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A qualitative analysis of social and emotional perspectives of airline passengers during the COVID-19 pandemic

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A Industry is necessary if not vital to support future operations (Akbar and every country has closed its borders or restricted travel (Daon et al., 2019) - travel played a significant role in the virus -1. Introduction - Pandemic - Phenomenology - Qualitative methods - Keywords: - A ABSTRACT - Background: Fear of illness, economic damage, and stigma have had a devastating impact on the travel industry and have caused a significant reduction in both business and leisure travel. This study examines passengers' social and emotional perspectives during and after the COVID-19 pandemic, building on a prior quantitative study that identified factors that predict a person's willingness to fly during the COVID-19 pandemic. - Methods: This study used a qualitative method with a phenomenological perspective and hermeneutic design. Fifteen adults from the United States participated in a personal interview designed to capture demographics, individual safety measures, feelings, and concerns involving air travel during the pandemic. Personal interview transcripts were then inspected by the researchers using a constant comparison method. - Results: The personal experiences of participants were dominated by projections of trust issues and emotional heuristics, protective behaviors, and fear of confrontations with others, and a fear of the unknown. These themes emerged even in participants who continued to fly during the pandemic. - Conclusion: Insights into travelers' emotions, trust, and fears may help airlines and other segments of the travel industry to develop targeted messaging that supports the trust and safety issues confronted by frequent travelers. - 1. Introduction - The COVID-19 pandemic has devastated the travel industry. Air travel played a significant role in the virus's initial spread, and nearly every country has closed its borders or restricted travel (Daon et al., 2020). The number of scheduled airline flights worldwide decreased by 47.5% by August 2020 (Khatib et al., 2020). Since March 2020, the global aviation industry experienced a 70%–95% reduction in passenger demand (Shepardson et al., 2020; Whitely et al., 2020). In an attempt to understand the impact of the COVID-19 pandemic, a plethora of research into the effects this crisis is having on the global aviation industry is necessary if not vital to support future operations (Akbar and Kisilowski, 2020; Bauer et al., 2020; Kao et al., 2020; Lamb et al., 2020; Naboush et al., 2020; Serrano and Kazda, 2020; Shultz et al., 2020; Tanrıverdi et al., 2020). The airlines have responded to this dramatic reduction in demand by grounding significant portions of their fleets and furloughing aircrews and support personnel. One recent study found that the valuation of hotels, airlines, cruise lines, and car rental companies has decreased substantially due to the pandemic. - Understanding the emotional response to travel during a global pandemic may strengthen aviation industry practices that minimize the risk of transmission of common illnesses (such as influenza) and the next pandemic. Some passengers who travel frequently no longer perceive flying as unique and fun, leading to a perceived decrease in valuation. This effect, coupled with passengers' changing preferences (Forsyth et al., 2020; Salari et al., 2020), is substantial enough to raise concerns about the long-term health of the travel industry (Bauer et al., 2020; Sharma and Nicolau, 2020; Tanrıverdi et al., 2020; Tuchen et al., 2020). Passenger concerns have been found to range in magnitude from slightly concerned to highly fearful and anxious about being close to others (Lamb et al., 2020), especially in airports and on aircraft. Fear and anxiety drive decisions that may cause passengers to either cancel plans or develop alternative travel methods (i.e., a personal car). Moreover,
some social and business meetings can be accomplished with video-conferencing and are learning techniques for improving this technology’s performance (Hopkins et al., 2020; Brenda, 2020). The effects of the pandemic on the global aviation industry are not yet fully understood, and additional research is necessary to create a strategy to help the airlines recover (Akbar and Kisilowski, 2020; Bauer et al., 2020; Kao et al., 2020; Lamb et al., 2020; Naboush et al., 2020; Serrano and Kazda, 2020; Shultz et al., 2020; Tanriverdi et al., 2020). This study aims to enhance our understanding of peoples’ emotional response to the pandemic. This information may help airlines and other segments of the industry to develop policies and guide messaging that encourages the resumption of travel. The scope of this study included asking five general, and reflective questions about what the participants were concerned most about flying during and after the COVID-19 pandemic. The questions did not specifically direct questions onto any specific element of the travel process (such as going through security, catching an Uber, or standing in the boarding line), so as not to lead the participant. The researchers hypothesized that people would have concerns about multiple facets of air travel and wanted these to emerge from participant answers. The researchers anticipated that people considering travel experience uncertainty related to trust, loss of control, and vulnerability.

2. Literature review

People have reduced or eliminated travel during the COVID-19 pandemic for a variety of reasons related to factors associated with the virus. Possible fears include becoming seriously ill, transmitting the disease to family or friends, causing harm to others, and losing employment. Infectious diseases have been associated with a negative disease to family or friends, causing harm to others, and losing employment. Infectious diseases have been associated with a negative stigma driven by fear of the unknown and the need to place blame. The story of Typhoid Mary, who may have infected 39 people while being asymptomatic herself, offers a parallel example of the stigmatization experienced by those infected or exposed to an infectious disease. Typhoid Mary was quarantined and released several times before ultimately spending the last decades of her life in isolation at Riverside Hospital, an infamous quarantine hospital in New York City (Bhattacharya et al., 2020).

