

Forensic mental health[†]

PAUL E. MULLEN

What is forensic psychiatry? The name implies a branch of psychiatry connected with, or pursued in, courts of law. Other medical specialities have transcended the literal meaning of their name; for example, orthopaedic surgeons no longer restrict their activities to crippled children. Some would, however, constrain forensic psychiatry to exactly what the name indicates: the application of psychiatry to evaluations for legal purposes (Pollack, 1974; Weinstock *et al*, 1994). This is an impoverished vision. It constrains our speciality to acting exclusively as handmaidens to the courts. The forensic psychiatrist in the court process can all too often face an unequal struggle to maintain the dignity of a medical expert against overwhelming pressures, both institutional and fiscal, to become the lawyer's cat's-paw. Working exclusively for, and in, the courts may increase the practitioner's vulnerability to such use. Conversely, having an expertise and practice firmly rooted in a clinical practice away from the legal arena may offer a greater element of independence and a firmer basis for the claimed expertise.

Forensic mental health defined more broadly is an area of specialisation that, in the criminal sphere, involves the assessment and *treatment* of those who are both mentally disordered and whose behaviour has led, or could lead, to offending. In the civil sphere forensic mental health has a more complex remit, not only being involved in the assessment and treatment of those who have potentially compensatable injuries but also providing advice to courts and tribunals on competency and capacity. The papers in this special section of the *Journal* will focus on the forensic mental health professional's activities related directly to violent and criminal behaviour.

Defining forensic psychiatry in terms of the assessment and treatment of the mentally

abnormal offender delineates an area of concern that could potentially engulf much of mental health. Offending behaviour is common in the whole community, and among adolescents it approaches the universal. Even criminal convictions are spread widely through society and even more widely among people with mental disorders (Taylor & Gunn, 1984; Hodgins, 1993; Wessely, 1997; Wallace *et al*, 1998). The borders of forensic mental health need a clearer marker than offensive behaviour, or even criminal convictions among people with mental disorders. Such boundaries are in the process of being defined and redefined in the current phase of rapid change and development that is gripping forensic mental health services throughout the Western World.

In practice, patients often gravitate to forensic services when the nature of their offending, or the apprehension created by their behaviour, is such as to overwhelm the tolerance or confidence of professionals in the general mental health services. Currently escalating rates of referral to forensic services are being fed, in part, by increasing anxieties about the potential for violent behaviour in certain categories of patients. In part they are also driven by the emerging culture of blame in which professionals fear being held responsible for failing to protect their fellow citizens from the fear-inducing, or frankly violent, behaviour of those who have been in their care. The shift to mental health services that are community based and rely on general hospital units for in-patient facilities has tended, understandably, to decrease further the confidence that the general mental health services have in their facilities, or even skills, to manage the more challenging and potentially frightening patient. Compounding these influences are changes in our societies that tend to decrease the tolerance for difficult and intrusive behaviour and to increase the demand that professionals, rather than neighbours and family, control such

deviance. This is particularly the case when the threat is perceived as arising from mental disorder. Given these influences, and others, it can be predicted with confidence that whatever the definition and proper boundaries for forensic mental health services, they are going to be larger and more obvious in the future.

RISK ASSESSMENTS AND THE THERAPEUTICS OF RISK MANAGEMENT

Risk assessment and risk management have emerged as central elements not just in forensic practice but in all mental health practice. The long-term viability of community care, which has become the central plank of most modern mental health services, is dependent on assuaging the anxieties of the public, and politicians, about the dangerousness of people with mental illnesses. Exaggerated and misplaced though such public fears may be on occasion, they nevertheless have the capacity to damage seriously, or destroy, the progress made towards less oppressive and custodial mental health services. Mental health services have a responsibility to do all that they can to provide appropriate care and support to those mentally disordered people with an increased probability of acting violently, be it towards themselves or towards others. The aim is to identify and manage such risks before they manifest in violence.

