CHAPTER 17

Psychiatric emergencies in deaf people

Manjit Gahir, Simon Gibbon and Brendan Monteiro

Deafness is a blanket term that covers many different conditions. Some people are born deaf and others become deaf at some stage in their lives. Age at onset, degree of deafness and level of functional impairment can all influence a deaf person's self-image, communication preferences and cultural identity (Baines, 2007). There are different implications of deafness for those deaf from birth or an early age (pre-lingually deaf) and for those who have acquired deafness at a later stage, when verbal language might be present (Table 17.1). It is difficult to precisely define deafness, as hearing itself encompasses complex characteristics such as intensity, loudness, pitch and frequency, and is very much a subjective experience. However, there is a general consensus on differentiating hearing loss on the basis of intensity or loudness on a continuum: mild (25–40 dB), moderate (41–70 dB), severe (71–95 dB) and profound (>96 dB).

Partial deafness is said to affect those with mild, moderate or severe hearing loss who might benefit from hearing aids or cochlear implants to hear speech. Some might internalise verbal language (use of words) and, therefore, gain some benefit from lip-reading. It is important to realise that these people might have specialised communication needs and experience difficulties when in groups or when there is background noise. Profound deafness affects people who have little or no hearing for speech, who might obtain some benefit from hearing aids for environmental sounds. It occurs in approximately 8 in 1000 (0.8%) of the population, with this having its onset in early childhood in 1 in 1000. Of the children who are born deaf (congenital deafness) approximately 50% will have a genetic cause for this, that is some chromosomal disorder which included deafness as one of its symptoms, and the other 50% with have a different cause such as maternal infection with rubella or influenza, or some sort of birth injury.

Around 20% of the general population have a hearing loss of >20 dB, and this proportion rises to 75% of those over 75 years of age. However, these are people who are described as 'deafened' or 'hard of hearing', and their hearing loss is part of the normal ageing process. They might have some residual hearing and essentially they belong to the wider hearing community.

Table 17.1 Differences between pre-lingual and post-lingual deafness

Pre-lingual	Post-lingual
Onset at birth/early age; difficult to acquire speech and verbal language	Onset after speech and verbal acquisition of language
Communication based on sign language/gesture	Communication based on speech and written word
Early development influenced by communication difficulties between hearing parents and deaf child	Early development not affected as parents and child share same language
Deafness affects emotional, social, psychological, linguistic and educational development	Deafness does not affect social, psychological, linguistic or educational development
Person identifies with deaf community and deaf culture	Person often does not identify with deaf culture

It is estimated that approximately 700000 people in the UK are either severely or profoundly deaf, of whom approximately 50000 are British Sign Language (BSL) users (Royal National Institute for Deaf People, 2011). The vast majority (approximately 90%) of deaf children are born to hearing parents and only 10% are born to deaf parents. There is evidence that deaf children of deaf parents are much better adjusted, have much better communication skills and might have a lower incidence of mental illness than deaf children of hearing parents. In this chapter, the word 'Deaf' (as opposed to 'deaf') is used to describe a subsection of the population who use a signed language; in Britain, this is usually BSL.

Doctors and mental health professionals who have little or no understanding of deafness might feel deskilled when they encounter deaf people in mental health or criminal justice settings. Schlesinger & Meadow-Orlans (1972) have described a 'shock–withdrawal–paralysis syndrome' to describe a sense of inadequacy and paralysis experienced by professionals when assessing a deaf client. These professionals can find themselves unable to use well-established diagnostic and therapeutic skills to assess and treat deaf people.

Communication preferences

Not everyone who has a degree of hearing loss will use a signed language to communicate. There are a variety of communication methods that can be employed, and some deaf people, especially those with post-verbal or acquired deafness, might have learnt English as their first language. However, children who are pre-lingually deaf cannot acquire speech or verbal language normally. At around the end of the first year of life, the hearing child begins to imitate speech, but without understanding. They soon begin to associate names and words with people and objects, and so begin the internalisation of verbal language. By 4 years of age, the child will have grasped most of the complexities of spoken language and will become literate and express complex ideas and concepts using speech and words.

