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Assessing risk of interpersonal violence in the mentally ill

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Mental health professionals regard the assessment of suicide risk as part of normal clinical practice, but most shy away from assessment of risk of interpersonal violence, either doubting that such predictions are possible, or, if possible, are part of their role. In part, this fastidiousness reflects the influence of a consensus which emerged in the 1970s to the effect that there was no substantial relationship between mental illness and violent behaviour. The only basis for risk assessments which remained were those factors in the general population known to be associated with criminality. Even here, however, the accuracy of predictions made by clinicians had been subject to considerable critical scrutiny, which undermined any claims the profession may have had to expertise (Monahan, 1981; Brizer, 1989). There seems to have been wide acceptance that psychiatrists were doubly disabled in the business of predicting violence by having no relevant specialist knowledge and by being poor at applying knowledge gleaned from other disciplines such as criminology.

Increasing evidence for an association between some forms of mental disorder and violent behaviour demands a re-examination of the extent to which clinical factors, such as delusions, can effect the risk of violent behaviour. Recent studies have also challenged the assumption that established risk factors within mentally competent populations, such as age, gender and prior offending (for review see Reis & Roth, 1993), can necessarily be assumed to be equally valid in mentally disordered populations. There has also occurred a re-evaluation of clinicians' competence in predicting future risks (Monahan, 1996). A more sophisticated analysis of existing studies has suggested that clinicians' predictions of future violence are considerably better than chance (Mossman, 1994). Certainly, when considering short-term predictions (over periods of up to a week or so) risk assessments would appear to be reasonably reliable (Tardiff, 1989), although medium- and long-term predictions remain more questionable. Ideally we need an empirical database which can be converted into actuarial predictions (Klassen & O'Connor, 1988; Monahan & Steadman, 1996), although it is still, in this author's opinion, questionable whether this is a realisable goal. What is possible is the application of the limited empirical data that do exist, augmented by clinical experience and common sense. As Prins (1996) points out there is no magical, or even sophisticated, approach available to risk assessment. The systematic application of the available (limited) knowledge can, however, improve clinical predictions. Nevertheless, the limitations and biases inherent in such risk assessments should never be forgotten.

Risk factors

The risk factors for violence in the mentally ill can be divided into those which are directly related to the illness and those which reflect dispositional, historical and contextual influences (see Monahan, 1993).

Dispositional factors

Gender

Crimes of violence among the mentally competent are almost exclusively a male preserve. In the mentally ill the disparity between men and women with regard to violence is far less marked (Binder &

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McNiel, 1990; Hodgins, 1992; Steadman *et al*, 1994). The transfer of our assumptions about low levels of violence among women, derived from experience with non-disordered populations, to the mentally disordered is a potent source of error in clinical predictions, which tend consistently to underrate the risks of violence in female patients (Lidz *et al*, 1993).

Age

Criminality in general, and violent offending in particular, is usually associated with youth but this relationship, although present, is less marked in the mentally abnormal offender whose first offence tends to occur at a later age and whose likelihood of acting violently does not decrease so dramatically with advancing years (Hafner & Böker, 1982; Taylor, 1993).

Socio-economic and marital status

Violent offenders come disproportionately from the lower socio-economic strata of society. Those with chronic mental illness tend to drift down the socio-economic scale but despite this the association between socio-economic status and violent behaviour may be less marked among the mentally disordered (Rossi *et al*, 1986). There is certainly a clinical impression that mentally abnormal offenders are drawn from a far wider section of the community, particularly in terms of family background, than the general offender population.

The presence of a stable relationship is a good prognostic indicator in the general offender population but this may not be so in the mentally ill; in at least one study being married had a positive association to violence in the in-patient setting (McNeil *et al*, 1988).

