

CHAPTER 10

MADNESS IN THE COMMUNITY

The cause of mental disorder remains uncertain, but evidence indicates that genetic vulnerability, early life experiences and recent stresses are important factors, in at least some cases. At a cellular level, pathological changes in the amount of chemical messengers which pass from one nerve cell to the next have been proposed, along with or as well as other abnormalities. The symptoms of mental disorders include abnormalities of thinking, perceiving and feeling. In response to stress and the frightening experience of these symptoms, patients may develop secondary problems such as conflict with families, suicidal behaviour and drug or alcohol abuse.

The management of mental disorders requires a many pronged approach. A trusting patient-doctor relationship is essential. On this foundation the patient's symptoms can be fully explored, a diagnosis reached and a treatment program commenced. An explanation of the symptoms and advice on the most productive way to conceptualize them is provided. This may take the form of psychotherapy. For the last fifty years, medicines have been available which have helped to correct the underlying chemical messenger abnormalities with beneficial effects on some of the symptoms in 60-80% of patients. Medication alone is rarely sufficient.

Patients with severe mental disorders may need periods in hospital to reduce stress, receive assistance with self care, restore eating and sleeping habits, for protection from self-destructive behaviour, for special investigations, to participate in intensive group therapy, relaxation and exercise programs, and to receive electroconvulsive therapy and other advanced treatments. Those who have lost skills and are unable to care for themselves may need longer periods in hospital and the services of a range of other health professionals such as social workers and occupational therapists.

In the past, main treatment components were hospital care, support, encouragement, and skills training. Sometimes, all efforts were ineffective and patient and staff could only wait for the disease to run its course and for a natural remission to occur. Modern medication and services accelerate the recovery process and in many cases, hospitalization is not necessary.

For more than a century, until the mid-twentieth century, psychiatric care was provided not in out-patient settings or in the psychiatric wards of general hospitals, but in mental asylums (Illustration 10.1). Then came changes, the asylums were closed and patients were managed "in the community". The thinking leading to the change and the quality of the care currently provided are issues for debate. The "deinstitutionalization" of psychiatry has had many benefits. Questions remain, have we thrown the baby out with the bath-water? Can the full range of psychiatric services be provided outside hospital? Some psychiatric beds continue to be needed and they are hard to find, has the psychiatric bed reduction gone too far?

In April 2002 The Australian newspaper conducted "A special report" and found "Deinstitutionalisation – the policy of shifting people for psychiatric hospitals into the community – has failed many of the people it was designed to help, leaving them homeless, destitute and desperate". In the December 2002 Victorian state elections the Labour Party election policy included the opening of an additional 100 psychiatric beds

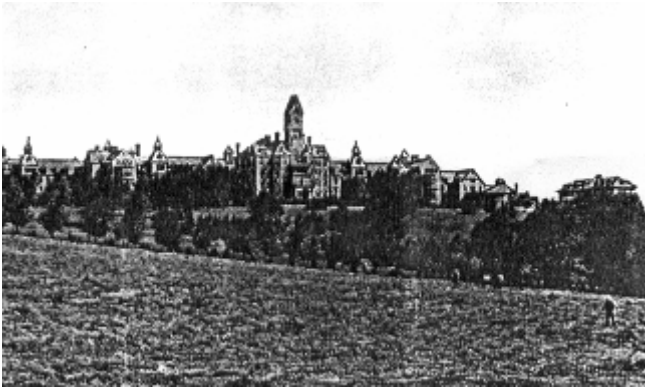


Illustration 10.1. The Worcester State Hospital, MA, USA; circa 1910. This imposing sandstone building is typical of the asylums that were built outside most major cities in many parts of the Western world. They were generous in architectural proportions and had large numbers of beds, but were never properly funded or staffed.

Photograph courtesy of Jeffrey L Geller, MD.

in that state. That party retained government. Also in that month The Select Committee Inquiry Into Mental Health Services In New South Wales recommended “more long-term and supported accommodation mental health beds be provided”. Also in that month the Australian Capital Territory Health and Community Complaints Commissioner recommended the establishment of “a range of medium and long term housing options associated with clinical support for people with mental health disability”.

To follow the debate we need the history. The details differ from one country to another, but generally, in the Western world, the seventeenth and eighteenth centuries saw the rural poor leave the land and move to the industrialized cities. The cities became overcrowded and people lost the support structures of their rural communities. These were turbulent times, with social problems, crime, unemployment, poverty and possibly mental illness, increasing. Governments responded by building new institutions: prisons, workhouses, poor houses and asylums.

In England the Vagrancy Act of 1774 made the first governmental distinction between lunatics and paupers. At about this time some private ‘madhouses’ were established for those who could afford to pay for care. The County Asylum Act of 1808 provided for the building of public mental hospitals in every county. But little happened until the Lunatics Act of 1845 required each county to build an asylum, marking the beginning of institutional care for the mentally disordered.

The lack of order and morality of the cities and the stress of family life were regarded as damaging factors, which could lead to mental disorder. Asylums would remove patients from these circumstances, and return patients to the lost country serenity; there would even be the opportunity for meaningful work in the fields. Simultaneously, patients were purposefully, removed from stressful family situations.

Most will agree that asylums were built with the intention of providing care for those with mental disorders. Some may argue that they were built to hide away the mentally disordered, for the convenience of the non-mentally disordered. There is little evidence that this was part of the initial intention, but as time went on, unmarried mothers and others with social difficulties were given asylum. Most will also agree that asylums provided food, shelter from the elements and physical safety, and the best treatments of the day. There are no credible claims to the contrary, the intention of establishing the asylums was to provide these good things for needy patients with mentally disorders.

Commenced with good intentions, the asylums were never properly resourced or financed. They quickly become overcrowded. In relatively isolated areas, it was difficult to attract adequate numbers of well trained staff. While not designed for this purpose, the asylums allowed the mentally disordered to be removed from public places, thus tolerance decreased and the stigma of mental disorder consequently increased.

Claims are made that the asylums began to exist for the benefit of the staff rather than the patients. Staff received wages for their work, but claims are made that some stole food and other goods that were purchased for the benefit of patients. Further, there were claims that the daily routines of the asylums were

organized for staff convenience rather than patient needs. There were also occasional claims of staff physically mistreating patients.

Asylums were intended to supply all the needs of patients for long, in some cases, indefinite periods. To supply all the needs for a person is an enormous undertaking, and for whatever reason, these institutions became very large, sometimes with more than one thousand patients. Thus, the task was large but of low status, the resources were short and the whole operation was performed outside public scrutiny. It would have been a miracle if there had not been some misappropriations by staff and some maltreatment of difficult patients. There were frequent scandals followed by public inquiries and temporary improvements.

Mental hospitals, as the asylums became known, provided a range of services including acute admission and assessment, secure care, long-term care and rehabilitation. Most hospitals had at least ten wards so that patients could receive services according to their level of function.

Before the 1950s, all those who required acute psychiatric admission went to the mental hospital. Admission did not automatically mean long term treatment and a large proportion were discharged after a few weeks of treatment. Secure wards were available to those who, due to mental disorder, were dangerous to themselves or others. Long-term wards were available to those people who were damaged by their mental disorder such that they were unable to attend to their own nutritional needs and hygiene, access services in the community and manage their own medication. Some patients gradually recovered on long term wards over months or years, others remained indefinitely. Rehabilitation wards taught the budgeting and domestic and self care skills which had been lost, enabling damaged patients to return to independent living outside the hospital.

Mental Hospitals were most numerous and cared for the greatest number of patients, shortly after the Second World War. Then came the deinstitutionalization of psychiatry. This process is almost complete in many parts of the world. In England and Wales in 1975 there were 130 psychiatric hospitals, most containing many hundreds of patients. In 2001 only 14 remained, with fewer than 200 in each, representing a closure of 95% of the 1975 mental hospital beds. In the USA from 1960 to the late 1990s, the mental health beds were cut by more than 90%. In New South Wales [Australia] mental health beds have been cut to the point that public psychiatrists claim to be unable to provide appropriate treatment and have threatened industrial action (ABC, 2004).

These numbers do not tell the whole story. As the mental hospitals began to close, acute psychiatry wards began to open in general hospitals, thus a small proportion of the psychiatric hospital beds were, in effect, not closed, but transferred to the general hospitals. These general hospital psychiatric beds are, however, exclusively acute or short stay beds. As the mental hospitals closed, some longer term beds were created outside the hospital. These were in a range of group homes, some were supplied with twenty-four hour staff support, most were supplied with telephone numbers and visiting staff. Because of the differences from one region to the next, it is impossible to make an exact statement of what proportion and in what form the mental hospital beds were replaced. However, in all regions, the number of beds with any type of professional support is much lower than during the old mental hospital system.

Many factors led to the demise of the mental hospitals. The repeated scandals and inquiries raised serious doubts about the system. Postmodernist thinkers rejected the notion of expertise as the exclusive province of the experts and egalitarianism fostered the view that everyone had valuable ideas. After the Second World War came a wave of anti-totalitarianism, and criticism of “total institutions”, which included mental hospitals and prisons. During this time “social justice” was being formulated and the right of the individual to self-determination and dignity became important issues. In the 1960’s a philosophy of love, freedom, tolerance and antiauthoritarianism became fashionable. The anti-psychiatry movement began to emerge in Britain. Thomas Szasz published his popular but destructive book *The Myth of Mental Illness* in 1960. The sociologists hypothesized that mental disorders could be accounted for by medical labeling of deviant or unusual behavior. Sociologist Erving Goffman published his book, “*Asylums*”, in 1961, which forcefully drew attention to the lack of autonomy and dignity he believed mental hospital patients suffered. With the development of effective antipsychotic drugs in the 1950’s and 60’s it became possible to offer care for seriously mentally disordered patients in the community. Interestingly, the features which

were thought to be advantageous when the asylums were built, the removal of patients from the cities and their families of origin, were among those considered to be the least desirable by the new reformers.

“Institutional neurosis” or the “institutionalization” of individuals was conceptualized and widely advertised. As mentioned earlier, in the 1890’s Kraepelin had described dementia praecox, a disorder with onset in adolescence and early adulthood. A prominent feature was episodes of acute madness, but the term “dementia” was coined to describe a loss of drive and energy, loss of direction in thinking, apathy, social withdrawal and an inability to attend to personal needs, feeding and hygiene (more recently termed “negative symptoms”). In the mid-twentieth century it was noted that inmates of goals and prisoner of war camps, who had no personal belongings and no autonomy and were subject to the will of others, eventually lost their sense of personal identity and became apathetic and submissive. In 1959 Russell Barton published “Institutional Neurosis” in which he described social withdrawal, apathy and inability to perform self-care among mental hospital patients. Suddenly, the original descriptions of Kraepelin were forgotten and it was assumed that this syndrome was caused by mental hospital treatment rather than the mental disorder which brought the patients to the mental hospital in the first place.

The negative symptoms have been well described in patients who have never been near a mental hospital. There is some evidence to suggest that the negative symptoms of schizophrenia may be compounded by institutional care which lacked humanity and stimulation. This was the exception, however, as most mental hospitals did not lack humanity and stimulation. Nevertheless, the belief that mental hospitals were responsible for the symptoms of mental illness was accepted by planners and decision makers and was a large nail in the coffin of the mental hospitals.

The biggest nail, however, is rarely talked about. That is, cost. Total institutions are extremely expensive to operate. From time to time we hear how expensive it is to keep a single prisoner in custody. In this regard to cost, mental hospital patients were no different. While prisons require 24 hour prison officers, mental hospitals required 24 hour medical and nursing staff. There was the cost of providing meals three times each day, cleaning, linen service, light and heating, every day of the year. Mental hospitals were large enough to require carpenters and repair staff. They were surrounded by gardens and needed gardeners, they were away from population centers and had to employ drivers and delivery people. As well, each employed a body of administrative staff. If patients are placed “in the community”, at least most of these costs, go away.

Clinicians demonstrated that certain patients with mental disorders could be managed outside mental hospitals, and further, there was reason to believe that for some, independent living could be very beneficial. This was the justification for completely closing the vast majority, and drastic “downsizing” of the remainder of these expensive facilities.

The promise was universally made that all the money saved would be redirected into community based care, but nowhere has this been demonstrated. In December 2002, Dr Brian Pezzutti, of the New South Wales Legislative Council stated, “It is almost 20 years since the Richmond Report (which recommended deinstitutionalisation) and the community sector is still yet to see the resources they were promised.”

Ironically, experienced clinicians now claim that providing good quality care in the community can be more expensive than institutional care. While the salaries of carpenters and gardeners are saved, and the cost of meals, cleaning and linen is shifted back to the patient, the cost of the large number of clinical staff travelling from residence to residence and having to go looking for patients, plus the cost of cars, telephones and the computerization of information consumes any savings.

In Australia, the National Mental Health Strategy which commenced in 1992 was the prominent force in the closure of the mental hospitals. It states, “In the past, the more severely affected people were isolated and treated in psychiatric institutions, and had little opportunity to decide how and where they wished to live their lives...People in psychiatric hospitals were also denied the opportunity to participate in the life of the community”. This stuff must have been written by people who have never had to care for severely mentally ill people who desperately needed asylum. It is true that severely mentally ill people were “isolated” by being in mental hospitals, but they were already isolated, having already been rejected by the community. It is true that they were “denied the opportunity to participate in the life of the community”,



Illustration 10.2 “Many mentally disordered people have been ‘returned to the community’ as part of a policy of reducing the number of mental-hospital patients. Hundreds of thousands of these people have become hopeless derelicts in the large cities.”

This illustration and legend come from, Robertson I. *Sociology*, Third Edition, 1987. Worth Publishers, Inc. New York.

but this denial was put in place, not by the hospital, but by the community. It is not true that these patients “had little opportunity to decide how and where they wished to live their lives”. Most were not on legal orders and were able to choose, and they chose the comfort, familiarity and “community” of the hospital. On this point the National Mental Health Strategy might have come with a footnote to chronic, severely psychotic patients: *We know what is best for you, we know better than you do, and better than those running the mental hospitals.

There is now a debate about whether community psychiatry had failed. The word community is now redundant. There is no institutional psychiatry anymore. The question has become, has psychiatry failed the community.

“Quietly but steadily, jails and prisons are replacing public mental hospitals as the primary purveyors of public psychiatric services for individuals with serious mental illness in the United States”, wrote Dr E. Fuller Torrey (1993), a world figure in psychiatry. He estimated that in 1993 there were 162 822 individuals with serious mental disorders in US jails and prisons or on parole, which was twice the number of patients in state mental hospitals. He gave as the main reason for this situation, that there were insufficient public psychiatric services to which the mentally ill could be diverted.

“Deinstitutionalization of seriously mentally ill individuals has been the largest failed social experiment in twentieth-century America”, he wrote. He ended by saying that the problem was not that these patients could not live in the community, but that they had not been provided with appropriate support (Illustration 10.2).

Dr Povl Munk-Jorgensen (1999), writing in Denmark, described 230% increase in the number of mentally disordered individuals under the supervision of the Department of Probation and Parole and a reduction of almost 60% in the number of psychiatric hospital beds over the period 1980-97. He believes that deinstitutionalization has advantages but that replacement services have not been able to protect mentally disordered people from committing minor crimes, which lead to them entering the penal system.

Similar reductions in mental hospital beds and increases in the proportion of individuals with mental disorders in the penal system have also been reported in Canada and many other parts of the Western world. This is a form of “transinstitutionalization”, the phenomenon of people moving from one type of institution to another, as a result of administrative rather than real change.

The number of homeless people in Great Britain doubled during the 1980’s and 30-50% of the homeless have significant mental disorder. Deinstitutionalization has been identified as one of the factors contributing to the rise in homelessness (Scott, 1993). And editorial in the *Medical Journal of Australia* (McGorry, 2003) stated, “Many (people with schizophrenia) live in poverty in substandard housing, having little to occupy their time and trying their best to cope, often with the aid of harmful amounts of legal and illegal

drugs. The plight of family members is also serious and all too often leads to frustration and despair.” One such relative is Chairman of the Australian Competition and Consumer Commission, Professor Allan Fels, who has a 31 year old daughter with schizophrenia. He was reported in *The Australian* (Yallop, 2003) as saying, “Deinstitutionalisation has failed because it has not been matched by the level of services required”.

In the field of social matters, it is often impossible to be certain which factors have led to a particular outcome. In addition to deinstitutionalization, many of the attitudes and policies which made deinstitutionalization inevitable, have worked to shape our current psychiatric services. As stated above, the Western world is now relatively free of mental hospitals. The important issue is not antecedents, but what is the quality of the currently available services.

Dr Julian Leff (2001) makes the point that, “when basic needs are satisfied, a new level of need becomes apparent”. For this reason, optimal psychiatric services will never be achieved, for when the aspired to optimal level is achieved, it is possible to see another, just beyond. There are a number of areas of public psychiatry that need attention.

Rehabilitation of those with mental disorders involves the teaching of budgeting and domestic and self care skills, and can be well provided in the mental hospitals. A ward can be designated, programs can be developed and patients and staff are readily available. This is much more difficult without the hospital base. Dr Leff and others identify rehabilitation as a service which needs attention in this new age of mental disorder care.

It is a widely believed that additional long-term and acute beds are required. Long-term beds can be made available in many forms, group homes with individual bedrooms and common living spaces are acceptable to most patients and are more economical than single isolated units. These can be supported by resident carers or visiting professionals, depending on the average disability of the patients. Such arrangements are a blend of the best of both worlds, some of the economy of size of the old mental hospitals, but with size limited and based on more normal living style.

Acute beds are currently, also in short supply in most countries. A “scandal” broke in Adelaide, the capital city of South Australia, in later 2001. It was revealed that acute psychiatric patients were being shackled to beds and supervised by security staff in Emergency Medicine Departments and general wards of major teaching hospitals for up to several days, while awaiting acute psychiatric ward beds. This also occurs in Brisbane, the capital city of Queensland and Melbourne, the capital city of Victoria.

In a recent report, “Mental Health Services for People in Crisis”, the Auditor General of Victoria (2002) stated, “people in psychiatric crisis faced difficulty assessing acute psychiatric beds due to increasing demand pressure and static bed numbers in some regions”.

When details of the Adelaide events were reported in the national newspaper, a host of bodies declared that they would investigate, including Eugene Biganovsky, the state Ombudsman. It is hoped that the planners and the purse-string holders, rather than the clinicians who are doing the best they can with inadequate resources, will be found accountable.

SERVICE PROBLEM

Southern Tasmania has a population of 250 000. Hobart is the state capital. The Royal Hobart Hospital is the major teaching hospital and has had an acute psychiatric unit for 30 years. The Royal Derwent Hospital was a mental hospital in a rural setting, 40 kilometers from the capital. The Royal Hobart Hospital did not have a secure ward; all manageable patients were admitted, but dangerous and destructive patients were sent on to the secure ward at the mental hospital, to be returned to the Royal Hobart Hospital, after they had settled.

The Royal Derwent Hospital was being slowly wound down and the decision was made to build a secure ward at the Royal Hobart Hospital, so that it could deal with all acute admissions. The political decision was made and announced with great public trumpeting that the Royal Derwent Hospital would close on particular day in late 2000. The problem was that the building of the replacement secure ward had not commenced and completion was not expected for a further nine months. When the difficulties of this situation were raised, ineffectual and impractical solutions were suggested.

There was no alternative and staff at the Royal Hobart Hospital simply had to manage all dangerous and destructive patients as best they could, on the open ward.

An acute inpatient unit which must accept all acute psychiatric patients needs a secure unit. To close the acute secure unit of a geographical region is like closing the cardiac care unit of that region. In similar circumstances, management would not close a cardiac care unit, the outcry from those people who survived heart attacks would be deafening. But dangerous, destructive and insightless psychiatric patients are not going to effectively complain that they were denied the benefits of a secure unit.

For those nine months it was necessary to make extensive use of intravenous and intramuscular injections, and to have security guards on the general psychiatry ward around the clock for up to a week at a time. Doors were broken, holes were punched in the walls and staff were assaulted. Eventually, the new secure unit opened. Perhaps management breathed a sigh of relief, pleased to have got through without a major assault or a newspaper expose. What passed unappreciated was the damage to staff morale and staff confidence in management.

CASE DRAMATIZATION

Lin Chin's Chinese ancestors came to Australia during a gold-rush over a century ago. Her parents own a large and successful market garden business. They are extending into the commercialization of Australian native plants.

Lin attended an exclusive private girls school. She was good at all academic subjects and took additional classes in gymnastics and music. She was an avid reader and had many friends.

She was admitted to the psychiatric ward of a private hospital at the age of 16 years. For many months she had been acting strangely. She had filled her cello with the feathers from a feather pillow. She seemed to believe that wizards and witches and various other fictional characters from the Harry Potter books were living in her cello.

Doctor: "Well, about the Harry Potter characters, which of them do you think might be living in your cello?"

Lin: "They're not."

Doctor (rubbing her forehead): "Oh, I'm sorry, I thought you said Harry Potter characters were living in your cello?"

Lin (giggling): "They're trying to."

Doctor (relieved to be on the right track at last): "So, which characters are trying to live in your cello?"

Lin: (twisting in her chair to look behind): "Hagrid was."

Doctor (uncertain and wanting to clarify): "Lin, when you say 'Hagrid was', do you mean Hagrid was living in your cello, or Hagrid was wanting to live in your cello?"

Lin (smiling): "I don't know."

During the admission interview she seemed to indicate that she played the cello on some occasions, but that a Harry Potter character played it on others.

Doctor: "I see. Well, when you are playing, your fingers would be pressing on the strings. But when Dumbledore is playing, whose fingers are pressing on the strings?"

Lin (looking confused): "Wha?"

Doctor: "Lin, when Dumbledore is playing your cello, are your fingers pressing on the strings?"

Lin (looking defensive): "Of course, that's how you play it."

Doctor: "OK. When Dumbledore is playing your cello. Your fingers are pressing on the strings. Is Dumbledore making you press on the strings?"

Lin (confidently): "He wouldn't do that."

Doctor: "I see. Well, how does Dumbledore play your cello?"

Lin (smiling): "He could be."

Lin was suffering what is now called hebephrenic or disorganized schizophrenia. The onset is usually in adolescence, there is disorder of the form of thought and behavior is disorganized. There may be delusions, but these are poorly formed and vary from moment to moment. The patient is often smiling, unconcerned about his or her condition and described as shallow or fatuous. Such patients may not be able to care for themselves, wandering aimlessly and neglecting self-care.