The probability of these emerging difficult, aggressive and socially disruptive behaviour that leads to distress for patients, their carers and the wider community can be identified in advance and, with proper management, prevented. What will never be possible is for mental health services to prevent all violent acts in their patients, any more than such a perfection of prevention can be obtained in the wider community. What will almost certainly remain highly problematic is identifying in advance that tiny minority of people with mental disorders who may go on to inflict serious or fatal injury on others. Only the infallible retrospectroscope and the wisdom of hindsight can identify reliably the tell-tale signs of the future killer. This being so, campaigns of blaming mental health professionals for failing to prevent such rare and essentially unforeseeable tragedies as homicide can only lead to injustice and be a spur to defensive and increasingly coercive practices. Conversely, there is much to be

[†]See pp. 312-350, this issue.

gained from the open discussion of improved methods of identifying and managing potentially aggressive patients, as well as from programmes for analysing and learning from the inevitable incidents and failures (however minor). Such quality assurance practices only work, however, if they focus on improving future clinical practice and training rather than on assigning blame and criticising individuals.

The paper by Monahan *et al* (2000, this issue) offers some of the early fruits of the MacArthur collaboration, aimed at elucidating the factors relevant to assessing the risks of violent behaviour in people with mental disorders. The collaboration brought together some of the finest minds in psychology, medicine, sociology and law to design and carry through a research protocol that would generate the data from which actuarial predictions could be made about the probability of future violence in people with mental disorders. The data from this MacArthur study deserve to command respect and will repay detailed consideration. Equally, the study has to be approached with caution, particularly when its results are to be generalised to patient populations that may differ significantly from those studied.

For example, it may surprise clinicians that in Monahan *et al*'s actuarial tool for assessing the risk of violence, the diagnosis of schizophrenia places a subject into a low-risk category. The evidence is now virtually overwhelming that a diagnosis of schizophrenia, at least in males, is associated with higher rates of reported interpersonal violence and convictions for violent offences (Taylor & Gunn, 1984; Lindqvist & Allebeck, 1990; Swanson *et al*, 1990; Hodgins, 1992; Eronen *et al*, 1996; Wallace *et al*, 1998). This association has been established by comparing violence measures in those with schizophrenia with similar measures in the general population. Monahan *et al*, however, are concerned with differentiating between levels of violence in a population of admissions to acute psychiatric facilities in urban public hospitals in the USA. It becomes less counter-intuitive for schizophrenia to be a factor contributing to a lower-risk categorisation when you realise that this is compared with a population in which an admission diagnosis of alcohol or drug abuse was made in 59.3% and of a personality disorder in 36.6%, with schizophrenia being diagnosed in only 26% (Steadman *et al*, 1998). In acute admission wards in the

public mental health services of most British, European or Australasian countries, the diagnostic mix would be dramatically different. Does this imply then that the MacArthur actuarial tool will not travel well? Not necessarily. What it does imply is that it will require validating and potentially modifying for use in different clinical and sociocultural contexts.

Like any project that aspires to produce a risk assessment instrument, the MacArthur collaboration is concerned with establishing robust correlations between measurable factors and the later target outcome, in this case violence. Correlations here, as everywhere, are not necessarily reflective of causal connections. They do not have to be to be useful actuarially. If, however, we wish to move from risk assessment to a risk management strategy that is not content to rely solely on incarceration and containment, then attempting to articulate the causal nexus that may underlie the predictive correlations becomes critical. The challenge for forensic mental health professionals is to move from risk assessment to the therapeutics of risk management. This theme is clearly developed by Lindqvist & Skipworth (2000, this issue).

Risk factors represent significant statistical associations subject only to the proviso that the risk factor precedes the predicted outcome. They present themselves as innocent of cultural and social assumptions, but this is just an appearance. In some risk assessment schedules, being male or giving a history of child abuse contributes to the prediction of future dangerousness. Leaving aside the moral and ethical implications of potentially disadvantaging people because of gender and past victimisation, these two risk factors present as a biological (well almost) and a historical fact. Both are effectively immutable but the links between, on the one hand, maleness or being abused as a child and, on the other hand, violent proclivities are likely to be mediated by a wide range of factors, of which some at least will be open to influence and therapeutic intervention.

Among the potential associations with having a history of child abuse are problems with interpersonal and sexual adjustment, increased risks of substance misuse, high rates of personality problems and increased anxiety and depressive symptoms (Fergusson & Mullen, 1999). It would seem plausible that one or more of such factors contributes to mediating the reported association between a history of child abuse and

subsequent offending behaviour. Nothing can be done to change an existing history of abuse but a lot can be done about the subsequent social, psychological and behavioural difficulties that may manifest in adult life. By disaggregating a history of child abuse into the components of adult disorder to which the abuse may have contributed, you transform an unchangeable piece of history into a group of current problems to which therapeutic efforts can be directed. The signpost to future dangerousness is in the process transformed into an agenda for prevention. The focus is shifted from controlling or incarcerating those destined to be dangerous to an agenda of prevention by care and support. It is only the latter form of prevention for which the skills and knowledge of mental health professionals are appropriate.

