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Review Article

Seclusion

ADRIAN ANGOLD

Seclusion is a commonly used management technique in some areas of psychiatric practice. However, its theoretical and empirical underpinnings are greatly wanting in many respects. This paper reviews the present state of our knowledge and ignorance about seclusion, and suggests some strategies for much-needed research.

Seclusion (by which I mean "containment of a patient alone in a room or other enclosed area from which that patient has no means of egress" (Royal College of Psychiatrists, 1982)) has a long and chequered history as a form of psychiatric treatment. In 18th-century England it was widely believed that terror was an important adjunct to the control and cure of insanity (Cullen, 1816), and a variety of sophisticated instruments, which might well have found favour in the fastnesses of the Inquisition, were in regular use in houses where lunatics were confined (Conolly, 1973, first published 1856). Madmen who proved difficult to control were often isolated for long periods (sometimes many years), and frequently maintained in physical restraints as well (Tuke, 1813).

Towards the turn of the 19th century, in both France and England, a more humane note was sounded. Pinel was appointed physician to the Bicetre in 1792 and gained fame by unchaining its sorry inmates. The Society of Friends opened The Retreat at York in 1796. The work of these and other pioneers powerfully influenced John Conolly, who instituted a system of non-restraint management at the Hanwell Asylum, a place which had previously been as vigorous as any in its physical abuse of the insane. In his book *Treatment of the Insane without Mechanical Restraints* of 1856 (Conolly, 1973), he paints a rosy picture of life in his asylum, but even here the need for special provisions when dealing with violent or extremely excited patients was apparent. For such cases Conolly strongly, and quite lyrically, advocated the use of the padded seclusion room. He carefully described the design of a room to be used for this purpose, indicating that, although sparsely furnished, it need not be unpleasant, and altogether regarded seclusion as an enlightened means of providing disturbed patients with calm and security, while avoiding the evils of pharmacological oversedation (*ibid.*, p. 68).

Of course, Conolly's approach was far from achieving universal acceptance, but by the end of the 19th century, moderate and informed psychiatric opinion continued to find a place for seclusion in the treatment armamentarium; thus Hack Tuke (1892) commented, "If Conolly attached too much importance to this mode of treating patients [seclusion], the other extreme, of regarding the padded room as never useful, is a very questionable position to take". Here the argument seems to have rested for a long time.

After World War II, models of psychiatric care were based on the ideal of a therapeutic milieu or community. These, accompanied by enormous advances in psychopharmacology, transformed the treatment offered in most psychiatric facilities. In the USA Greenblatt *et al* (1980, first published 1955) documented the possibility of producing startling reductions in the use of seclusion in various private and public hospital settings by introducing changes in the hospital milieu, using the principles of the therapeutic community, at a time before the introduction of the widespread use of phenothiazines. For instance, in the Bedford Veterans Administration Hospital, seclusion hours were reduced from 2900 in February 1952 to 28 in November 1952. This work was also particularly valuable in that it highlighted many of the interpersonal and administrative problems that may arise when an institution adopts markedly different policies and practices from those that it has previously espoused. In the only detailed study conducted in Britain, Thompson (1986) documented a fall in the use of seclusion with general adult psychiatric admissions betwen 1981 and 1984, that he suggested might have been attributable to the introduction of the Mental Health Act 1983.

However, reference to the indexes of several major psychiatric textbooks of the 20th century failed to reveal any entry under 'Seclusion', despite the continuing use of this form of treatment in many psychiatric facilities, including the most respected (Royal College of Psychiatrists, 1982). Furthermore, considerable doubts exist in some quarters as to its

appropriateness as a form of treatment, and there is discomforting evidence of its abuse (HMSO, 1978).

In Britain, this academic neglect of seclusion as a topic for teaching and study has a parallel in the sweeping away of the old regulations governing its use, and their replacement with a mere recommendation from the Department of Health and Social Security that each hospital should have a clearly established procedure. However, the Royal College of Psychiatrists (1982) firmly supported the view that the use of seclusion should continue to be carefully supervised, in a paper outlining the seclusion procedure at the Maudsley Hospital. This paper was published with the stated aim of "encouraging hospitals to think about this subject and review their policies". It also stated that "it is imperative that doctors should take a primary responsibility for support and guidance of nurses involved in the necessity to use such a facility". It does not, however, provide any knowledge base for the support and guidance of the doctors themselves, or any reference to sources where such knowledge might be obtained.