The stigma associated with COVID-19 arises from various factors that include misinformation, feelings of insecurity, fear of responsibility, administrative malfunction, and lack of trust in treatment (Mahmud and Islam, 2020). These negative emotions have had significant practical effects on the public’s willingness and ability to travel. Employers have imposed restrictions on travel and social activities, threatening employees with termination or unpaid leave if rules are not followed. Friends and family have ostracized individuals after activities, such as travel, that may carry a high risk of exposure to the virus. A female physician was given an ultimatum by her neighbors (who were afraid of exposure to COVID-19) to either quit her job or move out (Kamal, 2020).

The pandemic’s social implications may have a significant economic impact on the travel industry because people may be worried about the social costs of travel, financial repercussions, and the risk of contracting the virus. Fenichel et al. (2013) used an airline ticket’s cost to estimate the value that passengers placed on canceling a trip in response to an influenza pandemic. They estimated that passengers in the U.S. would collectively be willing to pay $50 million to avoid contracting influenza. In a previous study, we found that factors associated with the willingness to fly during the pandemic included perceived threat from COVID-19, agreeableness, affect, and fear (Lamb et al., 2020). Although passengers may alter their behavior in response to information about the epidemic, the beliefs that they use to make their decisions may be inaccurate (Fenichel et al., 2013). Potential passengers may respond to an epidemic by engaging in behavior that is consistent with self-protection but not an objective response to the actual risk (Fenichel et al., 2013). Though travel may have been responsible for the initial spread of COVID-19, some claim the risk of contracting the virus during air travel is lower than from an office building, classroom, supermarket, or commuter train (Livingston, 2020).

The airlines have taken a multi-pronged approach to prevent transmission of the virus, including improved ventilation at the gate, changes to boarding and disembarkation strategies, and enhanced aircraft disinfection procedures. Airlines are also beginning to offer pre-flight screening that includes temperature checks and rapid COVID-19 testing (Khatib et al., 2020). The air quality onboard modern transport-category airplanes is already very high. Recirculated air first goes through a prefilter that traps large particles and then passes through high-efficiency particulate air (HEPA) filters before re-entering the passenger cabin. HEPA filters remove 99.97% of particles between 0.1 μm and 0.3 μm and trap even smaller particles through electrostatic forces, almost completely eliminating. Therefore, they virtually eliminate bacteria, fungi, and viruses from cabin air (Mangili et al., 2016). The SARS-CoV-2 virus’s diameter is 0.06 μm–0.14 μm. Droplets and aerosols that carry the virus are more extensive than 5–10 μm in size and, therefore, would be captured by a HEPA filter (Leibyvedel et al., 2020). Requiring passengers to wear masks further reduces the risk of viral transmission (Chughtai et al., 2020). Lastly, some travel destinations require passengers to undergo COVID-19 testing and present proof of a negative test that was completed 24–96 h before departure. To help meet these requirements, airlines are beginning to offer rapid pre-flight tests for travelers (Sharon et al., 2020).

3. Current study

The current study asked three demographic, and five general reflective questions aimed to gain insights into the emotions, trust, and fears of consumers considering an airline flight may help the travel industry to develop targeted messaging that will improve perceptions of trust and safety. These insights may also enable airlines to increase compliance with safety precautions such as masks and pre-travel screening. The demographic questions included participant gender which were recorded in case, however, aspects relating to gender were not part of the scope of this study. This study builds upon our prior quantitative research that identified personality traits associated with willingness to fly during the COVID-19 pandemic (Lamb et al., 2020) using structured interviews to further examine those predictors. This information can then be used to further understand how frequent travelers integrate these predictors into their decision to fly and how they experience air travel.

The abundance of current research examines the financial and aero-political impact of the COVID-19 pandemic on the global aviation industry, which is vital if the sector is to increase its resilience to future pandemics and even small-scale epidemics (Macilree and Duval, 2020; Samanci et al., 2020). Despite many studies investigating the personal impact on passengers (Graham et al., 2020; Lamb et al., 2020; Salari et al., 2020; Tanriverdi et al., 2020; Tuchen et al., 2020), there are few, if any, qualitative studies that provide a detailed investigation of personal experiences, emotions, and socio-behavioral responses of regular travelers. This study examines these personal experiences by asking frequent travelers to share how the COVID-19 pandemic has affected their travel experience. This study was driven by the following research question: “What are the social and emotional perspectives of airline passengers during the COVID-19 Pandemic?”