Risk assessments, I would assert, are the proper concern of health professionals to the extent that they initiate remedial interventions that directly or indirectly benefit the person assessed. Decreasing a mentally disordered individual's chance of injuring others is a benefit to them as well as to the future victim. Such prevention is part of a health professional's legitimate activity if, and only if, it is part of therapy for a mental disorder or for psychological or emotional dysfunction. Confining and containing offenders as punishment, or simply to prevent further offending, may be legitimate for a criminal justice system but should have no place in a health service.

IMPROVING FORENSIC MENTAL HEALTH SERVICES

The history of forensic mental health services, until recently, was marked and marred by isolation: geographical isolation in the insane asylums and prisons; professional isolation, which was particularly marked for nursing staff who, for example, in some forensic hospitals in the UK chose to identify themselves with prison officers rather than primarily as members of the nursing profession; and institutional isolation, with forensic services all too often organisationally fragmented and isolated from general mental health services. One effect of such isolations has been that much of the progress in the organisation and delivery of general mental health services has passed forensic services by. The anachronistic and unforgivable giant high-security hospitals still dominate not

just British forensic mental health services but those of much of the Western World. Community-based and rehabilitative services are often rudimentary or non-existent. This is despite the reality that nearly all patients for whom forensic mental health services assume care will eventually return to the community, and for most the vast majority of their care, or lack of it, will occur in the community. Reconnecting and reintegrating forensic services with general mental health services will benefit both, because not only has the separation too often left important parts of the forensic services marooned in the past, but it has also often left general services without the benefit of the skills and knowledge generated in the forensic area.

Lindqvist came to international attention following his pioneering of the case link methodology to establish the relative rates of offending in the various types of schizophrenia (Lindqvist & Allebeck, 1990). The paper by Lindqvist & Skipworth (2000, this issue) moves on from establishing levels of risk to attempting to reduce those risks. They place risk assessment in a context that transforms actuarial probabilities into the springboard for active therapy and rehabilitation. Their paper exemplifies the developing focus in forensic mental health on rehabilitation and long-term community management.

In a similar vein, the study by Swanson *et al* (2000, this issue) focuses on how to manage the high-risk patient and thus how to reduce the potential danger to the community and enhance the quality of life of the patient. Swanson also came to prominence as a researcher examining the associations between mental disorder and violence when he and colleagues analysed the Epidemiologic Catchment Area data to reveal a significant relationship between major mental disorder and reported violent behaviour (Swanson *et al*, 1990). This paper had a considerable, and deserved, impact on the thinking of mental health professionals about the relationship between mental disorder and violent behaviour. It also, once the media and the professional pundits worked their usual alchemy, had an unintended impact on public and political opinion that arguably increased apprehensions about the supposed dangerousness of people with mental disorders. Here, Swanson *et al* also move on from contributing to establishing the extent and nature of the relationship between major mental disorder and violent behaviour to issues of management. In so doing they

follow the time-honoured route of a medical discipline: defining a disorder or disability; managing and treating the conditions; removing or ameliorating the deleterious effects. They also provide the evidence to support care delivery approaches, which they argue both improve patient management and contribute in the long term to responding to the legitimate aspects of the public's concern about safety. Arguably, the paper by Lindqvist & Skipworth is about introducing established practices from general mental health services into forensic practice, and the paper by Swanson *et al* is about informing general mental health services through applying knowledge and practice generated in a forensic context. More importantly, both papers are about overcoming an unproductive separation between thinking and practice in forensic and general mental health services.

