

Air rage from the sharp end: cabin crew perspectives on disruptive passenger behaviour in Europe and its impact on occupational safety and well-being

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ABSTRACT

Disruptive passenger behaviour (DPB) incidents spiked during the COVID-19 pandemic period, compromising the safety of commercial flights on a daily basis. This qualitative semi-structured interview study examined the perceived triggering factors and motivations for DPB and the subsequent impact of DPB upon cabin crew well-being and safety. Twenty-four European cabin crew disclosed experiences, subjective observations of perpetrator traits, assessment of DPB development and information regarding their well-being and perceived safety. Thematic analysis revealed that the perceived frequency of DPB had increased, driven by an accumulation of pandemic-related factors – such as enforcing mask wearing amongst intoxicated passengers. DPB was found to decrease resilience and spur maladaptive coping strategies in crew. Suggested enhancements to current DPB mitigation consisted of stricter punishment for DPB as a deterrent, alcohol bans and higher quality training. These findings can inform decision-makers' efforts to support cabin crew well-being and create safer cabin workplaces in the future.

KEYWORDS

disruptive passenger behaviour; air rage; cabin crew; aviation; well-being; safety; qualitative

1. Introduction

In Europe, the safety of a commercial flight is jeopardized by disruptive passenger behaviour (DPB) (commonly known as air rage or unruly passenger behaviour) every 180 min, with incidents necessitating an unscheduled emergency landing at least once a month [1]. Most reports describe DPB in the form of non-compliance with rules and regulations, often attributing excessive alcohol consumption, in combination with other passenger factors (e.g., fear of flying [2], cohesiveness of perpetrator group characteristics [3]), as the primary DPB trigger [4,5]. Reports of verbal and sexual aggression, threats of physical violence and physical assaults are also common [6].

Despite DPB prevalence and its impact on safety, limited research has been conducted. Studies have investigated DPB from a passenger view [7,8], its media coverage [9], or through cabin crew perspectives on health issues, sexual assaults [10–13] or training efficiency [14–17]. Consequently, the current study aims to offer solution-oriented recommendations that reduce the prevalence of DPB-associated threats towards flight attendants, as well as mitigate the DPB impact upon their safety and well-being. Guarding the safety and well-being of cabin crew is crucial given the relationship between psychological well-being and job performance [18,19], and the safety-critical nature of flight attendant duties. This was recently exemplified during the 2024 Japan Air runway incursion accident, where the respective cabin crew were instrumental in ensuring the expedient evacuation of all 367 passengers following an aircraft collision.

The significance of the current study is emphasized by the increasing incident severity and frequency of DPB since the advent of the COVID-19 pandemic [20]. International media reports [21] have drawn attention to this rise, often attributed to non-compliance of instated mask regulations

[20,22]. This presented a new 'friction point' within the flight attendant–passenger interaction dynamic, underpinned by the prevailing public perception of the questionable effectiveness of FFP-2, or N95, masks as a preventative transmission measure [23]. Most mask-wearing reported DPB cases have involved North American and US passengers [9,24], whereas there was less official evidence or media coverage from Europe.

This study aims to correct this information deficit by providing qualitative accounts from European cabin crew regarding the relevance of current DPB triggers, and the nature in which triggers interact in combination, in terms of their role in facilitating the reported rise of DPB occurrences. In addition, the impact of DPB on cabin crew safety and well-being, and the associated coping methods employed by cabin crew, is underlined. Moreover, based on pandemic-related inferences, the study presents a series of cabin crew-centric recommendations to mitigate the prevalence and impact of DPB within the cabin workplace in order to prepare commercial aviation for similar future global-scale challenges involving DPB.

2. Theoretical background

2.1. Sexual harassment and verbal and physical abuse

Whilst under-reported, male and female cabin crew are frequently confronted with unwanted sexual advances and harassment from passengers, cabin co-workers and pilots [25]. Underreporting, in part, may be driven by differences in victim–perpetrator gender characteristics; Male crew report more harassment from male passengers, whereas female crew report male pilots as the major harassers [25]. In the context of underreporting, this observation is significant; many male flight attendants are perceived as, and identify as, homosexual

[26] and may thus not classify verbal or physical advances from women as harassment that warrants report. Likewise, intra-crew sexual encroachment may be more prone to happening during layovers [27], rather than on aircraft, disqualifying it from being categorized as DPB due to the absence of passenger involvement. Most intra-passenger sexual assaults were found to be touching offences involving sleeping victims, perpetrated by older men on young female solo travellers [11] or minors [13]. Most cases are officially reported with greater media attention, particularly in the western hemisphere [12].

Additionally, it is noteworthy that customer assaults were more tolerated than those of colleagues, likely to avoid customer offence [25,28].

2.2. Cabin crew well-being

A large body of work reports how front-line aviation roles negatively impact mental well-being [10,29–32]. A European study highlighted the frequent unwanted sexual attention or coercion that female crew are exposed to, and its association with adverse physical and mental well-being outcomes [10]. Likewise, evidence from Asian cabin crew depicts the emotional and psychological resilience damage that is wrought by continuous DPB encounters [33]. Together, these studies depict that crew well-being is compromised by DPB experiences, irrespective of their cultural origin; although it may be surmised that the international dimension of the cabin workplace and the resulting lack of punitive actions for DPB may play intersecting roles. Ramifications of these transgressions for crew well-being included sleep problems, affective disorders and musculoskeletal injuries – particularly, the likelihood of suffering from depression increased with the frequency of reports that female crew filed about reported sexual harassment [34]. It could be assumed that DPB presents a trigger for crews reducing their work hours or pursuing alternate careers. However, a recent study revealed that DPB did not significantly impact emotional exhaustion and turnover intention [35]. Many crew see it as a part of their jobs and thus DPB encounters have, in part, become ‘normalized’ [6].