A number of papers, mostly from American centres, examining the indications for, and use of, seclusion have appeared in recent years, in a variety of journals, and the remainder of this paper summarises the findings to date, and indicates some very significant gaps in our knowledge.

How many patients are secluded?

The frequency of seclusion varies very widely from one unit to another, with Tardiff (1981) reporting the use of seclusion or restraint for 1.9% of long-stay admissions, while Phillips & Nasr (1983) report its use on 51% of the 35 subjects in their study of a sample of consecutive admissions to a state mental hospital (which did not report separate figures for seclusion and physical restraint, although it is probable that in both of these studies use of the latter was combined with seclusion). Of the 11 studies where the incidence of seclusion may be ascertained, five report its use in more than 25% of patients. Soliday (1985) found that 65% of the patients on three general psychiatric wards reported that they had been secluded at least once. However, 41% of the patients failed to return their questionnaires, so this figure may represent the rate for an atypical subgroup. Of the secluded patients, only 4% were apparently secluded more than twice. There were no differences in the sex, age or legal status (formal or informal) of the patients in the secluded compared with the non-secluded group; however, the secluded group had been in hospital longer and had also had more previous admissions. On this last point we might simply note that they had been 'at risk' for seclusion longer. Wadeson & Carpenter (1976) reported that of their 62 patients on an NIMH clinical research unit with a low medication policy, 41 (66%) were secluded, but their definition of seclusion included some episodes in which the door was not locked and during which a nurse remained with the patient. Clearly such episodes do not constitute seclusion as defined here. A similar problem with definition arises in Wells's (1972) use of the term. In fact, the 4% of patients 'secluded' in his study of a 22-bed psychiatric floor in a university hospital were given individual intensive nursing rather than being isolated.

It is not at all clear, however, why such large differences in the use of seclusion are found. The importance of specific policy decisions may be deduced from some reports. The high rate of seclusion (44%) reported by Binder (1979), from an 11-bed crisis intervention unit, in which all patients who presented with a previous history of violence were automatically secluded, and all patients had an authorisation for seclusion "p.r.n." included in their admission work-up, is an example. Davidson *et al* (1984) documented a 99% reduction in the use of seclusion in a large hospital for the profoundly retarded, over just a few months, in response to instructions to reduce the use of seclusion, plus feedback as to its rate of use. As mentioned above, Greenblatt *et al* (1980, first published 1955) demonstrated that the move from custodial to active therapeutic care in the hospital environment could be associated with a dramatic reduction in the need for, and use of, seclusion.

Another factor that has been suggested to explain the variability of seclusion rates is the nature of the patient population. For instance, Tardiff (1981) found a very low incidence among older chronic hospital patients, while Erikson & Realmuto (1983) linked seclusion on an adolescent psychiatric ward with violently aggressive, young, borderline patients. These authors also implicated the staff as a factor in increasing the use of restrictive measures. They noted 128 seclusions during a year of major staffing upheavals on an adolescent ward (during which there were two riots by patients!), in comparison with only 44 episodes two years later when the staff situation was more stable.

It has also been suggested that the sparing use of psychoactive medication results in an increased need for seclusion (Wadeson & Carpenter, 1976), but such a view is not easily substantiated or refuted from the available literature, where a 'low-medication' policy has been reported in a population where 66% are

'secluded' (but see the note above relating to Wadeson & Carpenter's (1976) use of the term), while the use of 'liberal medication' has resulted in 44% of patients being secluded (Binder, 1979). In no case have data as to the actual levels of consumption of drugs been presented. Schwab & Lahmeyer (1979) found that significantly more of their secluded group from a locked 24-bed general psychiatric unit required antipsychotic medication and lithium than their non-secluded controls, while controls were significantly more likely to have received no medication, but it is not clear from their paper how the use of antipsychotic medication was related to seclusion on their unit.