Lin did not want to be at school. When she was taken there, she was disruptive and had to be removed. She was not able to occupy herself alone at home. She tried to cook but set the house on fire, she would wander off and before long, drifted into the company of the drug sub-culture. It was feared that as she had access to some money and valuable belongings, and she was a naïve female, she was at risk of financial and sexual exploitation.

In the past she would have been managed in a mental hospital long-term or rehabilitation ward where with structure and support she would gradually recover or at least stabilize and develop some independence. As there was no mental hospital, she spent most of a year in a general hospital psychiatric ward in a series of long admissions. This was not ideal, the rapid turnover of acutely disturbed patients was distressing, and the general hospital bed was expensive.

Attempts were made by the mental health service to provide structure and purpose by suggesting community based activities. But Lin, with fleeting delusions, disorganization and lacking insight, did not want to attend the suggested activities. Even if she set out with the intention of co-operating and attending a particular activity, she would get diverted and end up wandering the streets. When asked what she would like to do, she could not give a cogent answer and her answer differed with each asking.

In the end, Lin's mother had to leave work and function as a private nurse. While this can be justified as the family has a responsibility toward members and the state should not be expected to provide services which are the responsibility of family, Lin's mother had a different view. She had enjoyed her position in the company, but she did not enjoy looking after her daughter. She pointed out that she had created employment, that when she left the company, it was necessary to terminate a secretary and three gardeners who had been working on the projects that she had devised, implemented and supervised.

CASE DRAMATIZATION

In 1985 Mr. Jan Petrov appeared to be about 50 years of age. He had lived in the long-term ward of a mental hospital for 12 years. He was born in Estonia. His records showed that he had been living and working in an unskilled capacity in a small city in Australia for about ten years before admission to the mental hospital. On admission he had claimed he owned vacant land in that city, it was unclear whether this was a delusion. He could not provide details and searches of records did not support his claim, although, due to the vague nature of his claim, it difficult to be sure the correct records had been searched.

Few details were available of the clinical picture when Mr. Petrov was admitted. He had been a vagrant and living in shelters for at least a number of years, and was referred by welfare workers and police who believed he was acting “strangely” and neglecting him-self. There was a history of alcohol abuse and two convictions for drunk and disorderly behaviour. The records showed the admitting staff suspected but were not certain of the presence of delusions or hallucinations. The admission diagnosis was wide open, it was thought he was either alcoholic, schizophrenic or an itinerant seeking a bed and food.

Mr. Petrov spoke little to others, but muttered to himself. He had a strong accent, and apparently, rudimentary English. He mumbled answers and seemed to have disorder of the form of thought. When he did speak to others, it was difficult to understand what he meant, and presumably his accent, limited English, poor diction, and disordered form of thought all played a part.

It was impossible to form an opinion about his intelligence, but he had travelled from one side of the world to the other and has worked for some years, which indicated at least near average intelligence.

Mr. Petrov was of average build and had a full head of hair. He had no teeth and appeared to be grinning much of the time. It was uncertain whether his apparent grin was due to the absence of his teeth. When not encouraged into staff structured activities such as occupational therapy, he sat immobile on a garden bench outside the ward, looking at a pleasant country view.

Mr. Petrov was a passive man. He did not appear to have paranoid delusions and was never aggressive. He was friendly insofar as he answered greetings, but he initiated little interaction and formed no warm interpersonal bonds. He did not wash unless the staff insisted. He did not change his clothes or buy clothes. He did not make his bed until he was directed to do so, and when he did, he pulled up the top cover, leaving the sheets crumpled beneath. He was interested in food insofar as he always waited in the dining room at meal times and he ate rapidly. He chewed with his mouth open. If he coughed while eating he did not cover his mouth and food flew out onto the table. He did not help with food preparation or serving and he did not help with clearing the table or washing the dishes, without being encouraged so to do.

During his dozen years in the mental hospital two attempts had been made to prepare Mr. Petrov for return to the community. His skills had been assessed and plans had been made to retrain him in the areas of daily living in which he was most lacking. Both attempts failed. It was believed Mr. Petrov did not want to leave hospital, that he was not participating in the rehabilitation process and therefore it was pointless persisting.

The decision was made that this mental hospital would be closed, so every patient had to be assessed and appropriate disposal determined. Patients were to be prepared, as well as possible.

Mr. Petrov's records were again reviewed and he was interviewed. His muttering suggested that he was hallucinating, and he certainly lacked initiative, energy and interest in others. This suggested schizophrenia with some positive and many negative symptoms. Schizophrenia was considered the most likely. Alcoholic hallucinosis along with the apathy of alcoholic dementia was an alternative, which could not be excluded. It was noted that Mr. Petrov had not sought alcohol in over a decade, although he appeared to grin when the topic was mentioned. There was no denying alcohol had caused some problems prior to his admission, so alcohol abuse would remain on the potential problem list. He had limited communication skills. It was considered that Mr. Petrov, with apparently no friends or family, no trade or professional training, and with limited local language was unwilling to leave his relatively comfortable hospital life, and that he had sabotaged previous rehabilitation attempts. It was not possible to form a strong opinion on personality and motivation, as apparent deficits would be consistent with the negative symptom of schizophrenia, which were believed to be present. When asked, as part of the disposal process, he answered that he did not want to leave.

Mr. Petrov was given twelve months instruction, guidance, example and encouragement to help him master basic personal budgeting, hygiene and food preparation. As the mental hospital was closing, he would have to leave. As he had shown little interest or aptitude in learning budgeting or food preparation, he was moved into a boarding house where at least he would be fed twice a day, he would get clean linen and the rubbish bin in his room would be emptied once a week. This was a boarding house in the private sector which catered predominantly for people living on government pensions who had low levels of function.

Nevertheless, Mr. Petrov was immediately unpopular because he chewed with his mouth open and when he coughed, food came out on the table. When he walked into the communal TV lounge, he would change the channel without asking those who were already watching. Other viewers threatened violence, but nothing happened. Not because Mr. Petrov made belligerent counter-responses, his lack of concern about what others said or thought was unnerving.

Community based mental health workers made efforts to support Mr. Petrov. They visited second daily and arranged for the boarding house proprietor to remind Mr. Petrov to take his medication.

Mr. Petrov started drinking alcohol. He brought it back to the boarding house, which was against the rules. He drank all his money and was threatened with eviction when he could not pay his board. The mental health workers arranged for Mr. Petrov's money to be handled by the Public Trustee, so that his board came directly out of his fortnightly pension and then the remainder was released to him, half each week. He stopped drinking, but soon took a dislike to the boarding house and left. He slept on the streets.

He was taken to a shelter for homeless men. After a week or so the operators thought Mr. Petrov was physically and mentally disordered and took him to the local general hospital. He was found to be malnourished but not physically sick, and was admitted to the psychiatric ward. It was concluded that he suffered chronic paranoid schizophrenia with prominent negative symptoms. His medication was changed and he was discharged back to the shelter. He took alcohol back to the shelter and was threatened with expulsion. He agreed not to take alcohol back to the shelter again and stopped drinking for three months.

He then became clearly paranoid and left the shelter and was not seen for a month. Then, while drunk, he staggered into the path of a car and received a head injury. He was admitted to the general hospital neurosurgery ward and was found to be unable to speak and paralyzed on the right side. When his condition had stabilized he was physically rehabilitated but could not walk very well and was discharged to a long term facility for the physically disabled.

It was ironic that the absence of long term supported psychiatric care was the path to long term care. The absence of psychiatric care was an important factor contributing to Mr. Petrov's physical injuries. In the end he did receive long term supported care – the justification being physical rather than psychiatric disability.

The deinstitutionalization movement believed that people like Mr. Petrov were robbed of their identity and dignity by the mental hospital and that discharge would lead to a new sense of autonomy, dignity and fulfillment.

Dr Torrey and Mary Zdanowicz (1998), however, have another view. In *The Wall Street Journal* they estimated that 1 000 homicides are committed each year throughout the USA by seriously mentally ill people who have no stable residence and are therefore not taking appropriate medication. They state, "Their victims should still be alive. The tragedy is that the mentally ill are a threat to society because society has failed them".

Dr Jeffrey Geller (2000), a leader in public-sector psychiatry, has explored the meanings of the word "community", finding the most satisfactory to be "a social group sharing common characteristics, circumstances, and/or interests, perceived or perceiving itself as distinct in some respect from the larger society in which it exists". He argues that in the mental hospitals the seriously mentally disordered had "a" community, but since they have been discharged into "the" community many now have no community. For many patients deinstitutionalization has destroyed their community and we have a mental health system, which Dr Geller claims "is looking more like the one we had in the 18th century".

CONCLUSION

Mental disorders may seriously impair the patient's ability to function in a productive and independent manner. A couple of centuries ago, as a means of providing care for people with mental disorders who were destitute, asylums or mental hospitals, were established. These provided total care for patients on an, if necessary, indefinite basis. The asylums were never properly funded and were misused, insofar as they cared for a range of socially disadvantaged people. This is probably gilding the lily somewhat, as some patients were probably neglected in these large facilities and lost a sense of dignity and autonomy. Also, there was probably some pilfering and abuse of patients by staff. Over recent decades these hospitals have been closed.

There were arguments in favor and against closure, and there have been both beneficial and deleterious consequences. I am biased and have mainly presented examples of deleterious consequences.

Scientific papers appear in the psychiatric journals asking "has community psychiatry failed?" There is no asylum psychiatry anymore, so the adjective "community" should be dropped, and instead, the question should become, "has psychiatry failed the community?" Of course, psychiatry can only properly serve, if properly resourced. There is evidence that comprehensive, integrated psychiatric services are yet to be provided. However, we should also heed Dr Leff's caution, "when basic needs are satisfied, a new level of need becomes apparent". It is easy to underestimate and I am probably guilty of some underestimation of the progress made by closing the asylums. The better outcome would have been achieved if the worst aspects of the asylums had been corrected and the best retained.

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CHAPTER 11

MADNESS AND GENIUS

The belief has persisted for thousands of years, that genius and mental disorder are linked. “No great genius was ever without a tincture of madness,” wrote Aristotle (422-384 BC). He may not have been the first to make this connection. He believed both genius and madness were the result of an excess of bodily black bile. What he really meant is impossible to determine, as there was no clear definition of the term which has been translated as madness, and as already stated, we have no clear definition for the word madness. He did not write at length on the subject.

Nor is there a widely accepted definition of the term genius, and there are very few studies of the mental health of geniuses. There are, however, some important studies of the mental health of creative and world-famous figures from a range of fields.

Those with mental disorders and geniuses or world-famous figure are different from average people. Thus, these two groups are similar insofar as they are different. But are these groups very similar to the point that they are a single group, or are they only the same only insofar as they are different from the average?

People with mental disorders featuring abnormal forms of thought, make unusual statements. They make unusual connections between ideas. Sometimes their statements sound like lateral thinking. That is, they sound clever, they sound as if the patient is purposefully attempting to approach an idea or problem in a new, from a new perspective or in a creative manner. Unfortunately, this is not the case. The patient with disorder of the form of thought is making these unique associations by accident, slipping off one idea and landing on another. As thinking is disorganised, so behaviour is disorganized. People with this problem do not have formulate plans well, and they do not reach high goals. While such patients may, from time to time, appear to present an alternative answer, they usually produce very little.

For these reasons, contrary to popular opinion, few creative artists or important thinkers have suffered from schizophrenia. Vincent Van Gogh almost certainly did not have this condition. He was born in Holland in 1853. His extended family included art dealers and there was a family history of mental illness. He had a troubled work history and four significant relationships with women, all which ended, bringing him disappointment. At the age of 27 years, Van Gogh announced he would become an artist. He produced more than 800 paintings, mainly during the last seven years of his life. He shot himself to death at the age of 37.

It is well-known that Van Gogh cut part of his left ear off and presented it to a prostitute. This, along with his occasional statements that he thought he was being poisoned or persecuted by the police have been taken to indicate schizophrenia. This is unlikely as there was no evidence of negative symptoms, such as social withdrawal and loss of feelings, and he was extremely productive in his last seven years. An organic cause for some odd behavior is probable; he suffered gonorrhoea and syphilis, he was poorly nourished and drank large amounts of absinthe, an alcohol containing a neurotoxin which is known to cause psychotic symptoms. A mood disorder is also highly probable. There were periods when he experienced

the symptom of depressed mood, and episodes of excitement. He said, "I go like a steam engine at painting" and was prolific, suggesting a mania, and died by suicide, suggesting depression.

Visual art is an area of human activity with a tradition extending back to the cave drawings of prehistory. There are libraries full of art history and a large body of well argued concepts. Like many other forms of human endeavor, there is continuous progress and the activities at the leading edge may not be understood or valued by the average person.

In 1917 Marcel Duchamp placed a urinal in an art exhibition in USA, calling it "Fountain". He said this was art, because he said it was art. In 1961 Piero Manzoni defecated in 90 small cans, which he labeled, "Artist's shit". These sold for more than their weight in gold. In 1994 the Danish artist Christian Lemmerz put six dead pigs in a glass case so that visitors to the Ezbjerg Gallery could watch them decompose. The exhibit had to be cancelled because of the stench. In 2001 the prestigious and valuable Turner Prize, offered by the Tate Gallery, Britain, for contemporary art was won by Martin Creed whose exhibit was a bare room with a light which switched on and off. Interviewed about the meaning of his work, Creed said little more than that the light went on and off. In 2002 the valuable Paul Hamlyn Foundation Award was won by Ceal Floyer for "Rubbish Bag". This was a rubbish bag full of air. The artist stated that the intention is that the viewer wonders whether the bag is full of air or rubbish. In 2003 Tracy Emin sold an unmade bed and two suit cases to a London art gallery for three times the average annual wage. In the same year, the Trapholt Art Museum in Kolding, Denmark, presented an instillation of 10 food blenders with a goldfish in each, and invited visitors to turn them on. Some did so, and a charge of cruelty to animals was prosecuted. The artist, Marco Evaristi, stated the aim of his art was to provoke "ethical thought".

Art is based on work that has gone before, and new movements generally represent advances in the field. I do not understand what is being communicated by the works mentioned in the above paragraph, but that is presumably because of my ignorance of the field. If a person who belongs to a particular sect has a belief which is foreign to the treating psychiatrist, such as, God will arrive on earth tomorrow and he will have iridescent purple hair, before this belief is branded a delusion, the psychiatrist must ask other members of the sect. If the belief is shared by a group of people it cannot be classified as a delusion. Sect members are usually quite definite about whether a member is psychotic or not. The same can be applied to the field of visual art. While some contemporary art may appear to be the work of a psychotic person, if peers accept the work, it is probably not the work of a psychotic person. Art critics do not describe the above artists as psychotic. The rest of us must consider their advice seriously.

There is much anecdotal evidence to indicate that creative people are more often eccentric or more often have odd personality features than the non-creative population. Hans Christian Anderson, the Danish author of children's stories carried a coil of rope for fear of being caught in a hotel room fire. When the wife of the poet and painter Rossetti died, as a token of his love, he placed his unpublished manuscripts beside her in her coffin. Seven years later he dug up the coffin, dusted off his papers and published them. Sir Walter Scott had a salt cellar which was made from the fourth cervical vertebra of Charles I. James Joyce kept a tiny pair of doll's knickers in his pocket. Marcel Proust wrote most of his novels lying in bed. Rossini was completely bald and wore a wig. In exceptionally cold weather, however, he wore two or three wigs simultaneously. Beethoven had no interest in personal cleanliness and his friends had to take his dirty clothes away and wash them while he slept.

There is also anecdotal evidence that many great scientists have been eccentric. Sir Francis Galton, one of the most prolific scientists of all time regularly carried a brick wrapped in brown paper and tied with a piece of rope, so that he could stand on it to see over people's heads when he was in a crowd. Alexander Graham Bell kept his windows permanently covered to keep out the harmful rays of the moon. Sir Joseph Banks was described by his biographer as "a wild and eccentric character". Nicola Tesla, who gave his name to the unit of magnetism was celibate and said, "I don't think that you can name many great inventions that have been made by married men". Henry Cavendish, a great chemist and physicist, was exceptionally shy and would only ever eat mutton. He communicated with his servants by letter, if he met one by accident, they were dismissed. He had a second staircase built in his house so that he could avoid them more easily. J B S Haldane was one of the best known scientists of the twentieth century, at one time he did not remove his boots for three weeks. General Haig said of him that he was "the bravest and dirtiest

soldier in the army". Dr Paul Erdos was one of the most gifted mathematicians of all time, writing 1500 scientific papers. He lived as a homeless derelict, shunning material possessions because, "property is nuisance".

Professor Nancy Andreasen (1987) studied 30 living creative writers, thirty control individuals and the first-degree relatives of both groups. A specially designed structured interview addressed both creativity and mental health. The writers had substantially higher rate of mental illness, particularly mood disorders. The first-degree relatives of the writers also had a higher prevalence of mood disorder and creativity. These results suggested that creativity and mood disorder were in some way linked, and that genetic factors could be involved.

Dr Felix Post (1994) studied the biographies of 291 world famous men from the fields of science, thought, politics and art, looking for evidence of psychopathology. He concluded that they excelled not only by virtue of their abilities and originality, but also through their drive, perseverance, industry and attention to detail. He found that unusual personalities and minor mental disorders were more common among this group than among the general population. Of the more serious mental disorders depression and alcoholism and perhaps sexual disorders were more common than among the general population. This was most marked among the writers. His point is well taken, that while odd and different and more often depressed and alcoholic, these people were productive because of their positive characteristics and capacity for careful and sustained work.

Dr Arnold Ludwig (1994) studied the mental health of 59 living female writers and a control group, using a questionnaire and interview. He found higher rates of mental disorder among the writers. The most common were mood disorders, drug abuse, anxiety and eating disorders. While genetic links between creativity and mental disorder were suggested, it was also found that a higher proportion of writers had experienced sexual or physical abuse in childhood. Thus, environment rather than genetics may have been the important factor. Whatever the root of the mental disorders and unusual personality features, this psychopathology seemed to provide the basic ingredients and motivated the writing process. Further, writing appeared to provide a form of self therapy. Ludwig also made the point that personal strengths were evident and necessary for writing.

Dr Felix Post (1996), in his study of 291 world-famous men, had found an increased prevalence of psychopathology among writers. He set out to confirm those findings, and to seek causal factors, by looking at a group of 100 writers. The biography analysis method was again used, and poets, prose fiction writers and playwrights were compared. The findings were consistent with his earlier study with each group of writers showing a high prevalence of mood disorder, alcoholism, unusual personality features, sexual and marital problems. Overall, some form of mood disorder was present in 82% of writers, the prevalence increased from poets to prose writers to play writers. Overall, 75% of these writers had a family history of mental disorder.

Dr Post proposed a causal connection between literary creativity and proneness to depression and alcoholism. Mood disorder may be conceptualized as a particular sequence of brain cell activity. Unfortunate life events may result in increased activity in these cell circuits. In those who have inherited a predisposition, unfortunate life experiences may increase activity resulting in changes in cell activity and mood disorder.

Post postulated that the increased activity which can lead to mood disorder, might not only be precipitated by external events, but could also, perhaps, be caused by creative efforts, in particular, by verbal creative efforts. Thus, he postulates that creative effort is the cause of the increased prevalence of mood disorder and other psychopathology observed in creative people, particularly writers.

Other possible explanations are purely genetic. The possible mechanisms include that genes for psychopathology and creativity are close together on a chromosome and are thus inherited together, or that the same gene serves or underpins both creativity and psychopathology.

Opposing the view that the creative effort may cause psychopathology observed in writers (Post, 1996), is the view that creative effort may function as therapy (Ludwig, 1994). Artistic, particularly literary, creativity calls for knowledge of the self and an appreciation of the self in relation others and the environment. It is

Poet	Pulitzer Prize	Treated for Depressive Disorder	Treated for Mania	Committed Suicide
Hart Crane		+	+	+
Theodore Roethke	+	+	+	
Delmore Schwartz		+	+	
John Berryman	+	+	+	+
Randall Jarrell		+	+	+
Robert Lowell	+	+	+	
Anne Sexton	+	+	+	+
Sylvia Plath	+	+	?	+

Illustration 11.1 Professor Kay R Jamison extracted this information from the New Oxford Book of American Verse. Among the 36 poets included in that authoritative publication, eight had been treated for depressive disorder. Of this eight, at least seven (possibly all) had also been treated for mania, indicating bipolar disorder. Five had committed suicide. These prevalences are very much greater than would be found among 36 members of the general population, indicating a link between creative writing and mood disorder (Adapted from Jamison (1990).

conceivable therefore, that creative activity has therapeutic potential, particularly where there are distressing early life experiences and consequent low self-esteem.

When the above accounts are teased out, and supplemented by the work of other scientists, including that of Professor Kay R Jamison (Illustration 11.1), there is evidence that the reported mood disorder includes both depressive disorder and bipolar disorder. One can accept that the suffering experienced during episodes of depression may provide the individual with subject material write about, and the motivation to work during periods of remission.

But what of manic episodes? During manic episodes the individual has racing thoughts, many ideas, increased energy, decreased need of sleep, confidence and a willingness to take risks. As long as mania is only mild and does not cause the individual to become unable to think or function, or lack food intake and sleep to the point of collapse, it can be seen that mood elevation could be an advantage. If we consider two equally well trained and intelligent individuals, but one has increased energy, decreased need for sleep, more ideas and a willingness to take risks, it is clear which will be the more productive and longest remembered. The last seven years of Van Gogh’s life is a probable example. Spike Milligan, widely regarded as a “comic genius”, is a better example, as his bipolar disorder was more clearly apparent and quite well documented (Illustration 11.2).

With respect to unusual personality features, are we looking too deeply? It is not uncommon for people who are successful and enjoy the adulation of the masses to become flamboyant. In fact, flamboyance is a good means of drawing attention to oneself and one’s work. Flamboyance can be just good business sense. Further, if one has an absorbing idiosyncratic interest, such as painting or writing, is it surprising if one pays more attention to that issue, than to appearance, manners and more conventional issues?

Great things, perhaps even for talented individuals, can only be achieved through great focus and determination. Satirist John Clark wrote (2000) “Mahatma Gandhi. Joan of Arc. Thomas Edison. Emily Pankhurst. St Thomas Aquinas. Marie Curie. Copernicus. Boadicea. Socrates. Jane Austen. Alexander the Great. Florence Nightingale. Leonardo da Vinci. Eleanor Roosevelt. Who among them devoted their lives to obediently fitting in, doing what was expected of them, subjugating their own preferences, serving the will of others, meekly following the conventions of the day?”