Personality

There is among some clinicians an assumption of a close link between personality deviations and criminal behaviour (Krakowski *et al*, 1986). This assumption is built into the definition of some personality disorders in DSM–IV, most obviously in the antisocial category, but also in the criteria for borderline, histrionic, narcissistic and passive aggressive. The best general predictor of behaviour, however, among those with personality disorders is not the label, or their score on a check-list, but their past behaviour (Coid, 1993; Reid, 1994). When a mentally ill individual becomes threatening and combative, there can be an assumption that this reflects primarily a problem in their personality rather than the influence of current psychotic experiences. Further, if the antisocial behaviour persists, the mentally ill patient may find themselves, on this basis, redefined as having a personality disorder and denied appropriate treatment and support. It is also worth noting that such clinical errors are reinforced by failing to remember that in schizophrenia there is all too often an erosion of the personality, which may lead to the emergence of feckless and apparently callous behaviours.

Intellectual function

The role of low IQ and frank intellectual disability in the genesis of antisocial and violent behaviour remains controversial (d'Orban et al, 1993). A high proportion of those arrested for a range of offences have low IQs, and those ascertained intellectually disabled are more likely to acquire convictions (Hodgins, 1992), but employing IQ measures as independent predictors of future dangerousness is fraught with problems (Klassen & O'Conner, 1988). Clinicians would be advised to look at the effects of limited coping skills and the potential for misinterpreting situations on the likelihood of both future conflict, and the control of impulses, rather than to rely on the levels of intellectual function itself.

Neurobiological factors

The hopes of finding some form of biochemical or psychophysiological marker for predicting violence have so far produced little of clinical relevance (Reiss & Roth, 1993; Garza-Trevino, 1994), although there are claims that the inclusion of serotonin variables improves predictive equations (Virkkunen *et al*, 1996). There is a long-established feeling that neurological deficits or damage may predispose to violent behaviour, an unstable brain leading to unstable behaviour, which emerges periodically in dubious concepts such as the episodic dyscontrol syndrome. Brain damage, particularly involving the frontal lobes, can leave the patient disinhibited and occasionally more prone to irritability. Dementing processes also on occasion increase aggression and decrease self-control. It is, however, still difficult to go much beyond these obvious clinical realities.

Historical factors

Prior history of violence

The truism that past behaviour predicts future behaviour applies to the mentally ill as to the mentally competent, but needs to be applied taking the effects of illness into account. Mental illness, by its very nature, is a break with the regularities of the past. In the mentally ill individual violent behaviour can emerge as a direct result of specific morbid experiences with no, or far less, connection

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with the habitual ways of acting which characterised the patient prior to the onset of illness. This illness-related risk will disappear when the illness remits, but may reappear with relapse. This implies that for illness-related violence it is the behaviour during the active disorder which is of particular predictive value. A history of the ready resort to violence when symptom-free does increase the risks of violence when ill (illness adds disabilities but, sadly, rarely removes pre-existing difficulties and disadvantages) but the absence of a history of such violence does not carry as much comfort of future pacificity as it would in the general population. A history of serious violence in the past remains, however, the strongest predictor of violence in the initial period after admission (Convit *et al*, 1989; Walker & Siefert 1994).

Psychiatric history

A history of prior treatment for a mental illness has little or no predictive value in and of itself (Link *et al*, 1992; Swanson, 1994). What can be predictive is the presence of active illness and particular disturbances of mental state (see below). If the patient has been violent when ill previously, and the illness is prone to recur, then the risk of violence is likely to return. What should not be ignored, however, is the potentially beneficial effects of treatment as well as the natural history of mental disorders, particularly schizophrenia, which may not produce the same clinical features in subsequent episodes. The other intervening variable is the specific contextual factors which may not be operative in future episodes of illness. The paranoid (delusional) disorders tend towards consistency and chronicity, but even here changing context and contingencies are critical. Morbid jealousy, for example, is prone both to produce violence and to recur, but it requires the context of a relationship in which it can emerge and be sustained.

Personal history

In the mentally competent a history of conduct disorder as a child is a clear risk factor for offending in adult life. A history of physical, emotional or sexual abuse during childhood also has an association with some forms of criminality in adult life, although the practical significance of this appears modest at best (Widom, 1989). The relevance of such factors in the mentally ill remains in doubt, although one study has identified both separation from parents in childhood and childhood conduct disorder as increasing the long-term risk of recidivism in a forensic psychiatric population (Harris *et al*, 1993).