The use of seclusion in special hospitals may be mentioned here. The *Report of the Committee of Inquiry into Rampton Hospital* (HMSO, 1980) noted that, on any one day, between 7% and 9% of the women, but less than 1% of the men, were in seclusion. Some were more or less perpetually secluded. The committee recommended revision of the seclusion policy at Rampton suggesting, for instance, that a visit by a doctor within 24 hours of the institution of seclusion was an inadequate procedure for controlling its use.

Characteristics of the secluded patient

There is broad agreement across several studies about the type of patient most likely to be secluded. The most frequent picture is of a young, violent, psychotic man (Mattson & Sacks, 1978; Plutchic *et al*, 1978; Schwab & Lahmeyer 1979; Tardiff, 1981; Phillips & Nasr, 1983; Thompson, 1986), secluded soon after admission (Binder, 1979; Tardiff, 1981; Soloff & Turner 1981; Thompson, 1986; Angold & Pickles, 1987). These patients also tend to stay longer in hospital than those who do not require or receive seclusion (Schwab & Lahmeyer, 1979; Soloff & Turner, 1981; Soliday, 1985; Thompson, 1986). Phillips & Nasr (1983), comparing their secluded and non-secluded groups, found a higher incidence of psychosis in those secluded, but only among those secluded for reasons not associated with violence, suggesting that seclusion was not being used as a specific measure against psychotic violence, but was selectively used in relation to other sorts of behaviour in psychotics. Angold & Pickles (1989) found no difference in the numbers of psychotic patients between their secluded and non-secluded groups from an adolescent psychiatric unit.

Erikson & Realmuto (1983) suggested that their retrospective record data from an adolescent unit supported the notion that patients with different diagnoses tended to be secluded as a result of different sorts of incident, e.g. that seclusion of hyperactive–impulsive adolescents resulted from sudden outbursts, while those of conduct-disordered adolescents were the result of escalating misbehaviour until a controlling response was achieved. However, the reliabilities of some of the ratings used in this study were low, the numbers in some categories were very small, and no significance levels were reported, so these suggestions are tentative, although the research strategy deserves further consideration.

Timing of seclusion

Several studies have reported diurnal variations in seclusion rates, but different units appear to have quite different patterns, with increased rates at night found by Schwab & Lahmeyer (1979), and increases during the day reported by Plutchic *et al* (1978), Phillips & Nasr (1983), Angold & Pickles (1989) and Thompson (1986). Others reported increases in relation to mealtimes (Campbell *et al*, 1982; Thompson, 1986), nursing shift changes (Campbell *et al*, 1982), and in the evening (Binder, 1979). Angold & Pickles (1989) found that night-time seclusions were longer, on average.

Reasons for seclusion

Most studies have reported violence to be the commonest precipitant of seclusion, especially interpersonal violence, and most especially when directed against staff. Garrison (1984), in his interesting analysis of 1700 incidents of aggressive behaviour on a children's unit, found that male staff were considerably more likely to seclude children who were aggressive towards them than female staff. Other related reasons included threats and abuse, agitation, acute excitement, and generally disruptive behaviour. Mattson & Sacks (1978), however, reported disruption of the therapeutic environment (e.g. by noisy behaviour) as the commonest precipitant of seclusion. Angold & Pickles (1989) found that disruptive behaviour was the commonest single reason mentioned in seclusion records, but that violence was more common altogether (especially violence directed against staff). Schwab & Lahmeyer (1979) noted the "need for destimulation" as the prime precipitant, while actual assaults accounted for only 4%, and threats of assaults only 6%, of the seclusions reported by them. Interestingly, Schwab and Lahmeyer also provided the only study reporting higher rates of seclusion during the night than during the day, and the only study where manic patients figured significantly more commonly in the secluded

population than in controls, while schizophrenic patients were equally distributed. So it would seem that the use of seclusion reported by them is atypical in many ways.