POEMS OF SPIKE MILLIGAN

Manic Depression

*The Pain is too much
A thousand grim winters
grow in my head.
In my ears
the sound of the
coming dead.
All seasons
All sane
All living
All pain.
No opiate to lock still
my senses
Only left,
the body locked tenses.*

Hope

*Just when I had made my today
Secure with safe yesterdays
I see tomorrow coming with its pale
glass star called hope.
It shatters on impact
And falls like splinters of cruel rain
And I see the red oil of life
running from my wrists
onto tomorrow's headlines.*

2B or not 2B

*When I was small and five
I found a pencil sharpener alive!
He lay in lonely grasses
Looking for work.
I bought a pencil for him
He ate and ate until all that was
Left was a pile of wood dust.
It was the happiest pencil sharpener
I ever had.*

Illustration 11.2. Allen Terrence (Spike) Milligan (1918-2002) was born in India. He served in the Second World War during which he suffered "shellshock" (a term which covers a range of reactions to the stress of warfare). Subsequently he wrote comedy for all forms of media, the best known being *The Goon Show*. Spike changed the face of comedy in Britain and around the world. His influence is obvious in the Monty Python's *Flying Circus* scripts. He also influenced entertainers in other fields, including the Beatles. Toward the end of his life he remained active in comedy, but he was also became active in conservation.

Spike had well documented bipolar disorder (also known as manic depressive psychosis). There is clear evidence that mania underpinned some of his comedy.

"Manic Depression" (above) was written during a depressive episode in 1953/4, when Spike was in the Psychiatric Wing of St Luke's hospital. "Hope" (above) was written following a depression related suicide attempt by wrist cutting in 1971, in Woy Woy, Australia.

"2B or not 2B" (above) is a playful poem which may have been influenced by an episode of mood elation.

Reproduced by permission of Spike Milligan.

CASE REPORT

Les Murray is a world-famous poet, the winner of numerous awards including the T S Elliot Prize and the Queen's Medal (UK) and the Petrarch Prize (Germany), who was born and raised and has returned to Bunyah, a rural district in New South Wales, Australia.

At the time this book was written, Les had authored or edited over thirty books, mainly poetry, but some prose. In "Killing The Black Dog" he gives a personal account of suffering depression and anxiety and his self-treatment through writing poetry. He has also spoken on this topic on radio and television. The black dog was a term used by Winston Churchill when referring to his episodes of depressive disorder.

Les was born in 1938 and was an only child. Subsequent to his birth, his mother had a series of miscarriages. A miscarriage caused her death when her son was 12 years of age. The boy felt responsible for his mother's death, and was told this was the case on more than one occasion by his father. He came to fear sexual intimacy which he associated with fatal consequences.

In his mid-teens Les changed schools. "There, among neatly dressed town kids for the first time, I made all the wrong opening moves and promptly died for it. I came on as friendly, puppy-like, as well as a Brain and a show-off, and the unanimous verdict was that I must be reminded constantly that I was fat and ridiculous." He remained there until he completed school two years later. He had no friends, he was only once addressed by his first name and constant reference was made to his weight.

On leaving school Les had a variety of posts, working for a time as a translator of technical and scholarly texts at the Australian National University. He married Valerie Morelli at 24 years of age and they lived overseas for a year. Les completed his Bachelor of Arts at 31 years of age. He then worked in the Public Service before becoming a full-time writer.

On reflection, Les considers he has suffered depressed mood for much of his life. His first acute episode commenced when he was about 21 years of age and lasted more than two years. He experienced phases of mild mood elevation and moderate depression. In "Killing The Black Dog" he describes severe inanition. He self-treated with stimulants, which were readily available.

His second acute episode began at 50 years of age, following a conversation in which a woman "cheerfully recalled to me one of the nicknames she had bestowed on me thirty-odd years earlier". Within days he was experiencing pain in his hands and began weeping while driving his car. He could no longer tolerate the taste of tobacco and suffered indigestion. He was admitted to a cardiac ward with chest pains, which proved to be a panic attack. Subsequently he suffered many panic attacks, sometimes three or four in a day.

He experienced "sessions of bottomless misery". His thoughts were "like shredded mental kelp marinated in pure pain". He experienced early morning awakening, with "troubles and terrors ripping into you with a gusto allowed them by fatigue and the disappearance of proportion".

From his account Les suffered major depression and panic disorder. He obtained little benefit from the antidepressant medications, but some help for his panic disorder from an anti-anxiety medication. He got help from work, family and the support of other sufferers.

At this time, he found writing prose difficult, "when I was utterly depleted I concentrated my resources around my essential art form, poetry, because it was what I'd bet my life on." He embarked on an attempt at self-treatment, a talking cure rather than a chemical one. He talked to himself, using poetry. He sought through introspection, to understand himself and his illness, and repeat it "till I could 'hear' it and think straight about it". He concluded that the death of his mother was an important issue. He remembered that he had felt she had a growing dislike for him as her miscarriages continued, and that he had felt guilty for being born. He discovered he "had been furious at my father for sinking into broken-hearted grief when my mother died, a grief he had nourished and refused to give up till the day of his own death some forty-four years later".

Burning Want

by Les Murray

*From just on puberty, I lived in funeral:
mother dead of miscarriage, father trying to be dead,
we'd boil sweat-brown cloth; cows repossessed the garden.
Lovemaking brought death, was the unuttered principle.
I met a tall adopted girl some kids thought aloof,
but she was intelligent. Her poise of white-blonde hair
proved her no kin to the squat tanned couple who loved her.
Only now do I realise she was my first love.
But all my names were fat-names, at my new town school.
Between classes, kids did erocide*: destruction of sexual morale.
Mass refusal of unasked love; that works. Boys cheered as seventeen-
year-old girls came to me, then ran back whinnying ridicule.
The slender girl came up on holidays from the city
to my cousins' farm. She was friendly and sane.
Whispers giggles round us. A letter was written as from me
and she was there, in mid-term, instantly.
But I called people 'the humans' not knowing it was rage.
I learned things sidelong, taking my rifle for walks,
recited every scene of From Here to Eternity, burned paddocks
and soldiered back each Monday to that dawning Teen age.
She I admired, and almost relaxed from placating,
was gnawed by knowing what she came from, not who.
Showing off was my social skill, oddly never with her
but I dissembled feelings, till mine were unknown to me too
and I couldn't add my want to her shortfall of wantedness.
I had forty more years, with one dear remission,
of a white paralysis: she's attracted it's not real nothing is enough
she's mistaken she'll die go now! She'll tell any minute she'll laugh –
Whether other hands reached out to Marion, or didn't,
at nineteen in her training ward she had a fatal accident
alone, at night, they said, with a lethal injection
and was spared from seeing what my school did to the world.*

Illustration 11.3 Les Murray is a world-famous poet. He has suffered depressed mood for most of his life. He has suffered at least two acute, but sustained episodes. He used poetry to explore his memories and emotions in an attempt at self therapy. He was partially successful. *Burning Want* is an example of his exploration. See the text for more details.

* Les coined the term "erocide" to mean the deliberate destruction of a person's sexual morale.

Les faced everything he could dredge up. Important, helpful poems written during this process include "Burning Want" (Illustration 11.3) and "Head-Spider". He was better but he wasn't cured. "...I'd used my best Sunday punch on my illness, putting it under the burning glass of poetic analysis, and still hadn't defeated it".

Then at 58 years, Les was struck down with a very rare condition, a liver abscess. Part of his liver was surgically removed and he was unconscious for many days. There was an enormous expression of public love and concern in the form of letters and flowers from all over the world, and regular radio bulletins on his progress. Building on the growth he had achieved through his self-examination in poetry, this public response, when he finally regained consciousness, was the "affirmation I'd needed". His depression dissipated. In the five years since the liver abscess, Les has remained emotionally and physically well.

SUMMARY

The notion that madness and genius are somehow linked goes back to antiquity. The terms madness and genius are poorly defined, the only question which can be approached is whether there is any linkage between mental disorders and creativity or achievement of world-fame proportions.

Schizophrenia is a psychosis which is perhaps the archetype of pathological madness (as opposed to the madness of anger and madness of carefree fun). In schizophrenia thinking is disorganized and there is lack of drive. There is no evidence of increased prevalence of schizophrenia among the creative and famous.

There is some evidence of an increased prevalence of eccentricity and unusual personality features among the creative and famous. It is possible that there is a genetic explanation, but we should not lose sight of the fact that flamboyance is good advertising and may be used to draw attention to our work. Also, people with absorbing interests are going to pay more attention to them than to appearance and behaving in a conventional manner than the rest of us.

There is good evidence that mood disorder, alcoholism and sexual disorders are more common among creative people, particularly writers. It may be that there is a direct genetic explanation, meaning that the genes for certain psychopathology and creativity are located close together on the same chromosome and are therefore commonly inherited together, or that the same gene serves or underpins both psychopathology and creativity. The contrary explanation is that writers have, more often than members of the general population, experienced damaging early life experiences, which have stimulated both the psychopathology and the creativity. Rather than one of these explanations being correct and the other incorrect, it is possible that both genetic and environmental influences are important.

The suffering experienced during episodes of depression may provide the subject material and the motivation to write during periods of remission. During mild manic episodes the increased amount of thoughts and energy, the decreased need of sleep, the confidence and willingness to take risks, may increase productivity and success.

It is of interest that some writers use their craft as a form of therapy, "writing out" their pain. An apparently opposing view is that creative activity increases the activity of certain brain cell circuits and that in vulnerable individuals, this can lead to depression.

If madness means schizophrenia, there is no link between madness and increased creativity and productivity. There is a link between creative writing and depression and alcoholism, but the nature of this link remains to be determined.

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CHAPTER 12

SUICIDE

Why are we so distressed when we hear about a suicide? Everyday, on the news, we hear about death – car accidents, industrial accidents, fire, landslides, murder, assassination, war casualties, disease and starvation. We feel fleeting sympathy for this procession of unfortunate people and their unfortunate families. But we pause and feel more deeply when we hear of a suicide. Why is that? Is it because we can identify more closely, we can become that person for a moment? And if so, why? Is it because we have all been tempted at one time or another? Can we identify more closely with the person who has suicided than the hang glider who has crashed to death, because we know how it feels?

For some of us, the answers to those questions will be, yes. For others, the answer will be, no. One certainty about suicide – it's not a “one size fits all” issue. Suicide is complicated. All those who suicide are individuals with distinct histories and predicaments, and all those who study suicide have their own biases and agendas.

It is appropriate for me to declare my own history and bias. I have spent my professional life in state hospitals, admitting and treating severely mentally ill and socially dysfunctional patients. State hospitals have the authority to compulsorily detain mentally disordered patients, and accordingly, are seen by some to be responsible for all actions of all admitted patients. Some suicide, and some suicide in hospital, is inevitable. When this happens, police, coroners, families, newspapers, administrators and others, blame the hospital staff. These blamers don't consider the 5000 success stories, they focus, instead, on the occasional unfortunate, unavoidable event. My history then is of being blamed for (damaged by) the suicide of others, and my bias is toward the view that suicide is sometimes not preventable.

Laughter and suicide are actions that may be associated with a range of emotions and situations. Laughter may be associated with being tickled or, less commonly, the acute pain of barking the shin against a steel railing. Laughter may occur in situations of pleasure as when winning a large bet, or in situations of embarrassment, as when tripping over on a first date.

IS SUICIDE A FORM OF MADNESS?

Suicide may be the result of religious or political fervor – an individual giving his or her life to further the cause. In some circumstances, martyrdom is simultaneously achieved. Suicide bombing in the Israeli conflict and the crashing of planes on September 11 being recent examples. In the Second World War Japanese kamikaze pilots crashed their planes into enemy ships. In the 1960s many people self-immolated in Vietnam in protest against the war.

In late 1969, Jan Palach a 20 year old university student self-immolated in Wenceslas Square, Prague, in protest against the Soviet invasion of Czechoslovakia. Twenty five followed his example in the following

three months. A recent Czech assessment stated "...the memory of those who decided to put their death in the service of truth guided many Czechs through the hopeless decades of the Communist dictatorship. Their selfless act shaped the Czech conscience during the 20-year period between 1969 and 1989, and changed it forever".

In 1998, Thupten Ngodup a Buddhist monk of 50 years, self-immolated in New Delhi, in protest against the Chinese occupation of Tibet. In mid-2003 four Iranians self-immolated [three in Paris and one in London] in protest against the arrest, in France, of members of the opposition group, the People's Mujahideen.

Suicide, for a person with a terminal illness, may be a way of escaping a painful and undignified end. In 1983, Arthur Koestler, an internationally known writer, thinker and advocate of euthanasia of 78 years, suicided in London. He was suffering from Parkinson's disease and had let it be known that he would end his life when his symptoms became intolerable. (Some writers have used the term, rational suicide, in this type of situation.) In August 2002, Jo Shearer a 56 year old Adelaide woman committed suicide. A former journalist and war correspondent, she was not suffering a terminal illness, but intractable pain from a progressive spinal disease. A month before she died she gave a newspaper interview in which she detailed her intentions, on condition that the story would only be published after her death. In most countries, suicide is not illegal, however, it is illegal to assist someone to die (euthanasia). There is a strong call in many areas for euthanasia to be made legal for those suffering terminal or painful conditions.

Suicide, for the public figure who has been disgraced and lost fortune and future, may be a reasonable option. There are many examples. Mark Anthony and Cleopatra suicided in 30 BC, in Alexandria. Following the death of Julius Caesar, Mark Anthony and Octavius had controlled the Roman Empire. The bond was strengthened when Mark married Octavius' sister (Octavia). However, Mark rejected Octavia and Rome and for Cleopatra and Egypt. Octavius took an army to Egypt, crushed the forces of Anthony and Cleopatra in the Battle of Actium, and pursued them to Alexandria. Faced with defeat, disgrace and retribution, they took their own lives.

In 1987, 47 year old Budd Dwyer, a Treasurer of Pennsylvania was convicted in a bribery scandal. He called a press conference, declared his innocence and while the cameras were recording, pulled out a pistol and shot himself in the mouth (Illustration 12.1). In 1996, 56 year old Jeremy (Mike) Boorda, a prominent USA admiral, was being pursued by the media for wearing a medal to which he was not entitled. He shot



Illustration 12.1 a & b. In 1987, Bud Dwyer called a news conference and while the cameras were recording, he pulled out a 44-magnum pistol, put it in his mouth and shot himself in the head.

Dwyer was Treasurer of Pennsylvania and had been convicted of a bribery scandal. His political life was at an end. He may have been angry or experiencing other unpleasant emotions. There was, however, no evidence that this man was suffering from a psychiatric disorder.



Illustration 12.2. Vlatko Stojiljkovic had been the head of the Serbian Police and was charged with crimes against humanity. Hours after the Yugoslav parliament adopted a law approving his extradition to the UN war crimes trial, in 2002, he walked in front of the parliament building, calmly took out a pistol and shot himself in the right temple.

An associate read Stojiljkovic's suicide note to the media. "With this act, as a deputy of the federal parliament, I express my protest against this puppet regime". It continued with criticisms of various political figures, and ended with, "The citizens of this patriot and patriots will know how to avenge my death".

As with Bud Dwyer, in Illustration 12.1, we do not have an accurate account of the man's state of mind at the time he shot himself. However, the setting of his actions and the words of his suicide note indicate that he was motivated, at least in part, by anger toward his political enemies.

himself in the head. In 1998, 37 year old Justin Fashanu, a prominent former Norwick City soccer hero, who was wanted in the USA for sexually molesting a 17 year old male, hanged himself from a London bridge. In 2002, Vlatko Stojiljkovic who had been the head of the Serbian Police was to be extradited to face a UN trial for crimes against humanity. He walked in front of the parliament building and shot himself in the head. His suicide note was an angry attack on those who had voted for his extradition (Illustration 12.2).

Members of the public often believe that people who suicide must be suffering from a psychiatric disorder and that they are therefore not responsible for their actions. (The corollary is that any health service staff who have been in contact are the ones who are responsible.) Support for the belief that those who suicide are suffering from mental disorders comes from a research process called the "psychological autopsies". In this process, a group of experts who study suicide, select cases of completed suicide and examine all the information available about what the deceased said and did in the last weeks or months of their lives. These groups usually find at least half and in some studies nearly all the deceased suffered symptoms of mental disorder before they died.

It is reasonable to assume that, immediately before the act, all or almost all of those who suicide are feeling sad, angry and isolated. It is probable that the majority of those who suicide experience symptoms of mental disorders. But, having symptoms does not mean that one has a fully established and diagnosable mental disorder. No psychological autopsy has convincingly demonstrated that the majority of those who suicide have been suffering mental disorders such that they were not responsible for their actions.

There are many "psychological autopsies" done by journalists that indicate that suicide may occur in the absence of mental disorder. These are not true psychological autopsies, of course, as the journalists are not experts in suicide research. Nevertheless, when investigating suicides, journalists inquire about the state of mind, psychiatric history and past and recent life events. They are looking, particularly, for evidence of professional negligence or failure of the common man to support his neighbor, that is, signals to which others should have responded. They offer a reasonably comprehensive account of events by a sensible person trained in investigation and analytical thinking. In 1990, in Melbourne, 50 years old Floyd Podgornik, an apparently happy rags-to-riches millionaire property developer shot himself. In 1996, in France, 41 year old Amschel Rothschild, a successful pilot and rally car driver, farmer, banker and heir to a huge fortune, hung himself. In 1999, in London, 58 years old, David Edward Such, who legally changed to Lord Such and was known as Screaming Lord Such, hung himself. Such had been a star of rock and roll in the 1960's, he continued to live by making music in pubs and at concerts, but he was best known as a political satirist and prankster. Wearing outrageous clothes, he established the Monster Raving Loonie Party which he headed for 30 years, making him the longest serving political leader in Britain. The party slogan was, "Vote for insanity – you know it makes sense". His ex-wife, ex-de facto, current fiancée and 24 year old son were among his mourners. While it is probable that the above people who took their own lives felt sad, angry or isolated at the time of taking their lives, journalists could find no evidence of mental disorder. Further, all were apparently successful and had friends, and there were no warning signs to indicate impending suicide.

Suicide, like homicide, is a piece of behaviour that ends in death. The difference is the direction in which the violence is released. In homicide the perpetrator is held responsible, in suicide, others are held responsible. Homicide may be the result of anger, avarice, revenge, and less often, mental illness. Suicide may also be associated with a range of human emotions and occur in a range of circumstances.

HIGH AND LOW RISK

The concept of identifying groups of people according to the level of risk of suicide (low-risk and high-risk) opens further discussion of the topic and sets a basis for prevention strategies.

Researchers have been trying, for many decades, to find markers or factors which will predict suicide. If good markers could be found, people so identified would form high-risk groups. Such groups could receive special attention and treatment, with the reasonable expectation of preventing suicide.

The social characteristics of male sex, increasing age, widowhood, single or divorced state, childlessness, high standard of living, economic crisis, high alcohol consumption, broken home in childhood and the medical characteristics of a present mental illness, family history of mental illness and a history of previous suicidal behaviour were identified as important markers of suicide, by Stengel, in 1971. No new markers have emerged in the last couple of decades. Markers are regularly rediscovered and have recently been recast as three domains of risk factors which may contribute to suicide, 1) mental and behavioral disorder, 2) rootlessness and social withdrawal, and 3) chronic interpersonal problems. These rearrangements are of little help, they contain nothing new,

The problem is that the markers we have are not very good. Even if a person has many of these markers, this does not predict suicide with any degree of certainty. This is because the base risk of suicide is very low, and it can be multiplied five, 10, 20, or even more times, without the risk becoming very strongly predictive.

Let's put some numbers up to get the problem into perspective. Suicide rates are expressed as the number of deaths in one year which occur in 100 000 people. The United Kingdom has a suicide rate of around 15, Australia around 17, and Canada around 25. These are very small numbers compared to the population of 100 000 from which they come. Thus, in spite of all the media hyperbole when the suicide rate goes up a bit in one region, suicide is still a rare event. Where the annual rate of suicide is 20 per 100 000, each person has, in one year, a 0.02% chance of suicide. If the markers mentioned above were able to indicate those people who are 50 times more likely than the average person (they are not that good), then those people in the high-risk group would have a 1% chance of suicide. This means that to save one person, 100 people would need to be identified and treated for one year.

From 100 high-risk people, hopefully, one person would be saved, but statistically speaking, 99 others would be identified and treated who were not going to suicide. Thus, at the moment, because the markers are not specific, the high-risk approach is very inefficient.

A number of observations appear to support the high-risk approach to the prevention of suicide. One is that about 10% of people with major mental disorders, such as bipolar disorder and schizophrenia, will eventually suicide. It is proposed that this would be a good place to start. [This is somewhat naïve. Of course the clinicians involved in the treatment of such patients are aware of the increased risk in this population, they are experienced, and they do their best.] People with major mental disorders continue to suicide, not because the clinicians are not aware of the problem or not trying, but because suicide is impossible to predict, and major mental disorders, which often respond poorly to treatment, complicate all aspects of the patient's life. It needs to be kept in mind that this 10% is a life-time figure, so for 10% of patients, it will occur at some stage in the next 40 or 50 years. The other 90% will not suicide, and will not welcome unnecessary supervision and treatment.

It is also believed that about half of those who suicide will have visited a general practitioner (GP) in the month before death, so this too, is proposed as a good place to start. In recent years, in the Western

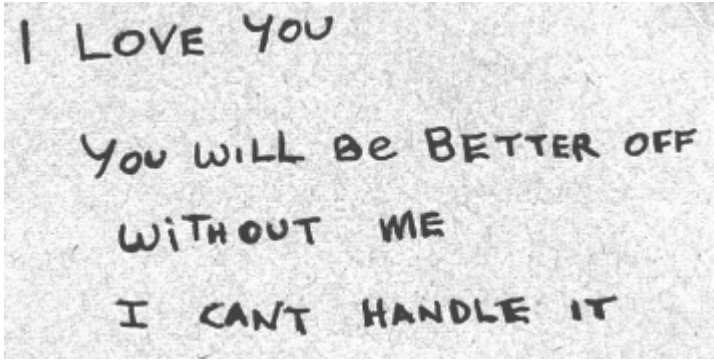


Illustration 12.3 This suicide note was left by a middle-aged man. He had taken overdoses of medication on half a dozen occasions and survived. He had a severe alcohol problem. He was living independently of, but in the same house as, his wife and children. He reported depressed mood and was being treated for depression. How much his depression was a primary condition, or secondary to his alcohol intake and the strained family relationships, was not clear. Nor was it clear whether he expected to survive this overdose, as he had the others.