Contextual factors

Current life situation

Those mentally ill individuals who commit serious acts of violence have often fallen out of treatment and relapsed into active illness in a situation lacking appropriate social and interpersonal support (Bowden, 1981; Taylor, 1985). This is an important and correctabe risk factor. The most frequent victims of the violence of the mentally ill are those in close emotional and physical contact. Hafner & Böker (1982) noted that 60% of the victims of the violence of the mentally disordered were immediate family members and only 9% were strangers. The context from which such domestic violence arises is usually one in which the family member becomes incorporated into the patient's delusions, either as a persecutor likely to harm them or as the villain of a plot to cheat or deprive them of their entitlements. There is often an escalating conflict, which may last for weeks or months prior to an attack.

Stress and options

Violence can be the final resort of an individual who feels themselves trapped in a stressful situation. As with the suicidal patient, the provision of alternatives to self-destruction and places to turn for support can be critical, so in managing the potentially violent it is essential not to leave them without a perceived escape other than through violence.

Social networks

Those with chronic mental illness, in particular schizophrenia, tend to have impoverished social networks. They often alienate or outlive their immediate family, are less often able to establish and maintain a partnership, are more often childless and are often reduced to looking to casual acquaintances and professionals for their interpersonal contacts. A narrow range of social contacts providing inadequate support, combined with conflict within those relationships which do exist, may well predispose to violence (Estroff & Zimmer, 1994). Social isolation or the intense and dependent, but conflictual, relationships with a single individual which so often accompanies an impoverished social network should be considered risk factors for violent behaviour.

Current emotional state

Fear, anger, a frustrated sense of entitlement, humiliation, self-righteousness, jealousy – these are among the emotional states which can be associated with interpersonal violence. Fear and anger are the final common pathway by which more complex

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states of mind, like jealousy and querulousness, often move to open aggression. Anger has been identified in some studies as an important precipitant of violence by the mentally disordered (Novaco, 1994). Fear has also emerged as central to what Link *et al* (1992) refer to as the threat/control override symptoms (see below). In evaluating the significance of fear and anger it is essential to consider: the context (will it recur; is it likely to produce escalating disruption, or to ameliorate; is it open to modification?); the relationship to delusional or other morbid experiences such as emotional lability; and the likely level of self-control or, conversely, impulsiveness, of the patient. Delusion-driven fear or anger in an impulsive, emotionally labile individual would obviously be particularly concerning.

Facility with violence

The availability of weapons, together with familiarity with their use, the capacity for violence and access to potential victims all need consideration (as applies equally in the general community).

Threat

Threats of violence, like threats of suicide, have to be taken seriously. Threats are far more common than violent behaviour, a fact which can lull the clinician into a false sense of security. There is an almost total lack of systematic studies which might assist the clinician in assigning weight to particular threats. The studies of MacDonald (1968) indicate that those who threaten do on occasion proceed to acts of serious violence, although interestingly subsequent self-damaging behaviour was more common than violence to others. In the absence of empirical data the clinician is thrown back on experience and common sense. Threats should be evaluated in context; thus the murderous promise uttered in the context of an angry altercation over some trivial difference is usually less ominous than a similar threat arising out of an ongoing dispute which is creating escalating conflict. In the mentally disordered threats which arise from heavily invested delusional preoccupations should occasion particular concern. The plausibility of the threat and the specificity of the threat is of relevance. The repeated threat is prone to create decreasing anxiety but in the mentally ill this can be a mistake. In clinical practice the emergence of threats of violence, like threats of self-destruction, are an indicator of the need for a further assessment of risk and a review of management.

