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A quarantined lodging stay: The buffering effect of service quality

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ABSTRACT

How do guests feel during their stay at quarantine lodging? This study draws on terror management theory and social exclusion theory to synthesize a model that highlights guests’ perceptions about their experience under enforced isolation. The model articulates guests’ feeling of anxiety and loneliness, whereas quality of service presents warmth and care that activates an anxiety buffer mechanism that mitigates the effect of anxiety. In turn, guests’ level of anxiety is further explained by an interaction between their health status and the length of stay. Results point to a conduit for studying the dark side of hospitality, opening up research avenues that could help assess broader social behavioral changes during the global pandemic, while offering operators revelations for lodging management during a crisis.

1. Introduction

By its very definition, hotels and other paid lodging accommodations (e.g., guest houses, inns, bread and breakfast [B&B] homestays, and hostels) are commercial third places for short-term dwelling for travelers (Hayes et al., 2017). A hotel, for example, is meant to offer guests comfort and hospitality during their stay, and it should function as a temporary home. A guest therefore is welcomed to the home with empathy, and hence, he/she should enjoy an oasis with pleasant experience (Liu et al., 2017; Park et al., 2019). Although these definitions still hold true in most properties of the lodging industry, some have changed their very nature and turned into isolation centers for quarantined tourists who may have a high risk of the novel coronavirus pneumonia (NCP, COVID-19, or coronavirus for short) contamination. This is a necessary step in containing or slowing down the spread of the virus, as it is far more infectious than any other disease recorded in human history (Chinazzi et al., 2020).

As a precautionary measure, countries such as China, Singapore, South Korea, Spain, and many other nations that have been severely affected by the pandemic have decided to quarantine tourists from certain regions or with coronavirus symptoms into these isolation centers (Keeley, 2020; Turner, 2020). Yet, anecdotal evidence from practitioner journals describing the situation of these tourists points to their “anxiety and boredom of life under isolation measures” (Turner, 2020, p. 1). It is not difficult to imagine guests’ negative sentiments living in these lodging places. Fear of getting infected, worries about one’s health condition, restricted freedom of movement and choices, missing home, and uncertainty about the future are common denominators under the shadow of fear and panic about the outbreak.

This study is novel in its own right as it investigates guests’ experience in such isolation centers during their quarantine. To the best of the authors’ knowledge, it is the first academic inquiry to explore guests’ perceptions staying in such accommodations. It is also the first to examine guests’ negative sentiments living in hotels and similar lodgings during their quarantine. In particular, this research explores a model with respect to the relationship among perceived health status, anxiety, and loneliness as well as the moderation of length of stay and service quality, by drawing on theories pertaining to terror management (Dunaetz, 2020; Pyszczynski and Kesebir, 2011) and social exclusion (Renn et al., 2013). It seeks to answer the following questions: To what extent do the length of stay and guest’s health condition affect his/her anxiety level? To what extent do the guest’s anxiety level and the lodging service quality affect his/her loneliness level? In essence, this study aims to contribute to the literature by illuminating guest experience in quarantine accommodations. It also works to advance the literature with regard to how service quality could serve as a buffering mechanism that mitigates the negative effect of anxiety on loneliness during such a lodging experience.

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2. Literature review

2.1. Research background

Since January 2020, COVID-19 has swept through the world, paralyzing the lives of much of humanity (World Health Organization, 2020), while devastating the tourism–hospitality industry like never before (Gössling et al., 2020; McKinsey and Company, 2020), for example, estimated a sharp decline in travel demand for months to come and hence, deteriorated market capital for the air and travel sector as well as other related businesses (e.g., accommodations). The pandemic has certainly changed the hospitality industry as practitioners have been trying to cope with the “new normal” under enforced/voluntary quarantine, compliance with strict hygiene protocols, social distancing, and other measures (Baum and Hai Nguyen Thi, 2020). As such, decision makers need to reframe the taken-for-granted business model and to go beyond basic cleaning and hygiene standards to devote greater attention to initiatives that could protect the safety of stakeholders and better fulfill guests’ physical and psychosocial needs (Jiang and Wen, 2020).