The note suggests that the patient was suffering and that he had regrets. He was a man at long-term risk of suicide who was unable to find lasting satisfaction in life, in spite of the best efforts of mental health professionals.

world, GPs have responded to the need to increase awareness and skills in the field of mental health. This has included attention to suicidal risk and appropriate management. While valuable, these efforts are not going to solve the problem of suicide. As suicide is rare, it occurs only once in five years in a patient of an average GP. It is difficult to be completely prepared to deal with rare events. Also complicating the picture is that while people with emotional problems may present to the GP, they often deny them, presenting instead with physical problems.

While the treatment of high-risk populations may not reduce the suicide rate across the entire population, the question remains, does treatment of high-risk groups significantly change the risk for people in those groups. Does the treatment of high-risk groups change outcomes? Unfortunately, randomised controlled studies of intensive treatment of high-risk groups do not show that this approach saves lives (Appleby et al, 1999) (Illustration 12.3).

In response to budgetary constraints the criteria for psychiatric admission for the Fulton County, Georgia, USA, were changed in 1996. Admissions were halved. Admission was resisted for those with “personality disorders, chronic suicidal ideation, or long-standing patterns of self-injurious behaviour”. For the period 1997-1998 there was a slight fall in the suicide rate in that county. This led to the conclusion that “the availability of inpatient psychiatric services does not have an impact on the occurrence of suicide” (Garlow et al, 2002).

The other approach to the prevention of suicide is the public health model. This approach is appropriate for rare conditions, where there is low risk, but everyone in the population is at least at this level of risk. Looking at the numbers, for a population of 100 000 who are at a 0.02% risk, if 1000 people are removed because they are at high risk, 99 000 will remain in the low-risk group. From this 99 000, at 0.02% risk, using simple mathematics, 19.8 people will suicide, which is nearly the 20 which would be predicted from the original 100 000. Statisticians and epidemiologists would explode with outrage if they read this paragraph as it is inaccurate – it does not take into account that the risk for the low-risk group would fall when those in the high-risk group are taken out of the equation, and there are other omitted mathematical subtleties. These “ball-park” figures are presented, however, to illustrate that when the low risk group is large, even though the risk is small, it will produce many, if not most, of the suicides. In these circumstances, a whole of population, or public health approach is needed.

Huntingtons disease is a fatal neurological disorder which is transmitted by an identified gene. It occurs only in particular gene carrying families. In any community, the members of these families and the treating doctors know which families carry the gene. The diagnosis, treatment and prevention of Huntingtons disease is best suited to a high-risk approach. It is clear that the children of Huntingtons disease families are at high risk and the rest of the population is at no risk. It would be wasteful to screen the entire population for this disorder.

Motor vehicle accidents, by contrast, can happen to anyone. It may be argued that certain individuals are at greater risk, such as those with past driving convictions and people who take excessive alcohol. But because the whole community, even the little old lady who only drives to church, is at some risk, community wide measures are appropriate. These measures, which include speed limits, legal blood alcohol levels, compulsory seat belt wearing and technical improvements in roads and cars, have been shown to reduce accidents.

An interesting aside is that a high-risk approach to driving can be counter productive. Starting from the observation that young drivers were more commonly involved in accidents, driving education of school children was expected to reduce the number of accidents involving young people. The result was the opposite, the total number of accidents involving young people increased. The reason was that driver education resulted in more young people driving. While the new young drivers were better trained than the young drivers of the past, there were more of them, and while their risk was lower, the greater number on the roads resulted in a greater number of accidents. Prevention is not always a straightforward matter.

So what public health measures might be effective in reducing suicide? There is some evidence that reducing access to lethal means of suicide may be beneficial, however, this is not proven, and some substitution with new methods would seem likely (Lewis et al, 1997). In Fiji, paraquat, a highly lethal insecticide used in sugar cane farming is ingested by half the Fijian Indians who suicide. I was discussing the wisdom of regulating the supply of paraquat with a local psychiatrist. "But you can't make rope illegal", he said. The other half of the Fijian Indians who suicide, hang themselves.

In the UK poisonous domestic gas and barbiturates (sleeping medication which is fatal in overdose) were phased out and this was reflected in a decline in the suicide rate between 1963 and 1970. However, the rate rose again after the mid-1970s. Later, catalytic converters, which render car exhaust relatively harmless, became compulsory and this was at least partly responsible for a decrease in suicide incidence from 1990 to 1997. Reducing the availability of firearms and the substitution of drugs that are not dangerous in overdose, for older potentially fatal drugs, may be helpful, temporarily at least.

It is worth asking the questions, is suicide a disease, and is suicide a medical problem? Emile Durkheim (1897), a French sociologist, was an important pioneer in the study of suicide. He described "altruistic" suicide, in which the individual sacrifices his life for the good of the group. The religious and political suicides mentioned above fit this category. The larger part of his work, however, indicated that suicide was the result of a weakening of the links between the individual and the group to which he or she belongs. Suicide could be anticipated when there was decreased social integration, regulation and control, and increased isolation or oppression of the individual. His work stated that suicide was not a medical but a social matter.

More than a century later we are still discovering that the social characteristics of male sex, increasing age, widowhood, single or divorced state, high standard of living, economic crisis, high alcohol consumption and broken home in childhood are important markers of suicide. To these may be added the medical characteristics of presence of mental illness, family history of mental illness and a history of previous suicidal behaviour.

A most important risk factor is unemployment and national recession. This was demonstrated by increasing suicide rates during the Great Depression of the 1930s. More recent examples come from Japan which has been in recession. In the late 1990s, many Japanese businessmen suicided by leaping from skyscrapers. In 1998, 58 year old Takayuki Kamoshida, Director of the Bank of Japan hanged himself in his flat in Tokyo. In that year the total number of suicides for the country rose by 34.7% to 32 860. This increase

was believed to be a consequence of the worsening economic state of the country, and the national Japanese characteristic of measuring self-worth by income and employment status.

What are the implications of the finding that suicide rates are linked with levels of unemployment and the health of national economies? These issues are outside the sphere of influence of the medical profession. The same can be said for the current high rate of single parent families and unsatisfactory outcomes of the divorce process, by which children may be deprived of the benefit of contact with one parent. It is hoped that future social policies will produce more supportive and integrated communities.

Alcohol abuse is now cast as a social rather than a medical issue. An association between alcohol abuse and increased risk of suicide is well established. It is due, at least in part, to the destructive sociological consequences of alcohol abuse - interpersonal conflict, court appearances, unemployment and divorce. In addition, alcohol reduces the level of neurotransmitter activity in the brain, thereby causing depression. It has been noted that lowering the legal drinking age from 21 to 18 years of age increases the frequency of suicide in 18 to 21 year olds by 8% (Birckmayer et al, 1999). Social or other policies which reduce alcohol abuse can be expected to impact on the rate of suicide.

DIFFERENT COUNTRIES, TIMES AND RATES

We should look at how the decision is reached that suicide has occurred. Suicide is not a medical diagnosis. It is a legal finding, made by a coroner or magistrate. There is no blood test or x-ray that identifies cases of suicide, instead, there are opinions and judgements about the intentions and behaviour of persons who are not present.

The possible findings of a coroner's inquiry depend on the jurisdiction, but in general these are, death by natural causes, murder, suicide or misadventure (accident). In exceptional circumstances an open finding is made, which means that there was not enough information to form an opinion.

It is reasonable to believe that coroners and magistrates are disciplined, but mortal. They are aware of the sensitivities of the communities they serve, and it is not insulting to suggest that they may be influenced by changes in public attitude.

When the community attitude is that suicide is sinful and disgraceful, there is a tendency for coroners and magistrates, out of respect of the deceased and their surviving relatives, to find the cause of death to be other than suicide. Instead of suicide, the causes found may be accidental in the young and natural causes in the old. When, however, people begin to speak out publicly about the problem of suicide and the taboo is lessened, coroners and magistrates are more likely to make findings of suicide. Such changes in judicial practice have not been explored and are not taken into account when claims are made of increases in suicide rates.

The countries of the world can be ranked according to the details they provide regarding suicide rate. Over decades, there is a strong tendency for each country to report a relatively stable suicide rate and to retain the same position relative to other countries (La Vecchia et al, 1994).

In Europe, Hungary (41.85) and Finland (28.15) are always near the top and Italy (8.25) and Ireland (6.9) are always near the bottom of the scale. This raises interesting questions. Are these true differences in the rate of suicide, or are these differences artifacts generated by differences in the attitude of coroners and magistrates, or differences in the care with which these details are handled and publicized?

There is no doubt that in the Catholic countries of Italy and Ireland, suicide is considered sinful and brings disgrace on families. It is reasonable to assume that local coroners and magistrates would be influenced by these factors. But any differences between countries cannot be easily explained by religion - Hungary and Finland, which have very high rates, are also Catholic countries.

In Asian and Pacific countries there are also significant differences in the rate of suicide in different races occupying the same land. Striking differences have been demonstrated in Singapore between the Indians

(13.7) and Chinese (13.5) and the indigenous Malays (1) (Kua and Tsoi, 1985), and in Fiji between the Fijian Indians (19.5) and the Fijians (1.5) (Pridmore et al, 1996). From first hand experience, there are real differences in the rate of suicide of the Fijian Indians and Fijians. This is not due to an artifact of designation process or information handling. These races are different religiously, but also culturally and socially; which factors contribute to the difference in suicide rates is unknown.

The suicide rates of the countries of the world have remained relatively stable for decades (La Vecchia et al, 1994). From time to time authorities detect changes in rate in certain places or in certain age groups. In the 1990s, in Australia, attention was drawn to an increase in the suicide rate of young people. The increased media attention and public concern may have further inflated the figures through the process of coroners and magistrates becoming more aware and more “able” to make the finding of suicide. It is interesting that the overall suicide rate of the country did not rise, as there was a simultaneous reduction in suicide rate of the old. This reduction was not the result of any specific suicide prevention program aimed at a high-risk group, instead, it seems to have been the result of improved health and social services available to the old. This is consistent with the view that reducing isolation, distress and difficulties across the community will have a beneficial effect on the suicide rate.

CREEPING CUSTODIALISM

Dr Martyn Patfield (2000) has drawn attention to an alarming situation. He points out that patients who suicide are frequently sad, despairing and alienated, but that when they come into hospital they are placed in rooms which will intensify rather than reduce these feelings. In recent years hospitals in which suicide has occurred have been attacked by the courts. This has led to the rooms, in which potentially suicidal patients are nursed, being stripped of all manner of furnishings and finishings: opening windows have been replaced with Perspex with holes, beds have been replaced by mattresses on the floor, pictures and even door handles have been removed. Anything that could be used as a suspension point or for cutting, anything which could be used to cause any form of injury has been expunged.

We are now practicing defensive medicine. First, we take steps to protect ourselves, and from a safe position, we then try to care for the patient. We have a “duty of care” toward patients, but this has been taken, by the courts, to mean “duty to protect”.

Patfield states that caring for patients means treating them, and the best treatment for those feeling loss and alienation is provided in a familiar and warm, rather than sterile environments. Caring also, of course, involves the thoughtful management of risk. The law is not helping these people, but making matters worse.

MURDER-SUICIDE

Murder followed by suicide has not been extensively studied. The only available reports come via the newspapers.

After looking at these for some years, they appear to be of two main types, those in which strangers are murdered and those in which family members are killed.

When strangers are killed, there appears to be two main subtypes. The first is when the act is “altruistic”, that is, for the good of the group, members of the opposing group are murdered. The second is when isolated individuals who are poorly integrated express anger and resentment toward society.

There is no need for examples of the first sub-type, these are now common in terrorist attacks. In the second sub-group, in 1996, Thomas Hamilton murdered 16 children, in Scotland. Hamilton is characteristic

of this group. He had no successful adult interpersonal relationships. He had been involved in scouting, but had been expelled from the movement. He had expressed anger toward others.

When family members are killed, there also appears to be two main sub-types. In the first there is mental illness. The evidence suggests that most of the mentally ill people involved in murder-suicide kill their relatives to “save” them from a worse fate. It seems that they intend to kill themselves to escape, and as an act of kindness they kill relatives rather than leave them to suffer. In 1992, Brian Schlaepfer killed six relatives, in New Zealand. He suffered depression.

In the second sub-group are those who kill family members in an expression of anger. In most instances the anger is about the loss of children, and the children are “taken” from the hated custodial spouse. In 1985, in Sydney, Sergio Gianfrancesco shot his estranged wife and three children. A Family Court ruling had denied him access to his children.

The perpetrators of murder-suicide who kill strangers may have odd personalities, but there is rarely, if ever, evidence of madness of the psychotic type. The perpetrators of murder-suicide who kill family members appear to be of two types. In one the individual has a psychotic disorder and believes he/she is “saving” the loved ones, in the other, the individual is angry and is “keeping” them.

CONCLUSION

Suicide is an act that may flow from a range of emotions. The lay public and some academics believe that all suicide is the result of mental disorder. That is not the case. Some suicide to advance the cause of the group to which they belong, others to avoid disgrace and yet others to avoid painful and degrading death.

It is probable, however, that the majority of those who suicide are isolated, angry and sad. Certainly some will suffer these symptoms to such a degree that they could be diagnosed as suffering from a mental disorder.

Emile Durkheim, a nineteenth century French sociologist, identified important markers that indicate an increased risk of suicide. He found that suicide could be anticipated when there was decreased social integration, regulation and control, and increased isolation or oppression of the individual. Other markers include male sex, increasing age, widowhood, single or divorced state, childlessness, high standard of living, economic crisis, high alcohol consumption and broken home in childhood and the clinical characteristics of presence of mental illness, family history of mental illness and a history of previous suicidal behaviour.

There have been two main approaches to the prevention of suicide, which depend on level of risk. One approach is that those who are at high-risk should be identified and receive special supervision and treatment. This has not been very successful, because the markers do not identify those at high-risk with sufficient certainty. This could be considered a medical solution.

The other approach is the public health approach, measures are taken which will lower the risk across the entire population. These have included reducing the availability of lethal means of suicide. Other measures would be to reduce unemployment and alcohol abuse. These could be considered a social solution.

The treatment of high-risk populations has not been particularly successful. This may be because many of those at high-risk often have poor interpersonal skills, few assets, and extensive needs or demands, such that they frequently face disappointment. A half a bottle of whisky may move such a person from high-risk to action. In the competitive modern society with high unemployment and ready availability of alcohol and other drugs, there are many pits.

At the moment we must continue with both the medical and social preventative solutions. The development of a better way of identifying those at high-risk is essential. In the management of acutely suicidal patients we should aim to care for, not simply protect patients, and this may mean treatment in familiar

and warm settings rather than sterile alienating settings. This would require the courts to take a sensible approach to suicide in hospital.

CASE STUDY

Mary Hilton was an attractive child. She lived with her parents and two siblings, an older brother and a younger sister, in the suburbs of a capital city. Father was an accountant. Mother was a part-time secretary. Mary performed well at school in the early years but then began to fail subjects, she lost interest and left without completing high school.

In retrospect, Mary probably began to suffer symptoms of schizophrenia in her late teens. She entered into a lesbian relationship, living for five years, with a woman 20 years her senior. When this relationship ended, Mary married a man 20 years her senior. Two children were born, but the marriage lasted less than a decade and ended when Mary was in her early 30s. The children went to live with their father. Mary did not visit them, denying that she had ever been pregnant or had children.

At this time, Mary's parents brought her to the attention of local mental health workers. Mary was well dressed and groomed and denied any problems. She claimed that her parents were trying to have her locked up. Admission was offered, but the patient refused and as there was no evidence that she was a danger to herself or others, compulsory admission was not imposed.

A year later, at 34 years of age, Mary took a serious overdose of over the counter medicine and was admitted to the psychiatric ward of a general hospital. She still presented well dressed and groomed and able to deny any symptoms. However, she was placed on a compulsory order and over a few days, she began to express delusions.

She stated that she was Joan of Arc and that she had been reincarnated. She said that she was very keen to die so that she could be reincarnated again. She asked that when she died that her flat and belongings not be disturbed, as she would need them again. Her delusional system was illogical, for example she expected to be reborn as a "chosen baby", but a baby would need care and would be unable, at least for some years, to make use of her flat and belongings. When such points were raised, Mary's statements would change slightly, but the central tenant that she wanted to die so that she could be reborn, never changed.

Over the next few years every possible means was employed to divert Mary from this desire. She was treated with antipsychotic and antidepressant drugs and provided with comprehensive support in the community.

Her mental state deteriorated and she had disorder of the form of her thinking such that it was difficult, but not impossible to follow her ideas. This improved with antipsychotic medication, but the desire to die did not alter.

It was considered inevitable that this lady would suicide. She was placed in hospital on a compulsory order. In hospital she met Allan, a man of the same age, who had persistent hallucinations instructing him to kill himself. She appealed to the Mental Health Review Tribunal and because she presented well and denied symptoms, she was released from hospital. She went to live with Allan and died by overdose at his home a few days later.

There was no criticism of the Mental Health Review Tribunal decision to release Mary from hospital. She could perhaps have been kept in hospital for years and her delusions may have resolved. But they had not changed in the previous five years, and keeping her in hospital, while perhaps reducing the risk, did not guarantee her safety.

CASE STUDY

Ben Metro was 18 years of age. He was expelled from a detoxification service the previous day as he had taken illegal drugs while in an inpatient facility, and he was not eligible to immediate readmission. He presented at a general hospital claiming suicidal thoughts and was admitted to the psychiatric ward.

He had been admitted to this ward twice before claiming suicidal thoughts. On both occasions he had left in less than 8 hours, without telling staff of his intention to leave. He had a very extensive drug abuse history, using all locally available illegal drugs. He had been expelled from school and jailed for assault. His mother had died in a suicide pact with a young man she had met on the same ward one year earlier.

Ben was taken to a pleasant ward and introduced to friendly and supportive staff – one male and one female. He was prescribed a medication to reduce his distress and given a single, open room. He was on an appropriate level of nursing care, being checked every 10 minutes.

He sat on the floor in his en suite, placed his belt around his neck and hitched it through the towel rail. By leaning sideways he was able to stop the blood leaving his head and he was dead when the nurse went to check on his progress.

It could be argued that this man should have had a nurse constantly with him. That level of staffing is not always available, and that level of observation can be intrusive and dehumanizing. Reasonable care was taken in this case. Ben was given support, pleasant surroundings, calming medication and reassurance that he would have regular contact with nursing staff. For a person with this degree of alienation from society and a serious drug problem, the risk of suicide is chronically high.

CASE STUDY

Ken Brown was 50 years of age. He was a successful retail pharmacist. He was admitted to the psychiatric ward of a general hospital with major depression. He had suffered two other depressive episodes over the previous five years. One had failed to respond to medication and Ken had required ECT.

Ken was happily married and had two adult children, one qualified pharmacist, worked with him in his shop. On weekends Ken enjoyed sailing on his small yacht.

On admission this man claimed depressed mood and admitted some feeling that he was a failure, despite his obvious success. He did not smile, lacked energy moved and thought slowly and had difficulty with sleep. Medication again failed to lift his mood. He was commenced on ECT. He appeared to improve and was more active. After the third treatment he left the ward without telling staff and drowned himself in the harbor.

This course of events is not unknown. Certain symptoms of depression respond before others. Sleep and energy levels often improve before the mood lifts. Sometimes depressed people lack the energy to kill themselves. Paradoxically, it is possible for depressed people to be at greater risk to themselves as they improve.

CASE HISTORY

It would be inappropriate to describe a living person who is at risk of suicide. However, people with borderline personality deserve mention. These are young people who are usually at high-risk of suicide. They have difficulty maintaining close relationships and are frequently, suddenly and inexplicably, very angry. They often cut themselves on the outside of the forearms, as a means of reducing tension. They also have

sudden suicidal impulses, sometimes in response to minor conflict or frustration, and sometimes for no obvious reason. They often take alcohol and other drugs which exacerbates their difficulties.

In response to suicidal impulses they may attempt to cut the arteries on the inside of their wrists or take overdoses of medication or poison. Of course, some respond by jumping from heights or into the path of moving vehicles.

Sometimes the desire is to die, sometimes to attract help. Sometimes when the intention is to attract help, they miscalculate and die by accident.

These people do not have a psychotic illness and therefore, compulsory admission to hospital cannot be legally justified. Even when compulsory admission is justifiable, it may be considered inappropriate, as compulsory admission relieves these unfortunate people of responsibility for their actions. Many believe that people with borderline personality should not be relieved of responsibility for their actions, as if they are to live in the community they must learn to act and react responsibly.

Thus, the management of people with borderline personality is a tricky business, and with our present limited ability to manage them, some will inevitably die young, either by suicide or accident.

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CHAPTER 13

STRESS REACTIONS AND TREATMENTS

In an earlier chapter on madness in court, it was claimed that the public gets angry when a criminal act has been performed and a defending lawyer suggests the presence of mental disorder. The public takes a dim view of cheating, and worries that someone *may not* get something (punishment) that they *do* deserve.

When it comes to stress reactions, some members of the public are again concerned about the possibility of cheating. Here the worry is that someone may *get* something (the sick role) that they *don't* deserve. The sick role means the individual doesn't have to work, is relieved of responsibilities and may even qualify for a pension or financial compensation.

The public is ready to award the sick role and full benefits to anyone who has lost both legs fighting for his or her country. But readiness lessens, as the injury becomes less obvious. The person with back pain is regarded with suspicion, "perhaps he doesn't really have that much pain, perhaps he could be cheating".

Most agree that patients with schizophrenia who are hearing voices, deluded and behaving oddly, should be granted the sick role. But there is less agreement about patients with depressive disorder, "after all" the argument goes, "we all get depressed from time to time".

Until recent times, there has been public skepticism about the possibility of stress leading to disability: "I've had two car accidents and it didn't do anything to me". However, the post traumatic stress disorder (PTSD) suffered by Vietnam veterans, has been widely reported by the media and the public is now better informed and increasingly prepared to accept that stress may lead to incapacitating psychological disorders.

The term stress is frequently used, but rarely defined. Originally it was used to refer exclusively to nasty things like a shouting employer or the house burning down. Later it was understood that winning a fortune in the lottery could be stressful. Thus, nice things could also be stressful. A wide definition is that stress is an event or situation to which we must adjust. This view of stress is based on the observation that our bodies and minds have a biologically set state, which has been variously described as the resting, basal, stable or homeostatic state. Departure from this state triggers mechanisms which restore it to the set state (as when the blood pressure is returned to the resting level). The set state feels pleasant. Being in aroused states, generally speaking, feels unpleasant (as when palpitations or fear of dying are experienced); this encourages conscious actions (such as retreat) which aid the restoration process.