Substance abuse

The co-existence of substance abuse with mental disorders significantly increases the risks of violent behaviour (Swanson, 1994). The association between intoxication and violent behaviour is as complex as it is clear. In practice, the presence of substance abuse and its associated intoxications significantly increases the risks of violence in the mentally disordered. It should also be noted that the unwanted effects of therapeutically administered agents can contribute to risk. The disinhibiting effects of benzodiazepines are well known (and possibly over-emphasised); less well known is the potential for the intense restlessness and agitation of akathisia to errupt in violence.

Illness-related factors

The mental illness most consistently associated with increased risk of violent behaviour is schizophrenia. Focus on the diagnostic grouping is, however, less useful clinically than examining the abnormalities of mental state which contribute to the potential violence. This is in part because it is only a subgroup of those with schizophrenia who have heightened risk profiles, and partly because it is prone to produce an underestimation of the risks associated with affective and other disorders, but most importantly because it is the presence of particular morbid states of mind to which risk is associated rather than any particular diagnostic label. Depressive disorders, for example, are typically regarded by clinicians as presenting a low risk of future dangerousness, probably in part because impressions derived within in-patient settings, and in part because threatening behaviours are uncommon in depressed patients in any setting. However, among homicide offenders the incidence of depression at the time of the offence is relatively high, particularly when those who kill and commit suicide immediately after are included. When asked, depressed patients not infrequently harbour violent and even murderous thoughts and intentions (West, 1965; Rosenbaum, 1990). In depression the delusions, morbid preoccupations, irritability, hopelessness and loss of perspective can at times produce a dangerous mix, less often than in schizophrenia but not so infrequently as to be safely discounted.

The abnormalities of mental state requiring special attention are discussed below.

Delusions

There is evidence for an association between active delusions and violent behaviour (Hafner & Böker, 1982; Taylor, 1985; Mullen *et al*, 1993). The work of Link *et al* (1992) and Link & Stueve (1994) pointed to higher rates of violence being associated with morbid beliefs (presumably usually delusional) that other

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people wished to harm them. This produced fear which, in combination with passivity-type experiences, constituted their threat control/override symptoms, which were the most powerful illness-related predictors of violent behaviours. The clinician will most frequently encounter violence in association with persecutory delusions which have led to protective or pre-emptive strikes, but the less common delusions of infidelity probably have a stronger association with violence (Mullen, 1989). Any delusional system, be it erotomanic, hypochondriacal, litigious, or involving mis-identifications, can also lead to violent behaviour. The victims of such behaviour have most frequently been incorporated in the patient's delusional system and either become a figure of dread, who threatens imminent harm, or an object of righteous anger, because of a supposed transgression or insult. When women perpetrate serious violence it may be directed at their children and so particular care needs to be taken when there emerge delusional preoccupations about a patient's child.

Hallucinations

Studies on in-patients have shown a correlation between actively hallucinating and violent and threatening behaviours, although this may well reflect a non-specific effect of florid psychotic disturbance of which hallucinations are merely an indicator. Some personality-disordered individuals report voices (usually in their head) telling them to kill; these are best treated as communications of distress or, occasionally, as a threat. Command hallucinations have attracted attention in part because these may be offered as an exculpatory explanation for violent acts by offenders (in some of whom the hallucinatory experiences may begin and end with a voice telling them to attack, violate or rob). Command hallucinations are relatively common among those with schizophrenia but studies have revealed that, at least in general psychiatric populations, they are rarely acted upon (Hellerstein *et al*, 1987). Where hallucinations reinforce delusional preoccupations, particularly fear of imminent attack, the risks of violence may be greater.

Passivity experiences

Link *et al* (1992) and Link & Stueve (1994) placed particular emphasis on the positive association between violent behaviour and the endorsement of having experienced "thoughts put into your head that were not your own" and that "your mind was dominated by forces beyond your control" (Link & Stueve, 1994, p. 144). On the face of it these appear to be passivity experiences, although the frequency with which they are reported among their subjects must leave some doubts as to whether they are identical with the profound disturbances of mental experience usually termed passivity phenomena. Taylor also noted passivity experiences (more conservatively assessed) to be related to a high risk of violence in her Brixton study (reported in Mullen *et al*, 1993). It makes sense that those who experience their self-control, and even the integrity of their own volition, to be undermined may be at greater risk of responding to fear or rage with violence.