The present pandemic is certainly not the first crisis the tourism–hospitality industry has faced, although prior instances were far less violent, devastating, and widespread (Hall et al., 2020). In fact, some scholars argue that crises such as acts of terrorism (e.g., 9/11), may have put an end to hospitality as they threaten the status quo of humanity, since “terrorism is the marketing of the fear commodity” (Korstanje, 2018, p. 166). Nevertheless, these events also point to how destinations and tourism–hospitality industries alike handle exterminated circumstances through certain crisis response mechanisms (Gössling et al., 2020). Take the accommodation industry as an example: the SARS outbreak swept through Asian locales and hence, the hotel industry was hit rather hard due to acute decline in occupancy rate and revenue. Given such challenges, hoteliers sought to gain resilience through ambitious marketing programs, attracting local residents as guests, offering greater value through extra amenities, and creating a SARS task force to adopt health protocols and ensure government policy compliance (Henderson and Ng, 2004). Temporary shelters have also been provided in times of natural disaster around the globe (Nigg et al., 2006). Lessons learned from these instances have fostered better understanding of the nature of crisis as well as allowing practitioners and DMOs to better prepare and then manage environmental turbulence (Ritchie et al., 2011).

2.2. Proposed research framework

The proposed framework draws on the premise of terror management theory (TMT) (Harmon-Jones et al., 1997; Maxfield et al., 2014), which posits that human anxiety is often caused by a desire to continue living. Yet we are also cognizant and aware of the fact that any organism, including human beings, will die, and that traumatic events could curtail one’s longevity. This paradoxical “knowledge is apt to create paralyzing terror” (Pyszczynski and Kesebir, 2011, p. 4) and hence, anxiety. In other words, terror reflects human apprehensions and worries about death. The theory continues to posit a buffering mechanism of anxiety through three components: cultural worldviews, self-esteem, and close personal relationships. Cultural worldview reflects a person’s beliefs and assumptions of the world and nature of existence including moral values, cultural norms, and common standard of living and practices. Self-esteem represents a person’s sense of self-worth, and it encompasses beliefs about how much one’s existence adheres to the standard and norms that he/she prescribes (Burke et al., 2010). Close personal relationships reflect people’s desire to maintain relationships with others for physical security and resources. They also reflect people’s “concerns [about] the basic support, comfort, and proximity that close others provide in times of need” (Plusnin et al., 2018, p. 3).

These buffering properties generally point to a distal defense system that people have developed over the course of human evolution; failure to activate this defensive mechanism could lead to unsavory consequences such as depression, loneliness, and mental disorder (Pyszczynski and Kesebir, 2011). Among many of these negative outcomes, this study focuses on loneliness. We also draw upon social exclusion theory (Leary, 1990) to identify a process in which guests develop unpleasant emotional responses during the quarantine due to complete exclusion from physical social interactions. Hence, the feeling of being alone and left out transforms into a sense of solitude that is triggered by one’s anxious feelings about being secluded from the outside world while facing possibility of death or serious illness due to threats from the pandemic. In other words, we believe that quarantined guests generally face two sources of anxiety: health related (Gudmundsson et al., 2005) and social isolation related (de Jong Gierveld et al., 2016). Such an anxiety may linger beyond a personal level as a widespread panic and worry across communities around the globe, as new empirical evidence demonstrates (Lima et al., 2020). By combining this theory with TMT, we postulate a process in which guests’ loneliness is a consequence of anxiety, which is further exacerbated by one’s health condition during their quarantine. Length of stay and service quality work as buffers that could mitigate the negative impact of poor health status and anxiety on guest’s lodging experience, as Fig. 1 shows.

TMT is an ideal theoretical underpinning that underlies the present research context, since feelings of worry, apprehension, and loneliness while being secluded from the rest of the society during the pandemic may have deadly consequences. The two proposed accommodation-related conditioning factors – length of stay and service quality – superimpose moderating influences onto this relationship chain as buffering mechanisms that the theory posits. Therefore, TMT is adopted in the present inquiry, as it possesses better theoretical alignment with the tenets of the research compared with other similar theories such as anxiety buffer disruption theory (Florian et al., 2002) or the response style theory of depression (Just and Alloy, 1997). As we delve further into the literature below, it will become clearer why length of stay and service quality are buffers mitigating anxiety and loneliness.