POSTTRAUMATIC STRESS DISORDER (PTSD)

Most families have a distant relative who has "never been the same since" a stressful event – often a female who "never got over it". Significant loss, such as the loss of a spouse or child is an established cause

Grieving widow commits suicide

AN inconsolable widow has taken her own life almost three months to the day after her husband was killed in the World Trade Center in New York.

On December 10, Patricia Flounders, 51, fired a single shot to her head as she stood in the bedroom of the couple's dream country home in Pennsylvania, completed just three days before the terror attacks.

Her husband of 21 years, Joe Flounders — a bond trader on the 84th floor — was in the south tower when the second plane hit.

Illustration 13.1 Patricia Flounders shot herself in the head in her Pennsylvania home, three months after her husband was killed in the World Trade Center atrocity.

The stress of losing a spouse may trigger various reactions. We are given insufficient details to attempt a diagnosis, the newspaper stating only that Ms Flounders was "inconsolable". In this case, where loss led to suicide, one possibility is major depressive disorder. Another is posttraumatic stress disorder, for although Ms Flounders was not with her husband when he died, she had ample opportunity to witness his death via television.

of an episode of depression and car accidents, for example, are known to make people, "nervous about cars". Traumatic events take many forms and effect different people in different ways; the one with the highest profile is PTSD (Illustration 13.1).

During and after the First World War soldiers came to medical attention who had been exposed to combat and were subsequently troubled by emotional and psychological symptoms. This was unexpected and a new diagnosis of "shell shock" had to be invented. Psychological stress was ignored as a causative agent, one theory was that "microsections" or tiny particles from exploding bombs had entered the brains of affected soldiers. Resistance to the notion that psychological factors could cause significant disorder was so strong, that the notion physical particles could enter the brain with out any sign of physical trauma was temporarily adopted.

Such symptoms should not have been unexpected, however, as "soldier's heart", which was panic disorder induced by the terrors of the battlefield, had been described during the French Revolution and similar conditions have been reported at most subsequent military conflicts.

During and after the Second World War the preferred term was war neurosis. There were so many such casualties that individual treatment was not possible. Combatants had to be treated in groups, this being the origin of group therapy. ECT had become available and was widely used in military hospitals. So was abreaction, the administration of a drug that made possible the reliving of frightening experiences and the ventilation of emotion, in a safe setting.

Toward the end of the Second World War, flamboyant, popular and successful General George Patton visited a field hospital where he saw a soldier with psychological symptoms. Patton slapped the soldier with his gloves and called him a coward. Patton was forced to apologize to the patient, the medical and nursing staff and all the soldiers under his command, by General Eisenhower. This story illustrates the intolerance of such symptoms which existed, even at the highest levels, in relatively recent times.

The Vietnam War was the coming of age for PTSD. This was an unpopular war. Western troops, many reluctant, were fighting in a foreign land in a war to which they were not fully committed. When they returned home, rather than a heroes welcome, many were shunned or criticized. The deployment was particularly stressful, there was jungle-fighting, ambushes, land-mines and booby-traps, and it was often impossible to distinguish the enemy from innocent civilians. Such circumstances were particularly stressful.

Just as the media, with modern technology, was able to immediately report on anti-war activities, it was able to immediately report on the toll paid by soldiers. It became quite clear that combat was leaving some soldiers with psychiatric scars, and this became public knowledge.

There is no objective test for PTSD. Instead, the diagnosis is made according to the patient's claims, answers to questions and behavior during interviews. The diagnostic criteria of the two main diagnostic systems (Diagnostic and Statistical Manual, volume 4 [DSM-IV], and the International Classification of Diseases, Version 10 [ICD10]) differ slightly, but the essential criteria are the same. These include, 1) a history of a traumatic event, 2) the re-experiencing of the traumatic event at later times, 3) reminders of the event triggering distress, 4) distressing emotional states, 5) emotional numbness, and 6) increased arousal or jumpiness. To make the diagnosis it is not necessary for all criteria to be met, and many are overlapping.

There is some debate about what constitutes a traumatic event. For present purposes, this debate is academic. The DSM-IV requires that the person has experienced an event that "involved actual or threatened death or serious injury, or threat to the physical integrity of self or others", and that during this event the patient's response "involved intense fear, helplessness, or horror".

The re-experiencing or re-living of the traumatic event may have the patient or others suspecting madness. Later, even in a place of great safety, the patient may involuntarily experience aspects of the event in a vivid and disturbing manner. Re-experiencing may take place during waking hours, at which time there may be intrusive images or sensory experiences, and the patient acts or feels as if the event is recurring. Re-experiencing may also take place during sleep, taking the form of nightmares.

Reminders of the trauma may arouse fear and other distressing emotions, the heart may race and the patient may feel frighteningly short of breath. This may lead patients to avoid reminders. The nature of the reminders will depend on the nature of the trauma. Following military trauma, brass bands, firearms and helicopters may be avoided. Commonly, all reminders cannot be avoided, and the television news or chance stimuli lead to episodes of distress. Talking about the traumatic events commonly triggers distressing emotions, thus PTSD sufferers frequently avoid or refuse to discuss them. This can be unhelpful as such avoidance may delay recovery, and talking about the event may help the adjustment process. [This is not a straightforward matter, see later for the argument against compulsory debriefing.]

A characteristic symptom is emotional numbing. Patients are unable to feel emotional closeness to family members or to find pleasure in former activities. This leads to withdrawal from loved ones and the wider community, and loss of interest in old hobbies.

Heightened arousal is common, causing difficulty in falling to sleep and in concentrating. Patients are easily startled, with an exaggerated response to stimuli such as ringing telephones. They experience a range of other distressing symptoms including excessive anger, sadness, guilt and shame. These may be relatively sustained or fluctuate, experienced in pure form or in combination. Patients may take alcohol, prescription or illegal drugs to obtain relief from their distress, and this may lead to the secondary problem of addiction (Illustration 13.2).

PTSD patients often have poor memory for many details of the traumatic event. This is surprising, given that certain details are often all too easily remembered, that is, re-experienced. These observations suggest that memory may play an important part in PTSD.

Studies indicate that about 55% of the people living in USA have experienced at least one traumatic event,

Suicide toll

MORE British veterans of the Falklands War have taken their own lives than were killed in the 1982 conflict with Argentina. A support group said the suicide toll was greater than the 255 killed in action and blamed post-traumatic stress disorder.

Illustration 13.2. It has been claimed that in the twenty years since the Falklands War, more British veterans had died by suicide than had died in action. This was attributed to posttraumatic stress disorder. It was stated that 255 died in the war.

Without knowing other figures, it is impossible to be certain, but the impression is that the suicide rate among these veterans probably has been higher than that of the remainder of British population. Also, it is not clear what proportion of those who died by suicide were actually suffering from posttraumatic stress disorder. However, as the symptoms of posttraumatic stress disorder may be highly distressing (re-experiencing the traumatic event, emotional numbness, high arousal etc) and the condition may be complicated by substance abuse and family disharmony, a raised suicide rate could be anticipated.

as defined by diagnostic criteria. Such experiences include combat exposure, rape and sexual attack, and childhood neglect and physical abuse. Women are more likely than men to develop PTSD. Of the people exposed to a traumatic event, around 8% of men and 20% of women develop PTSD. About 8% of the population (5% of men and 10% of women) will experience PTSD at some stage in life (Kessler et al, 1995). The rates may be different in different populations.

A lifetime prevalence of about 8% of the population represents a large medical and economic burden. But that is not the complete picture. In the aftermath of trauma, many people who do not meet the strict criteria for PTSD, nevertheless suffer psychological distress. Some have symptoms of PTSD, but not enough to satisfy that diagnosis, others suffer adjustment disorders, and as mentioned above, other major mental disorders, such as depressive disorder, may be triggered by trauma. Of those who develop PTSD, at least a third will not recover for many years (Kessler et al, 1995). Many with PTSD are unable to return to full-time employment. Thus PTSD is a significant public health problem.

It is remarkable that a condition which was unknown a century ago, and for which soldiers were branded cowards during the Second World War, has been found to affect at least 8% of the population at some time in their lives, and represent a public health problem.

The mechanisms underpinning PTSD are not fully understood. Learning is important, and explains how features of the environment at the time of the trauma become triggers for re-experiencing symptoms. One theory includes that re-experiencing occurs because this material is still held in active memory and had not been processed and placed in old memory. Patients may conceptualize the traumatic event in such a manner that they cannot go forward in life, "I will never be safe again". Such events, due to earlier experiences, may have particular personal meaning to the individual - the individual who has invested time and effort and for whom physical prowess is an important component of personal identity may be more prone to develop symptoms if exposed to traumatic circumstance in which he/she is powerless. Behaviour such as the avoidance of reminders, reluctance to discuss events and resort to alcohol and illegal drugs make resolution more difficult.

Statistically significant differences have been demonstrated in neurotransmitter and hormonal levels in groups of people who have been exposed to stress. To this point, however, no organic test has been developed which will identify individuals who have developed pathological stress responses.

There is increased secretion of adrenalin and noradrenalin from the sympathetic nervous system and the adrenal glands. This may be responsible (at least in part) for the chronic high level arousal and enhanced startle response. Low levels of cortisol, a hormone important for adjustment to stress, and serotonin, a neurotransmitter with many functions, including the modulation of mood, have been reported. There are low levels of the opiates which are normally produced by the body, and this may be related to complaints of emotional numbing and amnesia. There are enhanced levels of corticotropin releasing factor (CRF) a hormone secreted by the brain which controls the levels of many of the neurotransmitter and hormones mentioned in this paragraph.

Brain imaging studies of people with PTSD have suggested a reduction in the size of the hippocampus, a brain structure with a role in memory formation (Bremner, 1998). Such brain changes could tie many features of PTSD together. They could perhaps be caused by a toxic effect of hormones that reach high levels at the time of the trauma. However, it is unclear whether this suggested change in the size of the hippocampus is cause or effect. It is quite possible that people with pre-existing change are the ones who will go on to develop PTSD. This idea will surely be pursued in the future.

As stated, the outcome of PTSD is not always favorable. Nevertheless, treatments have been devised which have been scientifically tested and have been found helpful to many. Cognitive-behaviour therapy, a blanket term which includes the examination of the thinking of patients, the identification of any illogical or unjustified conclusions and the suggestion of alternative ways of conceptualizing information, is a central pillar. Education can also be included under this heading. Patients are informed about the normal reactions to trauma and that their reaction is not uncommon. They are advised of the necessity to confront the memory of the event and give up any avoiding behavior as these delay the best possible adjustment.

Exposure treatment can take place in two forms. In one, the patient is asked to relive the traumatic event in imagination, trying to recall in detail, the thoughts and feelings of that time. In the other form, the patient is asked to physically confront the situations that have been avoided because they trigger distress – for example, visiting the site of an accident, or in the case of overseas active service, visiting a military establishment. The patient is accompanied and supported during this treatment and exposure is repeated until high levels of distress are no longer triggered. This treatment is believed to help correct illogical thinking, re-organize memory and draw distinctions between the past and the present.

In a minority of cases, exposure treatment worsens symptoms (Tarrier et al, 1999). This work should only be attempted by properly trained and experienced therapists.

A wide range of other psychological treatments, such as relaxation training, are believed to offer some benefits. Hypnotherapy, however, is not without significant risks (Shalev et al, 1996).

Medication has an important place. The most effective drugs are the selective serotonin reuptake inhibitors (SSRIs). The earliest and best known of this group is fluoxetine, which became famous selling by the name, Prozac. Many others have been marketed subsequently. These help with the symptoms of high arousal, avoidance and emotional numbing. They have the additional advantages of reducing alcohol consumption and being safe in overdose. Other medications which may be useful are other antidepressants and the mood-stabilizing drugs. The benzodiazepine drugs, which are tranquilizers, one of the first being Valium, are best avoided. This is because in PTSD patients they may have unpredictable effects and drug dependence may develop.

CASE DRAMATIZATION

Annie Macquarie was 22 years of age and lived with her boyfriend Bruce, in a small rented house in a tiny fishing and tourist town, seventy kilometers from Hobart, the capital city of Tasmania, the island state of Australia. They were happy. They had been living together for two years, they planned to marry “some day” and had approached the owner of the house they were renting to explore the possibility of purchase. They did not have extravagant plans for the future. They wanted children “eventually” and they not unreasonably anticipated having horses for their children.

Annie had been raised in the town where they were living. She was the older of two. Her 21 year old sister was married and lived with her husband and infant son in Hobart. Her parents lived together; father was receiving disability benefits because of a back injury which occurred at work 10 years previously, mother was working as a salesperson in a grocery store.

Annie had been a good student. She had been popular with teachers and students. She had been an excellent net-ball player. It was said that she could have represented the state of Tasmania, but this would have meant going to live in Hobart. She completed high school at the age of 17 years. Even though the employment opportunities in country Australia were limited, Annie, outgoing, clever and energetic never had any difficulty in finding work. For the last two years she had been employed as a guide at the Port Arthur Historic Site, an old convict prison and settlement complex. Bruce, who had been raised in a nearby farming town, was 25 years of age and had been employed at the Historic Site as a gardener, for six years.

On the 28th of April 1996, Martin Bryant, a 28 year old, single, unemployed man went to the Historic Site to kill people. Bryant has always refused to answer questions about his motives, although after capture he was keen to know if he had “the record”, meaning, had he killed more people than any other lone gunman on a single day. He had killed 35, so the answer was affirmative.

At 1.30 pm Annie went into the “Broad Arrow” cafe to buy sandwiches. She saw some friends sitting toward the back of the room and went to talk about an upcoming party. She was near a “surfie looking” man who had placed his duffle bag on a vacant table. He unzipped it and took out an AK47 semi-automatic rifle. Annie was slightly to his right and looking along the barrel into the room. The gun roared and she saw blood splash out of Moh Yee Ng’s neck as he was thrown, as a corpse, across the room. The

gun roared again, blood sprayed out of the head of Soo Leng Chung, his female companion. Annie felt a sharp pain in her chest and realized that she had been shot at point blank range. She remained standing, unable to move or make a noise. People were screaming and rushing in every direction. A bunch were trying to get out a fire-exit. The gun swung that way, as Annie was frozen to the spot, but too close to shoot, the gun was raised over her head and fired along the other side of her face, into the people trapped at the fire-exit, which had been kept locked for safety reasons.

Annie was laying under bleeding people. She could see Bryant move among the corpses and shoot a couple of people who were only pretending to be dead. Then he picked up his bag and left the restaurant. Firing and screaming continued outside for what seemed like hours. She expected him to return and discover that she was still not dead and needed another bullet.

Annie had not been shot. A hot bullet case, ejected sideways from the rifle, had gone down inside her blouse. She did not know how she came to be under a pile of people. It is probable that she was knocked down by rushing customers, who then fell on top of her, and that Bryant shot one or more of them while they were in that position.

The Port Arthur Historic Site was well chosen as the setting for a massacre. There were hundreds of tourists, a place of historical interest and leisure, there was no security and the nearest police were over 60 kilometers away. [An aside: the death toll could have been three times higher. Bryant had attempted to board a boat taking over a hundred people 200 meters off shore to “The Isle of the Dead”, which had functioned as a boy’s prison and the cemetery of the region. He was refused a seat as the boat was overloaded and he had a heavy bag.]

Bryant left the Historic Site and went to a nearby guest house, where he holed up, claiming to have taken the proprietors hostage [in fact, he had killed them soon after he arrived]. Thus, Bryant was not taken prisoner until 8.25 am next morning. Some thought the carnage could only have been achieved by a group of perpetrators, thus it was 24 hours before the police could confirm that the danger to life was over.

Annie’s memory of what happened after Bryant left the restaurant is patchy. Her mother reports that she could not get into the Historic Site to look for her daughter, she was stopped by the police for security reasons. She did not get to her daughter until some five hours after the killing began. At this stage, Annie was wide-eyed, white faced, trembling and whimpering. She did not speak; she cowered and behaved as if she expected to be attacked at any moment. She did not eat that day or sleep that night. She began to say a few words the next day, she did not converse. She replied with, “Don’t leave me” to most of the things said to her. Her mother did not leave her side for days. Over the next week she began to take a small amount of food and with sedation, was able to achieve a couple of hours of sleep at night.

Annie received appropriate care. She was given support and encouraged to ventilate. When it became clear her progress was slow she was prescribed appropriate medicine. She was encouraged to attend group discussions about the event, not to avoid anxiety provoking thoughts or locations, and to try to return to her former life.

Three years after the event, Annie was not doing well. She was still highly aroused. Her eyes were wide, her hands trembled and her movements were quick and continuous. She talked incessantly. Her only topic was how Bryant [she referred to Bryant only as “he” and “him”, and everyone knew whom she meant] had ruined her life. She would not talk about the traumatic events, claiming that she had done so, that it had not helped and on the contrary, talking about “it” only made her feel worse. At times she was unreasonably irritable. She lost 12 kilos immediately following the incident, and this had not been regained. She looked very thin, and had little appetite for food. She was sleeping poorly – she stayed up until after 2 am, she would only go to bed when she was very tired, and she would only sleep for about 3 hours. She had never returned to her rented house, but had stayed with her mother, who had quit work and taken up a carer’s benefit, so that she could provide continuous care.

Bruce, who had not been at the Historic Site on the day of the killings, stayed in their rented house and visited Annie at her parent’s home most days. They never again spent time alone together. He grew tired of Annie’s incessant talking, he believed that she was absorbed in “her own issues” and had lost interest in

him. After one year he gave up the house, stopped visiting and started seeing other women. Annie claimed to be sorry her relationship with Bruce had ended, but there was little evidence to support her claim.

She received further cognitive-behaviour therapy. She was strongly advised to confront her distressing thoughts, and to find some activities outside her parent's home, as a first step to return to a more balanced life. Mother was advised that having a full-time carer was probably hampering rather than assisting Annie's adjustment at this point, and that she [mother] should seek some activities independent of her daughter. Annie's medication was changed a number of times with little effect.

At five years there was some improvement. Annie had commenced going out with groups of friends. She preferred to go with more than one other person, but she would not go to crowded places like restaurants, bowling alleys or picture theatres. She did not have, or seem to want, a particular male companion. She did a small amount of paid work as a baby sitter in private homes. Mother had given up her carer's benefit and had gone back to work half-time in the grocery store. Annie was still highly aroused, still looking like a frightened bird. She slept six hours per night and she had regained six to eight kilos.

This was not a good outcome. But given the severity of the trauma, the uncertainty about security following the trauma that lasted for many hours, and the patient's immediate response, the outcome was not unexpected. The more distress immediately following the trauma, generally speaking, the poorer the prognosis. Annie was unable to speak and a day later she could only say she did not want others to leave her. Her arousal with inability to sleep and eat was extreme. She was given good advice and service. She was unable to follow the suggestion to confront her fears as vigorously as her clinicians wanted. This was not through lack of willingness to cooperate, but a reflection of the severity of the case. This person's life was severely damaged by PTSD, it is hoped that she will continue to improve.

CASE DRAMATIZATION

Colin Temple was referred by his treating psychiatrist to a tertiary treatment facility for assessment for ECT. He was 45 years of age, married for 12 years and living with his wife and their three young sons, in house that they were renting. He was a plumber, but was living on workers compensation payments following a motor vehicle accident, which occurred while he had been driving between jobs.

Since the accident, of which Colin remembered little, he had been moody, irritable, lacking energy, sleeping poorly and drinking more than formerly, to help him get to sleep. He had occasional suicidal thoughts, but could not understand why he should have them. He thought of suicide as "probably the only way out", but he could not answer the question, "The way out of what?" He had been treated responsibly for depression secondary to the accident and all the above symptoms were consistent with that diagnosis. Appropriate doses of different classes of antidepressants, including the SSRIs and sleeping medication had been used with some success. The legal issues about termination and financial compensation were soon to be decided, but before this could be finalized, it was necessary that all possible avenues be explored to return Colin to his highest possible level of function.

The referring psychiatrist had considered the diagnosis of PTSD, but had considered the evidence to be less than compelling. He made the point that PTSD and depression often occur in combination, and as there was good evidence of depression and poor evidence of PTSD, he maintained that treating Colin's depression was the best way to go.

Colin was born and raised in a large port city. He was the middle of three children born to a policeman and a hairdresser. While Colin had good relationships with teachers and the other students, he found schoolwork difficult. His older brother and younger sister went on to university. Colin wanted to leave school as soon as possible, but he also wanted some training or employment qualifications. The Navy was the answer and he was able to join as an apprentice plumber and boilermaker at 16 years of age. He left at 23 years of age after having visited half a dozen overseas countries. He then worked in civilian plumbing for five years until he had saved enough to go around the world to the places he had wanted to see, but

had not seen, with the Navy. On his return he was ready to “settle down” and soon began to live with Jenny. They had been “seeing each other” for a year before his world trip.

Jenny described Colin as a kindly but quiet man and a good father. He had been working for his last employer for three years before the accident. She said that Colin had changed since the accident and she was not confident that their marriage would survive. She verified the symptoms described by Colin, saying that he now seemed more aloof and was certainly more irritable, particularly when the children made noise, and he drank more. She also said that Colin had not driven since the accident. She said she had to do the driving and that when she drove, he was very “scared” and shouted at her to be careful, even when there was no danger.

This latter point indicated the possibility of PTSD needed to be explored in greater detail. In spite of his refusal to drive, Colin continued to claim that the accident had little effect on his mental state. To support this contention he pointed out that he had little memory of the event, and said that if it had been important, he would remember it more clearly. He also said that he had returned to work after his van had been towed away and that it was not until the next day that he began to feel any distress. He was advised that this reaction was not proof that the accident was unimportant and he was encouraged to recall all possible details. Colin did not want to recall the accident, although he denied that doing so caused him any distress.

When the story was pieced together, Colin had been driving the firm’s van to a job. At an intersection a car had come through a red light and hit the van just behind the driver’s seat, knocking the van onto its side. Colin had seen the car approaching for a couple of seconds. Colin was not pinned in the van. However, the van was lying on the passenger door and the driver’s door was jammed by the impact. He had smashed the front windscreen with his readily available tools to get out. During one retelling of the incident, Colin “remembered” that he has been very concerned that the welding gas cylinders in the back of the van could explode and incinerate him.