The deaf child is seriously disadvantaged in this regard and the majority of deaf children do not develop intelligible speech, as they cannot imitate speech or monitor their own voices. As verbal language cannot develop through auditory mechanisms, there is no basis on which to develop literacy skills (Denmark, 1978). The deaf child has to develop language through vision, either by lip-reading or by written word. Lip-reading is very difficult because of its inexactitude: for example, some speech sounds are not associated with lip movements and some lip patterns are the same for different words. It also presupposes some knowledge of verbal language that, in the case of the pre-lingually deaf child, is poorly developed or absent. Equally, developing verbal language through the written word might be impossible, as reading and writing skills have a basis in auditory language, such that even a hearing child with well-developed auditory language is not capable of literacy in their early years.

Most deaf children are born to hearing parents and are not exposed to a signed language in their early years, thus limiting their ability to access an appropriate communicatio method at a crucial developmental time. This has been compounded by historical educational policies (some still present in certain areas of the UK) that have insisted on deaf children being taught verbal speech and being discouraged or punished for using sign language. Deaf children receive special education, either as part of mainstream schooling, in small units attached to schools or in specialist deaf schools, where education is provided via the oral/aural method or BSL. Despite specialist education, however, deaf children are more likely to achieve poor levels or English literacy, and the average reading age of deaf school leavers was found to be 8–9 years of age (Conrad, 1977).

Deaf people often use sign language to communicate with each other, and some acquire this language without the help of formal education. BSL has now achieved formal recognition as the fourth official language in the UK and is a rule-governed, fully developed language using the hands, facial expression, lip pattern and movements to convey information. It is not a universal language, since regional variations exist within the UK and other countries have developed their own form of sign language. Significant differences exist between the different sign languages, for example French and American Sign Languages communicate using the fingers of one hand, whereas in BSL, both hands are used. Consequently, although a hearing person visiting the USA will have little difficulty in understanding others and being understood, a deaf visitor will be faced with a completely different language.

Not all deaf people have the same ability to use sign language. Their ability depends on a number of factors, including the cause of deafness, intellectual ability, exposure to sign language at a critical phase of language development, education methodology and involvement in the deaf community. A small but significant group of deaf people have little or no sign language (known as minimal language skills), and require careful assessment and specialist interpreting skills/communication support. There are a number of reasons why a deaf person might have minimal language skills – for example, a technical problem related to sensory impairment, neurological problems affecting receptive or expressive communication (Hyvarinen *et al*, 1990), intellectual disability, or another disorder that might affect language acquisition, such as autistic spectrum disorder, aphasia, attention–deficit hyperactivity disorder or blindness.

Deafness and disability

Culturally, deaf people do not see themselves as disabled, but there are a variety of disabilities that can co-exist with deafness (Fortnum *et al*, 1996):

- visual problems
- neuro-motor problems
- cerebral dysfunction
- cognitive deficits
- cranio-facial abnormalities
- systemic disorders
- named syndromes.

The first four of these have implications for communication and language development. There are a variety of inherited syndromes that involve deafness and blindness, of which Usher syndrome is the most common. This syndrome is characterised by congenital deafness and retinitis pigmentosa – a degenerative condition of the retina that leads to night blindness and tunnel vision. Intrauterine infections, such as rubella embryopathy or cytomegalovirus, are associated with visual problems, behavioural difficulties and intellectual impairment, and might also be related to mental illness in later life (Brown *et al*, 2000).

Deafness and mental health

There is increasing recognition of the difficulties faced by deaf people regarding mental health and access to treatment (Fellinger *et al*, 2012; The Lancet, 2012). Deaf people require special psychiatric services, because there is a serious risk of misdiagnosis when they are assessed by mental health professionals who have no understanding of the psychological, cultural and sociological aspects of different types of deafness and who cannot communicate using sign language.

Communication is of vital importance in all medical practice, but in psychiatry it assumes central importance. The clinical interview is the main tool of assessment and treatment in psychiatry (Rutter & Cox, 1981). Communication is also crucially important if the mental health professional is to put the patient at their ease and enlist their cooperation. If the patient is profoundly deaf from birth or an early age, has poor speech, poor verbal language, and relies on sign language for communication, most mental health professionals find it difficult to examine the patient properly and make an accurate diagnosis. See Fig. 17.1 for a guide to assessing the possibility of effective communication with a deaf patient and when to request an interpreter.