4. Methods

This study used a non-experimental, qualitative method with a phenomenological perspective and hermeneutic design to interpret the participants’ personal experiences from telephone interviews (Creswell and Creswell, 2017; Edmonds and Kennedy, 2017). The researchers used constant comparison method to support the findings’ generalizability (Edmonds and Kennedy, 2017; Glaser and Strauss, 1967). For phenomenological research with a case study design, the literature suggests that qualitative sample sizes of ten may be adequate for
Sampling among a homogenous population (Sandelowski, 1995). The minimum sample size given the nature of the research was originally determined to be ten participants (Bazeley, 2013; Marshall et al., 2013). The researchers determined that both data quality and saturation were achieved before ending the data collection and interview process.

4.1. Researcher background

The researchers have diverse backgrounds that include medicine, aviation, law, and psychology. All of the researchers frequently traveled for work and pleasure before the pandemic, which supported their understanding and interpretation of the research instrument’s phenomena and development (American Psychological Association, 2020). All of the participants in the study were known to the principal researcher through professional and personal contacts. The researchers worked together on the first study (Lamb et al., 2020) and engaged in frequent discussions and collaboration during the project to increase the findings’ and discussion points’ generalizability.

4.2. Participant recruitment

The institutional review boards approved the study. Fifteen adults from the United States were invited to participate in a telephone interview after obtaining informed consent. The participants were selected based on their air travel habits and the diversity of their backgrounds, ages, and gender. All participants were adults and permanent residents of the United States. Participants did not receive compensation for their participation. The rationale for limiting the participant numbers to fifteen individuals for this qualitative study was supported by the diversity of experience and age of the participants, their previous commitment to air travel, and the quality of the participants’ data (Bazeley, 2013).

4.3. Data collection

The interview used for this study was developed to explore individual safety measures, feelings, and concerns involving air travel during the pandemic. Each participant was interviewed by telephone (audio only), and a digital recording was stored as an MP3 data file. Each interview took 30–60 min to complete and included eight open-ended questions (see Appendix B) regarding feelings and emotions about traveling during the pandemic, precautions and concerns, and airline and airport management suggestions. The questions also included three closed-ended questions about the participants’ demographics. The recorded interviews were transcribed using NVivo® 12-Pro Qualitative data software and then reviewed for accuracy. The primary author then removed identifying information and corrected mis-transcriptions before sharing the ‘clean transcripts’ with the research team. The MP3 audio files were then destroyed per the IRB protocol.

4.3.1. Participant demographics and background

The participants consisted of eight men and seven women, ranging in age from 28 to 71 years (\(M = 44.27, SD = 12.79\)). Political identification included seven Democrats, four Republicans, and four identified as in the “middle.” Each participant had traveled by air before the COVID-19 pandemic, on an average of 9.47 trips per year for work (SD = 12.32), two participants stated that they had taken no flights for business. Each participant had completed an average of 3.80 trips per year for leisure purposes. The participants were asked to consider trips, not individual flights, for example, a round-trip flight was counted as one trip.

The participants’ occupations included two attorneys (one specializing in corporate law and the other in technology), two flight instructors and university professors, one corporate jet pilot, one environmental engineer, two safety engineers, one industrial safety specialist, one pharmaceutical representative, one Human Resources Manager, one middle school teacher, one government affairs lobbyist for the consumer products industry, one oil and gas regulatory specialist, and one airport logistics manager who was also a Ph.D. Student. Seven of the participants live in Texas, the other eight were dispersed across the United States.

4.4. Data analysis

No a priori coding categories were developed before the researchers analyzed the transcripts. This strategy allowed the researchers to read through the transcripts with no pre-conceived themes or perspectives. A comprehensive thematic analysis of the post-interview transcripts revealed a total of 49 keywords and phrases that were used as codes. The 49 codes were examined and categorized into 12 parent themes (nodes). Included in these parent nodes were 13 types of self-protective behaviors. Of the 12 themes, some codes overlapped in context or exhibited a commonality in factors; this allowed the nodes to be further categorized into nine main themes that would be discussed in the study. For example, issues with the Trust theme included Trust in the airlines, Trust in the airports, Trust in information, Trust in other people. All the issues around Trust were expressed differently but focused on the central point of Trust. Further elaboration of each of the prominent themes is discussed in the findings and discussion section. The coding composition (the node codebook) used and presentation of the Node Hierarchy Chart are located in Appendix A Fig. 1 presents the data analysis strategy.

5. Findings and results

All participants had significantly reduced their travel since the onset of the COVID-19 pandemic, with the average trips per year decreased by 93%. Six of the fifteen participants stated that they do not travel by air and do not intend to do so soon. Thirteen of the fifteen participants indicated that travel for their work has ceased and been replaced by online meetings. Fig. 2 shows the participants’ air travel comparing travel for work, leisure, and their current travel frequencies.

5.1. Trust issues

The most prominent theme emerging from the interviews was trust (95 references in the data and expressed by all but one participant). The only participant who did not specifically mention trust was (P10), as noted this participant also indicated zero travel for work, and very little of their air travel was for pleasure. The Trust parent node included four child nodes: “Trust issues with Other People,” “Trust issues with the Airlines,” “Trust issues with Airports,” and “Trust in Information about COVID-19”.