Cognitive-behavior therapy was continued and Colin was encouraged to recommence driving. He and Jenny co-operated. A rehabilitation service arranged for him to have driving experience and he was able to greatly diminish his fear of driving and being driven. Family conferences were provided. Colin’s antidepressants were increased in dose. His depression lifted, he lost all suicidal thoughts and he was not given ECT. He was able to return to work, but through arrangements with his employer, he worked mainly at the main workshop and was required to drive only short distances. It is probable that Colin suffered primary PTSD and secondary depressive disorder, both of which responded to treatment.

CASE DRAMATIZATION

Alice White was 52 years of age and worked as a receptionist. She lived with her husband, Ken, in a house which they owned, in a middle class suburb of a small city. They had married young and had three children; all had left home and found work. Alice and Ken had two grandchildren and another was expected in a few months. Ken was a self-employed electrician.

Alice went to a large hardware store to buy some glue. She had paid and was about to leave the building when a well-dressed young man approached her, saying, “Excuse me, madam. I’m the deputy-manager of this store. I believe you have taken items without paying for them. I have rung the police and they are coming to investigate. Will you please come to my office.”

At first Alice did not comprehend what was being said. She could hear and understand the words that were being said, but she could not understand their combined meaning. She did, however, feel that she was being threatened and that she was in danger.

She remained standing in the same place, beyond the payment section, but inside the doors of the store. She later said she had been startled and froze like an animal in the headlights of a car.

The deputy-manager called over a female staff member and repeated his request for Alice to accompany him to his office. To this she replied, “No”, and remained motionless. She later said she had refused because it seemed that to go with him would be to place herself in even greater danger.

Alice remained standing but began to regain her composure. The deputy-manager, who had gone away, came back and said that there had been a mistake, that he apologized for the inconvenience and that he had cancelled his call to the police.

Alice’s response was that she wanted the police to come so that her name could be cleared and that she would not leave until that happened. The deputy-manager apologized a second time and tried to persuade Alice not to insist on the police becoming involved. She was not swayed and eventually the Police and Ken were called and came.

While she waited, other shoppers looked at Alice quizzically as she stood alone in the shop foyer. Strangers asked her whether she was “all right” and whether they could do anything to help. She replied appropriately and declined offers of help. A friend happened along, Alice explained the situation and the friend waited with her.

When the police arrived the deputy-manager apologized a third time, in front of them. Alice asked the police if she was free to go, and whether it was “safe” to go. They reassured her, and she finally left with Ken.

Alice slept poorly for two nights, and dreamed about the incident. She felt angry, humiliated and frightened. She telephoned the friend who had waited with her, seeking reassurance about how much of “a public spectacle” she had made of herself. She thought about suing the deputy-manager, but took no action. Two weeks later she was functioning normally.

Full details of this case are not available, but it is possible to speculate. Alice’s response was unusual. It is possible that, having been wrongly accused, she opportunistically and purposefully refused to leave the store and created a disturbance to punish her accuser. It is also possible that Alice consciously exacerbated her situation to strengthen her hand in a financial compensation suit.

While Alice’s actions doubtlessly caused the deputy manager embarrassment and concern and may have damaged his prospects with the company, and would probably have increased the size of any financial compensation payment, there is nothing to indicate that these were her conscious aims. On the contrary, the evidence suggests that, at least when first accused, Alice was not able to understand her situation and would not have been capable of formulating a devious plan.

It would be reasonable to accept Alice’s words. She described being accused as a threatening experience which created a sense of danger. This was a respectable person whose integrity was semi-publicly challenged. With the mention of the police, her liberty was also in doubt. She was not able to fully comprehend what was being said and she stated she froze like an animal in the headlights of a car. This suggests that Alice’s reaction involved reduced capacity for conscious, decisive action, a reversion to a more primitive level of functioning.

Alice’s failure to move from the spot, may have been the action of a conniving person preparing for a compensation suit. Alternatively, it may have been the choice of an innocent, accused person who wanted to be cleared by the police and was guarding against any suggestion that she had disposed of evidence. A more interesting explanation is that Alice was incapable of deciding what to do, and consequently, could do nothing. This is consistent with her wanting the police to tell her it was “safe” to leave. This may have been a question from a worldly-wise individual wanting to double check on the possibility of current or potential future charges. It was more likely, however, a question from a temporarily somewhat incapacitated individual who was unable to decide about her safety and looked to an external authority to make that decision and direct her actions.

This lady experienced distress as a result of psychological stress. The stress was not life threatening and was not of the type associated with PTSD. Nor were there sufficient symptoms to make that diagnosis. Nevertheless, there were symptoms suggestive of PTSD and with more severe stress, Alice could perhaps

develop that disorder. On the available evidence, Alice's reaction could probably be diagnosed as an adjustment disorder.

DEBRIEFING

PTSD is common and frequently disabling. In the late 1960s and 1970s, the concern of the public and employers about this disorder rapidly escalated. Prevention is better than cure: this is a humanitarian view which is warmly endorsed by those responsible for compensation and disability payments. It is also the flag which has protected and continues to protect a fleet of ignorant, self-aggrandizing voyeurs.

In 1983, Mitchell introduced the concept of "critical incident stress debriefing", a process which is purported to assess and prevent the adverse consequences of traumatic events.

A central feature of debriefing is ventilation, or unrestrained talking about the individual's experience during a traumatic event. This frequently involves the release of emotion and the correction of factual inaccuracies. Such ventilation, sometimes assisted by disinhibiting drugs, had been described many decades previously, during the Second World War.

The precise aims of debriefing, amazingly, have not been precisely stated. As mentioned, assessment, and prevention of adverse psychological consequences, are two. The "normalization" of the response is said to be another. By this is meant, individuals are informed about the normal responses to stress and encouraged to accept their own thoughts and emotions in the light of this information. How this is distinct from the broad aim of preventing adverse psychological consequences is unclear.

The methods of debriefing have been more precisely stated. In the original descriptions, debriefing was to be used to assist emergency services workers (police, fire brigade, and health services). It was to be provided as a single session, conducted by a specially trained mental health care professional, to groups of individuals.

Subsequently, these methods have been varied. Debriefing has been applied to groups of civilians (as opposed to emergency services workers) and to individuals (as opposed to groups). Courses rather than single sessions of debriefing are offered. Most worryingly, minimally or untrained debriefing workers have been used. The fad of debriefing became so popular that in some regions each emergency services organization had to have one of their members volunteer to be the identified debriefing worker. Such volunteers usually have insignificant training.

It is well known among health professionals, although rarely written about, that when a disaster occurs in a western county, droves of psychological trauma workers suddenly appear.

When the Port Arthur Massacre occurred in Tasmania, some debriefing workers came at their own expense and uninvited from other states of Australia, many telephoned, even from overseas, seeking an invitation. Some tourists who were in the region, who felt qualified, came forward. One backpacker had some crumpled pages on PTSD in her pack, apparently for just such an emergency. She wanted to be involved and for her document to be photocopied and provided to hundreds of survivors, relatives and uninformed health care professionals.

In the period immediately after trauma, victims may experience a range of reactions. Some do not want to be involved in discussions, while for others, there is an irresistible outpouring of words and emotion. All, however, are vulnerable to exploitation. People seeking to assist victims must be well trained to recognize the different reactions. They must also be assisting for the benefit of the traumatized individuals, and not to gratify their own psychological needs. In dramatic and emotionally charged situations, helpers must avoid voyeuristic pleasure and "savior" satisfaction (satisfaction derived from behaving, or causing others to regard one, as a savior).

Opponents of the debriefing industry have drawn an analogy with physical trauma. The argument is that if trauma results in a gash, the doctor does not keep poking his or her finger into the wound asking if it still hurts. No metaphor is perfect and this one is perhaps less perfect than most, but it serves to draw attention to the normal healing process of all organisms. The argument concludes that the debriefing industry has the potential to disturb the healing process, and in the worst case scenario, may provoke unnecessary psychological scars (Mayou et al, 2000; Greenberg, 2001; Ehlers and Clark, 2003).

Some employers impose compulsory debriefing on all staff who are exposed to stressful incidents. Different local factors contribute to these requirements. Well meaning employers, persuaded of the value of debriefing, sometimes think they know what is best for their employees. Other employers are responding to workers groups which, believing in the value of debriefing, have negotiated this service as a “condition” of the “workers’ award”. Yet other employers are simply mindful that the size of compensation packages is reduced if “prevention” had been available.

Debriefing has now been used for some decades. A large number of studies have been conducted looking at whether this “treatment” has beneficial effects or not. Recently, all the results of these studies have been pooled and analyzed, using special statistical methods to give categorical answers to this question.

A recent analysis of the best studies, by a group with impeccable credential, using the best statistical methods (Rose et al, 2001) found that single session debriefing did not produce statistically beneficial effects. They also drew attention to the finding that in some studies debriefing actually produced detrimental effects (Hobbs et al, 1996). Their conclusion, which has been restated (Rose et al, 2002), was that compulsory debriefing should be ceased immediately.

Arendt and Elklit (2001) also pooled the results of many studies and made similar conclusions, that debriefing does not prevent psychiatric disorders or mitigate the effects of traumatic stress. They then looked at the components of debriefing as they were originally described, and found that some had merit. Debriefing was more effective when used with emergency services workers than when used with traumatized members of the public. A number of factors may be relevant. Emergency services workers are a special group of people. They have chosen to enter this field, and they have been able to predict and prepare for traumatic experiences. Those who are unsuited tend to leave the field, those who are better suited tend to remain. Perhaps most importantly, these people work in teams, there is camaraderie and members know and support each other before, during and after difficult times.

While debriefing in general was not found to be effective, there were indications that group was more effective than individual debriefing.

There are indications that the interactions between and the support given by group members to each other are more important than the actions of the debriefing worker. This is consistent with the above paragraphs.

Arendt and Elklit (2001) also found indications that highly trained debriefing experts are more effective than untrained volunteer debriefing workers. This should come as no surprise. One of the most important counseling or psychotherapy skills is to know when to shut-up and let the patient explore issues unmolested by therapist interjections. The skill of doing nothing requires extensive training and supervised experience. The untrained amateur is unable to let the group do the “therapy”.

In summary, unassailable studies indicate that single session debriefing following traumatic events is of limited, if any, value. It may have a place in the care of emergency services workers, where it should be non-compulsory and performed in group settings by a highly trained therapist who takes a predominantly passive role.

That single session debriefing has been found to be ineffective (van Emmerik et al, 2002) should not be taken as meaning that nothing can be done to help those people who suffer psychological distress following trauma. On the contrary, much is possible. Treatment should be provided only to those who need it. Ongoing care, including cognitive behavior therapy or other forms of psychotherapy, and medication of the type mentioned above under PTSD, will provide considerable relief.

EYE MOVEMENT DESENSITIZATION AND REPROCESSING (EMDR)

EMDR was originated by Francine Shapiro in 1987. At that time she was a psychology student. One day she was walking through a park preoccupied with old memories and disturbing thoughts. As she looked at rows of trees, her eyes moved back and forth and her memories seemed to dissolve spontaneously. She extended this experience into a system of treatment for PTSD. She gained her PhD and published the results of a study in 1989 in which all of 22 patients suffering from PTSD made a recovery following a single 60 minute EMDR session.

EMDR created enormous interest, particularly among psychologists, but also among some other mental health professionals. Dr Shapiro organized training events and over the next eight years, trained over 22 000 professionals - all of whom paid hundreds of American dollars for brief courses. The interest, training and clinical use of EMDR continues apace.

Lay journalists of both newspaper and television have reported EMDR in glowing terms, with statements that it is a breakthrough and that it works ten times faster than other treatments.

The procedure, however, is not without critics. Some complain about what they believe to be the blatant commercialization of a healing technique. This is not the place to explore that issue, but people have profited from their ideas and inventions as long as history has been recorded. At first glance it is hard to see why EMDR should not yield this type of reward. Before looking at other criticisms, let's get some familiarity with the procedure.

Patients who are suffering PTSD are asked to visualize the triggering traumatic event as vividly as possible. While retaining this image they are asked to make a brief statement which encapsulates their reaction to the image (eg, "I am about to die"). They are then asked to rate their level of distress on a scale from zero to 10. Then they are asked to make a positive statement that encapsulates the reaction they would like to have to the situation (eg, "I can cope with this"), and to rate their degree of belief in this positive statement on a scale from zero to 8. The patient is then asked to look at the therapist's finger as it is moved back and forth at about two movements per second for 12 to 14 seconds. Then the patient is asked to "blank out" the distressing image and again rate their distress. This process continues until the distress rating falls to two or lower and the belief in the positive statement reaches six or higher.

How does EMDR work? The EMDR International Association states that, "The event that provoked the upset becomes 'frozen in time', and 'stuck' in the information processing system". This is a vague statement, but it is consistent with the theory that PTSD involves memory. The EMDRIA goes on to say, "Researchers have suggested that the eye movements trigger a neurophysiological mechanism that activates an 'accelerated information processing system'". This statement is worryingly vague. The EMDRIA supports Dr Shapiro's claim that one session of treatment may be sufficient, stating that EMDR allows "more rapid working through of disturbance than more conventional forms of therapy".

There have been several important developments. From the beginning, some clinicians believed EMDR, with the "magical hand movements" to be hocus-pocus. However, independent studies did appear to show EMDR to be quite effective in the treatment of PTSD. Next, EMDR was compared to the recognized treatment called exposure therapy (the patient relives the traumatic experience as directed by the therapist) and no difference was found – both worked, about equally well. Finally, in an experiment which compared two groups of patients who had exactly the same treatment, except one group performed the eye movements component and the other simply fixed their eyes on a stationary spot, it was found that the eye movement part of the treatment was unnecessary (Pitman et al, 1996).

EMDR is an effective treatment of PTSD. But no more so than the exposure therapy which has been used in the treatment of this condition for decades. That is because EMDR is a variant of exposure therapy. The patient receives emotional and personal support while they re-experience the traumatic event. It also has components of "cognitive restructuring", another well established form of therapy, in which the patient is encouraged to interpret things in a new way. EMDR takes old treatments and rolls them into a user friendly package. The eye movement component which endowed the treatment with its name and

its magical potency is unnecessary. In 1999, Dr Shapiro wrote of “the unfortunate naming of the procedure after the eye movements, which...(are)...only one of many components of this complex, integrated treatment”.

There is much disquiet about EMDR among the hard-nosed critical thinkers of the psychology profession. For these people the main issues are “EMDR’s aggressive commercial promotion and its rapid acceptance among practitioners” (Herbert et al, 2000). The EMDR caravan, however, continues to roll on. The cries of the critics with science on their side have had little effect. EMDR is the repackaging of established psychological treatments into a convenient form. Whether the originator *should* be able to present her treatment as original, and whether she *should* make a fortune from her efforts, are matters we will not consider. In the current age, convenience is highly valued and rewarded. Gullibility of professionals, however, remains a matter of concern.

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CHAPTER 14

RECOVERED MEMORIES

RECOVERED MEMORY THERAPY

Recovered memory therapy (RMT) emerged in the 1980s. It was very popular for a time, it is less so now, although it is still practiced and conferences attract large, eager audiences. There is evidence that RMT may do more harm than good.

The basic theory is that, 1) childhood sexual abuse leads to psychiatric problems in later life, 2) memory of this sexual abuse is forgotten, and 3) uncovering these memories will cure the psychiatric problems.

The best lie is the one which is closest to the truth. And the hardest “therapy” to debunk is one which is closest to orthodox practice. All would agree that childhood sexual abuse may cause psychological or psychiatric difficulties in adult life. Not always, but often.

Many experts in the field do not believe that childhood sexual abuse can be forgotten and then “remembered” years later (Brandon et al, 1998). Other equally reputable people, are more circumspect and believe this to be possible (Brewin, 2000). Such remembering becomes theoretically possible because “active forgetting” is a theoretical component of the theory of psychoanalysis. This form of treatment, initially described by Sigmund Freud, depends in part on “active forgetting” which he called “repression”.

Psychoanalysis was revolutionary and comprehensive theory. It was and is useful as a model for understanding normal mental development, for describing mental processes and for providing therapy for certain mental conditions. Psychoanalysis is like a mechanical clock, it is complex and depends on a large number of pieces fitting together, each influencing and influenced by its neighbors, to work. Among other issues, psychoanalysis examines the relationship between the patient and his/her parents, and the relationship between the patient and the therapist. In addition to repression, psychoanalysis investigates a vast number of complimentary mechanisms which keep drives and conflicts out of conscious awareness, not to mention a vast array of mechanisms by which change or recovery is resisted. In short, repression taken out of psychoanalysis is as much use in explaining a mental syndrome as a wheel or a lever taken from a mechanical clock is for telling the time.

Those who do not believe that traumatic events can be forgotten point out that, but for Freud’s speculation, which has never been scientifically validated, the idea that such terrible events could be forgotten, would be dismissed as ridiculous. After all, the problem with post-traumatic stress disorder is not that events cannot be remembered, on the contrary, the problem is that distressing events cannot be forgotten.

Let us turn now to the RMT belief that uncovering these “forgotten memories” will cure current psychiatric problems. At a first glance common sense level, this would seem to make sense, after all, much psycho-

therapy involves talking about past events. But this is a dangerously misguided view of psychotherapy. Central to psychotherapy is patient growth. Such growth may involve the gradual getting in touch with unconscious feelings and ambitions, in a nurturing patient-doctor setting. This is quite different to exposing the patient to all the bad events of the past that can possibly be dredged up. In psychotherapy the patient is gradually prepared for any distressing material which may emerge, in RMT that preparation does not take place, instead, there is a helter-skelter rush to uncover the “forgotten memories”.

But is RMT effective? In one study of 30 patients, all were still in therapy three years after the memory first surfaced, and most were still in therapy five years later. Before the memories “surfaced” 3 (10%) had attempted or thought of suicide, after memories, 20 (67%) were suicidal. Before memories only one person (3%) had engaged in self-mutilation, after memories this became eight (27%). Before therapy 25 (83%) were employed, after 3 years of therapy only 3 (10%) were still employed. Before therapy 23 (77%) were married, after therapy 11/23 (48%) were divorced or separated. Of the 21 who had children, seven (33%) lost custody (cited in Loftus, 1997).

Forty cases of people who had made claims of recovered memories and then retracted them were examined in detail (Leif and Fetkewicz, 1996). “As we collect more and more data on the types of therapies involved in recovered memory therapy, we cannot avoid the conclusion that this is bad therapy. Enormous harm is being done to these patients and to their families. Patients get sicker instead of better, huge sums of money are spent for years of therapy based on the erroneous assumption that the recovery of memories of sexual abuse in childhood is a healing process”.

CHILDHOOD SEXUAL ABUSE (CSA)

CSA is common. It is unfair, destructive, cruel and illegal. It deserves the harshest penalty.

FALSE MEMORY SYNDROME

In living memory, there has been a low level of prosecution for child neglect and sexual abuse. Most would agree that these crimes have been, and continue to be, underreported and less than vigorously pursued by some authorities. Hopefully, this situation is changing.

During the 1980s and 90s, however, a new picture began to emerge. Adult people, usually women, who have had no memory of early sexual abuse, began to “remember” such episodes. This was usually in the process of “therapy”. Many, with the urging of their “therapist”, have caused legal charges to be brought against parents or other “perpetrators”. Convictions have been recorded and in some case, imprisonment has been a consequence.

This is completely different and should not be confused with the scenario in which a person who has been abused in childhood and has remembered the events ever since, and finally pressed charges in later life

In most instances, of “recovered memory” the accused individuals, supported by other family members, deny the charges. In some instances their response is that the accuser is simply lying. Often, the word “lying” does not seem appropriate as the accuser appears to genuinely believe what the accused and their supporters know to be untrue.

Not only are accused people sometimes punished by courts, but the whole family suffers. Families divide into two camps, one which supports the accuser and one which supports the accused. Life-long bonds are frequently irrevocably broken.

Accused people and their supporters have argued that these are inaccurate or “false memories”. The term “false memory syndrome” has been applied when the accusing individuals become preoccupied, doggedly

wanting to “prove” their memories are “true”, striving to “remember” more, regarding themselves as “victims”, spending time and money on further “therapy”. This pursuit is often detrimental to their current interpersonal relationships, education and employment.

Well qualified mental health professionals have come to the assistance of the accused. Support groups have been established around the world. They lobby people in the judicial system, politicians and health professionals. They maintain web pages which promote their views and denounce “bad therapy”. Examples include the False Memory Syndrome Foundation based in Philadelphia, PA, USA, the British False Memory Society (Illustration 14.1), and the Australian False Memory Association.

Evidence supplied by the support groups indicates that innocent people have been accused and some have even been imprisoned. The question which must be addressed is, how false beliefs can be formed?

THE NATURE OF MEMORY

Vast textbooks and mountains of scientific papers have been written on this complex and incompletely understood topic. The following paragraphs list of a couple of points of interest, and do not attempt a comprehensive review.

There is little scientific support for Freud’s model of the unconscious mind where memories of traumatic events are stored. We may push unpleasant memories into the background and they may come to the foreground due to environmental reminders or in a trusting relationship such as therapy, but these memories have been ignored rather than forgotten.

Evidence indicates that we reconstruct our memories. Rather than being stored as complete “video clips”,



Illustration 14.1 This picture of Lavery’s Phrenometer of 1907 appears on the Website of the British False Memory Society, along with the note that the British Phrenological Society was not wound up until 1967. Phrenology was a “science” which claimed that the shape and bumps on the head could be read to reveal the individual’s mental capacity, emotions and personality. This proved to be quite wrong.

The Society is presumably using the image of this device to point to the fact that false ideas have been accepted in the past in the psychology and related fields, and that even those dealing with objective measurements may take more than half a century to be discredited and abandoned.

Picture from, Colin Blakemore, *Mechanics of the Mind*, 1977, Cambridge University Press. Reproduced with permission.

our memories are stored as pieces of a jig-saw puzzle. Many pieces of experience are not remembered at all, but filled in to complete the picture (Schacter, 2001). With this jig-saw model it is easy to see how the beliefs of trusted and authority figures, such as therapists, may influence memories.

RMT often involves hypnosis and involvement in groups of fellow “survivors”. Hypnosis is now known to distort memory and information obtained under hypnosis is no longer admissible in courts of law. Groups with a shared belief can be very persuasive to the individual, for example the term mass hysteria has been applied when school children become afflicted with physical symptoms such as twitching or erroneous beliefs. Certain cults depend for existence on the charisma of a leader and the influence of the congregational group on new converts.