There are three main areas of possible misdiagnosis:

1 deafness can be mistaken for intellectual impairment;
2 mental illness can be missed;
3 mental illness can be diagnosed where none exists.

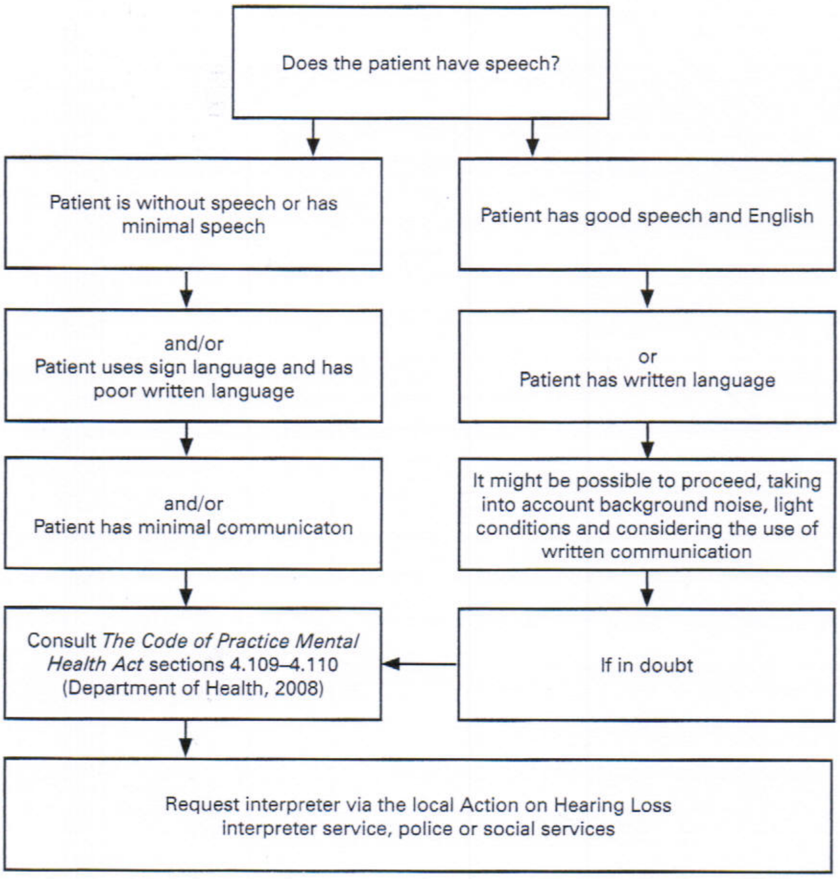

Fig. 17.1 Assessing whether an interpreter is needed to communicate effectively with a deaf patient.

The study of the incidence and prevalence of mental disorder in deaf adults is fraught with difficulty, and most studies have been based on referrals to specialist services. A study of mental disorder in Deaf people (Denmark, 1985) found that, of 250 referrals to the department of psychiatry for the deaf at Whittingham Hospital, only 104 had a diagnosable mental illness, 48 had a developmental disorder of communication and 58 had problems directly related to deafness (including behavioural problems, depression due to acquired deafness and alcoholism).

The relationship between Deafness and schizophrenia remains unclear and an early study (Houston & Royse, 1954) suggested that the rate of schizophrenia is higher in Deaf people than in hearing people. However, other studies (Cooper, 1976; Cooper *et al*, 1976) do not support this, although an increased incidence of paranoia has been noted. The mode of action proposed by these authors is that changes in psychological functioning and social adaptation take place over a prolonged period of time and result in interference with attention, perception and communication processes. More recently, it has been suggested that Deaf people have the same incidence of schizophrenia as the general population (du Feu & Fergusson, 2003) and that they can experience hallucinations in all modalities, including auditory hallucinations, although the way in which the symptoms are expressed might be unusual (Thacker, 1994; du Feu & McKenna, 1999).

