special articles

going to be completed, at a reduced cost, as a theatre for the patients' use. There is a visible lack of resources throughout Cuba, but the Cuban government has begun to address this with great resourcefulness. It has realised the marketable value of a highly trained medical workforce situated in a beautiful location. Cubanacan, the state tourism company, has openly developed a thriving health tourism service, which has turned into a tourist sub-system in itself. It provides primary care in the form of physicians at hotels and international clinics; secondary care in clinics and hospitals offering specialised medical care in a wide range of disciplines, including surgery and dentistry; and a large number of goods in the field of medical products, pharmacology and optics.

Among the clinics and centres promoted by Cubanacan are several that specialise in the treatment of drug and alcohol misuse; and of degenerative and neurological conditions. The health tourism industry also offers 'centres to improve the quality of life'. These include 'thermal centres, aesthetic centres and thalassotherapy centres, where tourists can receive 'executive checkups, stress control, general biological restoration, and sleeping disorders control'. Although a majority of the health tourists are from Spanish speaking countries, an increasing number are arriving from North America.

Summary

Our general impression from the visit to HPH was of a positive attitude towards mental health, with much work being done in order to destigmatise those with mental illness. However, it was agreed by the doctors that some families did still cover up mental illness, and that others would resort to traditional remedies if they felt that conventional medicine was not working. The doctors themselves were enthusiastic about their work, although biologically orientated. The sceptical Westerner might consider whether we were being presented with a 'show piece', but the overall feel of the hospital was of a caring and well-organised institution. Fidel Castro's 42-year régime has been notable for its drive to eradicate poverty, hunger and disease through a comprehensive social welfare programme. For this psychiatric hospital, having one of Castro's oldest comrades as Director may well have further ensured that vital resources were forthcoming. A lesson perhaps in *realpolitik* for mental health workers of the world?

References

CASAS, J. A., DACHS, J. N. W. & BAMBAS, A. (2001). Health disparities in Latin America and the Caribbean: the role of social and economic determinants. In *Equity and Health: Views from the Pan American Sanitary Bureau.* Occasional Publication No. 8. Washington, DC: PAHO.

GARFIELD, R. & SANTANA, S. (1997) The impact of the economic crisis and the US embargo on health in Cuba. *American Journal of Public Health*, **87**(1), 15–20.

GUEVARA, E. C. (1987) Speech on 'Revolutionary Medicine' given in Havana, August 19, 1960. In *Che Guevara and the Cuban Revolution: Writings and Speeches of Ernesto Che Guevara.* New York: Pathfinder/Pacific & Asian Press.

PAN AMERICAN HEALTH ORGANIZATION (1999) Improving the health of the peoples of the Americas. *Epidemiological Bulletin*, **21**(4), 206–219.

— & WORLD HEALTH ORGANIZATION (1998) *Health in the Americas: Improving the Health of the Peoples of the Americas.* Technical Report. Washington, DC: PAHO & WHO.

PILLING, D. (2001) Cuba's medical revolution. *Financial Times Weekend*, January 13–14, p. 10.

ROJAS OCHOA, F. (1997) Economy, politics and health status in Cuba. *International Journal of Health Services*, **27**(4), 791–807.

WAITZKIN, H., WALD, K., KEE, R., *et al* (1997) Primary care in Cuba: low- and high-technology developments pertinent to family medicine. *Journal of Family Practice*, **45**(3), 250–258.

WORLD HEALTH ORGANIZATION & PAN AMERICAL HEALTH ORGANIZATION (1997) American Association for World Health Report Executive summary. Denial of food and medicine: the impact of the US embargo on the health and nutrition in Cuba. *American Association for World Health Quarterly*, 1–11.

***S. R. Collinson** Lecturer, Bartholomew's and the London Medical School, West Smithfield, EC1A 7BE, **T. H. Turner** Consultant Psychiatrist and Honorary Senior Lecturer, Homerton Hospital

Psychiatric Bulletin (2002), **26**, 188–190

GIANETTA RANDS

Fear of flying, reviewed

An example of evidence-based old age psychiatry

'Doctor, would it be alright to take mum to Cyprus for a family wedding?' In a cosmopolitan city such as London hardly a month goes by without hearing a similar sort of query. If 'mum' has dementia I tend to advise the family against flying. This advice is based on anecdotal observations from past clinical practice. I have witnessed a number of patients experience significant deterioration in cognition following flying. While disorientation in unfamiliar environments may explain some of the difficulties in travelling for a person with dementia, as illustrated by John Bayley in *Iris* (1998), this may not be the only explanation. On this occasion, I decided to use evidence-based practice to review the situation.