2.3. DPB triggers

Alcohol intoxication is a recurring contributor to DPB occurrence [8,13,36]. In contrast, conflicting evidence has described the demographic characteristics of DPB perpetrator groups. For example, in the context of service reductions, educated male passengers and first-class passengers were identified as major DPB contributors [6]. Conversely, recent research suggests that the airplane environment provides an example of caste-like societies which can exacerbate existing tensions between individuals with different socioeconomic status [37]. Physical inequality – increasing first-class seating availability – accounts for more DPB in economy class, whereas situational inequality awareness, i.e., passing through first class heading to economy class, increases DPB likelihood in both first and economy class [36]. Additionally, anxiety (fear of flying), claustrophobic conditions and flight delays serve as passenger stressors that could escalate the opportunity for DPB to occur [8,38,39].

It is possible that the likelihood of DPB can stem from intoxication, perpetrator gender and cabin divisions alone. However, most DPB events are the summation of various and intersectional combinations of several triggers [3,40]. The impact of the

COVID-19 pandemic, coupled with changing mask regulations, serves to further provoke DPB occurrences and challenges air travel for both staff and passengers.

2.4. Consequences of DPB

The absence of sufficiently consequential punitive actions means that DPB is continuously regarded as a peccadillo by unruly passengers [39,41]. Furthermore, a ubiquitous inconsistency of DPB incident reporting, driven by several factors associated with low-cost carriers (LCCs), may have been contributing to DPB [42]. Budget carriers have been associated with lacking support, respect and union rights for employees and were identified, together with holiday travel airlines, for having the most DPB incidents [43]. However, the trend of network carriers establishing smaller aviation businesses, copying the LCC model, may not support this suggestion of a business model contribution to DPB. Although fierce commercial competition increases airline tolerance towards unruly behaviours [35,44], it also fosters a perceived lack of company support by aviation front-line staff. In turn, this translates into potentially endangering critical safety culture as well as safety management systems.

Aside from the legal consequences of DPB [20], social irresponsibility towards cabin staff and the resultant effects on their mental and physical well-being have been neglected in the scientific literature [14]. This dichotomy deserves more attention and official effort, by airlines and authorities, to implement appropriate punitive measures for DPB. The European Union Aviation Safety Agency (EASA) [45] and UK Civil Aviation Authority (CAA) [46] recently launched online awareness campaigns detailing types of offensive behaviour that constitute DPB and the associated fines and prison sentences. Furthermore, individual states must act and create legislations aligning with international laws to punish DPB globally in a consistent holistic manner [39,47].

2.5. Training

Several studies examining DPB training reveal that courses are too short and lack realism, and that transfer of training only improved when deeper comprehension of DPB theory is considered [16]. However, that study’s population was small and 25% of participants were pilots, whose experience with DPB management or cabin events is minimal. Deliv et al. [13] stressed the importance of competent crew training, particularly when dealing with victims of suspected or acknowledged sexual assault. It was also found that there is a need for more effective, more frequent and regularly evaluated training covering DPB [14].

3. Methodology

A semi-structured interview technique – a qualitative data collection method – was used to understand European cabin crew’s opinions on the triggers of current DPB, the impact DPB has on cabin crew safety and well-being, cabin crew coping methods, and methods and suggestions for mitigating DPB frequency and severity.

3.1. Participants and recruitment

Twenty-four professional cabin crew, both pursers and flight attendants, were contacted and recruited over a 10-week

Table 1. Participant demographic characteristics.

Participant	Age (years)	Work experience (years)	Sex	Nationality	Interview language	Recording time (min)	Academic degree(s)	Rank
1	49	23	M	Italy	EN	38	Yes	FA
2	43	18	M	Austria	DE	29	No	FA
3	54	32	F	Denmark	EN	32	No	PU
4	40	20	F	Austria	DE	40	Yes	FA
5	39	16	M	France	EN	33	No	FA
6	24	6	F	Hungary	EN	50	No	FA
7	45	19	M	Germany	DE	32	No	PU
8	45	18	F	Austria	DE	37	No	PU
9	37	18	F	Austria	DE	31	No	FA
10	52	18	F	Germany	DE	35	Yes	FA
11	39	16	M	Austria	EN	39	Yes	FA
12	45	19	F	Spain	DE	26	Yes	FA
13	35	17	F	Austria	DE	26	No	FA
14	42	18	M	Germany	DE	24	No	FA
15	37	16	F	UK	EN	24	Yes	FA
16	54	27	F	Germany	DE	25	No	FA
17	38	16	M	Germany	DE	39	No	PU
18	46	18	F	Spain	EN	50	Yes	FA
19	46	22	F	Austria	EN	25	No	PU
20	55	16	F	Denmark	EN	35	Yes	FA
21	41	18	F	Austria	DE	18	No	FA
22	37	19	F	Austria	DE	21	No	FA
23	38	18	F	Poland	DE	29	Yes	FA
24	53	30	F	Austria	DE	42	No	FA

Notes: M = male; F = female; DE = German; EN = English; FA = flight attendant; PU = purser.

period via private messages, a social media group and referrals using a snowball system. Recruitment was halted after saturation was reached and the intended information power [48] was achieved. Ethical approval was obtained from Coventry University Research and Ethics Committee (approval reference: P134267).

All participants were employed by major European legacy carriers operating out of Scandinavia, France, Austria, the UK and Germany. Participants' nationalities encompassed French, Hungarian, Italian, Austrian, German, British, Polish, Danish and Spanish. Participants' ages ranged from 24 to 55 years (M 43.08, SD 7.42). Flying experience varied from 6 to 32 years (M 19, SD 5.13). Seven participants were male and 17 were female. Exclusion criteria were seniority less than 5 years or a non-European home base. Participant demographic characteristics are presented in Table 1.

3.2. Data collection tool

Semi-structured interviews consisted of non-leading, open-ended introductory questions, follow-up questions, probing and specifying questions, direct questions, indirect questions, structuring questions, interpreting questions and prompts were developed. Questions covered the following:

- recent DPB experiences;
- feelings and emotions;
- coping strategies;
- incident reporting behaviour;
- suggestions to mitigate DPB.

The interview schedule is presented in Appendix 1.

