events, experienced at a range of intensities. In order to clearly define the construct and ensure the systematic development of knowledge about it, it is important to define what travel craving is not. Firstly, it is not the same as travel intention: intentions may manifest even when a craving is not particularly intense. Craving does not depend on travel frequency, because travel craving and travel consumption are distinct phenomena. How the concept is defined has implications for its assessment: by investigating how strong and/or how frequent a craving is, and how long it lasts, we can assess the construct without asking directly about its aversive or incentive properties. This is crucial to minimising any response bias that a researcher’s preconceived ideas about craving might introduce ([Kavanagh et al., 2013](#)).

**Methodology**

We conducted a cross-cultural survey to assess the cognitive and emotional event of (travel) craving.

*Convenience sample*

The participants were students at Trento University (Italy) and the Corvinus University of Budapest (Hungary), recruited via an email containing the survey’s web-link. Of the 627 responses collected, those from international students (n = 32) and incomplete surveys (n = 60) were eliminated from the analysis, giving a sample of 535 (73.1% female;  $M_{age} = 22.74$ ; SD 1.98; Italian 62.2%, Hungarian 37.8%). Although restrictive measures were imposed in both countries, the contexts were slightly different. Italy’s lockdown prohibited all outdoor activities, while in Hungary certain outdoor activities were permitted.

*Research instrument*

A structured online survey in English was used to collect data. To avoid the risk of lack of scale validity and to ensure reliability, the survey was tested in a pilot study (n = 20), confirming that the questions were unambiguous and understood by the participants ([Dolnicar, 2018](#)). The pilot study took place on Microsoft Teams.

*Data collection*

Data was gathered in a crucial period. In the last two weeks of the lockdown (22nd May–7th June 2020) restrictive measures were easing, and governments announced new travel rules. Data gathering started a week after the pilot study. Survey completion time was 10 min, and respondent fatigue minimal.

**Table 1**  
Scale adaptation, measurement items (n = 535).

Item	Original PACS	Travel craving	Mean	SD	Skewness	Kurtosis
1	How often have you thought about drinking, or how good a drink would make you feel?	How often have you thought about <b>travel</b> , or how good <b>travel</b> would make you feel? (1 = never; 7 = nearly all of the time)	5.09	1.472	-0.671	0.037
2	At its most severe point, how strong was your craving for alcohol?	At its most severe point, how strong was your craving for <b>travel</b> ? (1 = none at all; 7 = very strong)	4.94	1.633	-0.559	-0.451
3	How much time have you spent thinking about drinking or how good a drink would make you feel?	How much time have you spent thinking about <b>travelling</b> or how good <b>travel</b> would make you feel? (1 = none at all; 7 = huge amount of time)	4.60	1.620	-0.272	-0.690
4	How difficult would it have been to resist a drink if you had known a bottle were in your house?	How difficult <b>was it to resist travelling</b> ? (1 = not difficult at all; 7 = extremely difficult)	3.35	1.798	0.413	-0.859
5	Keeping in mind your response to the previous questions please rate your overall alcohol craving?	Please rate your overall <b>travel</b> craving? (1 = I was not craving it at all, 7 = I was craving it very much)	4.44	1.594	-0.225	-0.633
<b>Total</b>		<b>Total</b>	<b>22.43</b>	<b>6.799</b>	<b>-0.306</b>	<b>-0.413</b>

**Table 2**  
Correlation between travel craving and other variables.

In the past three months, how did you cope without the following (1 = I really missed it, 7 = I was perfectly fine without it)	Travel craving (total)		
	Full sample	Italian sample	Hungarian sample
Going to concerts and festivals	-0.246**	-0.305**	-0.102
Attending university	-0.067	-0.90	-0.089
Travelling	-0.685**	-0.745**	-0.573**
Being on vacation	-0.474**	-0.502**	-0.403**

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Scale adaptation

We adapted the multi-item, single-factor Penn Alcohol-Craving Scale (PACS) devised by Flannery et al. (1999). The PACS scale is practical and has been adapted to other behaviours (Savci & Griffiths, 2019). The different items measure different components of craving: frequency, duration, intensity, the person's ability to resist.