Deaf people are thought to suffer major affective disorders with the same frequency as hearing people, although a comparative study of Deaf and hearing in-patients in the USA found that Deaf patients were almost twice as likely to suffer from a serious mood disorder and four times as likely to suffer from an anxiety disorder, especially post-traumatic stress disorder (Black & Glickman, 2006). Equally, a study of Deaf people in the community in Norway also found an increased incidence of depression and anxiety (Kvam *et al*, 2006). However, the concept of depression can be difficult to discuss with Deaf patients, who might have limited communication. They might describe sadness (i.e. everyday mood changes due to situational factors), and it might be difficult to assess the degree of depression. It is important to be aware that what might be thought of as depressive symptoms, such as sadness, agitation, withdrawal and being uncommunicative, might be due to frustration and not actually indicative of a depressive illness. Features related to organicity, including distractibility, disinhibition and hyperactivity, might be misdiagnosed as mania. A careful history about the onset of these features and their causation should be taken, and recent changes should be carefully noted and evaluated over a period of time. Biological symptoms, diurnal variation of mood, self-neglect, threats of self-harm and persistent somatic complaints can be helpful in arriving at a diagnosis.

It is important to assess the risk patients pose to themselves. The risk of suicide and deliberate self-harm is not known in the Deaf population

(Turner *et al*, 2007) and the evaluation of risk is fraught with difficulties. For example, information given by relatives and friends, who are not always able to communicate appropriately with the Deaf person, might be inaccurate. However, the increased incidence of depression, other medical problems and difficulty in accessing help might increase the risk of suicide and self-harm.

Psychiatric emergencies in Deaf people

Psychiatric emergencies in Deaf people can occur in a variety of different settings, such as the community, hospitals (both general and psychiatric) and prisons, to name but a few. In some ways, the emergencies will be similar to those occurring in the hearing population (e.g. in terms of the acuteness of the presentation), but matters will be compounded by a higher prevalence of mental disorder in the Deaf, different expression of symptoms, inability to explain what is being experienced and the linguistic and cultural barriers to being understood.

It is well established that Deaf people are less likely than the general population to visit their general practitioner, while, conversely, they are more likely to suffer from poor physical and mental health (Sign Health, 2008). Once they are seen, there might be difficulties in establishing what exactly is wrong and in dealing with them appropriately, especially if communication support is not available.

In 1998, a homicide was committed in London by an 18-year-old, mentally ill, profoundly deaf man. The homicide was the subject of an independent inquiry chaired by a leading barrister (Mishcon *et al*, 2000). It was found that, despite having extensive input from psychiatric services for the Deaf, there were significant failings in communication between different clinical teams involved in his care. A number of recommendations were made by the inquiry team, including the need for a coordinated national strategy for deaf people with mental health problems, robust emergency assessment and admission arrangements to specialised deaf services and the need for all mental health professionals to participate in multi-agency training on information sharing.

Another homicide was committed by a profoundly deaf man in 2000 and was again the subject of an independent inquiry (Downham *et al*, 2004). Although in this case the perpetrator did not have a formal diagnosis of mental illness, he did have contact with the community psychiatric nurse for the deaf in Nottingham and was receiving support for his marital difficulties. He was seen 6 days before and the day after the killing, at which times there was no evidence of any disorder and he did not disclose his intention to commit the offence. Although the inquiry team found that nothing in this homicide was predictable, they did comment on the difficulties in conducting an out-of-hours psychiatric assessment in an emergency department. Unfortunately, although there was already a contract in existence with the local Deaf Society for accessing BSL interpreters, this was not well publicised and staff were unaware that this could be done. This resulted in the unacceptable situation where his wife was asked to interpret for him, even though some of the questions were about his thoughts of self-harm and alleged threats to stab her.

Again, a number of recommendations were made, including the need for a local policy to address the needs of Deaf patients, 24-hour access to BSL interpreters and the suggestion that health and social care services for the Deaf should be integrated. A further comment was made around the need for Care Programme Approach documentation and risk assessments to be completed and circulated at the point of discharge rather than later on.

In 2002, a consultation document was launched to address the mental health needs of Deaf people, including a BSL version designed to be accessible to Deaf people (Department of Health, 2002). Following a lengthy consolation period, a final best-practice guidance document was published (Department of Health, 2005). It included 27 recommendations regarding the assessment needs of Deaf children and adults, accessibility to appropriate services, use of technology (including video conferencing), minicoms and BSL/English translation software, staff training in BSL and increased access to specialist assessment for Deaf prisoners.