Our memories are frequently faulty. Soldiers have given graphic accounts of actions which they clearly remember, but at which the records show, they were not present. Twins often disagree about which one was involved in a certain event. The great child psychologist Jean Piaget clearly remembered a time when an attempt was made to kidnap him from his nurse. Later in life he was surprised when his parents received a letter from the nurse apologising for having fabricated the event. President Ronald Reagan was fond of telling a story of World War Two bravery which did not happen in reality, but was from a film script.

Memory is so malleable that we should be very cautious in claiming certainty about any given memory without corroborative evidence (Schacter, 2001).

CAUTION

There is need for great caution. It is agreed that CSA is common and damaging. Failure to believe memories of genuine CSA may deny patients of valuable assistance. On the other hand, believing a false memory may also do great damage. Professional bodies published guidelines which encourage the search for corroborative evidence.

Readers are advised to avoid therapy which specifically elicits memories of childhood abuse as the central technique for relieving emotional distress.

CASE REPORT

Rob Kenward, a plumber from Cairns, Queensland, Australia, was jailed for six years for rape. His accuser was attending the Royal Brisbane Hospital with chronic pain in her shoulder. She was assessed by a Psychologist as suffering from physical pain of psychological origin. Soon after she remembered being raped twenty years earlier by Kenward when she had been living in his household.

There was no corroborating evidence, the case being based on recovered memory. Kenward went before the Supreme Court four times. At the first trial there was a hung jury. The second and third trials were abandoned. At the fourth he was found guilty and sent to jail. In jail, pedophiles are regarded as the lowest of the low and Kenward was doused in urine and subjected to other indignities. The Appeals Court quashed the case and he was released.

CASE REPORT

The case of Dr Bennett Braun and his colleagues at the Rush-Presbyterian Hospital in Chicago is of interest. In 1997 Patricia Burgus and her family, the day before going to trial, agreed to accept US\$10.6 million from her therapists (primarily Dr Braun) and the hospital.

Ms Burgus stated that, over six years, two and a half as an inpatient, through the use of medication and hypnotism, Dr Braun convinced her that she had multiple personality disorder with 300 alternate personalities. She claimed that he convinced her that she had developed this condition as a result of repeated childhood abuse including participation in ritual murders, cannibalism, Satan worship and torture of family members. "I was told that, until I hit rock bottom, until I dug all this stuff out, I would never get better and I would never have a chance for any kind of future for my children", she said.

Her children aged 4 and 5 years were hospitalized for almost three years and rewarded for telling "yucky stories" about their family.

Dr Braun and at least one other associated medical practitioner subsequently lost their medical licenses.

CASE REPORT

Beth Rutherford was a 19 year old nurse working on a cancer ward, in Springfield, Missouri. Her father was a church minister and her mother was a nurse; she had two sisters, Lynette and Shara. She consulted a counselor with two master's degrees, one in psychology and the other in social work, because of tension headache.

She was soon told that her symptoms were consistent with CSA. She was told that being a high achiever at school was suggestive of having been abused as she had absorbed herself in academic studies in order to cope with the abuse she was receiving at home. She was told she had to trust her therapist and that the only way out of her predicament was to recover these memories and "deal with them".

She came to believe that her father had impregnated her twice and that on the first occasion he had performed a coat hanger abortion and on the second she had performed a coat hanger abortion herself. She believed her mother held her down while her father inserted implements in her vagina.

Beth accused her parents in a public forum. Father had his ministerial credentials withdrawn and was threatened with criminal charges which could have resulted in incarceration for a minimum of seven years. Beth's sisters believed her and all three moved out of home and ceased communication with their parents.

Beth had been in therapy for two and a half years. She then moved to Oklahoma City, and contact with her therapist ceased. On the day of the Oklahoma City bombing her mother, who had been warned not to make contact, telephoned to make sure she was safe and left a brief message on her answering machine. Gradually the family reunited and Beth came to believe that the CSA had not occurred. She was medically examined and her hymen was found to be intact. She now speaks about her experiences and encourages other "retractors".

CASE REPORT

In the early 90's claims were made by a group of parents that nursery nurses Dawn Reed and Christopher Lillie has sexually abused children under their care at Shieldfield Nursery in Newcastle, England.

There was a pre-trial acquittal in 1994, but the parents and the media were not satisfied. Accordingly, the Newcastle City Council appointed a Review Team in 1996, three social workers and a psychologist, to ex-

amine the allegations. Their report "Abuse In Early Years" was published in 1998 and described the nursery workers as bizarre and dangerous paedophiles who abused children both at the nursery and at other locations and as being part of a "paedophile ring".

In 2002, in a civil case brought by the nurses, the High Court in London found the nurses had been maliciously libelled by the Review Team and awarded them maximum damages. Mr Justice Eady, the trial judge in what has become known as the Shieldfield Libel Trial, found that the Review Team had been intellectually biased and dishonest. The judge said the leader of the team "eschewed rational analysis in the approach to his task from the outset". Of an expert witness he said, "The truth is that where physical findings were negative or equivocal, Dr San Lazaro was prepared to make up the deficiencies by throwing objectivity and scientific rigor to the winds in a highly emotional misrepresentation of the facts".

All of these cases illustrate the danger of using discredited means of obtaining "evidence", for example, material which emerges in the process of "therapy" specifically designed to elicit evidence. And just as it is not wise to place vampires in charge of blood banks, it is not wise to place zealots in charge of investigations on the topic of their zeal.

ALIEN ABDUCTION

In the United States of America, in particular, from time to time, the media reports on individuals who believe they have been abducted by aliens, examined by them and then returned to earth. These accounts are widely believed to be false memories. Alien abduction false memories are patently different in content to those of childhood sexual abuse. Nevertheless, the vast majority contain some sexual elements. Rectal examination with "probes" and the removal of "eggs" or "seeds" are usually reported.

In 2003, Professor Richard McNally of Harvard University made an important observation. He examined 10 "abductees" using measures of arousal such as breathing rate, blood pressure and sweating. He found that when the "abductees" described their experiences, they had the same sort of physical reactions as people who are describing well documented traumatic experiences, such as soldiers with posttraumatic stress disorder.

Does this then "prove" the abductions took place? No, but it does support that the believing individual believes they did. It is important to know that none of these people "knew" of their alien experiences before they consulted "recovered memory" practitioners.

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CHAPTER 15

ELECTROCONVULSIVE THERAPY (ECT) AND TRANSCRANIAL MAGNETIC STIMULATION (TMS)

No treatment in psychiatry is more contentious than electroconvulsive therapy (ECT). Certain groups and individuals have, for decades, claimed that ECT is damaging to the memory and the brain. They have successfully influenced legislation to the extent that, in some states of the USA, for many years, it was almost impossible for psychiatrists to provide this treatment to suffering patients. Fortunately, new regulations have eased most of the ECT embargoes in California

Why does ECT generate such opposition? One reason has to do with our innate disposition. There is a natural repugnance to certain biological activities. Convulsing, like vomiting, is not something we like to watch. There may be an evolutionary explanation. It could be that convulsing and vomiting indicate sickness and as sickness may be contagious, we may be genetically programmed to fear and keep away from those engaged in these activities. As a matter of course, sick animals are less favorable breeding stock and are not selected as mates. We avoid the topic of convulsions and as many people who suffer epilepsy will testify, we sometimes even avoid people who have had convulsions.

Another reason why individuals and groups are opposed to ECT is that they genuinely believe that ECT causes brain and memory damage. In fact, ECT does not cause brain damage and the memory problems are usually mild and temporary. The other side of the story is that ECT is the most effective treatment for some of the most severe psychiatric disorders, and is frequently life-saving. Let us return to the issues of the safety and efficacy of ECT after a look at the historical development of this enigmatic treatment.

HISTORY OF ECT

ECT was first performed in Rome in 1938. As with many treatments in medicine, it is possible to find accounts of similar treatments stretching back over centuries.

Electricity has been applied to the body for medicinal purposes for millennia. The distant accounts are fragmentary. In AD 46, Scribonius Largus described the application of electric torpedo fish to the head as a treatment for headache. In 1470, a Jesuit missionary in Ethiopia, applied electric catfish to people in an effort to expel devils. It is unknown whether these people were suffering mental disorders, or to which part of the anatomy the “treatment” was applied. In the 18th century electric eels were applied to the head. In 1814 electricity was used in the treatment of mental disorders, but it was applied to the hands, neck,

back and buttocks. However, there is no evidence of electricity being applied to produce convulsions in the treatment of mental disorders before 1938.

Convulsions, however, had been induced for medicinal purposes at different times over centuries. They were induced by chemical agents, but again, the history is fragmentary. Paracelsus (1490-1541) used camphor by mouth to induce convulsions in the treatment of mental disorders. In 1785 an account of the treatment of psychosis treated with camphor and convulsion appeared in the London Medical Journal. Also in the mid-18th century, the herb, hellebore, was used to treat mental disorders. Its effects included coma and convulsion.

ECT emerged at an interesting time. Until the early 1920's little could be done for people with serious mental disorders, other than humane, custodial care. Then came a series of active treatments which encouraged optimism and set the scene for the development of ECT.

From around 1917 Julius Wagner-Jauregg developed a treatment for the otherwise progressive and fatal condition, general paresis of the insane. This condition is the result of the syphilis organism attacking the brain. Wagner-Jauregg, Professor of Psychiatry in Vienna, had noted that certain patients with mental disorders improved whenever they suffered a fever. He attempted to cause fevers by various means, but without success. Finally, he was able to induce fevers by injecting patients with blood taken from people who suffered malaria. In so doing, Wagner-Jauregg infected his patients with malaria, however, their fevers had the desired effect of improving their mental condition, and the malaria could be controlled with quinine. This was a major advance and Wagner-Jauregg was awarded the Nobel Prize in 1927. Syphilis is now treated with antibiotics.

In 1933, Manfred Sakel, who was working in Vienna at the time, announced successful treatment of schizophrenia with insulin. This hormone has a central role in regulating the level of sugar in the blood. It had been used by others in psychiatry to lower the blood sugar and thereby produce sedation and stimulation of the appetite. Sakel's method, however, was to induce coma. In the process, convulsion sometimes occurred. A course of treatment involved up to 40 comas and took a period of months. There was no doubt among the doctors of the time, that insulin coma therapy was effective. Some believed that the treatments which resulted in convulsion were the more effective.

Thus, Ladislaus von Meduna (1896-1964) entered a scene which, after generations of therapeutic impotence, was beginning to show sparks of confidence. In 1934, in Budapest, he injected camphor to produce the first modern convulsive therapy.

Von Meduna had developed the theory that there was a "biological antagonism" between epilepsy and schizophrenia. By this he meant the two conditions could not exist simultaneously. This theory was based on two clinical observations. The first was that when a person with a severe mental illness suffered a seizure for some reason, their mental state improved. The second was that a person could not suffer from both schizophrenia and epilepsy. The first of these observations is probably accurate, the second is certainly not. Opponents of ECT attempt to make much of the fact that one part of the original theoretical basis is no longer tenable. That is as silly as suggesting we reject penicillin because its antibacterial properties were discovered by chance.

Von Meduna found that camphor did not reliably produce convulsions. Some patients had no seizures, others had many. He then began to use a synthetic camphor which was marketed under the names of Metrazol and Cardiazol, and obtained more predictable results. In 1935, von Meduna published his first results. He reported that convulsive therapy produced beneficial effects in 10 out of 26 people with schizophrenia. Given that there was no other effective treatment, these results were important, and the treatment quickly spread around the world.

Even with the synthetic camphor, however, the procedure was problematic. There was always a delay between injection and the onset of convulsion, during which time there was no turning back, and patients could become highly fearful. There is individual variation in susceptibility to all medications, and a guiding principle is that excessive doses of all medications should be avoided. There was no way to be certain of the lowest effective dose of synthetic camphor and missed and multiple convulsions continued. ECT had



Illustration 15.1 Ugo Cerletti (1877-1963) was the leader of the team that developed and first used ECT in Rome in 1938.

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the advantage of an immediate and certain convulsion and eventually completely replaced chemically induced seizures.

The first ECT was performed by Ugo Cerletti and his colleagues, in Rome, in 1938 (Illustration 15.1).

Cerletti (1877-1963) received his medical degree from the University of Rome in 1901. He studied in France and Germany before returning to Italy where he worked as a psychiatrist and an anatomical pathologist of the nervous system. In 1935 he went to Rome as the Chairman of the Department of Psychiatry at the University of Rome and Director of the Clinic of Nervous and Mental Illnesses. It was at this clinic, now the Department of Neurosciences of the University of Rome, that ECT was first administered.

Cerletti had conducted extensive research in epilepsy. In Genoa, he attempted to discover whether scarring in the temporal lobe, which is found in certain types of epilepsy, was the cause or the result of epilepsy. For this research it was necessary to induce convulsions in laboratory animals (dogs). A method, which had been used since the late 19th century, was to place one electrode in the mouth and the other in the rectum of the dog and pass an electric current between them. These may seem bizarre and invasive places to be putting electrodes. The explanation is simple. When applying an electrical current to a body, it is most important to obtain good electrical contacts. Otherwise there is high resistance,

the need for greater electrical energy and the risk of burns. Moist, hairless skin or membranes, such as those of the mouth and rectum, are suitable, and convenient when dealing with hairy animals.

Regrettably, nearly half the dogs used in these experiments died. It is important to note that these experiments were conducted in accordance with ethical principles of the day.

In 1936, stimulated by the success of von Meduna the previous year, Cerletti organized his staff to examine the possibility of using electricity to produce convulsions in humans. The major concern, of course, was safety, given the death toll of the experimental animals.

He sent his assistant Lucio Bini (1908-1964) to Budapest to learn about chemically induced convulsions, and asked him to develop a safe method of producing convulsions with electricity. Bini believed that the dogs had died because the electricity passed through the heart and caused cardiac arrest. He therefore developed a method of applying both electrodes to the head, which proved to be entirely safe. With the assistance of a technician, he built an apparatus for administering electricity, which is now at the History of Medicine Museum, Rome.

The group conducted extensive animal studies. Then they heard that at the local abattoir, electricity was applied to the head of animals as a means of slaughtering them. This application of electricity to the head, apparently for fatal purposes, caused them great concern. However, on investigation, they discovered that electricity was being used to render the animals unconscious, before they were slaughtered in the normal manner. Rather than weakening, the abattoir practice strengthened the case that electricity could be safely applied to the head. This is source of misinformation used by some opponents of ECT, who have claimed that the treatment was derived from a process for slaughtering pigs.

In April 1938, the first treatment of a human with ECT was performed. In spite of their extensive preparation, the team was still apprehensive. Any mistake or accident could potentially have serious consequences for the patient and themselves.

They referred to the first patient as SE. He was a 39 year old engineer from Milan. He had been found wandering by the police. He could not give an account of himself, and nothing could be discovered about his family. He had formal thought disorder (his thoughts did not follow logically) and was using neologisms (words which may have meaning to the patient, but do not appear in the dictionary and are not understood by others). He was hallucinating (he was hearing or seeing things which others could not hear or see). It was believed that SE was suffering severe schizophrenia and that the chance of recovery was poor. The researchers fulfilled the ethical requirements of the time. They were convinced that SE was suffering and that convulsive treatment would be safe, and further, they believed electrically induced convulsions would relieve his suffering. Using the standards of the 21st century, this man would not receive experimental treatment as he was not able to give informed consent.

Those present at the first treatment were Cerletti, Bini, two other junior psychiatrists, the neurologist and Deputy Director of the clinic, Vittorio Chailiol, a nurse and a hospital attendant. SE lay on a bed. Bini's equipment was on a nearby table. The nurse attached the electrodes to SE's temples. The first stimulation, on Cerletti's instructions, was 80 volts for one tenth of a second. This caused momentary contraction of the muscles, but no seizure. The patient was unperturbed and physical examination revealed no adverse effect on the heart or reflexes. Cerletti then directed a stimulus at 90 volts for one tenth of a second. Again there was momentary contraction of the muscles, but no convulsion, and the patient remained composed. He made an utterance which appeared to include neologisms, but as he spoke in Italian, these cannot be translated into English. By this time the research team was wet with perspiration. Cerletti stated that they would make a third and final attempt, using 110 volts for two tenths of a second. SE's muscles contracted and then followed a classical convulsion.

SE had 11 treatments over subsequent days and was discharged from hospital much improved. Eventually the team received information that this man had previously been admitted to another psychiatric hospital and been treated with chemically induced convulsions, to which he also had a good response. In May the following year he wrote to the doctors thanking them for his treatment.

ECT spread rapidly to other countries. It was first used in the USA in 1940. Use increased until the end of the 1950s, at which time the antidepressants became available and use plateaued. Since the 1980s, however, use has again increased.

This wide acceptance of ECT is the result of many factors including, 1) the belief that in certain circumstances, ECT is more effective than medication, 2) the observation that ECT works more rapidly, which can be most important when managing suicidal patients, 3) careful patient selection, so that only those conditions likely to respond are treated, and 4) improvements in technique which reduced side effects.

The improvements in technique have included, 1) the administration of general anaesthetic during ECT so that patients are unaware of the procedure, 2) the administration of muscle relaxants as part of the anaesthetic so that the convulsion is muted and bodily damage due to strong muscle contraction is avoided, 3) other anaesthetic changes such as increasing the supply of oxygen to the patient prior to ECT, 4) electrical stimuli which are designed to produce therapeutic convulsions without delivering unnecessary energy to the brain, 5) development of a range of ways of applying electrodes which can be used according to the details of particular cases, and 6) methods for monitoring the activity within the body and brain, before, during and following convulsions (Illustration 15.2). These advances, which are discussed in detail in textbooks (Abrams, 1997), have made a considerable contribution to patient comfort and satisfaction.



Illustration 15.2 Modern ECT apparatus is a sophisticated piece of engineering and which provides physiologically friendly, brief square wave electrical stimuli. In addition, it monitors and provides the doctor with traces of brain and heart activity. In size, all the machines on the market are smaller than a desk-top computer. The electrodes for providing the stimulus and collecting the physiological data are single-use and adhesive. Generally, bands are no longer placed around the head to hold metal electrodes in place.

THE PROCEDURE

To the causal observer, ECT looks to be a straightforward process. The majority of the difficult work is performed before the day of the procedure. Preparatory work includes making an accurate diagnosis, deciding whether ECT or some other treatment is the more appropriate, deciding on the most appropriate placement of the electrodes and other technical issues, and advising and answering the questions of patients and relatives. An anaesthetic assessment is also made, and depending on the institution, certain laboratory tests may be performed.

Generally speaking, the stimulus can be applied using one of two electrode positions. In bilateral stimulation, one electrode is placed on either side of the forehead and the electricity passes through both left and right sides of the brain. In unilateral stimulation, one electrode is attached to one side of the forehead and the second electrode is placed further back on the scalp, on the same side of the head. With unilateral stimulation more of the electricity predominantly remains on one side of the brain, but when the convulsion commences, it extends and involves both sides of the brain.

The electroencephalogram (EEG) is a recording of the natural electrical activity of the brain, and there is electrical activity in all parts of the brain in the resting state. This is quite separate from the electricity which is used as the stimulus to trigger the convulsion. There is a great increase in EEG activity during convulsions. The recording of EEG before, during and after ECT assists the psychiatrist in making decisions and has become standard practice. Two sets of electrodes are used to obtain information about the electrical activity in two regions of the brain.

The patient will usually lie on a trolley and be wheeled into the procedure room. There is a minimum of four people present, an anaesthetist who will administer the anaesthetic, a psychiatrist who will administer the ECT, and two assisting nurses.

The anaesthetist places cannula in a vein on the back of a hand, the psychiatrist will clean the skin of the forehead to ensure good electrical contact, and attaches one or two electrodes to the forehead, depending on whether one or both sides of the brain are to be stimulated. In modern ECT practice, the electrodes are single-use and self-adhesive, thus, there is no need for bands to hold metal electrodes in place. The psychiatrist attaches two further electrodes to the forehead to pickup the EEG from the front of the head.

The anaesthetic nurse may attach ECG electrodes to the chest and a monitor to one finger which will indicate the heart rate and the amount of oxygen in the blood. The ECT nurse attaches electrodes to the arm which will pick up evidence of the electrical activity in the motor region of the brain.

The anaesthetist asks the patient to breathe some oxygen from a mask and at about this time, injects an anaesthetic agent into the cannula in the hand. This causes the patient to lose consciousness, which means the patient is no longer aware of what is going on in the procedure room. The anaesthetist injects a muscle

relaxant. At this time the psychiatrist is checking the “impedance”, a measure of the contact between the patient and the stimulation electrodes.

When the patient’s muscles are fully relaxed the anaesthetist may place a rubber pad between the teeth, depending on a range variables. When all is ready, the psychiatrist presses a button and the stimulus is applied to the patient.

The stimulus is a square wave, with a pulse width of 1.0 millisecond. Using one popular ECT device (Thymatron), the stimulus can be delivered at a maximum frequency of 70 pulses per second. Therefore, in one second the stimulus runs for 0.14 seconds. The longest that a stimulation can continue using the above device is 8 seconds. Thus, with the maximum settings, the stimulus runs for a total time of a little over one second (1.12 seconds).

If the muscle relaxation has been extensive, little of the convulsion will be observed. The muscles involved include those of the face and jaw, so that the eyes are strongly closed and the jaw is clenched. The arms usually flex at the elbow and the fists clench. The knees may bend slightly and the toes usually point.

When the convulsion has ceased the patient is rolled onto one side. The anaesthetic agent and muscle relaxant wear off within seconds of the end of the convulsion and the patient begins breathing spontaneously. The whole procedure from arrival to departure from the procedure room takes in the order of ten minutes.

ELECTRODE PLACEMENT

As stated above, there are two electrode arrangements. In bilateral ECT, one electrode is placed on each side of the forehead and electricity passes through both sides of the brain. In unilateral ECT, one electrode is placed on one side of the forehead and the other electrode is placed further back on the same side of the head, such that the electricity is predominantly limited to one side of the brain.

The most troublesome side effect of ECT is temporary memory difficulty (see below). Memory is not located in one particular region of the brain. Instead, current wisdom is that memory depends on many regions of the brain being anatomically and functionally linked together. However, it is also known that severe memory problems can occur when certain structures are damaged on both sides of the brain. For example, severe memory disorder occurs when both left and right temporal lobes are destroyed.

It has long been believed that bilateral ECT has a stronger antidepressant effect than unilateral ECT, it has also been found to produce more memory disturbance than unilateral ECT.