2.3. Hypothesis development

2.3.1. Health and anxiety

Perceived health status is referred to as an individual’s subjective measure of his/her health condition (Barsky et al., 1992; Wong et al., 2019a). Prior research has largely pointed to its impact on tourists’ and employees’ behaviors with regard to both negative and positive consequences it brings (Jang and Wu, 2006). Travel and associated experience can also be enabled or inhibited depending on one’s perceived health status (Nyaupane et al., 2008). Anxiety is defined as “a temporary elevation in a combination of emotional and physiological symptoms such as tension, apprehension, nervousness, and worry” (Doby and Caplan, 1995, p. 1107). It reflects a person’s expectations of negative events and outcomes (Reisinger and Mavondo, 2005); and hence, tourists and hotel guests alike are likely to experience apprehension about risk associated their trips and hotel stay (Shihapat and Bjørk, 2019), especially during crisis. Here risk is defined as the probability of experiencing harm, loss, injury, illness, property damage, or death that stem from an unexpected circumstance (Paraskevas and Quek, 2019). Risk and anxiety are related, as a person’s risk perception often impels excessive apprehension; whereas fear of uncertain outcomes exacerbates anxiety because humans worry about unpredictable consequences, especially during a crisis (Adeloye and Brown, 2018; Reisinger and Mavondo, 2005).

Much of the academic research points to both internal and external factors that could cause anxiety (Kramnitzi et al., 2015; Maxfield et al., 2014; Wolf et al., 1998). Among many, one’s health condition is perhaps the most salient internal attribute that could lead to excessive worry, nervousness, and even paranoia (Olawa et al., 2020). Health-related anxiety may be particularly pronounced during a pandemic such as...
the outbreak (Shigemura et al., 2020), especially if one is being quarantined together with other tourists, who might have a high risk level of virus contamination. As Gibbons (1990) assertion states that:

"Loneliness is commonly defined as “an individual’s subjective perception of deficiencies in his or her social relationships” (Russell et al., 1984, p. 1313). Scholars often refer it as an aversive and distressing state (DiTommaso and Spinner, 1997) that has further negative consequences to a person. Anecdotal evidence acknowledges that quarantined tourists experience loneliness due to the fact they are secluded with enforced isolation, while physical social interactions with others are strictly prohibited in order to avoid cross-contamination (Turner, 2020). We believe that this distressing state could further be elevated during such an isolated period, while anxiety is a major cause of it. In fact, empirical evidence reported in psychology journals has revealed that loneliness is often associated with anxiety and doubt about self-worthiness (Leary, 1990).

Although anxiety is an antecedent of loneliness (Dykstra et al., 2005), chronic or prolonged loneliness could also trigger anxiety to a greater extent (Zawadzki et al., 2013). This research adheres to the former assumption as guest isolation is only temporary and hence, anxiety and loneliness are short-lived phenomena during their quarantine. Through a broader theoretical lens, this relationship may better be explained by social exclusion theory, which posits how an individual experience being left out and powerless, which creates anxiety and other negative symptoms that ultimately affect one’s loneliness (Jones, 1990). As Jones argues “the fear or reality of being excluded from social groups and intimate relationships is highly and perhaps most particularly relevant to the psychological phenomenon of loneliness” (p. 217). In essence, feeling social rejection from society is a key factor that leads to worries and panic, which further exacerbates one’s feeling of being isolated from social ties and even human interaction (Smith and Victor, 2019). This is especially the case of the crisis, as some scholars call it a “loneliness pandemic” in which people are experiencing social recession (Klein, 2020). The above arguments led to the following hypothesis.

**Hypothesis 1.** Perceived health status is negatively related to anxiety.

Control variables: demographic characteristics and quarantine accommodation type.

2.3.2. Moderation of length of stay and service quality

Length of stay (LOS) refers to the duration (in nights) a guest stays in a commercial accommodation (Pratt and Kirillova, 2019) while being or perceiving to be quarantined. The first hypothesis postulates that a negative relationship between one’s health status and anxiety is often caused by extensive stress and negative encounters. Deteriorating health condition may work as a mortality reminder, as terror management theory posits (Burke et al., 2010; Dunetz, 2020). This is especially the case during the covid-19 pandemic, while being quarantined for possible virus infection as the death poll surges daily (World Health Organization, 2020).