Central to Gunn's (2000, this issue) wide-ranging review of current forensic psychiatric practice is a concern that on both sides of the Atlantic the wider psychiatric profession is withdrawing from its involvement and concern with the care and treatment of a range of mentally disordered offenders. Gunn argues that this is most obvious in the UK in the increasing numbers of people with mental disorders accumulating in prison, as well as in the paucity of services provided to them once incarcerated. This is particularly so if they are unfortunate enough to be labelled 'personality disordered' rather than acquiring the respectability of a mental illness diagnosis. In the USA 'correctional mental health', as prison-based mental health services tend to be called, appears to be developing separately from mainstream American forensic psychiatry (Puisis, 1998). Whatever its current limitations, correctional psychiatry at least boasts a clear focus on the care and treatment of offenders. Failing to provide adequate mental health services for prisoners creates one set of problems, and concentrating forensic mental health services in prison hospitals produces quite other difficulties. Reducing the destructive impact of prison environments on those rendered vulnerable by mental disorder is difficult enough but it is even more problematic to attempt to sustain a culture of care and treatment in prison-based health services against the constant intrusions of a correctional culture. The prison culture, although slowly changing, still tends to emphasise control, compliance, rigid routines and obedience to authority. Developing effective

therapeutic programmes in an environment in which the prisoner is usually a directed object, rather than a subjective participant, is far from easy. This is particularly true when approaching the management of personality disorders, a point that should perhaps be pondered by politicians and service planners on both sides of the Atlantic, who seem bent on creating hospital prisons or prison hospitals to contain and theoretically treat, both so-called dangerous seriously personality-disordered people and those with the fear-inducing appellation of sexual predator (Heilbrun *et al*, 1999; Home Office & Department of Health, 1999). If, of course, the political agenda is not to create real opportunities for treatment but simply to justify preventive detention, then such initiatives will doubtless reach their political objectives (Eastman, 1999).

Most existing forensic mental health services, like Topsy, just grew. They reflect the impact of their particular local and national histories more than any organising principles and purposes. In various parts of the world, however, there are the beginnings of the development and evaluation of systems of care delivery in forensic mental health that aspire to encompass the prisons, secure hospital facilities, medium- and low-security provisions as well as community services. If forensic mental health services are to deliver adequate care for their patients and the increased sense of safety that the wider community expects, it will be important to evaluate carefully and to compare such emerging service models.

EMBRACING NEW HORIZONS FOR FORENSIC MENTAL HEALTH PROFESSIONALS

The expanded role of forensic mental health professionals that has accompanied the increasing prominence of risk assessment and risk management has not been confined to traditional mental health areas. Psychologists and psychiatrists are increasingly called upon to assist a wide range of organisations in both assessing their exposure to risks from mentally disturbed individuals and in effectively minimising the perceived threats. This important growth in the roles of forensic mental health professionals is ably illustrated by Fletcher *et al* (2000, this issue) from the Isaac Ray Center.

Making available mental health expertise to relieve perceived social problems should not conflict with traditional medical practice if its aim is, through identifying and relieving disorder, to benefit primarily patients and, through their more adequate care and management, to benefit those they potentially threaten. One of the problems of the current fashion for substituting 'client' or 'consumer' for 'patient' is that in this situation, as in so many, it obfuscates the clinician's ethical and therapeutic responsibilities. Using the term 'client' facilitates substituting a different client for the individual actually assessed, thus employers, the courts, police, etc. become the health professional's client. It is more difficult to regard organisations such as the criminal justice system as the patient. There are manifest ethical and professional dangers for mental health professionals who assess patients at the behest of employers or social agencies when the main beneficiary of such assessments is the organisation, with potentially the loser being the patient. Prior consent and the waiving of claims to confidentiality by the individual being assessed in no way mitigates these dilemmas, given that such undertakings can hardly be considered uncoerced if the examination is, for example, a condition of acquiring or retaining employment. Further, by focusing on individual psychopathology as the cause of conflict and violence in the workplace, there is a danger of overlooking the organisational contributions to creating the conditions for such conflict, as well as providing an excuse for management to abrogate to professional advisors their responsibilities to maintain a safe workplace (Mullen, 1997).

The American context of Fletcher *et al*'s work is one in which, as they note, the civil law is the primary regulator of conduct aimed at curbing workplace violence. The law, in the US context, operates through placing employers at hazard of being held liable for injuries resulting from violence in the workplace. Given such a context, it becomes understandable that there is an attempt to shift at least some responsibility back to the perpetrators or potential perpetrators. Similarly, the search by organisations for insurance in the form of professionally performed risk assessments is encouraged by the drive to limit potential liability. The issue of workplace violence calls forth different responses in jurisdictions where the law is less eager to endorse implied duties to rescue, and where demonstrating negligence, recklessness or

failure to maintain accepted standards still plays a central role in establishing legal liability. That being said, trends in the USA have a tendency to influence medical and legal practice throughout the English-speaking world and beyond. Risk assessments of the type discussed by Fletcher *et al* will become an increasingly important aspect of the work of forensic mental health professionals, and not just in the USA.