Working with interpreters

The ideal situation is for assessment to be conducted by a mental health professional with the necessary communication skills and an understanding of deafness. Unfortunately, there are currently very few mental health professionals with these skills in the UK, so almost invariably non-signing mental health professionals will conduct the assessment. When dealing with deaf people with poor or minimal sign-language skills, it is often necessary to use an additional deaf professional person to help in simplifying the standard BSL to a more understandable format. These professionals are known variously as deaf communication support workers or deaf relay interpreters and have a vital role in aiding communication.

With the changes to the Mental Health Act in 2007 and the introduction of the Mental Capacity Act 2005, there is an increasing role for independent advocates, and a legal responsibility on the part of mental health trusts to ensure that advocates are available. Ideally, this should include Deaf advocates (e.g. those provided by the Sign Health charity), although their services might be expensive and are often not immediately available. When working with interpreters, it is important to bear in mind that many will not have any knowledge or training in mental health matters, and might not have the knowledge or linguistic skills to undertake the interpretation of a detailed psychiatric evaluation. Although it might not be possible in an emergency situation (e.g. when conducting a Mental

Health Act assessment out of hours), as far as possible, a mental health trained interpreter should be used.

Deaf prisoners

There is currently limited research into the number and specific needs of deaf prisoners. Various estimates have been made of how many prisoners in the UK are deaf or hard of hearing, and these figures vary between 66 and 139. Unfortunately, research into this area is limited by the lack of formal data kept by the Ministry of Justice. Although the reception screening questionnaire (administered to all prisoners on the day of remand into custody) now asks a specific question about the presence of all disabilities, including deafness, there is little evidence of data collection or of this information being used to influence prison policy.

A survey of all prisons and young-offender institutions in England and Wales (Gahir *et al*, 2011) identified 139 Deaf or hard-of-hearing inmates. Prison staff reported that the main difficulties in dealing with deaf inmates related to lack of access to sign-language interpreters and a lack of specialist assessments. It was noted that the clinicians conducting this research were aware of a number of instances where deaf prisoners were not appropriately diagnosed or treated, as they had not been formally assessed in BSL by deaf-aware professionals.

There are a number of specialised secure units for deaf people but as yet there is no community forensic deaf provision. Equally, there are only two prisons in England that regularly receive psychiatric input from professionals with specialist deaf knowledge, Her Majesty's Prison (HMP) Manchester and HMP Moorlands near Doncaster, although a sex-offender treatment programme in BSL has recently been developed at HMP Whatton in Nottinghamshire.

The lack of a single prison that deals with deaf prisoners can arguably lead to them being disadvantaged, as they might be isolated, geographically distant from their family and unable to communicate with prison staff, and might not have access to sign-language interpreters or (very importantly) not be able to access appropriate offence-focused courses in BSL. The in-reach to Manchester and Moorlands prisons was begun with the intention of providing specific therapies to deaf people, including sex-offender treatment and anger-management programmes. Unfortunately, although the regional sex-offender prison in Nottinghamshire houses a number of deaf prisoners, they do not have access to regular sex-offender work in BSL at this time.

There are a number of potential difficulties in providing this specialist input to prisons, not least of which is the cost and the fact that deaf people are distributed widely throughout the prison system. The need for specialist input might not be recognised, as not all Deaf prisoners are identified as such, or interviews might not be adequately conducted in BSL such that mental disorder is not appropriately recognised or treated.

Conclusions

Psychiatrists and other professionals need to be aware of the particular needs of deaf people with mental disorder, both in terms of the possible different presentation of disorders but also in terms of the cultural and linguistic context.

Although psychiatric emergencies seem unlikely to occur more frequently in deaf people, the true emergency occurs when adequate assessment is not undertaken. It is essential that Deaf people are interviewed with an appropriately trained sign-language interpreter and that referral to a specialist mental health service for deaf people is made at the earliest practicable point in the assessment and treatment process.

References

Baines D (2007) *Unravelling the anomaly of deafness*. In *Deafness and Challenging Behaviour* (eds S Austen and D Jeffrey). Wiley.

Black P, Glickman N (2006) Demographics, psychiatric diagnoses and other characteristics of North-American deaf and hard-of-hearing inpatients. *Journal of Deaf Studies and Deaf Education*, **11**: 303–321.