The terror management theory posits that “reminding people of their mortality activates the anxiety-buffering system” (Pyszczynski and Kesebir, 2011, p. 5); and their cultural worldview, self-esteem, and relational support from others as anxiety buffers (Burke et al., 2010). In particular, two fundamental needs of humanity are socialization and freedom, which are basic human rights. Being quarantined alone in an isolated room represents confiscation of both of these rights, suggesting that the anxiety-buffer mechanism may fail, as the anxiety buffer disruption theory asserts (Florian et al., 2002). In other words, deprivation of these rights may threaten people’s cultural worldview (i.e., against the norm and standard of practices), self-esteem (i.e., lack of freedom of movement), and relational support (i.e., exclusion from physical interaction with others). Thus, the longer one stays in such a condition, the more paralyzing will be panic and worries about one’s modality. Such a situation should exacerbate tensions and apprehension that are caused by poor health conditions (Shoar et al., 2016). In addition, people with poor health status may need medications and medical treatments. The longer the quarantine, the greater the anxiety that may result due to elevated health concerns (Cava et al., 2005). Accordingly, the following hypothesis was proposed:

**Hypothesis 2.** Anxiety is positively related to loneliness.

![Proposed Research Model](image-url)
Hypothesis 3. The relationship between perceived health status and anxiety is moderated by length of stay (LOS) in that the relationship is stronger for longer LOS.

Service quality is defined as a guest’s evaluations of the service performance of an accommodation (Ju et al., 2019; Shin et al., 2019; Tse and Ho, 2009). Because a guest is only allowed to stay in his/her room during their quarantine without interaction with other customers and frontline staff, the focus of service quality in this study rests on the physical attributes of the containing room such as amenities (bed, pillow, and mattress) as well as temperature, cleanliness, and quietness of the room (Choi and Chu, 2001; Zhu et al., 2019). Because anxiety elevates one’s loneliness during the guest’s isolation period, quality of service offered by a hotel, for example, renders a buffering mechanism on the effect of anxiety.

Quality of service signifies value and brand meanings that are carefully articulated from the provider (Priporas et al., 2017; Wong et al., 2019b), which should reinforce one’s worldview that there is still an adequate living standard and comfort, which help confirm moral values and cultural norms (Burke et al., 2010). More importantly, good services manifest a sense of care and empathy, which signals a dash of love and warmth offered to the guest (Rosenbaum et al., 2007), that could reinforce one’s self-worth and better connect the brand with the guest (i.e., close relationship) (Hart et al., 2005). Sentiments available from service encounters are an important remedy to loneliness, as lonely people crave warmth (Legg, 2019). As a result, quality of service resonates as sympathy that “imbu[es] life with meaning, structure, and purpose” (Pyszczynski and Kesebir, 2011, p. 4). It should therefore reinforce the guest’s self-esteem with a sense of respect and courtesy. It also renders a means of support that could mitigate the impact of anxiety (Huang et al., 2020; Rosenbaum, 2006). Accordingly, the following hypothesis was proposed.

Hypothesis 4. The relationship between anxiety and loneliness is moderated by service quality in that the relationship is weaker for guests who perceived a higher level of service quality.

3. Methods

3.1. Sample and data collection procedure

The population of interest was tourists from Hubei, China. Due to the severity of the outbreak within the province, tourists originating from this locale were being quarantined in lodgings such as hotels, inns, hostels, and guest houses during the peak of the pandemic in January and February. This was an important means for the Chinese government to contain the spread of the virus and keep it at bay. Likewise, these accommodations were used as temporary shelters for these tourists due to their risk of getting infected and hence, being a carrier of the virus. A mandatory 14-day quarantine period was required before they could be set free, while some of them might need a longer period of quarantine due to symptoms that may be associated with the virus or other sickness. Yet, those who were free after the 14-day mandatory isolation period might still remain in the accommodation and the destination, since the entire region of Hubei was blocked, while most parts of China were in lockdown in order to restrain the spread of the virus. As a consequence, these tourists were not able to return home until further notice, perhaps when the pandemic was under control. In fact, during the peak of the pandemic in China, the entire country was virtually in lockdown by restricting people to go out unless approval was granted. As a result, these tourists were in some cases quarantined inside their accommodation longer than was originally required.

Data were collected at the end of February 2020 by means of self-administered online survey. The data collection approach was appropriate given that respondents were being quarantined. We identified the subjects based on referral sampling. In particular, we first joined multiple WeChat social media groups of tourists from Hubei based on referrals from hotel operators. All these groups were created based on Hubei outbound tourists who were traveling in other parts of China during the outbreak and were therefore staying in domestic destinations while being quarantined. We then specified the purpose of the survey to each member of these social groups and distributed the survey to qualified members. To be eligible, a participant must have been traveling from Hubei while being quarantined in a lodging accommodation. Each participant received an RMB $10 coupon after completion of the survey in exchange for their efforts. The survey questionnaire was available in Simplified Chinese. It was first developed in English and back-translated into Chinese, and it was pilot tested with a panel of tourism operators, professors, and graduate students to improve accuracy and reliability of the questions.