The knowledge generated by forensic mental health professionals, both through their practice and through research, can be of potential relevance to a range of organisations and social agencies. It is right and proper that such knowledge be applied to benefit the community. How this is to occur, and to what extent health professionals should be directly involved in the wider applications of such knowledge, needs to be considered by the various professional groups involved. In our own narrow experience in the State of Victoria in Australia, it has been our forensic services' work with stalkers and with persistent claimants that has generated the widest community and interdisciplinary interest. The work has also led to calls from a remarkably diverse range of organisations for advice and input on how to cope with the problems created in the workplace, and the wider community, by such behaviour. Knowledge generated by forensic mental health professionals through research and clinical experience can, I believe, inform improvements in practices aimed at ensuring safer workplaces and a safer community. The challenge is to mediate that knowledge and enlarge our professional roles without becoming salespeople, pundits, instant experts or ersatz police officers and also without compromising our role as clinicians.

The presence of significant substance misuse in those mentally disordered individuals who behave violently has been reported repeatedly. This literature is ably reviewed by Soyka (2000, this issue). In those with schizophrenia, for example, such a high level of offending behaviour is reported in those who also misuse alcohol or drugs that it appears to account for all, or virtually all, of the elevated rates in schizophrenia as a whole (Soyka *et al*, 1993; Räsänen *et al*, 1998; Swartz *et al*, 1998; Wallace *et al*, 1998). The association, in theory, between substance misuse, mental disorder and offending could reflect:

- (a) substance use inducing violent behaviour in people with mental disorders (a direct causal relationship);
- (b) substance use disrupting the effective treatment of these disorders, via exacerbation of symptoms and/or decreasing compliance, with resulting increased disturbance and consequent violence (an indirect causal relationship).
- (c) that people with mental disorders who are prone to violent behaviour also happen to be prone to substance misuse (a non-causal association based on chance or, more likely, on a common origin in a third factor such as personality).

In practice all three relationships may play a role in mediating the association between misusing substances, having a mental disorder and acting violently. Irrespective of what causal relationship, if any, exists, the presence of substance misuse is a robust risk factor for violent behaviour. Given, however, that it is unlikely that the relationship is entirely accounted for by a common origin in something like personality factors, then the effective management of substance misuse in people with mental disorders also becomes central to preventing future antisocial behaviour (as, for that matter, it is in the non-disordered population). One of the most obvious impacts of the research over recent years on mental disorder and offending behaviour has been the increased emphasis on preventing and managing substance misuse in the patients of forensic mental health services. Whether we use the term comorbid or co-existing, the challenge is the same: how to reduce substance misuse by people with mental disorders.

CONCLUSION

The papers in this special section of the *Journal* aim to provide a glimpse into research and practice internationally in the area of forensic mental health. Inevitably there are yawning gaps in the coverage, both of topics and of countries. Some gaps were due to my editorial failures and some to those who promised contributions but were not able to deliver. Conspicuous by their absence are papers dealing with the management of personality disorders in offenders and any consideration of the impact of offending on victims. Next to managing substance misuse, the problems created by

people with personality disorders and the challenges of effectively helping victims recover from the impact of offending upon them are likely to be central to developing forensic mental health practice. Forensic mental health is changing rapidly. Hopefully this issue of the *Journal* will give some idea of the likely directions in which that growth will occur.