3.3. Data collection

Due to the geographically dispersed nature of the sample, interview data were collected via Microsoft Teams (version 1.5.00.9163 - 2022) between March 24 and May 26, 2022. All participants received the same order of interview questions and information. No questions concerning potential reasons behind DPB were asked since, as expected, participants provided unprompted explanations and insights about DPB development.

Ten interviews were held in English and 14 in German. Translations into English from German were done by the researcher, an accredited translator, and every effort was made to avoid meanings getting lost in translation. In the post-interview stage, the 780-min recordings (M 32.5, SD 8.21) were transcribed and yielded 784 pages of text.

3.4. Data analysis

Transcribed data were analysed using thematic analysis [49] within NVivo (version 12) to obtain a rich analysis of European cabin crew experiences with DPB and their safety-relevant insights. The analytic process involved six iterative steps: familiarization with the data through transcription; initial code generation; theme search; theme reviews; appropriateness checks; and theme definition and theme naming [50]. Identified themes were checked for reliability via a triangulation method with a second coder and showed 75% agreement. The inter-rater inconsistencies were discussed between coders until 100% agreement was achieved.

Personal reflexivity concerning subjectivity or insider researcher bias [51], due to the researcher's experiences, was

always a focal point and was challenged to minimize subjective influence on data collection and analysis.

4. Results

Twenty-five codes were identified and hierarchically ordered into 12 categories and three high-order themes (Table 2). The three themes were: DPB experiences; DPB development; and crew well-being, coping and suggestions. Codes and categories are illustrated with participant statement extracts. Extract selection was based on participant statement congruence and how well the extract exemplified its associated codes/categories.

4.1. DPB experiences

Participants reported on a wide range of DPB experiences. Categories within this theme detail participants' DPB experiences by their perceived severity – as abuse or as general non-compliance. Participants' views on DPB frequency alteration whilst working during and after the pandemic period were captured.

4.1.1. Abuse

Abusive behaviours, considered to compromise cabin crew and passenger safety, included abuse of a verbal, physical and sexual nature. Many participants regarded COVID-19 mask non-compliance to warrant being classified as abuse.

4.1.1.1. Physical abuse. One of the most severe forms of DPB cabin crew can experience is physical assault, which constitutes a serious threat to crew physical safety and mental health. One-third of participants reported physical harm inflicted by passengers:

He opened exactly the bin where I stood and hit my head. Not only once, he hit my ear several times ... I could not react because the overhead compartment kept banging against my head. It was extremely serious, and I am sure he tried to hurt me deliberately. (P18)

Years ago, I fist-fought with a passenger. I had to knock the guy down! For real! And I did it. (P5)

4.1.1.2. Sexual abuse. Reports revealed that both crew and passengers had been victims of unwanted sexual advances. #MeToo made many people more aware of sexual DPB, particularly for female crew due to the marketing-related sexualization of the job which has been a recurring concern for decades [40]. No male participant reported sexual harassment, whilst two of the 17 female crew reported sexual transgressions:

They started touching me ... Then one of them, just like, went over my hip with his hand, he started to like stroke, fondle it. (P6)

A male passenger slapped my behind – hard – and found it funny. That was physical and aggression and sexual harassment. That made me really angry. (P20)

Although most participants initially thought of DPB as drunken brawls between arguing passengers or physically abused crews, sexual DPB was often found to be more prevalent than assumed:

A 14-year-old girl approached us and said that another passenger touched her, basically. You wouldn't say like ... you think disruptive passengers, fighting, restraints and that. But actually, this is a lot

Table 2. Themes, categories and codes related to disruptive passenger behaviour (DPB).

Theme	Category	Category description	Code
Theme 1: DPB experiences	1.1 Abuse	Type of assault or attack committed	1.1.1 Physical
		–	1.1.2 Sexual
		–	1.1.3 Verbal
		–	1.1.4 COVID-19 exposure and contraction
Theme 2: DPB development	1.2 General non-compliance	Passenger non-compliance with well-known general regulations. Breaches of which are frequent and considered standard by cabin crews	–
	1.3 DPB frequency	Perceived increased or decreased frequency of DPB	–
	2.1 Intoxication	Substance abuse leading to or fuelling DPB	–
	2.2 Pandemic-related stressors	Pandemic-related stress primes passengers to more likely commit DPB. DPB triggered over relatively minor factors	–
	2.3 High passenger numbers	Passenger increase due to low prices and wide ticket availability	–
	2.4 Gender	Cabin crew and passenger gender dimensions interact to create unique types of DPB	–
	2.5 Combinations	Two or more development factors that combine to trigger DPB	–
	Theme 3: Crew well-being, coping and suggestions		
	3.1 Feelings and emotions	What crew felt during and after DPB incidents	–
	3.2 Personal safety	Crew assessment of on-the-job safety perception	–
	3.3 Coping strategies	Individual methods and strategies to dealing with DPB after incidents at home bases or layover hotels	–
	3.4 Suggestions to fight DPB	Crew input for what could be changed or implemented to mitigate or eliminate DPB	3.4.1 DPB training efficacy
		–	3.4.2 Consequences for DPB
		–	3.4.3 DPB as briefing topic
		–	3.4.4 Alcohol bans

more sensitive ... I totally believe the way the girl acted. I mean, she had a panic attack, was vomiting, she was on her mum's lap for the rest of the flight. (P15)

4.1.1.3. Verbal abuse. All participants reported receiving verbal threats in the form of foul language, yelling or screaming. Sometimes transgressions were directed at an overall entity, i.e., the airline:

If there was an issue it was never personal... never me personally. It was like kind of, you all as a group, not me personally, towards the airline but not to me. (P1)

I try to convince myself that they are just screaming at the uniform and not me personally, I do not take it personal, at least I try. (P20)

Verbal assaults were also experienced in a combinatory fashion, aimed at the organization and person simultaneously:

There are people who call you asshole and berate you, that's just the truth. I was also called an idiot on the last flight from New York. So, I'm an idiot, my colleagues and my company making these rules, we are all idiots. (P13)