Duration of seclusion

Surprisingly few studies have examined duration of seclusion. It seems clear that very long periods of seclusion (many days, weeks or months) are unacceptable (HMSO, 1978), and some work on the effects of long-term solitary confinement in prison (Grassian, 1983) serves to underline the possible psychopathological harmfulness of such treatment. However, those studies that have reported data on duration reveal very considerable variations, both between studies and in relation to different incidents within the same unit. Soloff & Turner (1981) reported a mean duration of 10.8 h (median = 2.8 h with a range from 10 min to 20 h, and Thompson (1986) reported a median of 4.3 h with a range from 10 min to 25.5 h. The latter author also noted that first episodes of seclusion for any subject tended to be longer than subsequent episodes (median 9.1 h for first seclusion and 3.3 h for subsequent seclusions), but Soloff and Turner found no significant change in the length of seclusion with repeated episodes. Angold & Pickles (1989) reported the shortest mean duration of 31 min (range 2–330 min) from an adolescent unit in London, and an unexplained reduction in mean duration over the six-year period of their study. They also found no effect of repeated episodes on the durations of seclusions. The longest mean duration of 15.7 h (range 1–72 h) was reported by Binder (1979), whose acute adult service secluded 44% of its population at least once.

It is entirely unclear what the differential effects of different durations of seclusion are. Most would agree that the shortest effective time would be preferable, but the length of seclusion seems to be largely idiosyncratic to each unit, and to the patient and staff involved. Angold & Pickles (1987), applying survival analysis techniques involving a number of variables that might have been expected to affect the duration of seclusion, such as the nature of its precipitants, found only that younger non-psychotics received significantly shorter seclusion than younger psychotics, and that even this difference had disappeared by the age of 16.

It might be supposed that the duration of seclusion would be determined by the time taken by patients to 'calm down' once they have been secluded. However, it has been noted that most patients settle quickly and are therefore presumably being kept in seclusion after they have 'calmed down', while the only study to report on the outcome of seclusion details frequent disturbances on release, suggesting that some patients are released before they have calmed sufficiently (Mattson & Sacks, 1978). Furthermore, it is not at all clear why patients in different units should take such dramatically different lengths of time to settle.

It seems likely that the duration of any episode of seclusion is the product of the complex interaction of the usual practice of the unit, the nature of the patient, the precipitating incident, the staff involved and the atmosphere of the ward, including the behaviour and the mental states of other patients. However, Plutchic *et al* (1978), in noting that the length of seclusion depended on the whims of the staff who happened to be there, also drew attention to the anger and anxiety that this created in patients.

Frequency of seclusion for individual patients

Greenblatt *et al* (1980) and Davidson *et al* (1984) describe situations in which some patients were secluded for a large proportion of the time, while in the 19th century patients might be isolated for years. Schwab & Lahmeyer (1979) documented between 1 and 24 seclusions per patient. Angold & Pickles' (1989) study involved patients who had been secluded between 1 and 50 times. However, none of the other factors measured by these latter authors (such as the sex, age or diagnosis of the patient) were statistically related to the frequency of seclusion in their quasilikelihood and binary-regression analyses. They also found that statistical approaches that ignored the problems of overdispersion and repeated measures on some individuals produced spurious associations. These issues had not previously been adequately explored, and further studies should take care to use statistical methods that either take account of them or are robust to them. If one accepts that very frequent or prolonged isolation is by common consent no longer deemed to be good treatment, where should the limits of good practice be set? It has to be admitted that no clear answer can be given and no data are presently available to provide an answer. We know little of the specific characteristics of frequently secluded patients as opposed to those of patients who experience only one or two episodes of seclusion, nor has the relative therapeutic effect of the twentieth as opposed to the first seclusion been documented.

The termination of seclusion episodes

Those who have discussed the termination of a seclusion episode usually recommend a gradual

reintroduction of the patient into the ward milieu, without detailing exactly what is meant by this (Gutheil, 1978). In many instances it must be the case that the patient is either isolated in a locked room or on the open ward, with little possibility of a graded reintroduction. Mattson & Sacks' (1978) study serves as a reminder, perhaps hardly needed by anyone who has actually supervised the end of an episode of seclusion, that it may signal a further outbreak of the behaviour that precipitated the episode. On the other hand, Campbell *et al* (1982) reported that 74% of their patients engaged in calm and constructive activity following seclusion. However, 32 episodes of recurring disturbed behaviour were also noted in relation to the 69 seclusions they reported, and from the presentation of their data it is impossible to tell how many seclusions were entirely peaceful in their outcome.