The clinical picture

Mrs P. presented at 67 years of age with a history of intermittently progressive, global cognitive impairment,

https://doi.org/10.1192/pb.26.5.188 Published online by Cambridge University Press

special articles

complicated by aggressive behaviour towards her family. After a full assessment a diagnosis of vascular dementia was made. Over the past 3 years she has attended a day hospital, takes sulpiride and other medications and has a fortnight's respite every 3 months to give the family a break from their caring roles. Her dementia has progressed, she now scores around 15/30 on the Mini-Mental State Examination, and her behaviour has normalised. Because she has not been back to her native Cyprus for 20 years her relatives wanted to take her there for a family wedding.

The stages of evidence-based practice follow.

(1) Formulate answerable clinical questions

(a) In people with dementia does flying affect cognition/behaviour/health/death?
(b) For people aged 65 years and over, do long-haul flights affect their mental or physical health?

(2) Literature search

Electronic library searches included Medline, Pubmed, ClinPsyc and the Australian aviation databases Ozemail and Avmedlink, using key search words of DEMENTIA, MENTAL HEALTH, FLYING and TRAVEL. Media articles obtained from the *Daily Mail*, *The Times*, and *The Independent on Sunday* were used for contacts.

The Alzheimer's Society and Aviation Health Institute (both charities) were contacted directly, as was the Civil Aviation Authority at Gatwick.

A number of international airlines were telephoned for advice on passenger health, and Heathrow Occupational Health Department and Terminal Health Control Units were contacted directly.

(3) Critical appraisal

There were no papers specifically answering these clinical questions. The most recognised health risks of flying are deep vein thrombosis and pulmonary embolus. Over a 3-year period, 11 of the 61 deaths of passengers arriving at Heathrow airport were due to pulmonary emboli. These are associated with prolonged sitting in cramped positions and were first noted to occur in people who had spent many hours in air-raid shelters during World War Two (Giangrande, 1999).

However, 'changes in environment, altitude and time can increase confusion in the mildly demented passenger, and hypoxia at altitude could conceivably precipitate neurological symptoms in patients with cerebral arterial disease. There is a tendency for patients who become confused at night to do so during flight' (White & Allen, 1992).

Most long-haul flights cruise at around 500 miles per hour at altitudes of 30 000–40 000 feet above sea level. At sea level, air pressure is approximately 14 pounds per square inch (PSI) and at 40 000 feet it is approximately 2.7 PSI – this is incompatible with life. The cabin environment is artificially controlled and pressurised at 10.8–12.2 PSI, equivalent to 6 000–8 000 feet above sea level. At this controlled altitude there is a reduction of 20–26% in the amount of oxygen available, resulting in haemoxyhaemoglobin saturations of 83–85% of normal. This can cause tachycardia, tachypnoea, headaches, dizziness, impaired coordination, fatigue and confusion (Ernsting *et al*, 1999).

Reduced air pressure can also cause peripheral oedema and increase in the volume of any air filled spaces, for example sinuses, stomach and guts, and any post-operative or plaster cast air pockets. According to Boyle's law, air spaces will increase by 25–35% at altitudes of 6 000–8 000 feet (Ernsting *et al*, 1999).

Humidity is also reduced at high altitudes. This can cause dehydration, hypovolaemia and reduced peripheral circulation. The humidity 'comfort zone' is 50–65%. A centrally heated room has about 25% humidity. Air cabin humidity is 1–20% depending on the density of passengers, each giving out moisture.

The cabin environment is controlled by air conditioning units that draw air from the plane's jet engines. This is cooled and supplied to the cabin from the front to the rear so the quality of air is best to the flight deck and first class passengers and poorest to the economy passengers at the rear of the plane. Sometimes one of the three air conditioning units is turned off to save fuel, and all units can become clogged by nicotine, reducing their efficiency.

There are no internationally agreed standards for cabin air that may have high levels of carbon dioxide, ozone, nicotine and microbes unacceptable in other artificially controlled environments such as office blocks.

Flying at high altitudes increases exposure to natural radiation. This cannot be artificially controlled and exposure in air crew is carefully monitored.

There is no international organisation with a remit to monitor health and well-being of aircraft passengers and in-flight or post-flight deaths. The International Air Transport Association carried out an 8-year survey of these deaths, but only 39% of the 120 members participated. On a major airline body bags were used once or twice per month (Kahn, 1993).

There is some evidence to suggest that time zone changes may precipitate affective disorders, particularly depression after flying east to west (Jauhar & Weller, 1982).

This summarises the findings of the literature search. Critical appraisal pertaining to the clinical questions is not possible given the lack of data.