Frequently, verbal DPB was associated with refusal to comply with cabin crew enforcement of important safety-related regulations. Passengers' resistance or undermining crew authority was viewed as a form of harassment:

People blaming me directly for something I can't do, or question whether I can instruct them to comply and then threaten to complain, although I can't help it. I'm just the first on scene and didn't make up or invent these regulations myself just to annoy people, I'm here to enforce them. (P23)

Only female crew participants reported being sworn at; while male crew did report verbal and physical threats, they did not report expletives or being called names. The following extracts illustrate name calling that female crew experienced:

I took the glasses away, then one of the guys tried to take them back and shouted: 'You fucking party pooper!' (P15)

Do you know how often I have heard people calling me bitch? (P18)

She verbally abused me. I was very badly insulted. She said: 'Get lost, bitch!' (P9)

4.1.1.4. COVID-19 exposure and contraction. Eight participants (33%) voiced contraction of SARS COVID-19 from passengers as a major concern:

It annoys me very much! You cannot really track whether it is really from this one passenger. But in my mind, it's from this passenger I told so many times, who claimed being healthy... you just mentally travel back... It's a vicious circle... they are endangering us and other passengers. (P9)

Of course, this is endangerment, indeed! You could also call it bodily harm. If a corona infection occurred due to passenger misconduct it is bodily harm or assault. (P14)

The majority of participants classified refusal to wear a mask as DPB. Participant 8 illustrated the creativity a passenger employed to evade wearing a mask on a 13-h flight:

They were repeatedly instructed to comply... however, they kept making the masks disappear and then playing dumb, 'What mask do you mean?' They kept hiding the masks by sitting on them. (P7)

Approximately 60% of participants reported incorrect or careless mask wearing as an issue, often attributed to passenger laziness or reduced passenger anxiety from the perception that the pandemic was seemingly over:

There is no flight where everyone would have worn their masks properly. (P16)

They had cut off the bottom rubber strap, so their masks only dangled around by the upper strap. When asked to wear masks

untampered with, they refused and said they wore masks anyway, pointing at their manipulated masks. (P14)

One-third of participants reported a behavioural pattern that emerged when passengers abused the exceptions for mandatory mask wearing by referring to fallacious food and drink arguments. Participant 13 verbalized how she perceived this DPB:

It's such a smokescreen. They eat and drink, sip forever on a glass of water or request refills just so they don't have to wear masks. You repeatedly tell them to wear it and suddenly they have a glass in their hands, that's pretty tedious. (P13)

4.1.2. General non-compliance

General non-compliance includes DPB incidents that occur frequently, are expected and are regarded as minorly transgressive. For example, across participants a small number of smoking incidents were reported. Whilst not aligning with Colehan's [4] results, the current findings could be explained by the overall pattern of fewer smoker numbers and increased availability of discreet tobacco heating devices.

Parent passengers' unwillingness to enforce safety rules with their children was another example of non-compliance provided:

There was a family with an infant, this infant misbehaved quite a bit, didn't want to be buckled up, then it too landed without wearing a seat belt. (P16)

A four-year-old slept on the floor, and I informed the parents that this was not allowed... they were really irate and blamed me that she started crying and that she needs to sleep, blah, blah, blah. The dad said: 'We don't care and don't want her to cry. Her peace is more important to us than whatever you're talking about. And if she dies, I take responsibility'. (P19)

There was no observed difference between aggressive behaviour of frequent flyers or naïve air travel novices. Conversely, and corroborating Dahlberg [3], the cumulation of a streak of transgressions over a longer period (e.g., a long-haul flight) by single individuals or groups was reported:

All the garbage, so basically, they drunk-littered. It was an unbelievable sight; you just didn't know who it was precisely. Then also extreme soiling of a lavatory happened. Up to chest height, everything full, stained all over, smeared with excrements. (P7)

4.1.3. DPB frequency

All interviewees said the pandemic and mask obligations played an extensive role in the recent spike of DPB cases. Different opinions were conveyed about the severity of DPB during this spike:

It's not a higher aggression level, but it's more often. (P12)

My impression is that nowadays this aggressive behaviour has increased significantly. Yes, exorbitantly much more has happened. (P24)

One participant identified passengers as a societal mirror revealing underlying aggression tendencies in unfamiliar environments: 'I think that passengers or people in general, not only passengers, are becoming more aggressive. Maybe due to COVID-19' (P8). Hereby she supported and extended Hunter's [52] suggestion that air rage becomes the norm and not an exception. Another participant described how an overall increase in passenger numbers, air fares, COVID-19 and austerity measures contributed to the recent surge in DPB:

Anyone can fly nowadays... They fly once a year, they have absolutely no idea, for them it's vacation but then there are certain rules.

We're all locked up in a small narrow tube. 200 or more people will have to be considerate, that's not so easy for many people to comprehend. (P2)

More cases again, because of the rules, the masks. And people are more entitled because they haven't been away. They're expecting for what they're paying, which is more than before. They're expecting the same, but they're not getting the same either because of cost-cutting or, you know... (P15)

In contrast, the Scandinavian participants believed that DPB frequency had recently decreased because of stricter punishment for unruly behaviour and fewer intoxication-related cases:

It changed with COVID-19, maybe it will be back to more normal now. I think it's changed because people drink less... mostly in coach where they must pay. I guess the alcohol thing reduced the aggressive thing, but the corona had taken the upper notch the last years. (P3)

This appraisal contradicts the suggestion that LCC practices, i.e., on-board sales, foster DPB [42].

4.2. DPB development

The potential triggers for DPB development are considered in this theme. Five specific triggers were identified: intoxication; pandemic-related stressors; high passenger numbers; gender; and combinations, reflecting how the former four factors could interact and accumulate to trigger DPB.