Patients' attitudes to seclusion

Some patients have been known to request placement in seclusion or physical restraints in an attempt to maintain self-control (HMSO, 1980), and restraints have been documented as acting as positive reinforcement in a few mentally retarded people, thus maintaining aggressive behaviour (Flavell *et al*, 1978). However, it appears that the majority of patients dislike being locked up on their own. Given that the justification for seclusion is often along the lines that a patient needs time away from the activity of the ward to calm down and regain his equilibrium and a measure of self-control, Wadeson & Carpenter's (1976) study of the "impact of seclusion room experience" is disturbing. Patients' reactions were evaluated through their productions in art sessions, and so the results are necessarily impressionistic. However, the degree of negative affect and frightening delusional material associated with seclusion was quite dramatic; for instance, several patients felt that they were in prison, and one believed he was in a gas chamber. The fear, anger, resentment and frustration of seclusion were often recalled at follow-up one year later, suggesting that these feelings were intense. It was also suggested that seclusion (of 30 minutes to a few hours) stimulated hallucinatory experiences, which were unexpectedly often perceived as comforting. The prisoners in solitary confinement described by Grassian (1983) and other earlier workers also often decribed hallucinatory material, but only after much longer isolation; however, none of these were overtly psychotic at the onset of their solitary confinement, as far as we know.

Plutchic *et al* (1978) conducted interviews with patients, who mostly felt that seclusion helped them calm down. Some felt safe, but many were also bored, depressed, angry, disgusted, confused, and felt helpless.

In his questionnaire study, Soliday (1985) found that patients frequently saw seclusion in very negative terms, and were much less convinced of its usefulness than the staff on their unit – 67% said that seclusion was usually or always felt as punishment (compared with 54% of the staff), and 51% said that it was usually or always humiliating (compared with only 14% of the staff). In a commentary on Soliday's paper, an ex-patient (Chamberlin, 1985) compared seclusion on psychiatric wards with solitary confinement used as a form of punishment or torture in prisons, and comments, "it is essential that mental health professionals stop denying our perceptions".

Unsecluded patients have been reported as feeling nervous and uncomfortable when patients are in seclusion, even when they are glad to have them out of the way (Mattson & Sacks, 1978), suggesting that they recognised the unpleasantness of the experience. However, Gutheil (1978) suggested that some patients envy others their seclusion, seeing it as a sign of special interest by the staff. On the other hand, he noted the potential for a sense of abandonment in seclusion, and a lasting, strongly negative, reaction to it. The Committee of Inquiry into Rampton Hospital (HMSO, 1980) also suggested that seclusion was associated with an increase in status with other patients, and that this might be the reason for the observed higher rate of seclusion among women.

Staff attitudes to seclusion

A number of writers have commented on staff disquiet about the use of seclusion (Fitzgerald & Long, 1973; Strutt *et al*, 1980; Campbell *et al*, 1982). Certainly the inappropriate use of seclusion has strong associations with the worst of 19th and 20th-century psychiatric malpractice (Tuke, 1813; Greenblatt *et al*, 1955; HMSO, 1970, 1972, 1978, 1980), while the struggle which often precedes the locking of the door may be particularly unpleasant for staff (Di Fabio, 1981). Most have concluded, however, that the majority of staff on units using seclusion regard it as a necessary part of the treatment armamentarium (Gair *et al*, 1965; Plutchic *et al*, 1978; Royal College of Psychiatrists, 1981; Sreenivasan, 1983; Soliday, 1985). Plutchic *et al* (1978) found that both patients and staff saw the isolation of patients from disturbing interactions and the maintenance of the ward 'minisociety' as major functions of seclusion. Even Greenblatt *et al* (1980)

and Davidson *et al* (1984), who were specifically concerned to demonstrate that the use of restrictive procedures could be dramatically reduced in many units, did not document its complete disappearance.