New evidence has shown that a larger amount of electrical energy applied with unilateral electrode placement can produce the same antidepressant effect as bilateral ECT, but with less memory disturbance (Sackeim et al, 1993). Research in this field continues.

DEATH AND ECT

Death during ECT is extremely rare. ECT is safer than dental extraction under anaesthesia. The few deaths which have occurred have been a result of anaesthesia, not a result of ECT. Examining the records of more than fifty years ago, when anaesthesia and ECT were crude by modern standards, one death was found in 46, 770 treatments (Kendall, 1977).

There are less deaths among people with depression who are treated with ECT than among people with depression who are treated by other means (Avery and Winokur, 1978). This is because depression may result in suicide and ECT, being a powerful and rapid treatment of depression, lowers the risk of suicide.

PERMANENT BRAIN DAMAGE AND ECT

ECT does not cause brain damage. Every possible investigation has been conducted, including blood enzyme studies, imaging of the structure of the brain, imaging of the chemical composition of the brain and post mortem studies. No abnormalities have been detected which can be attributed to ECT.

MEMORY AND ECT

Loss of memories is fundamentally threatening to the individual. It strikes at the sense of autonomy and self.

Memory loss is of two types, loss of events that occurred before, and loss of events which occurred after the incident under discussion, in this case, ECT. These are called anterograde and retrograde amnesia. There may be marked differences between subjective and objective memory difficulties. Subjective memory difficulty is the experience of the individual, that there is impairment in memory, this may or may not be substantiated by objective memory testing using special neuropsychological instruments.

Two recent developments have greatly reduced the memory disturbance associated with ECT. In the early years the electrical stimulus was in the form of a sine wave, contemporary machines provide the stimulus in the form of a brief square wave. The old sine wave delivered unnecessary electrical energy to the patient, which did not improve the therapeutic outcome, but did disturb the memory; the new brief square wave delivers much less unnecessary energy and accordingly, disturbs the memory much less. The other advance is the modern unilateral (one side) electrode placement which disturbs the memory much less than the older bilateral (both sides) placement. Unilateral ECT is not usually associated with subjective experience of memory difficulties (Squire and Slater, 1983).

In disentangling the effect of ECT on memory other factors must be taken into account. Major depression itself, through distractibility and the slowing of thought processes, has a detrimental effect on memory. Some of the medicines which are used as alternatives to ECT, may also have a detrimental effect on memory. Thus people who suffer an episode of major depression may have a poor memory for this episode of their lives whether they have ECT or not.

Using sophisticated methods, following ECT, temporary memory disorder can sometimes be demonstrated. On the other side of the register, many studies have shown a subjective improvement following ECT (McCall et al, 1995). The latter findings are due to improvement of the underlying depressive disorder.

The following points summarize our present knowledge regarding the effect of ECT on memory: 1) memory difficulties may follow ECT and while these usually subside within a few weeks, some claim lasting difficulties, 2) the modern brief square wave stimulus is far less likely to produce memory difficulties than the old, now abandoned sine wave stimulus, 3) unilateral is associated with far less memory disturbance than bilateral ECT, 4) memory disturbance is by no means inevitable, the majority of patients who receive unilateral ECT make no claims of memory disturbance, 5) most individuals who experience subjective memory difficulties have no disability on objective testing, 6) where memory disturbance does occur, it is more for impersonal rather than important personal events, and 7) depression per se and antidepressant medication may also be associated with memory difficulties.

In conclusion, as the serious mental disorders for which ECT are administered, such as depression, cause suffering and disability and may end in suicide, energetic treatment is indicated. Where psychotherapy and medication have not provided remission, ECT should be considered. The risk of memory disorder must be considered, but particularly when modern techniques are used, the risk of memory disturbance is very small.

CONDITIONS TREATED WITH ECT

ECT is predominantly used in major depressive episode, especially where drugs have failed or there is serious risk of suicide. It is also used, but less frequently, in the treatment of mania, schizophrenia and postpartum (post childbirth) disorders.

Major Depressive Episode

ECT has been shown to be superior to placebo (sham treatment) in at least five careful studies. For example, Gregory and colleagues (1985) studied 60 people with major depressive disorder using three different treatments, 1) bilateral ECT, 2) unilateral ECT, and 3) placebo ECT. The patients were randomly assigned to their treatment group and the patients, treating staff and those who made the assessments were all unaware as to which group the patient belonged. The result was that both the active treatments were superior to placebo ECT.

It is unlikely that further comparisons between ECT and placebo will be conducted. The superiority of ECT has been demonstrated and it would therefore be unnecessary and unethical to perform further research on this point. In such a study, half of the suffering patients would have to receive ineffective placebo.

ECT has also been found, in more than a dozen studies, to be superior to the available antidepressant drugs. A flawless study by Gangadhar and colleagues (1982) is of interest because of the clever design. Twenty four patients were randomly assigned to two groups. One group received real ECT and placebo tablets, and the other group received placebo ECT and an antidepressant medication called imipramine. In this way it was possible to compare ECT with the antidepressant imipramine, while all patients received an effective treatment, and patients and ward staff could remain unaware of which patient was receiving which treatment.

Mania

Mania is a state of mood elevation or irritability and physical over-activity. Patients may be insightful, uncooperative, unable to sleep, and refuse food and fluid. This disorder may be very difficult to bring under control and life threatening exhaustion and imbalance of the chemicals in the blood may occur.

This is a very difficult condition to study. Very often patients are mood elevated and do not want treatment, accordingly, as a group, they do not readily agree to participate in studies of treatment. Also, as a feature of the disease, they tend to be distractible and unreliable, and they find it hard to cooperate in lengthy studies.

Small and colleagues (1988) studied 34 patients and found that in the acute phase, ECT was superior to lithium carbonate, a medication known to be effective in this condition. While there are few excellent studies of the effect of ECT on mania, universal clinical experience is that ECT is very effective, and can be life saving.

Schizophrenia

It will be remembered that von Meduna developed camphor induced convulsive therapy as a treatment for schizophrenia, and that SE, the first patient to receive ECT was suffering from this disorder. It comes as a surprise then, to find that ECT is not widely used in the treatment of schizophrenia.

Schizophrenia may be conceptualized as presenting acute phases, characterized by hallucinations and delusions and chronic phases in which loss of drive and self neglect are prominent symptoms. ECT has a place in the treatment of the acute symptoms of schizophrenia, when they have been unresponsive to medication. It also has a place when schizophrenia is complicated by symptoms of depression. There is no indication for ECT in uncomplicated chronic schizophrenia.

Postpartum disorders

Following childbirth, a range of psychiatric disorders may develop. The majority can be managed with support and the judicious use of medication. Acute, severe conditions can occur, however, and mother may represent a danger to herself and her baby. For the sake of simplicity, the majority of the severe postpartum conditions are similar to an episode of major depression, while the remainder are similar to an acute episode of schizophrenia.

ECT is useful in these severe conditions (Reed et al, 1999). One advantage of ECT in severe postpartum mental disorders is that the remission is rapid and breast-feeding and mother-baby bonding can commence without delay. Another is that with ECT, the danger to both mother and baby rapidly passes. The final advantage is that the medication required by the mother, and therefore the medication reaching the breast-fed baby, is minimized.

Maintenance ECT

ECT is inconvenient and stigmatizing. Accordingly, it is generally reserved for cases where medication has failed. In those circumstances, ECT may provide miraculous relief.

Conditions such as major depressive disorder rest on a genetic basis. There is no means of altering our genetic makeup, and hence no permanent cure. Relapse is common and is prevented, in most cases, by continuous use of medication. When ECT is needed to induce a remission and continuous use of antidepressant medication fails to prevent relapses, maintenance ECT should be considered.

Maintenance ECT is conducted on an outpatient basis. The frequency varies; often, initially, one treatment is given per week, and this is extended overtime to one treatment four to six weekly (Gagne et al, 2000). Maintenance ECT is difficult to organize but can be worth the trouble.

CASE DRAMATIZATION

Harold Watts was an accountant of 44 years of age, married to Ellen and the father of Josephine aged 21 years who had recently married and Paula aged 19 years who had recently left home to live in a de facto relationship. Harold was brought to hospital by ambulance, accompanied by police and Ellen and a next door neighbor.

Ellen had gone to investigate two loud noises in the garage, which was attached to the house. She found Harold lying on the floor next to an overturned chair, apparently dead. She did not attempt first aide, but rushed to her friends next door. They ran back with her, by which time Harold was beginning to move and groan on the floor. They rang the ambulance. There was a belt secured to a rafter with the buckle end hanging down. The buckle was broken. It seemed that Harold had tried to hang himself, the first noise Ellen heard being his weight jerking down on the rafter and the chair falling over, and the second, some seconds later, was when the buckle broke and Harold's body hit the floor. It was not clear who contacted the police.

When the ambulance arrived, Harold was sitting in the living room saying it was all a misunderstanding and he didn't need any attention. The ambulance officers noticed thick purple marks around his neck and that the whites of his eyes were distinctly pinkish. The police were shown the hanging belt and Harold was taken to hospital.

He was oriented in time and place and an X-ray of his neck was normal. He could move all limbs and he did not appear to have sustained any permanent damage from his attempted hanging. He cried and said he was just missing "the girls" since they both left home at the same time. Ellen, one of the neighbors, a hospital doctor and an ambulance officer were discussing the situation in the corridor. Ellen was saying she would take him home and perhaps they should take a holiday together, when a nurse passing his cubicle

noticed that Harold was strangling himself with the leads of a heart trace machine. They all rushed in, removed the leads and called a psychiatrist.

Harold had been drinking excessively over the last month. His appetite for food had decreased. He denied feeling depressed, but had been moved to tears when watching sentimental television shows. He had been preoccupied with thoughts of his dead parents and dead brother. He had found himself thinking about cemeteries and his own funeral. Then he started to experience powerful urges to kill himself. He could not explain these urges, but nor could he guarantee he would not act on them.

Harold's business affairs appeared to be without blemish and he denied any professional indiscretions or worries. It was true that their daughters had left home four months previously, but there had been no acrimony and they visited.

Harold was transferred to a psychiatric hospital for observation, with a diagnosis of probable major depressive disorder. There was some uncertainty as Harold did not complain of depressed mood, although depressed mood is not always present, the term "masked depression" sometimes being applied in such circumstances. Supporting the diagnosis of depression was the self-destructive behaviour and the history of thinking about topics related to death.

Harold's apparent attempt to strangle himself with the leads of the heart trace machine raised some questions. This method, in this place, the Emergency Medicine Department of a general hospital, was most unlikely to be successful and there was uncertainty as to whether it was a genuine attempt or simply attention seeking behaviour. This raised uncertainty about the severity of Harold's depression.

Within an hour of admission to the hospital Harold again performed self-destructive behaviour. He was being closely watched. He asked to go to the toilet and was allowed access to a specially designed toilet which contained no cloth towels and no suspension points from which one could hang, and no sharp edges which cutting could be performed. Soon after he had been left alone a heavy thud was heard. Harold was found on the floor outside the toilet cubicle in a pool of blood with a large laceration on the top of his head. He had climbed up and stood on the wall of the toilet cubicle and dived down head first onto the floor. This was a most resourceful and determined attempt, and left no doubt that Harold was a serious danger to himself.

His head wound was sutured, his skull was X-rayed and ECT was commenced next morning. He immediately lost his suicidal urges. He revealed that he had been feeling guilty as if he was responsible for events which he heard about on the news, which were completely beyond his control. He had not admitted to this when admitted to hospital because he felt ashamed. Harold left hospital two weeks later and returned to work.

CASE DRAMATIZATION

Hilda Durant was a 54 year old podiatrist who was married to Colin, an earth moving contractor. Colin took Hilda to their general practitioner who referred her for hospital admission. She displayed psychomotor retardation, meaning she moved very slowly, slumped back in her chair and did not move her hands when talking. She was slow to answer questions and her answers were brief and relatively uninformative. Her body and mind were working slowly.

She admitted to depressed mood and some suicidal thoughts, for at least two months. She had difficulty staying asleep, could not concentrate and lacked energy. She had a history of a similar episode five years previously which had responded to ECT and she and Colin had no hesitation in agreeing to a another course.

Hilda responded well to the first and second treatments. Her sleep improved and she became more energetic and active. On the morning before the third treatment she left the hospital and drowned herself in a nearby river.

With the benefit of hindsight, the ECT had helped the psychomotor retardation (the slow thinking and movement) but had not yet eradicated the depressed mood and suicidal thoughts. This is not unique to ECT. The remission of depression is uneven, with medication, ECT or other treatments. The last thing to improve is the way the patient feels. There is often some frustration on both sides, when a patient begins to recover, with hospital staff telling patients that they look better and patients protesting that they don't feel any better.

The case of Hilda Durant proves the old clinical adage that depressed patients with psychomotor retardation are at greater risk to themselves when they are half better. This happened a couple of decades ago, so the staff were not sued.

CASE DRAMATIZATION

Betty Day was 35 years of age, twice divorced, currently living with an unemployed alcoholic man in rented accommodation. She had given birth to two children, to different fathers, and both had been taken into care.

Betty had been to university, she had dropped out of second year Arts. Her parents lived in a comfortable middle class suburb. There was no one else in Betty's current social circle who had attended university, she lived in a lower socio-economic suburb and had no contact with her parents.

Her early life had been unremarkable, raised with a younger brother who was now living in another state. She had not been outgoing, but was successful at a church girls' school. At university things started to go wrong. She started taking drugs and behaving in an aggressive, disinhibited and promiscuous manner. At first her parents had thought it was simply that she was not ready for the greater freedom of university life and tried to regulate her behaviour by increasing their supervision. She had been living in a flat, they insisted that she move back home. She stayed up all night and played loud music and walked around the house naked. She did not study and within a fortnight left home and slept on the floor of other student's flats. Gradually she became unpopular and unwelcome among the other students and she began frequenting working class pubs. She talked loud and continuously, she was often hoarse from talking and sometimes said she could only keep quiet when she was drunk to the point of unconsciousness.

She was admitted to a psychiatric ward at 24 years of age when she had a brief episode of depression and scratched her wrists. She was thought to have a psychopathic personality disorder, meaning a personality type that is exploitative, impulsive and has no respect for rules or the rights of others. She was given a small dose of an antidepressant medication and swung up into a floridly manic state with over talkativeness, loud disinhibited behaviour and racing thoughts. She was not euphoric, but irritable. In spite of her irritability she could agree that she was not her "normal self" and that she needed help to "slow down".

Various medications were used. She developed a skin reaction to one of the mood stabilizing drugs. A combination of two others gave her only slight relief. She needed large doses of antipsychotic medication on which she gained a large amount of weight. She became a pathetic creature. From a successful dainty church school girl she became an obese, frequently drunk, ostracized woman who couldn't stop talking and slept with any one who offered her affection. It seemed that those who could tolerate her behaviour could only do so because they too were drunk most of the time.

She became known to the police as a psychiatric patient and they began to bring her to hospital rather than charge her when they were called to attend to her unruly behaviour. On one admission, because her chronic mania was unresponsive to all other treatments, she was offered a course of ECT. This had very good results and she was discharged as a composed and cooperative person. Unfortunately, this stable state did not last and it became clear that medication alone would not keep her in remission.

Betty readily agreed to a trial of maintenance ECT. After a course of six ECT as an inpatient she was discharged and then had one weekly ECT for a month, then one monthly and finally, one six weekly thereaf-

ter. On this regimen she remained well for years. At times she would need to increase the frequency of ECT to one per fortnightly for six weeks and then go back to the less frequent treatments.

She did not reestablish close contact with her parents. She remained overweight and talkative but she was able to largely abstain from alcohol. She entered a new stable de facto relationship, found some work as a teacher's aide and was able to get one of her children returned to her care.

TRANSCRANIAL MAGNETIC STIMULATION

Transcranial magnetic stimulation (TMS) is an exciting development in the field of psychiatry. It shows promise as a new treatment of certain disorders. Using electromagnetic technology, tiny electrical pulses are delivered to particular parts the brain.

An insulated coil is held in contact with the head over a particular region of brain. When a strong electric current is passed around the coil, a magnetic field passes out from the coil, through the scalp and skull and into the first few millimeters of the outer layer of the brain. Rapidly fluctuating the strength of the current in the coil produces fluctuation in the magnetic field, which in turn causes tiny currents in the brain (Illustration 15.3).

Some points of comparison between TMS and ECT deserve mention. ECT has a negative public image, requires general anesthesia and is associated with convulsion, temporary memory difficulties and sometimes, muscle stiffness and headache. It requires the staff, space and equipment for both providing anesthesia and the electrical stimulus. These features are all a consequence of the fact that the skull is highly resistant to the passage of electricity. This resistance means that electricity cannot be accurately focused on particular parts of the brain from electrodes placed outside the skull. The electricity introduced by ECT disperses through the brain, causing a generalised convulsion and memory difficulties.

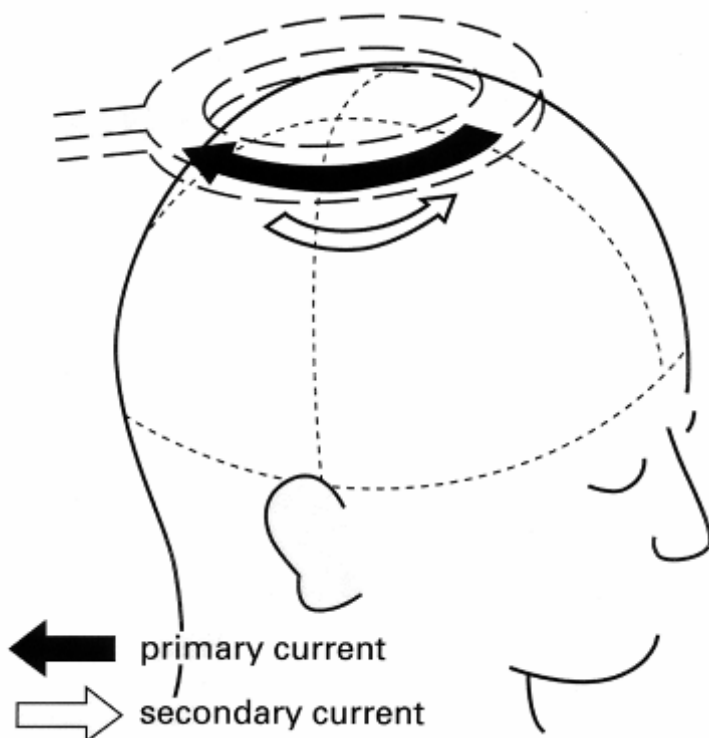


Illustration 15.3 To deliver transcranial magnetic stimulation (TMS) a large circular coil held over the top of the head. A large primary current passes around the coil and a smaller secondary current occurs in the opposite direction, in the underlying brain tissue. The secondary current is of the order of one hundred thousandth of the primary current. Depolarisation occurs at about 2 cm below the lower face of the coil.

The large circular coil was the only type available in the early days, it is quite serviceable and continues to be used in some centres. At the moment a figure of eight coil is more commonly employed. This is, in fact, two circular coils mounted side by side. Greater activity occurs below the junction point, so that more localised stimulation is possible. But the principles are exactly the same.



Image of TMS machine

Illustration 15.4. TMS apparatus usually composed of a computer as the control mechanism, a stimulus generating mechanism and a bank of conductors which store charge. The different makes have different appearances, but in general they occupy a volume of one or two suit cases and are mounted on wheels. A range of coils are available.

In contrast, the electricity introduced by TMS can be finely localized. A pin placed on a wooden table can be moved with precision by a magnet held underneath. This illustrates that magnetic fields pass directly through non-conductors of electricity (such as the skull) and that they are strongest at the space immediately adjacent to the magnet. These characteristics allow small currents to be precisely placed in the cortex of the brain. At this point in time there is no ability to stimulate deeper structures. Imaging studies confirm that localized stimulation of the outer layer of the brain causes activation of distant and deeper areas of the brain, via extensive nerve cell connections.

A TMS machine which could reliably provide safe single pulse TMS to the brain was first described by Anthony Barker in 1985 and machines capable of stimulation at up to 50 times per second (Hz) became available a decade later (Illustration 15.4). Stimulation at 1 Hz or less is termed slow frequency, while that above 1 Hz is termed fast frequency TMS. Both slow and fast frequency TMS are being examined as treatments of depression and other psychiatric disorders.

Evidence suggests that slow TMS reduces, while fast TMS increases, the activity of brain cells. In the future it may be possible to reduce or increase the activity of cells in different brain regions of people with mental disorders, depending on the results of imaging studies which reflect brain activity.

Theoretically, psychotherapy, drug therapy, light therapy and ECT achieve their effects by inducing chemical activity which cause changes in brain cells. This theory is equally applicable to TMS.

In the early years of TMS research there was concern about potential adverse effects, including the triggering of convulsions. While it is wise to remain cautious, no serious side effects have been reported since guidelines were determined in 1996. Interestingly, there is evidence that TMS has a protective rather than a damaging effect on brain cells (Post and colleagues, 1999).

TMS in depression

There have been more than twenty studies in which the antidepressant effects of TMS have been compared to placebo treatment in major depression. The overwhelming majority found TMS to be significantly more effective than placebo.

Five meta-analyses have been performed. A meta-analysis is a sophisticated statistical method of pooling the results of a number of studies in search of definite conclusions. All five meta-analyses, which differed in their methodological approach, concur that TMS has antidepressant effects greater than placebo (McNamara et al, 2001; Holtzheimer et al, 2001; Kozel and George, 2002; Burt et al, 2002; Martin et al, 2002).

The next question is whether the antidepressant effect of TMS is great enough to be clinically useful. There have been four studies in which TMS has been compared to ECT in major depression. All have shown TMS to be as effective or almost as effective as ECT (Grunhaus et al, 2000; Pridmore et al, 2000; Dannon et al, 2002; Janicak et al 2002). While still early, there are strong signs that TMS will have a place in treating depression.

TMS in other psychiatric conditions

Early studies have examined the effect of TMS on schizophrenia, posttraumatic stress disorder, anxiety and obsessive compulsive disorder. However, there is no indication at this time as to whether it will have a place in the treatment of these conditions.

CONCLUSION

ECT is one of the most effective psychiatric treatments available. Its major place is in the treatment of major depression that is unresponsive to medication and may end in suicide. It has been used for over six decades, however, technical advances have made it a gentle procedure. It may be associated with memory disorder, but with current techniques, this is usually mild and temporary.

TMS is a new and exciting technology that is relatively free of side effects and holds promise in the treatment of psychiatric disorders. Currently, there is strong evidence that it has a place in the treatment of depression.

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