The sample frame contained 3705 guests. We distributed the survey to all of them and only 370 responses were returned. This represents a 10 % response rate. We diagnosed response bias based on Armstrong and Overton (1977). We then compared the first 10 % and last 10 % of the sample with the variables of interest, with results showing no significant difference between the two groups; hence, response bias is not an issue in the study. We removed incomplete surveys and outliers to retain a total of 320 respondents in the final sample. Of the respondents, 46.6 % were females: 47.5 % were between the age of 18 and 24, 20.0 % were between the age of 25 and 34, and 13.8 % were between the age of 35 and 44; more than half of the respondents had received a bachelor’s degree or higher education; 55.9 % were single, while 40.3 % were married; and 11.3 % were being quarantined in government appointed hotels, while the rest stayed in other accommodations (see Table 1 for more details).

3.2. Measures

The survey contained a mixed of multi-item and single-item measures (see Appendix A for a complete list of items). Each item was referred to the statement “While staying in the accommodation.” Anxiety was operationalized with a seven-item scale adopted from Zigmond and Snith (1983). Each item was assessed based on a 5-point anchor ranging from 0 (not at all) to 4 (always). Example questions included “I feel tense or wound up” and “I get sudden feelings of panic.” One of the items was removed due to poor factor loading. The scale demonstrated good scale consistency with Cronbach’s alpha (α) and composite reliability (CR) = .94.

Loneliness was operationalized with a four-item scale adopted from DiTomaso and Spinner (1997). Each item was evaluated using a 5-point anchor ranging from 1 (not at all) to 5 (always). Example items

| Gender | Percent |
|--------|---------|
| Male   | 53.4    |
| Female | 46.6    |

| Age   | Percent |
|-------|---------|
| 18–24 | 47.5    |
| 25–34 | 20.0    |
| 35–44 | 13.8    |
| 45–54 | 14.3    |
| 55–64 | 3.8     |
| 65 or above | .6 |

| Education | Percent |
|-----------|---------|
| Primary school or below | 1.6    |
| Secondary school | 29.1 |
| Diploma | 19.1    |
| Bachelor | 45.5 |
| Master | 4.1     |
| Doctoral | .6 |

| Marital Status | Percent |
|----------------|---------|
| Single | 55.9    |
| Married | 40.3   |
| Others | 3.8     |
Service quality was measured using a four-item scale developed from Choi and Chu (2001). The scale focused on the tangible quality attributes of hotel services, because customer-staff interaction was reduced to the bare minimum in order to avoid the risk of cross-contamination. Each item was assessed using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Example questions included “The room is clean” and “The room is quiet.” The scale was highly reliable with α and CR = .94.

**Perceived health** status was operationalized using a single item adopted from Jang and Wu (2006). It was measured using a 5-point bipolar scale ranging from 1 (poor) to 5 (excellent). **Length of stay (LOS)** was assessed using a ratio scale to evaluate the length of stay in an accommodation that a guest undertook during his/her quarantine period.

Control variables include customer demographic characteristics such as gender and education level. We also controlled for the accommodation type with 0 = government designated hotels and 1 = tourist selected hotels. Here hotel refers to any type of accommodation including regular hotels, inns/motels, and hostels. It is important to note that government designated properties were generally economy hotels that were intended to be a temporary home for quarantined tourists who might have a higher risk of coronavirus exposure than guests who stayed in other properties.

**4. Findings**

We diagnosed scale validity and measurement model fit through confirmatory factor analysis. Results show that t-values ≥ 14.93 (p < .001) and average variance extracted (AVEs) ≥ .71, suggesting that convergent validity was intact. Discriminant validity was supported with the inter-correlation correlations less than the AVEs. The overall measurement model fit was adequate with comparative fit index (CFI) = .99, goodness of fit index (GFI) = .94, root mean square error of approximation (RMSEA) = .05, and standardized root mean square residual (SRMR) = .04. Details about the scale descriptive statistics and zero-order correlations are presented in Table 2. To mitigate common method variance (CMV), we followed the literature (Podsakoff et al., 2003) to use different scaling techniques and scale anchors. We also used items with reverse coding. We then diagnosed CMV based on Harman’s single factor method to show that χ²/df = 10.95 (greater than the 2.0 threshold) and the factor structure explained 27.59 % of variance (smaller than the 50 % threshold). Multicollinearity diagnostics also suggest that collinearity is not an issue, as the variance inflation factors (VIFs) are less than 1.12.