Catatonic movement disorders

These are usually encountered in clinical practice as subtle disruptions in the free flow of voluntary movement but occasionally can produce more dramatic episodes of wild and disorganised activity in which the patient, their surroundings and bystanders may all sustain damage.

Emotional blunting

This is usually found in the more severe and chronic forms of schizophrenia and can result in an insensitivity conducive to thoughtless and damaging behaviour, which results usually in minor acts of delinquency but occasionally in more serious offences. Emotional blunting is often accompanied by a loss of drive and motivation, which mitigates against planned or persistent aggression.

Clouding of consciousness and confusion

Patients whose consciousness is disturbed, be it from cerebral injury, cerebral disease, intoxication or metabolic disorder, can become irritable, aggressive and misinterpret the actions of others as malevolent and threatening. This, in combination with disinhibition, is productive of violence. Organic confusional states are not infrequently characterised by outbursts of verbal and even physical aggression. Confusion complicating dementia can produce violent behaviour and this is one of the more common precipitants of hospitalisation. Fortunately, the often debilitated state of confused patients combined with the ill-directed nature of the violence reduces the occurrence of serious injuries.

Mood disorder

Manic states are often accompanied both by a sense of entitlement and by a readiness to feel ill-used. Confrontation is common, but this does not usually result in violence except in the hospital setting where attempts have to be made to contain the patient. The offences in mania are usually impulsive acts of nuisance or fecklessness and rarely involve planned viciousness.

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The relationship of depressed mood to violence is complex. Although the majority of depressives are not confrontational, a few driven by anger, irritability or despair can act violently towards others. The so-called altruistic homicide is a well known example; less well known is the depressed and narcissistic individual who either vents their despair on the, to them, uncaring other, or who decides to mark their passing in a blaze of violence. The emergence of depressed mood in delusional individuals, particularly the morbidly jealous, should increase anxiety about violence to others as well as self.

Ethical and legal issues

The ethical disquiet regarding clinicians making risk assessments of patients' future dangerousness is sometimes based on what is now a highly questionable reading of the literature, which concludes that such predictions are inherently unsound and have no basis in empirical data. Criteria for ethical predictions of dangerousness are summarised in Box 1.

Conclusion

To aid the clinician, an attempt must be made to assign some weight to the contending influences of different risk and protective factors (see Table 1), although this may reflect little more than the author's experience and prejudices.

In the emergency room, confusion and clouding of consciousness are probably the most common source of violence. On admission to the wards the best predictors of violence are a combination of the general level of disturbance in the mental state, particularly when manifesting in fear, agitation and anger, combined with a history of prior violence. On discharge persistent delusions associated with fear or righteous anger are concerning, particularly in those unlikely to cooperate fully with follow-up treatment. In the community increasing tension between the patient and a relative or neighbour driven by delusional preoccupations raises special concern, particularly when the patient is making threats and rejecting treatment and support. Substance abuse increases the risk of violence in this, as in every other, context. Those patients who commit the most serious violence seem often to combine delusional preoccupations with relatively high levels of functioning, with, in particular, the preservation of drives and motivation.

The general approach to predicting violence is similar to that for assessing suicide risk and clinicians have in practice to make only the appropriate shifts of content and emphasis.