Brown AS, Cohen P, Greenwald S, *et al* (2000) Nonaffective psychosis after pre-natal exposure to rubella. *American Journal of Psychiatry*, **157**: 438–443.

Conrad R (1977) The reading ability of deaf school leavers. *British Journal of Educational Psychology*, **47**: 138–148.

Cooper AF (1976) Deafness and psychiatric illness. *British Journal of Psychiatry*, **129**: 216–226.

Cooper AF, Garside RF, Kay DW (1976) A comparison of deaf and non-deaf patients with paranoid and affective psychoses. *British Journal of Psychiatry*, **129**: 532–538.

Denmark JC (1978) Early profound deafness and mental retardation. *British Journal of Mental Subnormality*, **24**: 81–89.

Denmark JC (1985) A study of 250 patients referred to a Department of Psychiatry for the Deaf. *British Journal of Psychiatry*, **146**: 282–286.

Department of Health (2002) *A Sign of the Times. Modernising Mental Health Services for People who are Deaf.* Department of Health Publications.

Department of Health (2005) *Mental Health and Deafness. Towards Equity and Access.* Department of Health Publications.

Department of Health (2008) *Code of Practice Mental Health Act 1983*. Department of Health Publications.

Downham G, McKenna J, Jamil M, *et al* (2004) *Report of the Independent Inquiry into the Care and Treatment of Sarawat Al-Assaf*. Gedling Primary Care Trust.

du Feu M, Fergusson K (2003) Sensory impairment and mental health. *Advances in Psychiatric Treatment*, **9**: 95–103.

du Feu M, McKenna P (1999) Prelingually profoundly deaf schizophrenic patients who hear voices: a phenomenological analysis. *Acta Psychiatrica Scandinavica*, **97**: 1–9.

Fellinger J, Holzinger D, Pollard R (2012) Mental health of deaf people. *Lancet*, **379**: 1037–1044.

Fortnum H, Davis A, Butler A, *et al* (1996) *Health Service Implications of Changes in Aetiology and Referral Patterns of Hearing Impaired Children in Trent Region, 1985–1993*. MRC Institute of Hearing Research and Trent Health.

Gahir MS, O'Rourke S, Monteiro BT, *et al* (2011) The unmet needs of deaf prisoners: a survey of prisons in England and Wales. *International Journal of Mental Health and Deafness*, **1**: 58–63.

Houston F, Royse AB (1954) Relationship between deafness and psychotic illness. *British Journal of Psychiatry*, **100**: 990–993.

Hyvarinen L, Gimble L, Sorri M (1990) *Assessment of Vision and Hearing of Deaf–Blind Persons*. Royal Victorian Institute for the Blind.

Kvam MH, Loeb M, Tambs K (2006) Mental health in deaf adults: symptoms of anxiety and depression among hearing and deaf individuals. *Journal of Deaf Studies and Deaf Education*, **12**: 1–7.

Mishcon J, Sensky T, Lindsey M, *et al* (2000) *Report of the Independent Inquiry Team into the Care and Treatment of Daniel Joseph*. Merton, Sutton and Wandsworth Health Authority, Lambeth, Southwark and Lewisham Health Authority.

Royal National Institute for Deaf People (2011) *Facts and Figures on Deafness and Tinnitus*. RNID (http://www.actiononhearingloss.org.uk/supporting-you/factsheets-and-leaflets/deaf-awareness.aspx).

Rutter M, Cox A (1981) Psychiatric interviewing techniques: I. Methods and measures. *British Journal of Psychiatry*, **138**: 273–282.

Schlesinger HS, Meadow-Orlans KP (1972) *Sound and Sign: Childhood Deafness and Mental Health*. University of Berkley Press.

Sign Health (2008) *Why Do You Keep Missing Me? A Report into Deaf People's Access to Primary Health Care*. Beaconsfield.

Thacker AJ (1994) Formal communication disorder. Sign language in deaf people with schizophrenia. *British Journal of Psychiatry*, **165**: 818–823.

The Lancet (2012) The health of deaf people: communication breakdown. *The Lancet*, **379**: 977.

Turner O, Windfuhr K, Kapur N (2007) Suicide in deaf populations: a literature review. *Annals of General Psychiatry*, **6**: 26.