We used structural equation modeling with LISREL 8.80 to test the proposed relationships presented in Fig. 1. Hypothesis 1 posits that perceived health status is negatively related to anxiety. Results from Model 1 (see Table 3) reveal that the relationship is significant as proposed (β = -.20, p < .001), in support of the hypothesis. Hypothesis 2 states that a positive relationship exists between anxiety and loneliness. Results confirm this proposition (β = .61, p < .001), in support of the hypothesis. We then tested the mediating effect of anxiety in LISREL, with results showing that it is significant (β = -.12, p < .01). In other words, one’s perceived health status negatively and indirectly influences his/her loneliness. We validated this mediating effect through the Sobel test. Results confirm the full mediation is significant at the .001 level (Z = -3.31).

Hypothesis 3 posits a moderating effect of length of stay (LOS on the relationship between perceived health status and anxiety. Results from Model 2 show that the perceived health status × LOS interaction is significant (β = -.10, p < .05), in support of the hypothesis. We followed Aiken and West’s simple approach (1991) to redefine the independent and moderator variables into plus and minus one standard deviation from the mean. As Fig. 2 illustrates, the health status negative effect on

**Table 2**

Means, Standard Deviations, Correlations, and AVEs.

|                | Mean | s.d. | 1     | 2     | 3     | 4     | 5     |
|----------------|------|------|-------|-------|-------|-------|-------|
| 1. Perceived health status | 4.01 | .70  | -     |       |       |       |       |
| 2. Anxiety | 2.32 | .95  | -.19 *** | .73  |       |       |       |
| 3. Loneliness | 2.12 | .99  | -.16 *** | .56 *** | .71  |       |       |
| 4. Length of stay | 22.35 | 8.43 | -.05 | .02  | -.04 | -     |       |
| 5. Service quality | 5.31 | 1.33 | .24 *** | -.08 | -.23 *** | .05  | .80  |

Diagonal values are average variance extracted (AVEs).

*** p < .001.
anxiety is more salient for high LOS and less for low LOS. Graphically the figure depicts an interesting phenomenon in that while longer quarantine stay would result in higher anxiety when the guest is in poor health, the reverse is observed in that longer length of stay would reduce anxiety when one’s health condition is intact. This may be attributed to the fact that guests were uncertain about quarantine and feel more anxious and worrisome early in their stay, while those who perceive themselves to be in a good condition of health may be less anxious about their health situation once they settle down. However, people with poor health status may need medication and medical treatment; thus the longer the quarantine, the more health and social related worries may exacerbate the health condition if further treatment is not available.

Hypothesis 4 posits a moderation of service quality on the relationship between anxiety and loneliness. Results reveal that the anxiety × service quality interaction is significant ($β = -.19, p < .001$), in support of the hypothesis. The direct effect of service quality is also significant ($β = -.24, p < .001$). We followed the above procedure to graphically depict the interaction in Fig. 3. As the figure shows, the effect of anxiety is less acute for guests who received high service quality. In other words, a high level of service quality acts as a buffer that mitigates the impact of anxiety on loneliness.

5. Discussion

As the COVID-19 pandemic becomes a global crisis that has spread all over the world (Chinazzi et al., 2020), countries and destinations are forced either to shut down the whole place, to quarantine or even ban tourists (Salcedo and Cherelus, 2020). Thus, ordinary hotels, inns, and hostels have become isolation centers that may still keep their businesses afloat to some extent. They provide tourists and guests alike with temporary shelter and comfort that at the very least is better than hospitals that may be flooded with contaminated patients.

The foci of this research rest on guests’ perceptions and feelings about their quarantine stay as well as the buffering mechanism of service quality as a remedy to their anxiety over the course of the enforced seclusion. Our findings reveal a mediation process leading from perceived health status to loneliness through anxiety. Simply put, poor guests’ health status induces anxiety and hence, loneliness during their quarantine. Yet, there are two buffers that could intervene in the mediation of anxiety. First, a longer stay in the accommodation would reduce the negative impact of health status on anxiety if and only if a guest’s health condition was favorable, but a longer stay would also exacerbate a higher level of anxiety if the guest experienced a poor health condition. Second, a high level of service quality provided by the lodging property would significantly reduce the impact of anxiety on loneliness. Although we focus on the negative responses of guests’ stay, implications of the current study call for greater attention and care to these customers.

