

Psychological Aspects of Travel

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International relocation is associated with psychological stress, behavioural reaction, covert and overt distress¹. Global transportation is stressful on the individual². Air travel in particular is associated with anxiety and fear. Many travellers exhibit anxiety at aircraft takeoff and landing³. The aviation environment provides physical, psychological and emotional stressors which can affect comfort, health and safety of passengers⁴.

Some people fear, travel over water, transport through a tunnel or, close confinement. Others are phobic of air, sea or train transportation⁵. Recent terrorist activities on trains, aircraft and at passenger terminals, with associated increased security measures and transit delays, have increased the psychological distress experienced by many travellers and brought behavioural responses.

Many more people are now exposed to the vicissitudes of global travel as cheaper air travel has encouraged use of this travel mode, at a time when airport congestion, aeroplane delays and inefficient management has become the norm. Air travel has become the normal mode of travel for long and short haul journeys for millions of people⁶. However this transport mode has always had a psychological effect on passengers³ and now airport transit is also having a disturbing effect on passengers⁷. Travel related stressors have increased over recent years. Their effect on the travelling public can result in minor or major anxiety. They can trigger major behavioural reactions and result in transport avoidance, with serious impact on global transportation systems.

Twenty years ago one in four air travellers admitted a significant degree of anxiety or fear in the air^{8,9} with one in ten seriously affected^{10,11}. 19% of air travellers admitted to actual fear of flying¹⁰. 13% of the general population has intense fears of flying¹². In 1980, 1.2 % of adults of British adults admitted to a phobia of flying with a female to male preponderance of 2:1¹⁰. More recently (1996), 24.4 % of people admitted to travel worries about flying³, with more females than males admitting to air travel concerns and experiencing a greater degree of worry. 36 percent of business travellers reported travel related stress with 15% reporting physical or psychological health problems due to travel. They scored very negative ratings of 4-5 on a five-point Likert scale for intensity of feelings¹³.

In a 2003 survey of travellers and non-travellers, regarding psychological and physiological stressors affecting the general public and health professionals and their behavioural responses relating to commercial flying, 30% were worried about flying and 58% of these were moderately or very worried about air travel¹⁴.

Main worries

Accident	32%
Explosion	18%
Hijack	16%
Bing airborne	15%

Transportation delays 13%

World terrorism has brought the blowing-up of buildings, aircraft and trains with marked effect on world travellers. People tend to fear “dread risks” (low probability, high consequence events) disproportionately. In September 2001 in the USA, the crashing of civilian airliners into buildings shocked people worldwide, precipitating a marked behavioural response with avoidance of flying. There were 16% fewer international and domestic flights in the immediate aftermath of the disaster, One-year later, there was still a 15% shortfall in traffic between the US and Europe. Air travellers have now a greater awareness of perceived risk in flying and transiting air and train terminals¹⁵.

Studies six months after the disaster, recorded that intensity of people’s anxiety had increased, with 46% saying their anxiety was considerable, or very high. 11% were avoiding flying and intended to decrease their exposure to air transport. Over 65 year olds were worried and more worried than younger people. More women (41%) were worried than men (24%) and in-flight explosion was now a major source of anxiety¹⁶. A further study one year later showed that 54% of the public were still considerably, or very worried about air travel, 7% said they intended to fly less and 1 % said they would never fly again¹⁷.

Source of worry were

Deep vein thrombosis	41.8%
Air accident	21.5%
Being airborne	15.0%
Explosion in the air	12.3%
Hijack	10.6%
Flight delay	8.7%

When people were asked about the effects of Sept 11 ,4 years after the event 11% were still a lot more nervous about flying and 6 % were not going to fly again¹⁸.

Current anxieties and fears

A survey in 2005/6 reported a flying phobia prevalence of 0.75%, an apparent decrease to Burn’s report of 1989. Other stressors have however appeared on the air transit scene¹⁹. Rayman identified the range of stressors relating to air travel as travel to airport, check-in, security clearance, flight delay, airport tumult²⁰. No new studies have been reported on their frequency and intensity, but indirect evidence demonstrates their effects on travellers.

Of 1000 randomly selected flyers in the USA the following complaints were made:

Flight delays	55%
Queuing	41%
Lost baggage	37%

Anecdotal and some statistical evidence suggests that travellers are reacting by avoidance of London hub airports for better managed less stressful regional airports. In a Heathrow airport study in 2007, passengers had heart and finger monitors fitted to record blood pressure and pulse rate while in the airport en- route to flight

departure. Skin conductance-a reliable measure of stress- was also measured. Readings were correlated with the amount of psychological stress they experienced⁷.

- Passengers passing through the airport showed monitored stress levels equivalent to on-duty riot police, in subjects who were young, healthy and not exercising. During the test, there were marked physiological changes. ECG and BP monitors showed immediate and sustained changes:-
- Within minutes of entering the terminal, heart rates had increased from 55 beats per minute to over 70 per minute in the non-exercising state.
- In the 4 hours it took to reach the aircraft the rates continues to rise and rose to more than 200 beats per minute in transit ,before boarding the aircraft ,with a rise also occurring in blood pressure.
- Queues at check-in, security increased blood pressure levels from average of 123/81 mm Hg to 170/99mm Hg.
- There was a marked increase in skin conductance with a rise 100 times that in a relaxed state
- Associated stress levels peaked four times but were sustained at a high level overall.
- Causes of peaking were queues, unfriendly, unhelpful staff, lack of or misinformation
- Monitoring on the return journey revealed that return transit through the air port is almost as stressful as departure, primarily because of queues at immigration, security channels and lost luggage.