### Results

To explore the psychological effects of the impossibility of travelling and the extent of travel craving, the PACS was adapted to the context of tourism. The adaptations [in bold] and descriptive statistics are shown in Table 1.

We kept item 4, although the apparent lack of equivalence, because booking websites stayed active under lockdowns bringing apparently close the opportunity to travel. An exploratory factor analysis was carried out, and the *travel craving scale* was found to be single-factor; the unidimensional structure explained 71% of the total variance. Confirmatory factor analysis showed that the travel craving model has a good fit ( $\chi^2/df = 10.355/4$ ,  $p = 0.035$ ; CFI = 0.996; TLI = 0.990; RMSEA = 0.055).

The correlations between travel craving and the ability to cope with the absence of other activities are shown in Table 2. Note that all of the activities listed were prohibited during the lockdowns. Convergent validity for travel craving was evidenced by the strong correlation with difficulty in coping with the travel bans. Discriminant validity was also confirmed by the ease with which participants coped with not being able to attend university in person. The analysis thus demonstrates that travel craving was associated with all these variables in the expected direction.

### Measurement invariance

In the cross-cultural sample internal consistency is high (Cronbach's  $\alpha$  ( $\alpha_{TOTAL} = 0.892$ ;  $\alpha_{IT} = 0.905$ ;  $\alpha_{HUN} = 0.866$ )). Invariance measurement is key to drawing valid conclusions on cross-cultural generalizability. Items were evaluated with multi-group confirmatory factor analysis and all factor loadings had a good fit (Table 3).

The configural model, the metric model, and the scalar model were tested and compared through  $\Delta CFI$  tests (Table 4). All indices indicated an excellent fit cross-nationally. In fact, the *travel craving scale* was invariant, providing similar dimensionality and consistent factor structure across countries.

### Conclusions

The pandemic and the consequent restrictions have changed how we think about travel. This research note provides insights into the psychological aspects of travel-deprivation and enriches the tourism literature by conceptualising travel craving as a context specific construct which can be applied in any situation in which people are unable to travel, whether for personal economic or health reasons, or because of externally imposed restrictions on movement. We argue that travel craving is not a precursor of actual travel, but a cognitive-emotional event in time focused on travel as a way to alleviate the unpleasant/aversive condition of

**Table 3**  
Measurement analysis results: parameter estimates.

Item	Italian sample		Hungarian sample	
	Standardized estimates	t-Value	Standardized estimates	t-Value
I1	0.787	-	0.716	-
I2	0.832	16.42	0.764	9.83
I3	0.796	19.88	0.777	10.51
I4	0.698	13.25	0.626	8.17
I5	0.912	17.96	0.862	10.66

Note: Covariances between e1 and e3 are allowed.

**Table 4**  
Assessment of measurement invariance.

Model specification	$\chi^2/df$	<i>p</i>	RMSEA	CFI	$\Delta CFI$	TLI
configural invariance	14.752/8	0.064	0.040	0.996	–	0.989
metric invariance	16.897/12	0.154	0.028	0.997	0.001	0.995
scalar invariance	31.333/17	0.018	0.040	0.991	0.006	0.989

Note: df = degree of freedom; RMSEA = root mean square error of approximation; CFI = comparative fit index, TLI = Tucker–Lewis index,  $\Delta CFI \leq 0.01$  indicates factorial invariance.

lockdowns. This study responds to Pearce and Packer's (2013) recommendation to develop appropriate concepts with which to explore individuals' mental processes and travel related sensory experiences. It indicates that the travel craving scale was invariant across countries with a unidimensional good fit multi-item scale. The study has some limitations: the adapted scale measured self-reported data only representing a snapshot of this phenomenon under lockdowns; and no other scales were used to test convergent and discriminant validity. Any future studies should use larger, probabilistic samples that include different age cohorts.

### Declaration of competing interest

None.

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