5.1.1. Trust issues with other people

Expressions of the lack of trust of other people were the most prominent of the trust themes (39 references in 14 cases). Participants primarily expressed feelings of not knowing whether other people were as clean as the participant or understood the contagion risks. Overall, the participants’ quotes shared a mixture of mistrust with varying degrees of fear and anxiety. The following samples of sections highlight the distrust of others understanding of the COVID-19 virus and uncertainty about the precaution’s others take:

(P7) “… What frustrates me concerns me more is people not understanding the true risk … I think. People don’t really fully understand where the risk lies … you’re allowed to remove your mask to eat. And you know, how much time do you need to be exposed to somebody that you know is positive? It could be a bite of the sandwich, and you’re done … I think I think people are just either scared or uneducated.”

(P11) “… just the thought about being around people that I’m not sure where they’ve been. I think it’s kind of my biggest factor or
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expressed trust issues with the airlines. Overall, the participants

5.1.2. Trust issues with the airlines

had a lot of show. And then people just noted the spread. (P1) commented that they felt that the airlines were doing all they could and that the airlines were “caught in the middle” of the crisis (P1) and “I don’t think it is the airlines’ fault” (P15). However, many participants expressed mistrust in the airline’s practices, including inconsistent messaging about flight loads, schedules, ticket prices, inflight service, mask enforcement, honoring frequent flyer miles, and seat allocation. Concerns about cost-cutting were mentioned by several participants, while other threats such as maintenance and staff shortages were an issue for one participant (P13).

(P13) “... I was on an xxx Airlines and they didn’t book families together ..., there are people fighting about which seat they’re supposed to be in versus which seat they’re in. They’re just cutting way too many costs at that point ... none of us are feeling respected ... I worry about just the tiniest day to day things like maintenance ... I know they’re all short-staffed. Prices have been absolutely crazy. Sometimes it’s ninety-nine dollars. What [one] way from XYZ to XYZ. Other times it’s with two-weeks’ notice is eighty dollar, and it changes every single day ... I also don’t trust that they’re going to honor by my frequent flyer miles. I’m concerned that I had to always be upgraded. Why not upgrade it anymore? And I don’t know why. I think it’s just cost-cutting.”

(P3) “... I know [the] airlines is [are] supposedly taking measures such as like NOT selling the middle seat or making sure keep compartment masks and socially distancing. You still don’t actually see that happening when people are on planes. A couple of other people that still have to travel for work, like the consultants that I work with and know their firsthand experience that, you know, all seats are still full and it depends on the flight you’re on, I’ve heard they are very full ... Yeah, it’s a lot of show. And then people just kind of wash their hands of it to say, well, we covered our bases for not getting sued.

5.1.3. Trust issues with airports

Trust issues with the airports accounted for 15 references in seven of the interviews. Most of the participants offered suggestions of what the airports should be doing (e.g., rapid testing and temperature checks). Unlike their trust issues with other people and airlines, however, participants seemed to be concerned about the highly contagious nature of the coronavirus and the airports’ perceived limited capability to control the spread.

(P11) "... there’s no guarantee, even if you have the whole place cleaned, you know. Wipe down or whatever? even if they were to test..."

5.1.2. Trust issues with the airlines

There were 29 references in 13 of the cases where participants expressed trust issues with the airlines. Overall, the participants...
everybody before getting on the plane, which would not be. Obviously, that would never happen."

(P13) "... I mean, [they] don’t you think [like] check your ticket anymore when you go through security. They just look at your I.D., which we used to be completely threatened by terrorists right now. Really? Nobody cares, we are also overwhelmingly concerned with something that we can’t control ... And it’s especially threatening at the airports."

(P14) "... it’s kind of uncertain whether each airport is following social distancing. Are they really strictly enforcing the wearing of masks? I also I’ve noticed that I’ve traveled recently that the airport didn’t take temperatures? So that was a concern. I assumed that, that is something that would be something that would be done."

(P3) "... I know that you’re watching what the occupancy will use and how many people are coming in. But the airport terminal doesn’t really have the same thing ... You know, I think make sure that you’re having sanitizing stations, that you’re making mass readily available for people that don’t have mask. ... the biggest thing for me is that if I’m seeing that [mask wearing] is being enforced. I see that not only are the airlines and the airport and TSA stating to people that you have to have a mask and socially distance."

5.1.4. Trust in the information about COVID-19

Trust in the information was an emergent theme that likely reflected the unusual political climate. There were 12 references to this theme across five cases. At the time of this study, various government entities released conflicting information, which led some people to believe that the virus was not ‘real,’ despite the exponentially increasing number of deaths caused by the disease. Our participants represented a broad range of views within the political spectrum. Despite their political beliefs, however, they seemed to agree that information about the virus was sufficiently inconsistent to impact their flying experiences negatively.