A similar study comparing passengers travelling by air, Eurostar train, road and train confirmed the stress felt by delayed passengers .The pulse rate of train passengers increased with the queue for departure and while the train was in the channel tunnel. Car drivers were stressed on boarding the ferry and adapting to foreign driving. Only coach passenger remained relaxed during travel²². Rude staff were a contributory problem to stress with 52% considering this a major cause of travel related stress. Behavioural responses are also evident with 42% of travellers admitting to repeatedly checking travel documents prior to the flight and international journey, with these obsessive compulsive tendencies greater in women .A third admit they check passports at least five times from arrival at the departure point and boarding, although they do not normally exhibit obsessive behaviour.

Coping strategies for air travel anxieties.

Half of all worried travellers do nothing to minimise their anxieties. Many admit behavioral responses .

Several coping strategies are adopted for air-travel worries³:

Avoid flying if possible	9%
Relaxation and distraction techniques	16%
Alcohol drinking for relaxation in flight	13%
Sedatives	6%

Avoidance

Some people react by avoidance and refuse to travel by plane. air or ship.This avoidance phenomenon is very marked after an air disaster and particularly after a major terrorist event affecting transportation. It also affects decisions on the vacation holiday destination. International tourism to London fell off dramatically after tube explosions. There has been an increase in long haul train travel and increased

popularity of travel in cruise ships departing directly from UK ports as an alternative to flying. The behavioural response of avoidance can affect travel for a year, then the psychological effects on the individual tend to disappear, although some people retain the same degree of anxiety and maintain avoidance behaviour years after the September 11 event⁷.

Other effects of anxiety on the traveller

Anxiety generated by relocation and transportation is also associated with travel fatigue which can last for a day or two after arrival²³. The increase in heart rate and blood pressure associated with airport transit which may only discomfit a fit traveller can be disadvantageous in older people-the number of elderly air passengers is steadily increasing²⁴. In those with cardiac problems this may precipitate arrhythmia, myocardial infarction and stroke²⁵. This psychological disturbance to the physiological state in air passengers occurs before actual boarding. With flights there are further challenges to the cardio and pulmonary compromised with prolonged immobility, the potential of venous thrombosis and anoxia. The potential effects on those with chronic or underlying medical problems may be serious. Passengers may be more likely to become ill on a long haul flight after prolonged hours in a tumultuous airport²⁴. Travel related DVT risk received little attention 5 years, but now 66% of the travellers are moderately or very worried about the possibility of dvt development when asked specifically about deep vein thrombosis in a survey²⁶.

Air rage

The increase in prevalence of air rage may also be associated with the psychological and physiological demands made upon the air traveller in pre-flight transit²⁷. A serious incident of disruptive passenger behaviour occurs on board in 1 in 30,000 flights but many more occur in the airport. Most incidents relate to verbal abuse of crew or passengers. 80% involved were male²⁸. Panic states are the most common cause of medical incident on aeroplanes. Some of these may have been precipitated by airside events before boarding with the passenger primed into a high state of tension before arrival on the aircraft.

Terrorism has had a marked effect on travellers attitudes and worries. People now give less concern to hijack and mechanical failure and are more concerned about explosions on their transport. Security measures intended to decrease risk to the traveller are creating their own stressors and bad management is compounding the problem.

Severe anxiety and fear can trigger behavioural responses some of which are realistic²⁹ and some disproportionate to the stressor. The terrorist attacks of 2001 brought a disproportionate response in that many Americans and Britons gave up flying and took alternative transport. Analysis of fatal accidents suggested the number of Americans who lost lives on roads, to avoid flying, was higher than all those killed on affected flights. Their behavioral response was disproportionate to the actual personal risk of flying. This risk misperception bringing change in behaviour is still affecting some people today¹⁵. Anxiety about developing deep vein thrombosis with prolonged flying is common, with the public relatively well informed about the risk, but poor in its risk assessment.

Conclusion

There has been change in public worries regarding global travel and air travel in particular. Stressors have changed with people less concerned about mechanical reliability of aeroplanes and being within one, take-off and landing. Concerns, anxiety and physiological responses to airport transit are now major considerations for many. The disproportionate reaction to dread risk events merits reconditioning of the individual and education in risk assessment.

Continued failure of airport management to consider stress on customer stressors may mean that more will be overtaken by physiological responses to psychological disturbance. They will become ill, outraged, or exhibit avoidance which will remove some potential travellers from exposure to air transportation.

Health professionals and particularly those working in the travel scene should be aware of the stresses relocation and transit have on people.

Recommendations

Education of travellers with:

- Informative facts on actual risk and "dread risk"
- Correction of misperceptions
- Appropriate precautions eg (dvt)
- Advice on available therapy (eg panic states and phobias)

Staff and Health professionals need to:

- Have training to reduce the psychological and physiological risks of air related travel on travellers attending clinics
- Acknowledge that people have serious worries about global travel and air travel in particular
- Put pressure on management to address remedial causes
- Educate the public on potential health risk related to long distance travel and risk assessment
- Encourage prophylactic measures in avoidance of DVT
- Provide appropriate behavioural and hypnotherapy for aircraft phobia

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