(4) Implications

There is no good evidence answering the clinical questions, but the information available supports anecdotal observations that flying may pose extra risks for people with dementia. Mrs P.'s family decided that as flying to Cyprus may be difficult and possibly harmful, it was better to leave her in respite while they enjoyed their holiday.

https://doi.org/10.1192/pb.26.5.188 Published online by Cambridge University Press

special articles

The number of older people is increasing and many of them are fit, rich and have friends and relatives abroad. There seems to be sufficient evidence to suggest that flights with current cabin environments may challenge mental and physical health. It may be that the costs of increasing oxygen concentrations, humidity and leg room are small compared with litigation or losing passengers when they become better informed. Despite the Warsaw Convention (1929) stating that airlines are not responsible for their customer's health (passengers are responsible for their own health), there are sufficient concerns to warrant comprehensive research and monitoring of the welfare of aircraft passengers.

References

BAYLEY, J. (1998) *Iris. A Memoir of Iris Murdoch*. London: Duckworth.

ERNSTING, J., NICHOLSON, A. N. & RAINFORD, D. J. (1999) *Aviation Medicine* (3rd edn). Oxford: Butterworth-Heinemann.

GIANGRANDE, P. L. F. (1999) *Aircare Worldwide – Thrombosis and AirTravel*. Oxford: Aviation Health Institute.

JAUHUR, P. & WELLER, M. P. I. (1982) Psychiatric morbidity and time zone changes: a study of patients from HeathrowAirport. *British Journal of Psychiatry*, **140**, 231–235.

KHAN, F. S. (1993) *Airwise, the Essential Guide for Frequent Fliers*. C.W. Daniel Co Ltd: SaffronWalden.

WHITE, A & ALLEN, S. (1992) How to ensure happy landings for elderly travellers. *Geriatric Medicine*, March, 23–24.

Gianetta Rands Consultant Psychiatrist, Camden and Islington Mental Health NHS Trust, c/o Mental Health Care of Older People, A13, Charterhouse Building, Archway Campus, Archway, London N19 5NF and Honorary Senior Lecturer, Royal Free and UCL Medical School (tel: 020 7530 2306; e-mail: grands@doctors.org.uk)

Psychiatric Bulletin (2002), **26**, 190–191

LORNA H. RATTRAY

Significance of the chaplain within the mental health care team

In psychiatric care, where patients experience a wide range of difficulties – emotional, physical, mental, social and spiritual – care must be given to the patient as a whole person. This article is about the significance of the presence of the chaplain within the mental health care team as it seeks to offer this holistic care.

The relationship of the spiritual to the total well-being of the patient is expressed well by Nelson (1999) in her definition of spiritual needs:

> 'The search for meaning may find expression in the 'why?' questions which are commonly asked in the context of illness, and which give voice to anxiety, anger, guilt, loneliness and other such difficult emotions. Such questions may express a need for acceptance, hope, forgiveness and love.' (p. 77)

Although not suggesting that the chaplain is the only person concerned for patients' spiritual needs, I do argue here that acceptance of the chaplain within the mental health care team contributes significantly to holistic care. This is, I believe, for two main reasons. First, because the mental health chaplain is involved in the world of spirituality and religious belief as well as in the world of mental health care, he or she is in the unique position both of being employed by the trust as a spiritual expert or advisor and of being seen by patients and staff as a legitimate person with whom to raise issues of a spiritual, or more specifically religious, nature. Second, in a psychiatric hospital or unit where many patients have difficulties in forming healthy relationships, a care team that is seen, by its very make up, to have care of the whole person at its heart and is observed to have discussions, debates and even arguments among its members about matters physical, mental and spiritual can act as a model of a healthy relationship for the patients it seeks to help.

The care offered by the chaplain, reflecting on the example shown by Jesus, is known as 'pastoral care'. The clearest definition of this is given by Lartey (1997):

> 'Pastoral care consists of helping activities, participated in by people who recognise a transcendent dimension to human life, which by the use of verbal or non-verbal, direct or indirect, literal or symbolic modes of communication, aim at . . . relieving or facilitating persons coping with anxieties. Pastoral care seeks to foster people's growth as full human beings together with the development of ecologically holistic communities in which persons may live humane lives.' (p. 9)

As a mental health chaplain, with pastoral care as my purpose, my work is to help patients to discover meaning in their lives – meaning even within their illness – and to be alongside them as they ask the questions 'why me?' or 'what have I done to deserve this?', vent anger at the God they doubt exists and reflect on their lifestyle or share past hurts.

For those experiencing acute or enduring mental health problems, pastoral care on its own may not be sufficient. The mental health chaplain, however, when accepted as a member of the care team, is able – because of his or her presence in the worlds both of spirituality and pastoral care and of mental health care – not only to contribute the pastoral care dimension to mental health care, but also to take an understanding of mental illness and mental health care into the local churches and other faith groups in which he or she is also accepted. I use the word 'world' deliberately because ideas and beliefs earthed in a real person, who is able to relate across the gulf often found between religious and health care professionals, can, instead of being dismissed as remote or irrelevant, be shared in earthly, practical ways for the benefit of patients in hospital and living in the community.

https://doi.org/10.1192/pb.26.5.188 Published online by Cambridge University Press