Gutheil (1978) suggested that there were three basic 'theoretical' aspects of seclusion as practised in most units: (a) containment of the potential for a patient to do harm to himself or others; (b) isolation from pathological relationships and paranoid interpretations of others' behaviour; and (c) decrease in sensory input for patients who are suffering from 'sensory overload'. It should be noted that there is a confusion here of reasons for secluding someone (such as their violent acts), and the objectives of that seclusion (which might include reducing his/her level of sensory input). Furthermore, little of this was not said by John Conolly 130 years ago, and the 'theory' seems to be supported by little evidence and is contradicted by some of it. However, these three points probably constitute the major ideas underlying the use of seclusion.

The first of these points speaks for itself, but all will be aware that monitoring of patients who may harm themselves remains necessary, and that recurrent assaultiveness or a deterioration in mental state may accompany seclusion or the return to the ward afterwards (Mattson & Sacks, 1978). We have also seen that some patients add the seclusion episode to their list of delusional misinterpretations. Furthermore, it is far from clear that seclusion, as normally practised as a response to violent or disruptive behaviour, constitutes an effective way of reducing sensory input. Inded, the experience of being secluded is likely to be very stimulating, especially if a struggle or a 'show of force' by staff is involved.

Plutchic *et al* (1978) also compared seclusion with 'time out' (the temporary suspension of access to positive reinforcement), as employed in certain behavioural treatments, since "both procedures involve placing an individual in isolation, contingent upon the occurrence of undesired behaviour". However, with time out, the contingencies are specified in advance and usually agreed with the patient, which is generally not the case with regard to seclusion. Time out is also "brief and standardised in its duration (usually less than 30 min), thus providing a greater number of learning trials . . . [and] designed to minimise the amount of positive reinforcement a patient can obtain". These authors regarded time out as being superior in all these respects, but there is no objective evidence to support this contention, since no study formally comparing the two procedures exists to my knowledge.

A further isolated study of theoretical interest is Rumpler & Siegerman's (1978) case report of seclusion (in physical restraints) used specifically as punishment in a behaviour-modification programme. Given the negative feelings described by many patients in relation to seclusion, it seems possible that punishment is a more appropriate operant learning-theory paradigm for it than time out. Equally, in different units and from one patient to another, it is quite possible that different processes underlie the effects of seclusion. For example, Gair and his coworkers (Gair *et al*, 1965; Gair, 1980) suggested a range of staff rationales for seclusion, varying from punishment to the buttressing of a child's internal controls.

Mattson & Sacks (1978) concluded that seclusion should not be regarded as a treatment in itself, but as a means of providing an "intensive treatment environment" in which medication and simply tiring were to be seen as the important therapeutic modalities.

Perhaps the principal reason for the use of seclusion is the unsatisfactory nature of the alternatives. It is rarely practical to transfer severely disturbed and aggressive patients to other settings immediately, and to discharge them would often constitute an unacceptable risk to themselves and the community, while seclusion will often be considered only after other techniques, such as talking to the patient, have failed. Thus each unit must be able to protect itself and its patients with its own resources. Finally, as Wexler (1982) has reminded us, but as was already clear to Conolly in 1856 and Henry Maudsley (1879), it is by no means obvious that chemical 'restraints' (and I refer here to the deliberate use of medication to retard a patient behaviourally, or to put him/her to sleep for a good part of the day) are less restrictive than seclusion or even physical restraints. Despite the great advances in psychopharmacology in the last 40 years, we may still ask ourselves "whether chemical restraint does permanent good, or whether by diminishing excitement at the ultimate cost of mental power it 'makes a solitude and calls it peace'" (Maudsley, 1879, p. 553).