4.2.1. Intoxication

Alcohol and drug intoxication were principal contributors to DPB incidents. Gate staff involvement regarding fit-for-flight assessment due to suspected substance abuse was also reported as being common, since excessive drinking in many cases happened prior to boarding:

Most of the time alcohol is involved. When there is an alcohol related escalation and that person in that moment is out of control, that's a typical escalation where it can move from verbal to physical, because the person is under substance influence. (P1)

It was definitely a mixture of drugs and booze. If you're merely drunk, you do not behave like that. And he had either refilled with what he took before, or he took it with alcohol and then it became amplified. (P7)

Eight participants (33%) raised passengers bringing their own alcohol on board as an issue, particularly concerning the difficulties arising with monitoring clandestine consumption:

A flight with a [very drunk] group... Brought their own alcohol, drinking it is not allowed, who refused to comply not to drink it and started shouting and showing very aggressive intimidating behaviour, verbally threatening me in a very, very aggressive way. (P20)

And then there's also the alcohol people bring themselves. That's a huge problem because we often don't see or notice it at all. (P4)

Participant 4 made it very clear that she advocated for stricter alcohol regulations on board and that sometimes DPB incidents were self-inflicted:

It's definitely the alcohol we serve and that reactions happen too late... Booze restrictions are almost never pronounced... People simply overestimate themselves and don't know how alcohol affects you differently in the air. This often leads to arguments or awkward situations. That needs more regulation in aviation. (P4)

In some cases, participants employed strategic flight-bidding system strategies in order to avoid 'problematic' flights associated with alcohol-related DPB:

But then I never did, for example, a Thursday Vegas... I would choose not to do that. And that's generally a lot of the routes, the holiday routes, Caribbean routes, I would choose not to do. I do choose an easy life! (P15)

4.2.2. Pandemic-related stressors

Nine participants (38%) considered the pandemic to have created an atmosphere where pandemic-related anxiety primed many passengers to committing DPB. The ubiquitous pandemic difficulties were associated with generally higher aggression levels, contributing to the increased frequency of DPB occurrences reported by participants (see Section 4.1.3). Participant 10 reflected that the aircraft environment may have offered a figurative stress outlet valve for passengers, linked to a new normality in which people are no longer willing to receive instructions:

In my opinion he had been looking for trouble and was ready for a riot for some reason. (P10)

Another participant reported that passenger anxiety during the pandemic may have been exacerbated by the uncertainty presented by airlines' differing compliance requirements. This was notable for the issue of mask wearing requirements.

It's been more difficult over the last two or three years because of all the [ever-changing and nationally] different mask policies and because travellers in general are more tense. The whole travel chain before boarding is very stressful and then a small trigger aboard is just enough to be the last straw to break the camel's back. (P2)

4.2.3. High passenger numbers

Five participants (21%) spoke about how globally increasing passenger numbers consequentially influenced the rising incidence and prevalence of DPB:

of course it is also due to the sheer amount of people, the masses, yes, because of many more people flying around. (P18)

4.2.4. Gender

Three participants (13%) thought the gender ratio of DPB perpetrators was balanced between men and women. Female perpetrators were less associated with physical escalation, characterized instead by non-compliance or persistent verbal transgressions: 'I guess the female passengers are... They get angry... They keep on going, you know, but just verbally' (P3). Although acknowledging female misbehaviour, most participants linked higher levels of DPB to male passengers:

Oh men, men. I mean, you're probably getting this all the time. I have females noncomplying, but mostly with the men it's more aggression. With women it's just like noncomplying, like not putting a seat belt on a child or something, but the aggressiveness and the foul language is men. (P19)

Definitely males. I mean people escalating are rather males than females. Females,... maybe angry. And that's it. There's a lot of females, but when it comes to escalation, the escalation is more male prone. (P1)

The finding that men are perceived as principal DPB perpetrators corroborates Akgeyik's [6] results, but no connection to educational level could be established in the present study. Participants' perceptions of DPB severity and gender-relatedness did not align with previous research stating that gender does not influence perpetrator profiles [8]. However, these perceptions could be partially motivated by pre-existing gender roles and role perceptions, which may influence crew reporting of DPB incidents. Crew member gender was also identified as a factor implicated in DPB development:

I went there because of course they wanted a male flight attendant to intervene. (P7)

4.2.5. Combinations

Nine participants (38%) highlighted the inter-relations between several of the aforementioned triggering factors that contributed to passengers' non-compliance and indifferent reactions towards rules, laws and potential consequences. DPB development stemmed from various directions and inter-related factors as building blocks, the biggest being mask regulations and intoxication:

Hm well, apart from all the anti-maskers and drunks, yes? The mask problem is a big issue. Especially with the Eastern bloc! Drink too much, refuse wearing masks and just laugh at us. They go yeah, yes, do that, hahaha. (P4)

On flights such as Cancun the mask issues merge with alcohol issues, especially Maldives and Cancun. On those flights, those people, I don't know why whether it's the destinations or the ticket prices or the people themselves. (P11)

4.3. Crew well-being and suggestions to combat DPB

Crew shared their affective states during and after DPB incidents, their perception of workplace safety, coping strategies used to process unpleasant experiences and suggestions to deter or obviate future DPB events.

4.3.1. Feelings and emotions

Participants recounted a range of feelings during DPB episodes. Anger and annoyance were the most frequently reported emotions. Participant 20 shared the extreme extent of her negative and retaliatory feelings towards her abuser:

I wanted to shoot him, really! More than once. (P20)

Feelings of powerlessness and fear were also common. Three participants felt stressed and trapped, and others recalled feeling disappointed, shocked, very uncomfortable and speechless:

Almost scared, I'd say, a little bit scared. Yes, because of those eyes wide as saucers, angry eyes, and she really screamed at me wildly. (P22)

Seventeen participants (71%) mentioned that negative emotions were experienced over a protracted period following DPB events, often taken back home or to the hotel. Feelings expressed were not mutually exclusive; five participants felt angry, four participants felt hurt, sad and abused. Four participants felt concerned that the priority of their job role had changed from one of safety and hospitality to that of aircraft police:

This feeling that I got to be the bad cop, the one telling them off, threatening them ... the bad guy ... You give so much and at the end ... after every single flight I would need psychotherapy, a massage. (P18)