5.1. Theoretical implications

The present study is novel in its own right as it is the first to assess feelings from tourists and guests alike during their quarantine. It reveals a rather novel social phenomenon in the field of tourism and hospitality with regard to quarantine experience in such commercial places. It applied terror management theory (TMT) and social exclusion theory to articulate a process in which guests feel left out, helpless, and anxious during their course of prolonged seclusion. By synthesizing these two theoretical underpinnings, we can better explain their quarantine experience based on the above examples. This study thus addresses a limitation of the hospitality literature by modeling guest experience in their isolated rooms through the lens of TMT. An elevated level of anxiety could be attributed to poor health condition, which may activate one’s thoughts about the possibility of death (Dunaetz, 2020; Florian et al., 2002) during the crisis, while a prolonged quarantine stay further exacerbates this pain.

The above finding is rather unique in hospitality research as it redirects scholars’ attention to a rather neglected research area. Different from prior studies on hotels and hospitality in the time of a crisis (e.g., SARS and Hurricane Katrina) (Henderson and Ng, 2004; Nigg et al., 2006), which focus on crisis response and management, the central tenet of this research rests on assessing the emotional appeal of quarantined hotel guests. That is, this article seeks to advance the consumer behaviors realm of literature in the context of environmental jolts, rather than tapping into the crisis management stream of work (Henderson and Ng, 2004; Ritchie et al., 2011). To this end, this study is among the first to explore guest anxiety and loneliness in the lodging context during extenuating circumstances. On one hand, it points to a conduit for studying the dark side of hospitality (Heidenreich et al., 2015); on the other hand, it reveals how little advancement we have made over the years in understanding guests’ adverse feelings during crisis, especially when being completely isolated. This darker side of hospitality research opens options to open greater research avenues that could help assessing the broader social behavioral change under a global pandemic and future crises.

The buffering effect of service quality is worth noting. Conventional service quality research often models this construct as an antecedent, mediating, or dependent variable within a broader nomological network germane to customer valuation, satisfaction, loyalty, and more (Chang et al., 2016; Ju et al., 2019; Ou et al., 2020). Although these studies laid the necessary foundation in hospitality research, their focus on service quality remains on the construct’s direct effect. The present study takes a different approach, to model quality of service as a moderator that renders as a buffer to anxiety. Although it may seem subtle at first sight, it opens a new window of opportunity for future research. More specifically, it raises questions about the role of service quality availed by commercial settings in remedying negative sentiments prevalent throughout the crisis. As experts have claimed that the pandemic will last long into the foreseeable future (Craven et al., 2020), this prognosis strengthens the need to further investigate the role of hospitality service in this so-called “social epidemic” or “social recession” era with its strong emphasis on social distancing (Klein, 2020).

5.2. Managerial implications

As we have pointed out throughout the paper, the functional usage of hotels, for example, has been turned upside down. Rather than having intimate services with close interactions between staffs and customers as well as elevating guests’ travel experience during their stay, such lodging outposts have become isolation centers, while physical contact among humans is strictly prohibited in order to keep the virus at bay. This turns what should be an overnight stay oasis and experience of

![Fig. 3. Anxiety by Service Quality Interaction on Loneliness.](image-url)
This new revelation about the function of lodging renders a completely new understanding of how hospitality should be presented. It challenges the taken-for-granted belief of hospitality and service in general. While service quality remains an important common denominator, as it works as an anxiety remedy that offers guests warmth and care, all other services including face-to-face communications and in-room services are suspended. This is uncharted territory for the lodging industry, where conventional wisdom does not apply. Not only do guests feel anxious, frontline employees also experience panic, apprehension, and depression serving at such establishments. This is not simply happening in hotels, but it is also prevalent across all hospitality sectors such as casinos, airlines, and restaurants, with employees reluctant to cope with such a traumatic event (Lane, 2020), which seemingly echoes the anxiety buffer disruption proposition (Edmondson et al., 2011).