(P13) "... It’s gotten very cold, very distant and very calculated with every move that the airlines are making because of the budget cuts, because of what’s going on with politics. I know that there’s a really high chance that if I’m around a lot of people that consistently have the same views that aren’t based on science, because I think one thing that really struck me is the fact that we don’t have a lot of consistent information coming from science."

(P7) "... This is we’re getting mixed information from the CDC. I think they just came out yesterday and said, no, we actually got it wrong. It’s not an airborne disease. They said it wasn’t airborne. Seemed they made a mistake. There’s a lot of misinformation. If we break down the statistics. How much of those how much are these barriers that we’re putting in..."

Note. Case analysis and graphical output includes gender as a demographic output, but gender was not analyzed as part of this study.

Fig. 3. Child Nodes of Trust Issues Case References

Note. Case analysis and graphical output includes gender as a demographic output, but gender was not analyzed as part of this study.
place are truly affective? I think there’s a lot of misinformation in the media. There’s a lot of scare tactics. Then there’s a lot of trying to calm it down tactics combined with political influence for the upcoming election."

Fig. 3 illustrates the graphical representation of how Trust issues were dispersed and separated into the coded child node categories. Trust with other people and Trust issues with the Airlines are major findings. To gain a further understanding of this theme, the results were also separated by participant gender.

5.2. Emotional heuristics

Emotional Heuristics parent node included the nine child nodes presented in Fig. 4. The emotional heuristics node was the second most prominent emergent theme and included 89 references in 51 of the case files. Of these nine child nodes, 17 percent of references showed that participants made comments coded as ‘Afraid of Others’ and ‘Anxious’ closely followed by ‘Feeling Vulnerable.’ These findings are in alignment with those findings in the ‘Trust issues’ node.

5.2.1. Afraid of others, feeling anxious and feeling vulnerable

Comments that reflected anxiety and fear of others included various degrees of magnitude, from being slightly afraid of others and descriptions of mild anxiety to admissions of being very anxious about being close to others and confrontations that may arise with other passengers on flights. Many of the child nodes in this theme overlapped in coding. A selection of quotes from these child nodes was:

(P13) "... People tend to get really uptight and it completely changes the entire dynamic of the airplane ... So I’ve seen a lot of people yelling at each other. There’s always yelling. And then there’s a lot more stresses within their lives, too ... people at the airport right now do not look like seasoned travelers? They look like they’re completely disheveled, it’s like they are at their wits end ... Fear is very, very addictive. And I understand that. And I don’t want to be stressed over getting sick so much that I end up getting sick. Because your mind is very, very powerful. And so then when I feel threatened, it’s really just other people’s [people]."

(P14) "... Well, I kind of feel a little anxious going to the airport. In XXX, it’s a much larger airport than the one that I flew from in XXX. And I’m just not sure how people are going to respond to it. Keeping social distance and following the rules and also just how, whether it’s going to be busy at this airport or not ... some people might be too afraid to ask [to move seats] and then just be totally nervous or anxious sitting next to somebody they don’t know or, you know, having to sit by somebody during this time can be kind of stressful, especially for other groups ... [about another passenger] But I can also tell she was feeling a little anxious having to sit next to me ..."

(P3) "... Just having someone being really close to me. I would fly in economy. Yes, So, you know, people are up against you? So, to me, that’s the most anxious ... So I don’t want to get into an altercation with a passenger, but at the same time, I’m trying to protect my own health. You know, this kind of weighing the pros and the cons of engaging with somebody about not wearing a mask or not following a safety protocol. You know.”

5.2.2. Need to feel in control and Feeling Powerless

Comments that indicated participants’ ‘Need to feel in control’ were coded 15 times in seven of the interviews. In comparison, expressions of ‘Feeling Powerless’ were coded seven times in five of the files. Some participants stated they prepare and take their food with them and refrain from using the airport and aircraft facilities, while others manage the duration of flights they would accept or choose not to fly. An example of some of the comments are as follows:

(P13) "... I have to do a lot more planning ... but I also don’t eat at the airports, which means I need to pack food beforehand. And, you know, and I don’t like to get close to people. So that means that I’m not sitting in the terminal with them the 30 minutes before the flight. It just takes a lot more control over the factors that I can control ... Whereas now I do a pretty good job of controlling the exposures to the population as a precaution for catching it ... I mean, in general, it’s just the uncertainty amongst all that we don’t even know how much longer this is gonna be going on. Hopefully, hopefully we’ll get back to normal."

(P3) "... You have no control over any social distance. You know, but that’s the one part that you can’t manage differently. You can try to manage distance. And the check-in queue with the TSA queue. Or even at the boarding door, they can try to manage just that. But you can’t manage this on a plane. All the seats are full."