Three participants mentioned their steadily decreasing resilience. The moods and emotions following DPB incidents echoed those experienced during the episodes. Participants reported feeling disrespected, upset, disappointed and increasingly demotivated, frustrated and, in the context of sexual abuse, humiliated:

It happened many times during the pandemic that I just felt like a bad copy of myself instead of being the normal, joyful, kind and helpful me. (P3)

It really was scary! I still see her in front of me today. Not like haunting, but ... if I think about it. Because there were a lot of men there too, but she was just so aggressive. (P22)

4.3.2. Personal safety

Participant 4 recounted that she felt safe from physical attacks when air marshals were on board and wished they were present more often:

so it would be very good if they could intervene, especially transatlantic without quick landing possibilities. It's a very bad feeling and you feel powerless, impotent. (P4)

That time I shivered, trembled, since I feared the guy would really like, hit me. (P21)

And yes, she was already so aggressive that I thought to myself, now she'll hit me, right now, yes, now I'll get a slap in the face. It was a moment when I thought: 'And now? Now it's happening'. I felt very uncomfortable and tense, because I thought her capable of doing anything. (P22)

Contrastingly, male participants were not concerned about their workplace safety. One male participant stated that he always felt safe on board due to long years of experience sharpening his profiling and anticipatory skills. This account could be related back to findings associating DPB management with emotional intelligence and experience [15].

Three female participants voiced concerns related to an infection with COVID-19:

Yes, it is also unsafe from a health point of view because they are endangering us and other passengers and the relatives they are going to visit. (P9)

I was considering flying less hours, for my health, for many years now, especially now with COVID-19, not only because of my health and this is what we come back to, this point like, to take care of myself, and you (maskless passengers) make me ill. (P23)

4.3.3. Coping strategies

Participants talked about different adaptive or maladaptive coping strategies they applied to process DPB experiences. Those strategies were not mutually exclusive, and most participants used several.

Eight participants (33%) discussed the adaptive coping strategies they employed. These took various forms including using informal one-to-ones or official crew debriefings with colleagues:

Having a good rant, getting it off your chest, that's a good one. (P15)

That's when I am self-reflective at home or in conversation with one or several friends who then play it through with me again and advise me on different potential strategies I could have chosen. (P2)

Airlines usually have psychological help services for crew experiencing traumatic events. However, whilst most participants stated having knowledge of these services, only one participant revealed having made use of the service after a DPB incident:

I've also had psychological sessions with a psychologist from the airline where I got counselling and talking really helped me to get it out of my system, it was beneficial. (P20)

Other adaptive coping strategies participants considered included changing work hours, or a career change to improve their health and safety following DPB encounters:

I was considering flying less for my health in general for years now ... Aviation ... It's something so beautiful itself, but nowadays it's a permanent battle, so you must try to find your balance of a healthy approach. (P18)

I have realised that I would like a job in which I have nothing to do with people, not being burdened by them anymore. (P24)

Maladaptive coping strategies were observed in the form of denial, repression, self-isolation and normalization of DPB. Fifteen participants (63%) perceived certain DPB incidents as minor, meaningless or not worth telling and some realized that they routinely trivialize or repress DPB incidents:

A bit rude, but not very aggressive, but like, why can't I drink it, it's mine, you stupid bitch! You old hag! (P3)

You need a people break before having contact with humans again ... a couple of days and four to five people I would like to see, the rest can just disappear. You need more distance from people to find balance again. (P12)

We tend to normalise that people do not behave correctly and then, when giving it some thought, well look, something happened there as well. (P16)

Alcohol was reported by three participants as a coping aid used to calm down after stressful flights:

For example alcohol. I guess it's an easy method for coping. (P15)

4.3.4. Suggestions to combat DPB

Ten participants (42%) proactively provided suggestions they believed would support cabin crews to handle DPB events, deter DPB and enhance cabin crew post-event coping.

4.3.4.1. Training efficacy. The principal suggestion identified to combat DPB was enhancing training and training efficacy. Participants evaluated the effectiveness of their airline-provided training in terms of effectiveness, real-life transfer and sufficiency. Resource availability and preparedness for verbal arguments or physical altercations were deemed to be the most important areas of training:

To what extent can we avoid this very aggressive behaviour? How can we protect ourselves? I think that has nothing to do with us personally and there are things we can't avoid. So yes, protection, personal protection strategies provided by the airlines, the companies. I mean a psychologist is not enough, courses and trainings should be provided. (P6)

Sixteen participants (67%) felt they had received minimal training to deal with most DPB. Verbal de-escalation techniques and basic self-defence were only taught during initial training. Two participants who privately practised martial arts felt confident to protect themselves against physical attacks. One participant felt entirely unable to protect herself or passengers from assaults:

No, not at all ... it's always about verbal de-escalation, that's the be-all and end-all of the company. When it's already come so far that they physically fight, then it's difficult to achieve something verbally, to reach someone, that's always more difficult when fists are already flying. (P16)

Five participants (21%) trusted their training and were satisfied with the received lessons and refresher frequency. One participant reiterated the trust in his training but conceded it had not being helpful in extreme situations:

We're trained for undisciplined passengers, well for one or two, but not the whole cabin rioting! (P5)

4.3.4.2. Lack of consequences for DPB. Most flight attendants agreed that DPB perpetrators should be punished with fines, black-listing or incarceration. Sixteen participants (67%)

expressed their disappointment by the insufficient consequences of DPB and the lack of a unified international legislation for prosecution. The perceived reluctance of companies and flight deck crews to address DPB was expressed as a frustration:

I always find it very sad that nothing happened, and our cockpit colleagues don't do anything at all. I assume that is due to a two-class system on the plane. They're just sitting in their safe little house that we protect ... I mean what must happen so that someone takes action to protect us better? (P4)

Another participant showed disappointment that DPB in Europe is regarded as a trivial offence and lacked an associated deterrent, as opposed to the USA where unruly behaviour is a federal crime and consequences are clearly communicated:

I think there should be a code of conduct to avoid those violations and it should be made public, and people should be made aware of it. (P24)