REFERENCES

- Eastman, N. (1999)** Public health psychiatry or crime prevention? *British Medical Journal*, **318**, 549–551.
- Eronen, M., Tiihonen, J. & Hakola, P. (1996)** Schizophrenia and homicidal behaviour. *Schizophrenia Bulletin*, **22**, 83–89.
- Fergusson, D. M. & Mullen, P. E. (1999)** *Child Sexual Abuse: An Evidence-Based Perspective*. Thousand Oaks, CA: Sage Publications.
- Fletcher, T. A., Brakel, S. J. & Cavanaugh, J. L. (2000)** Violence in the workplace: new perspectives in forensic mental health services in the USA. *British Journal of Psychiatry*, **176**, 339–344.
- Gunn, J. (2000)** Future directions for treatment in forensic psychiatry. *British Journal of Psychiatry*, **176**, 332–338.
- Heilbrun, K., Ogloff, J. R. P. & Picarello, K. (1999)** Dangerous offender statutes in the United States and Canada: implications for risk assessment. *International Journal of Law and Psychiatry*, **22**, 393–415.
- Hodgins, S. (1992)** Mental disorder, intellectual deficiency, and crime – evidence from a birth cohort. *Archives of General Psychiatry*, **49**, 476–483.
- (1993) *Mental Disorder and Crime*. Thousand Oaks, CA: Sage Publications.
- Home Office & Department of Health (1999)** *Managing Dangerous People with Severe Personality Disorders*. London: Stationery Office.
- Lindqvist, P. & Allebeck, P. (1990)** Schizophrenia and crime. A longitudinal follow-up of 644 schizophrenics in Stockholm. *British Journal of Psychiatry*, **157**, 345–350.
- & Skipworth, J. (2000) Evidence-based rehabilitation in forensic psychiatry. *British Journal of Psychiatry*, **176**, 320–323.
- Monahan, J., Steadman, H. J., Appelbaum, P. S., et al (2000)** Developing a clinically useful actuarial tool for assessing violence risk. *British Journal of Psychiatry*, **176**, 312–319.
- Mullen, E. (1997)** Workplace violence: cause for concern or the construction of a new category of fear? *Journal of Industrial Relations*, **39**, 21–32.
- Pollack, S. (1974)** *Forensic Psychiatry in Criminal Law*. Los Angeles, CA: University of Southern California.
- Puisis, M. (1998)** *Clinical Practice in Correctional Medicine*. St. Louis, MO: Mosby.
- Räsänen, P., Tiihonen, J., Isohanni, M., et al (1998)** Schizophrenia, alcohol abuse and violent behavior: a 26-year followup study of an unselected birth cohort. *Schizophrenia Bulletin*, **24**, 437–441.
- Soyka, M. (2000)** Substance misuse, psychiatric disorder and violent and disturbed behaviour. *British Journal of Psychiatry*, **176**, 345–350.
- , Albus, M., Finelli, A., et al (1993) Prevalence of alcohol and drug abuse in schizophrenic inpatients. *European Archives of Psychiatry and Clinical Neuroscience*, **242**, 362–372.
- Steadman, H., Mulvey, E., Monahan, J., et al (1998)** Violence by people discharged from acute psychiatric inpatient facilities and by others in the same neighborhoods. *Archives of General Psychiatry*, **55**, 393–401.
- Swanson, J. W., Holzer, C. E., Canju, V. K., et al (1990)** Violence and psychiatric disorder in the community: evidence from the Epidemiologic Catchment Area surveys. *Hospital and Community Psychiatry*, **41**, 761–770.
- , Swartz, M. S., Borum, R., et al (2000) Involuntary out-patient commitment and reduction of violent behaviour in persons with severe mental illness. *British Journal of Psychiatry*, **176**, 324–331.
- Swartz, M. S., Swanson, J. W., Hiday, V. A., et al (1998)** Violence and severe mental illness: the effects of substance abuse and nonadherence to medication. *American Journal of Psychiatry*, **155**, 226–231.
- Taylor, P. J. & Gunn, J. (1984)** Violence and psychosis: I. The risk of violence among psychotic men. *British Medical Journal*, **288**, 1945–1949.
- Wallace, C., Mullen, P., Burgess, P., et al (1998)** Serious criminal offending and mental disorder: Case linkage study. *British Journal of Psychiatry*, **172**, 477–484.
- Weinstock, R., Leong, G. B., Silva, J. A. (1994)** Defining forensic psychiatry: roles and responsibilities. In *Principles and Practice of Forensic Psychiatry* (ed. R. Rosner), pp. 7–13. New York: Chapman & Hall.
- Wessely, S. (1997)** The epidemiology of crime, violence and schizophrenia. *British Journal of Psychiatry*, **170** (suppl. 32), 8–11.

PAUL E. MULLEN, Professor of Forensic Psychiatry, Monash University, Clinical Director, Victorian Institute of Forensic Mental Health, PO Box 266, Rosanna, Victoria 3084, Australia

(First received 3 November 1999, accepted 18 November 1999)