(P9) "... So I would avoid going to Europe or Australia or anywhere international or even a flight to Hawaii would take too long for my comfort. So, the distance of the travel would matter. And also understanding the size of a plane and you know what the airline’s policy is in terms of people next to each other. Having the Middle seat free, from that sort of thing would be very important."

(P11) "... I guess just the fear of the unknown not knowing like. Not knowing, I guess my comfort level is one thing, but like being around people that I don’t know probably and knowing like in the plane,"

5.2.3. Anger and Frustration and stress

Anger and Frustration were coded seven times in four of the case files, while stress was coded twice in two case files. Some of the Anger and Frustration sources were directed towards the airlines and communication about flight schedule changes, seat allocations, or inflight service expectations. Other Anger and Frustration sources appear to be associated with comments about other people and the difficulty in social distancing. The two cases that included direct references to stress involved proximity to other people on board the aircraft. Some of the comments included:

(P13) "... I am really concerned about my health on the plane. I’m not talking about coronavirus. I’m talking about just in general stress. And I don’t want to be stressed over getting sick so much that I end up getting sick ... Sure. In terms of overbooking. I know that there’s a lot of there’s not a lot of long waitlists on all of my flights. And I think it has to do with the fact that there’s so many cancellations. So, we know when people are overbooked and they’re seated in the middle aisle."
(P15) "... It’s just frustrating. Because I had to walk. I actually had to take a train because, you know, Atlanta, you take the train between terminals. Yeah. I had to go backwards on the train to get food and go back to my gate. And luckily, I had a little bit extra time to do it now that there’s less people there for sure than what there was before. But even still, when you have less people in those restaurants to was busy waiting in line, it was kind of frustrated. And then on the air, on the airplane itself, they just throw you a bag of food with a warm mini bottle of water that you don’t even give you like ice or anything …”

(P2) "... people who for the most part, don’t really get how masks are supposed to get supposed to work and well, wear them under their chin, around their neck. Of course, they can take them off when they’re eating or drinking. So that really does defeat the purpose of the mask. If you’re sitting at the airport or sitting on an airplane and somebody is eating or drinking, they have no mask. And it clearly would increase the risk of catching COVID.”

5.2.4. Need for self-care

Participants (P13) and (P5) spoke about taking precautions and activities that appeared to suggest ‘Self-care’ or self-nurturing behaviors as a way to cope with their perceived stresses of air travel. These statements included packing food for themselves, using meditation or relaxation methods onboard the aircraft, and taking extra care in their appearance. Interestingly, the participant (P13) is currently flying more than any other participant has since the pandemic affected the traveling public in late March. Participant (P5) used self-care techniques before the COVID-19 pandemic.

(P13) "... One of one of the precautions that makes me feel a lot better is a lot of effort into my appearances, one on one when I’m traveling than I that I would doing other things, because I feel like when you put effort into your appearance, it tells people that you care, you a you look healthy, you don’t look scary. I put the headphones on, and I’ll do meditation and try to relax that way because I am really concerned about my health on the plane … Irrational, irrational thoughts that I’m afraid will seep into my brain and then once - once that image is in there. You won’t be able to get it out, even though it’s not even logical or realistic or probable that will happen.”

(P5) "... Well, I started wearing it [mask] has to prevent from getting respiratory infections, the flu, you know, the common cold I would continue to wear it if I were flying now. It’s just, you know, I’ve just had so much experience with. You know, five days after getting off of a plane, coming out with a respiratory illness of some sort. I just get tired of that So whether it’s COVID or something new in the future or - or just the same old flu, cough, cold kind of stuff, satisfactions. It’s just, you know, a little bit of precaution for this day, for a week or something like that. I think it’s worth it.”

Fig. 5 presents the nine child node categories of Emotional Heuristics, this graph also categorizes the child nodes by participant gender, a graphical representation of these nodes by participant age is located in Appendix C.

5.3. Precautions

All participants stated that they were taking multiple precautions to protect themselves from COVID-19. The ‘Precautions’ theme was categorized into 13 different types to examine the variation and extent of protective behavior that the participants felt the need to conduct. Taking ‘Precautions’ emerged as the third most prominent theme with 76 references across all of the participant case files, Fig. 6 presents the 13 categories of precautions. Interestingly, these precautions were not uniform in type and intensity, except for wearing a mask (17 references) and avoiding people (14 references), which were the most common

Note. The case analysis includes gender as a demographic only. The role of gender was not examined in this study. Darker shading indicates male participant responses. Results show a total of 22 responses for being afraid of others, 15 responses for needing to be in control, 12 responses for feeling vulnerable. The significance of these findings is elaborated upon in the discussion section.

Fig. 5. Emotional Heuristics, Child Node Categories
Note. The case analysis includes gender as a demographic only. The role of gender was not examined in this study. Darker shading indicates male participant responses. Results show a total of 22 responses for being afraid of others, 15 responses for needing to be in control, 12 responses for feeling vulnerable. The significance of these findings is elaborated upon in the discussion section.