Crew also felt ridiculed and generally lacked support from office-based management or authorities:

The unruly exited an immigration interview cell, very laid-back and waving and smiling at us. And then he actually walked away with the security guard's arm friendly over his shoulder. (P7)

The futility of existing DPB reporting processes, where perpetrators are required to acknowledge responsibility, were criticized. This procedure appears cumbersome and ineffective and is not taken seriously by either cabin crew or passengers, and provides unruly passengers ample opportunity to easily avoid repercussions:

I mean, I feel a bit silly. Like, here's a letter. Should I leave it like in school? Like ... you're in detention? (P15)

4.3.4.3. DPB as briefing topic. Four participants said that DPB was rarely discussed in pre-flight safety briefings, which could be used to devise concerted strategies and procedures should DPB occur. One purser spoke about occasional idea exchanges based on previous flight experiences and explained that 'this type of information exchange is rather difficult, and an unpleasant topic. That's probably why it's rarely mentioned' (P17). According to most participants, mask regulation non-compliance, although a relatively new DPB dimension, was always discussed and consumed a major part of briefings. Four participants recalled that route-dependent alcohol and intoxication became notable DPB topics:

Yes, route dependent. For example, a Vegas or Montego Bay, they would have a strategy for like, only alcohol from the bars, not from the galley. We'd have a strategy like that, but not to deal with disruptive passengers as such, no. (P15)

4.3.4.4. Alcohol bans. Four participants suggested banning alcohol, or at least spirits, aboard aircraft:

Yes, an alcohol ban on aircraft ... they arrive already drunk, they were waiting around, come from connecting flights, are bored, they drink already at the gate, then they bring their own alcohol. Simply offering no alcohol, or perhaps only beer and wine, the lighter variations. (P22)

5. Discussion

This study adds to the DPB knowledge base by researching the pandemic factors – on their own or in a combined fashion – that contributed to the increased development of DPB, the different forms that DPB may take and the impact of DPB

on European cabin crew well-being and safety. In addition, the research describes several means of managing DPB that are proposed by individuals working in the environment.

Participants' DPB experiences varied in type and severity. In the pandemic (and post-pandemic) context, DPB stemming from passengers encroaching upon cabin crews' personal pandemic concerns was mentioned by the majority of participants. This corroborates with Bell [41], reinforcing the argument that COVID-19-related DPB forms an additional stressor for crew. Several flight attendants stated that mask-wearing refusal and mischievous creativity exposed them to avoidable virus infection risks, and contributed to subsequent passenger confrontations involving verbal arguments and abuse. Most participants classified steadily reoccurring mask DPB as disrespectful and potentially threatening their health. Other, already recovered, participants were convinced they had contracted COVID-19 from non-compliant passengers.

Verbal and physical abuse were frequently cited by participants, which concurred with previous research [9]. Male participants experienced verbal and physical abuse, whereas only female participants reported sexual abuse. Despite negative feelings, female participants did not officially report their predators because they felt it to be a normalized aspect of the job and downplayed it. This finding coincides with recent findings that investigated flight attendant harassment [53] and sexual assault and its under-reporting on flights [6,11–13,25,28,34,44]. One participant officially reported a passenger sexual abuse case involving an under-age girl.

Participants often observed that DPB was characterized by 'mild but open aggression', deliberate non-compliance with safety regulations that concerned non-compliant travel groups, critical child safety, immature behaviour or tampering with the aircraft interior. Combinations of different DPB forms also occurred frequently. Whether passengers were frequent, occasional or novice flyers made no difference regarding DPB occurrence or severity. Only a few participants mentioned smoking on board whereas other findings suggested smoking being a principal DPB issue [4,9]. Some participants felt that during the 3 years since the pandemic had began that DPB frequency had decreased or stagnated. However, the vast majority agreed that DPB incidents had significantly increased due to COVID-19 regulations, which exacerbated existing triggers of DPB when occurring in combination.

Mask-related arguments were perceived to be a catalyst of DPB, normally presenting in parallel with other triggering factors, such as alcohol intoxication. Concurring with former findings, [4,5] but contrasting with another study [7], intoxication with alcohol, drugs and the covert consumption of one's own alcohol were identified as principal and universal causes for DPB. To this effect, tourist flights to popular holiday destinations were perceived as challenging routes due to their association with excessive alcohol consumption [3,40]. Some participants identified the rising numbers of passengers as an exponential factor for DPB episodes. Many participants pointed out that, in most cases, several intersecting factors and stressors, often related to the travel chain, led to DPB development. This finding demonstrated how difficult and challenging it is to work in international environments and confined spaces.

In contrast to a US-based study [36], this Europe-focused study found no link between cabin division and predicted DPB. DPB incidents were experienced evenly throughout all travel classes, thus it can be surmised that this could be a

US-specific problem. Hence, flight duration and language barriers had smaller impacts on DPB occurrence, whereas intoxication was crucial in the development of unruly passenger behaviour.

Cabin crew's emotional reactions and states during and after DPB incidents were discussed alongside suggestions to combat DPB. The most prevalent feelings following DPB confrontations and their management were anger and annoyance while others felt powerless, scared, trapped, uncomfortable, helpless, shocked and speechless. Some participants also spoke about incomprehension, not being respected or taken seriously while simultaneously feeling ridiculed. Many participants admitted still being emotionally impacted by past incidents, some from months previous. Post-incident affective states ranged from angry and humiliated to hurt, sad and abused, particularly with cases involving sexual harassment and being called names; thus, DPB clearly had an exacerbating effect on victims' mental well-being [6,33].

Participants contemplated their unwanted job role change from safety-prioritizing host to 'bad cop' and their decreasing resilience to aggressive behaviours while also feeling emotionally exhausted. In agreement with previous findings [54], some participants considered resignation or moving to part-time work to reduce stress and prevent health deterioration. Eight participants already flew reduced rosters due to the high job demands and DPB experienced.