This phenomenon may also echo the work of Korstanje (2018), in reflecting on how a crisis could jeopardize the hospitality status quo; although the pandemic may put conventional hospitality on hold, leading to a temporary “end to hospitality,” as Korstanje asserts. There are propositions and evidence to suggest that customers may be keener on high tech than on high touch in the service encounter (Zeng et al., 2020). In other words, given the fact that conventional hospitality services rely heavily on employee–customer interactions in order to reach a high level of service and customer satisfaction (Lin and Wong, 2020), the role of employees in the service delivery process is often emphasized and accentuated. However, the outbreak sets a new protocol for hospitality in which high touch (i.e., physical interactions with guests and employees) may not be desirable, at least from a temporal perspective during the pandemic. Robotics, touchless technologies, and remote systems are on the rise, and they will become the new means of delivery in hospitality services (McKinsey and Company, 2020; Zeng et al., 2020). That said, hotels and other hospitality enterprises need to keep abreast of changes in the technology ecosystem in order to keep pace with new trends and customer preferences.

In fact, according to Accenture (2020), there will be a huge challenge for organizations to cope with the aftermath of the crisis, as it will create a tech-clash that may alienate the relationship between service providers and customers, since people have been adopting a new lifestyle of digital experience. Tourism–hospitality operators not only need to act fast to reframe their business model to embrace technology in the service encounter, they may also need to reposition their offerings to be more in line with the needs of local residents and city governments. For example, hotels are now partnering with city governments to utilize their properties for quarantine, and to turn them into shelters for homeless people and patients. Such collaboration offers a win-win solution to hotels that need people to fill their rooms, to governments that need better containment of the virus, and to residents who need temporary shelters. Such a phenomenon totally transforms the role of hotel accommodation — from a primary venue for short-term dwelling for travelers, to temporary housing that keeps the virus at bay.

Quarantine lodging and similar accommodations will also need to redefine their in-room services and amenities, since being isolated in a room not induces anxiety and loneliness, but also creates issues of health, wellness, and sociability. These complications further challenge the functional purpose of a room and merit calls for a redesign. Lessons learned from the new Airbnb online experience suggest that people do enjoy such a new online experience by learning, exercising, sightseeing, and even partying without leaving their room. As such, hoteliers could develop in-room programs (e.g., music competition, poker games, sport exercises, parties, etc.) to keep their guests mentally and physically active as well as to stay connected with their staff and perhaps other guests, even though the activities are done online. These programs not only can provide additional revenue for hotels, they could also facilitate employee-to-customer and customer-to-customer interactions, thus co-creating value for the hotel stay.

Yet, we believe this is the new norm, as hotel operators and other hospitality providers should now be fully aware of the danger in serving possible infected patrons. This dilemma, however, raises more questions than this research can answer. For example, how could hotels fortify tougher measures of sanitization and room hygiene to prevent possible contamination? Should full-service and luxury hotels be repositioned for quarantining tourists if the pandemic lasts for a long time; and if so, what are the complications and brand image implications for short-term repositioning? How could lodging practitioners deal with diminishing revenue; what are the remedies? How should employees, especially frontline staff, be managed and retained, given that encounters with contaminated rooms and guests could bring deadly consequences to both the employees and the property? How should practitioners redefine service and value co-creation given that social distancing is the new norm? Are there any leisure entertainment means that could further mitigate guest anxiety and loneliness? Although these questions are not answered in the present research, it nevertheless provides a timely report about the problems that persist within guests. As such it offers decision makers revelations that could change the course of actions with better sequelae during and after the pandemic.

5.3. Limitations and future research directions

Findings of this research are not without their limitations, which allow room for future research. First, data employed from the present study were based on an online self-administered survey collected from China among domestic tourists. Caution must be taken in regard to generalizability in light of issues pertaining to self-response bias. Second, it utilized a cross-sectional design, while relationships articulated from the study do not imply causality. Third, the proposed model focuses on health and social consequences during one’s quarantine. Although we based our model on social exclusion theory and terror management theory, there are other variables that may well affect guests’ negative response in these isolation third places, including support from online community as well as the government. Virtual interactions from online sources, such as social media, represent a tremendous conduit that could help remedy poor health- and anxiety-related feelings and sentiments. External factors in the local and global environment either help mitigate or, on the contrary, exacerbate one’s worries and apprehension, leading to various outcomes that are worthy of further investigation. We encourage future research to explore these research areas by extending the proposed model presented in this study.

Appendix A

| Construct | Item |
|-----------|------|
| Anxiety   | I feel tense or wound up |
|           | I get a sort of frightened feeling as if something bad is about to happen |
|           | Worrying thoughts go through my mind |

(continued on next page)
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