Fig. 6. Types of Precautions Taken by Participants.
Note. Gender presented as demographic information only.

precautions that all participants emphasized as their primary protection. This finding aligns with the other results noted in ‘Trust Issues’ and ‘Emotional Heuristics’ nodes, manifesting in a primary precaution of avoiding others.

5.3.1. Common multiple precautions

Participants quickly explained multiple precautions, such as wearing a mask, avoiding people, carrying hand sanitizer, personal hygiene, and cleaning surfaces, that they were taking in their day-to-day activities as well as when they would fly or intend to fly:

(P15) "... I wore a disposable mask so I could throw it away when I got to where I was going. And I also packed can of lysol [Lysol] that I sprayed myself down with and I spread my suitcase down a lot when I got after plane and got my baggage at the baggage claim and then once - once that image is in there. You won’t be able to get it out, even though it’s not even logical or realistic or probable that will happen.”
There were interesting differences in the findings relating to the precautions theme, these pertain predominantly to strategies other than masks and avoiding people. The researchers noted very few comments related to wearing gloves or self-isolation and getting tested for COVID-19. There were differences between the age groups and gender that were captured in the matrix coding analysis presented in Figs. 6 and 7.

5.4. The future

When participants were asked whether they would eventually return to their old travel schedule, most were optimistic. However, there were mixed feelings of pessimism about business travel returning to normal compared to traveling for leisure. The emergent theme labeled 'The Future' included 42 references in 29 files and were categorized into three nodes: participants making comments on what would be 'Enablers for Normality,' comments conveying that they were 'Optimistic about Normality' in air travel, and expressions of 'Pessimistic about Business Travel.'

5.4.1. Travel for leisure

Many participants expressed excitement and enthusiasm for air travel for leisure, with some comments that included a vaccine or other precautions and enablers as a condition of travel. The comments included:

(P2) "... Yes, absolutely. I will return to my old travel schedule. I will get on commercial aircraft at a point in time where cove [COVID-19] is easily dealt with. There are vaccines that are proven effective. It’s no more worrisome than the seasonal flu, which is a concern. It can be lethal. But as long as there’s known treatments for COVID effective treatments like there are the Tamiflu equivalent for COVID the ability to detect it. The ability to get, if needed, a seasonal vaccine or a vaccine that effectively impacts the latest version of the virus, then absolutely I will get back on because I’ve got to travel for business. They’re places that are not impossible to drive to that, but they are several day drives, and it’s a complete waste of my time to drive for 20 hours to visit a. Site for two days. That’s a week plus worth of time just to be at the site for a couple of days. But I need to go to the sites.

(P4) "... I’ll be wearing my mask. I think I would probably plan on not eating anything or drinking anything once I got out of my car to limit bathroom stops and restaurant stops or being around other people that are eating or drinking with masks off

(P6) "... we have even purchased airline seat covers from Amazon that are reusable, I think like 10 times or something like that. It has all the wipes and and everything like that. So, What would - would certainly take my own. Brand, if you will, of decontaminating, you know, wipes hand gel, if I work under three ounces of hand gel, you know, take - take precautions. I feel personally that I should take it."
function only. The darker shade represents male participants. In contrast to large humanistic approach of investigating the lived experience of a phenomenon through a small but relevant sample frame. In contrast to large scale surveys, this study focused on investigating the deep and personal reflections which cannot be predetermined by research design.

This study was limited by the bounds of traditional qualitative research, in particular by the characteristics of the phenomenological humanistic approach of investigating the lived experience of a phenomenon through a small but relevant sample frame. In contrast to large scale surveys, this study focused on investigating the deep and personal reflections which cannot be predetermined by research design.

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5.4.2. Pessimistic about business travel

Many work meetings, conferences, and other business activities are now being conducted virtually over 'Skype,' 'Teams' or 'WebEx.' Unlike their optimism that leisure travel will return to normal, participants were more ambiguous in their thoughts about whether their employers would embrace their old travel schedule. These comments included:

(P13) “... No, no. My company has mandated that if anybody wants to travel for any reason related to work, we have to get the president’s approval, which is a pretty big deal in my job. And I think whereas I used to do a lot of interfacing with colleagues in the industry... that’s just a luxury at this point. I don’t think [sigh] I don’t think I’ll [they’ll] ever send me international again... I’m gonna have to wait and see. And it is really frustrating.”

(P6) “... We are beginning to get in a groove in regards to doing things remotely, if you will. It’s really kind of opened up our eyes in regards to nonessential travel ... [listed all international meetings now virtual]... So we’re doing those things remotely. And I really do hope that it does get back. I cannot imagine that it would be back to what was considered normal prior to this this fiasco, you know.

'The Future’ node’s findings and the three categories, segregated by gender, are shown in Fig. 8.