Few participants took experiencing DPB lightly whilst only female crew mentioned personal safety concerns, which revolved mostly around COVID-19 contraction and being trapped with inebriated and aggressive strangers in confined spaces. As also shown by similar research [55,56], many participants used several introvert or extravert, and adaptive or maladaptive, coping strategies to process DPB. These strategies encompassed rumination and distancing oneself from society, submitting reports, engaging in physical exercise, self-medication, or discussing DPB episodes with family or friends, as well as proactive participation in crew debriefings. Many crew repressed recent DPB incidents and showed a tendency for DPB denial, i.e., trivializing and standardizing actual severe DPB episodes. This study thereby corroborates other insights about customer harassment coping strategies [44]. Only one flight attendant accepted professional psychological help offered by their organization – others expressed general openness to confide in confidential reporting crew members.

Many participants felt they had received insufficient training to dealing with harassment and that more frequent and efficient training would benefit them. It was believed that self-defence training would provide a safer workspace and enable DPB episodes to be managed more confidently. Although some participants trusted their training, others were uncertain about transfer of training, their training levels and challenged the thought of training as a panacea for every DPB type. Hence, to help obviate DPB occurrences, some participants advocated for alcohol bans or limited alcohol consumption on aircraft in coordination with a publicized code of conduct for passengers. Although alcohol bans could be difficult to accomplish in western societies [42], this study's findings support similar suggestions made by Anglin et al. [5]. A compromise could be improved alcohol use management along the entire air travel chain; implementing more expensive drink charges at airports and for duty-free purchases, concomitant with abolishing free alcoholic drinks across all cabin classes aircraft in order to

decrease inebriation as enabling and contributing factor that influences DPB likelihood and severity.

Two-thirds of participants lamented that DPB did not usually lead to consequences, a grievance that must be addressed, which was also identified by other authors [39,41,44]. Although it may be challenging to navigate this area, companies and authorities ought to engage in consistent and rigorous perpetrator punishment to deter copycats or hold repeat offenders responsible [47] for offences that would be ordinarily prosecuted in 'normal on-ground environments' to create safer workplaces [25]. Additionally, the common warning letter procedure requiring already non-compliant disruptive passengers to comply by incriminating themselves was harshly criticized, which concurs with Whitelegg's [35] previous observation. This procedure urgently ought to be revisited to find an appropriate and more expedient alternative. Participants also suggested establishing DPB as a mandatory briefing item, and to be discussed in isolation from intoxication prevention and mask non-compliance. This suggestion, along with the demand for the creation of a DPB response quick checklist, is something airlines could easily implement to enhance crew preparation and mitigate sudden DPB episodes.

6. Conclusion

According to European cabin crews, this study found DPB in a European COVID-19 pandemic context to be intersectional and commonly emerging through random and complex combinations of several factors, the most salient of which are associated with mask transgressions, intoxication and verbal abuse. DPB episodes were not infrequent isolated events but occurred with increased frequency following the post-pandemic aviation recommencement, and endanger passengers and cabin crew alike. Furthermore, minor transgressions have become widely normalized or downplayed. DPB is detrimental to flight attendant well-being and safety, and should lead to appropriate repercussions to deter potential perpetrators. Through deeper understanding of the inter-related mechanisms that drive DPB, this study's findings can inform European decision-makers' efforts to support flight attendants, create safer workplaces and promote overall crew well-being. Furthermore, the study findings are transferable to front-line staff and key workers across industries where people work under similar circumstances with spatially close and intense human contacts, simultaneous human-machine interaction and time-pressure constraints (such as on cruise ships, in hospitals, job centres or trains). Future research integrating findings from other continents would widen the exploratory scope of this issue, alongside research focusing on comparing DPB frequency and emergence across airline operational characteristics.

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No potential conflict of interest was reported by the authors.

Data availability statement

To preserve the confidentiality of the individuals who took part in the research, the raw qualitative datasets are not publicly available.

Anonymised, summarized, versions are available from the corresponding author on request.

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Appendix 1. Prepared set of questions and prompts participants were asked during interviews

Interviews were conducted in English or German.

Introductory and opening questions

'Do you know about the purpose and aim of the interview?'

'Could I just get your verbal participation consent after I start the recording?'

'Are there any clarifying questions you would like answered before we start concerning consent, being recorded, anonymity and confidentiality, etc.?''

'Can you tell me about your recent experience(s) with air rage and how?'

Follow-up questions (no leading questions)

'Can you elaborate on that?'

'Can you provide details about aircraft type, crew composition, passenger numbers and trip destination and duration?'

'In which flight phase did the incident occur?'

'Was it a holiday flight or scheduled flight?'

'Were there unusually large numbers of children/babies on board?'

'How did experiencing the aggressive behaviour make you feel during and afterwards the incident?'

'How do you deal with the experiences you made with disruptive passenger behaviour (DPB)?'

'Do you have special coping strategies?'

Probing and specifying questions

'Was the specific flight poorly booked/busy/long-haul/short-haul?'

'What exactly do you think led to the situation?'

'What were your initial reaction and thoughts?'

'Were there previous signs for a possible escalation?'

'Can you recall whether strategies to dealing with such situations were discussed in the pre-flight briefing?'

'Do you feel properly trained and equipped to dealing with verbal or physical assaults?'

Direct questions

'Was the concerned person displaying conspicuous behaviour before the situation (boarding/ground staff reports/obvious intoxication)?'

'Did you ever step in for another co-worker or passenger?'

'Were you provoking or kindling the situation?' (Impatience, bad day,...)

'Do you think the situation could have taken another turn when handled differently by you?'

Indirect questions

'How do you believe the other passengers around experienced the situation?'

'How do you think your (possibly also involved) co-workers experienced the situation?'

Structuring questions

'If it is alright for your you and, of course when you shared everything you wanted to share, I would like to continue to another topic?'

'Is there anything you would like to add that I may have not covered with my questions that seems salient and relevant to you?'

Interpreting questions created from notes taken

'Am I right in thinking that you ... ?'

'By ... you mean that ... ?'



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Rösch, Alexander; Chernak, Erin; Blundell, James

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