We are becoming increasingly aware of the potential for mental illness, particularly schizophrenia, to produce violent and fear-inducing behaviours. It is important not to swing from the extreme of denying any association between mental illness and violence to placing the fear of violence at the very centre of our clinical concerns (despite political pressures in this direction). Current evidence supports a modest association. Violence, when it does occur, all too often reflects a failure of adequate treatment and support. Those among the mentally ill who commit serious acts of violence have typically been known to the mental health services but have dropped out, or been ejected from, treatment. The scepticism about the effectiveness of mental health

Box 1. Predictions of dangerousness to be ethical should be:

- Based on reasonable empirical evidence, e.g. that patients who are currently deluded, abusing alcohol and making threats are at risk of acting on those threats
- Expressed in terms of probabilities which make clear the inevitabily partial and tentative nature of any such prediction
- Based on the relevant characteristics of the individual patient who has been personally examined, and the information confirmed, wherever possible by independent informants
- Formulated to take account of the implications for the patient of the prediction (it is one thing to base a therapeutic decision on such a prediction, quite another to issue reports which affect adversely the patient's interests in court appearance)
- Motivated primarily by the intention to provide the patient with the best available treatment and care (which may involve some degree of containment as it is to the patient's advantage, as well as that of the potential victims, to be prevented from hurting others)

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Table 1. Factors of relevance in predicting risk in the mentally ill

Level of risk	Directly illness-related	Non- or indirectly illness-related
High	Persecutory delusions with fear of imminent attack	History of previous violence
	Morbid jealousy	History of threats
	Involvement of close relative or companion in conflict arising from delusional convictions	Plans for, and fantasies of, attack
		Escalating conflict with specific individuals
	Clouding of consciousness and confusion	Impulsivity
	Sustained anger or fear	Substance abuse
Moderate	Passivity experiences reducing sense of self-control	Lack of social support
	Litigious, erotomanic, religious and mis-identification disorders	Youth
		Poor social coping
	Command hallucinations	Recent stress related to life events (especially losses)
Protective	Responding to treatment	Good social networks
	Compliant with treatment	Valued home environment
	Good insight	No interest in or knowledge of weapons or the means of violence
	Amotivational	
		Fear of own potential for violence

services which pervades public commentaries, professional as well as lay, drives public policy responses to the perceived dangerousness of the mentally ill in the direction of control and containment. Good clinical management can, however, either remove, or greatly reduce, the risks of illness-related violence in those with major mental disorders. This needs to be emphasised, not only in the profession's public statements but in our everyday interactions with patients, relatives, fellow professionals, the police and the courts. In the long run maintaining a therapeutic alliance, particularly with difficult and objectionable patients, which promotes treatment compliance and maintains the necessary social and interpersonal supports, is a greater contribution to reducing violence than the finest skills in risk assessment.

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Multiple choice questions

1. Women with serious mental illness:
   a are more likely to behave violently than their non-disordered sisters
   b are not more likely to behave violently than their non-disordered sisters
   c are more likely to behave violently than mentally disordered men
   d are only at increased risk of behaving violently in the in-patient situation
   e often have their potential for violent behaviour underestimated by clinicians.

2. A history of previous treatment for a schizophrenic illness indicates:
   a the individual is at all times at increased risk of behaving violently
   b the individual has no increased risk of violence
   c the individual is less likely to behave violently than those without such a history
   d the level of risk depends on whether the patient has current disturbances of mental state and the nature of those disturbances
   e the individual is more likely to acquire a conviction for a violent offence than a non-disordered fellow citizen.

3. Victims of serious interpersonal violence in the context of serious mental illness are most often:
   a psychiatrists
   b the police
   c family members
   d strangers
   e social workers.

4. Clouding of consciousness and confusion is:
   a unrelated to the risk of violence
   b is a strong predictor of violence in the emergency room situation
   c reduces the risk of violence among demented patients in the community
   d is commonly associated with the emergence of violence among those with schizophrenia
   e is associated with the emergence of violence in the elderly dementing patient.

5. The following abnormalities of mental state are not associated with an increased risk of violence:
   a delusions of infidelity
   b intense fear arising from persecutory delusions
   c passivity experiences in combination with threatening persecutory delusions
   d hallucinated accusing/critical voices
   e social withdrawal and lack of motivation.

MCQ answers

1	2	3	4	5
a T	a F	a F	a F	a F
b F	b F	b F	b T	b F
c F	c F	c T	c F	c F
d T	d T	d F	d F	d T
e F	e T	e F	e T	e T

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