5.5. Limitations

This study was limited by the bounds of traditional qualitative research, in particular by the characteristics of the phenomenological humanistic approach of investigating the lived experience of a phenomenon through a small but relevant sample frame. In contrast to large

6. Discussion

The pandemic has amplified already existing thoughts in all participants about contracting diseases during air travel and in the airports. This study builds upon a previous, quantitative survey-based research that developed regression equations for both business and pleasure air travel (Lamb et al., 2020). That earlier study found significant predictors that included the perceived threat from COVID-19, agreeableness, affect, and fear. These models accounted for 66-67% of the variance in willingness to fly (Lamb et., 2020). The current qualitative study supports the previous research and provides a more in-depth insight into air travelers’ emotional states and feelings of trust during the COVID-19 pandemic. This study also further explores the sources of the fear reported in Lamb et al. (2020).

Trust issues are likely the primary source of fear and negative affect and primarily manifest as a distrust of other people. Participants perceive other people as a threat as a potential carrier of the disease and potentially unpleasant confrontations over mask-wearing and social distance violations within the aircraft. The participant trust issues also extend to how the airlines conduct their operations with staff shortages, cost-cutting, scheduling, flight loads, and other problems with transparency of communication to passengers. Airlines may alleviate passenger distrust by providing reliable information about flight loads, seat allocation, and policy positions relating to frequent flyer points, upgrades, and handling safety issues during the pandemic.

In our prior regression model (Lamb et al., 2020), we found that ‘affect’ was a primary factor in willingness to fly during and after the COVID-19 pandemic. This current study coded ‘affect’ as Emotional Heuristics, which emerged as the second most prominent parent node, with nine child nodes representing some degree of negative affect. The most notable of these were: ‘Afraid of Others,’ feeling ‘Anxious,’ and ‘Feeling Vulnerable.’ These negative affect expressions align with those discovered in the categories of ‘Trust issues,’ which implies that distrust manifests into fear and anxiety directed toward the most threatening targets: other people, airlines, information, and airports.

Within the Emotional heuristics theme, the ‘Need to feel in control’ and ‘Feeling Powerless’ nodes revealed several interesting findings. Participants appeared to take comfort in exercising control over things they could, such as their precautions. Passenger-initiated precautions varied in type and intensity, ranging from their assessment and rationalization of lowering risk, including watching the flight loads, seat allocations, traveling out of smaller airports, flying on direct flights, and bringing their food onboard. Some participants included these precautions into self-care, self-soothing, and nurturing strategies, including
inflight meditation, wearing headphones, increasing effort into grooming, appearance, and vigilant attention to others’ behaviors, appearance, and proximity to others. Airlines, airport managers, and others within the travel industry may use this finding to promote enablers for safety, such as explaining decontamination efforts, HEPA filters’ effectiveness, and reasons for mask mandates. Another consideration might be policy changes that allow passengers to re-book if they prefer a flight with less capacity. Airlines and airports also provide credible and trustworthy information and enablers for passengers to make their own decisions about personal safety, such as mobile device applications that give the passengers real-time indications of seat allocations or Transportation Security Administration passenger screening lines.

7. Conclusions

This study builds upon prior research that explores the personality traits and emotional heuristics associated with peoples’ willingness to fly during the current pandemic. The findings in this study show that the more passengers feel informed about their flight, the more likely they are to trust the airline or airport. Although they may not increase their trust in other people, information provides the passenger with the ability to make decisions and exercise control of their safety and flight experience.

This study’s primary findings emphasize that trust issues are likely experienced by all travelers to varying degrees of intensity, with subsequent emotions such as fear and anxiety for personal health and safety. These trust issues primarily manifest in a distrust of other people, perceiving them as a threat not only a potential carrier of the disease but the potential for unpleasant confrontations over mask-wearing and social distance violations within the aircraft. The airlines may alleviate some of these concerns through transparent communication on how a high level of safety can be maintained in the face of staff shortages, cost-cutting, and operational changes in scheduling and flight loads. Although we have used the COVID-19 pandemic as a model, outbreaks of infectious disease occur regularly (e.g., H1N1 influenza, SARS, MERS). We believe that these results will apply to passengers who must make travel decisions while confronted with future pandemics. This study may offer the airline industry insights into how trust issues significantly impact travelers’ emotions, therefore changing the traveler’s behavior and preferences. Airlines, airport managers, and others within the travel industry may consider adjusting their public messaging to encourage travelers to trust them with their safety and wellbeing.

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Tracy L. Lamb: Conceptualization, Software, Investigation, Data curation, Writing – original draft, Writing – review & editing, Project administration. Keith J. Ruskin: Writing – original draft, Investigation, Supervision. Stephen Rice: Conceptualization, Methodology, Writing – original draft, Supervision. Leili Khorasani: Writing – original draft. Scott R. Winter: Conceptualization, Writing – original draft. Dothang Truong: Formal analysis, Software.

Declaration of competing interest

No conflicts with any of the authors exist.

Appendix A. Supplementary data

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