Conclusions

We are very short of data on the most effective use of seclusion, and have very little information even on the overall extent of its use, especially in Britain. At present it seems that seclusion is used idiosyncratically, with no regime having been shown to be superior to any other. It is clear that psychiatric patients can be disruptive and violent, and that tradition has hallowed the use of seclusion in dealing with such patients. However, few other treatments that are so widely used for patients with many different diagnoses are so lacking in basic

information about their proper use and efficacy. Perhaps it is time for a nationwide review of seclusion practice, like that which proved so revealing about ECT (Pippard & Ellam, 1981).

There is a need for trials of seclusion in different groups of patients, in response to specified behavioural criteria and with the duration of seclusion controlled prospectively. Documentation of the precursors of the target disruptive or violent behaviours, and the characteristics of secluded patients, should be collected in a standardised form, and criteria should be laid down for deciding what sort of control measures are to be used in each instance, rather than this being left entirely to the discretion of the staff on duty. The duration of the 'standard seclusion' to be employed in this regime should be predetermined, and varied only according to predetermined rules. The behaviour of patients in seclusion should be carefully recorded, again in a standardised form, and the effects of release from seclusion should also be noted. Finally, the attitudes of the staff and of secluded and other patients should be examined.

There can be little doubt that such a study would require much negotiation before it could be set in motion, and this administrative difficulty probably explains why it has not been done, but its results both in terms of understanding the local management of patients on the units under study, and in their implications for the management of violent and disruptive patients in general, would be worthwhile.

In the meantime, one can only agree with the Royal College of Psychiatrists (1981), that each hospital should review its policies in regard to seclusion carefully, while we await the answers to some of the important questions that the current use of seclusion invites. However, a certain level of discomfort is appropriate to the use of a treatment that often requires the use of force for its implementation and maintenance, in the absence of clear data as to its most appropriate use or efficacy, and when little specific training is given to members of any disciplines involved in its day-to-day use.

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References

ANGOLD, A. & PICKLES, A. (1989) Seclusion on an adolescent unit. *Journal of Child Psychology and Psychiatry* (in press).

BINDER, R. L. (1979) The use of seclusion on an inpatient crisis intervention unit. *Hospital and Community Psychiatry*, **30**, 266–269.

CAMPBELL, W., SHEPHERD, H. & FALCONER, R. (1982) The use of seclusion. *Nursing Times*, **27**, 1821–1825.

CHAMBERLIN, J. (1985) An ex-patient's response to Soliday. *Journal of Nervous and Mental Disease*, **173**, 288–289.

CONNOLLY, J. (1973) *Treatment of the Insane without Mechanical Restraints*. Folkstone and London: Dawson.

CULLEN, W. (1816) *First lines of the Practice of Psychic*. pp. 173–190.

DAVIDSON, N. A., HEMINGWAY, M. J. & WYSOCKI, T. (1984) Reducing the use of restrictive procedures in a residential facility. *Hospital and Community Psychiatry*, **35**, 164–167.

DI FABIO, S. (1981) Nurses' reactions to restraining patients. *American Journal of Nursing*, **May**, 973–975.

ERICKSON, W. D. & REALMUTO, G. (1983) Frequency of seclusion in an adolescent psychiatric unit. *Journal of Clinical Psychiatry*, **44**, 238–241.

FITZGERALD, R. G. & LONG, I. (1973) Seclusion in the treatment and management of severely disturbed manic and depressed patients. *Perspectives in Psychiatric Care*, **11**, 59–64.

FLAVELL, J. E., GIMSEY, J. F. & JONES, M. L. (1978) The use of physical restraint in the treatment of self-injury and as positive reinforcement. *Journal of Applied Behaviour Analysis*, **11**, 225–241.

GAIR, D. S. (1980) Limit-setting and seclusion in the psychiatric hospital. *Psychiatric Opinion*, **17**, 15–19.

——, BULLARD, D. M. & CORWIN, J. H. (1965) Seclusion of children as a therapeutic ward practice. *American Journal of Orthopsychiatry*, **35**, 251–252.

GARRISON, W. T. (1984) Aggressive behavior, seclusion and physical restraint in an inpatient child population. *Journal of the American Academy of Child Psychiatry*, **23**, 448–452.

GRASSIAN, S. (1983) Psychopathological effects of solitary confinement. *American Journal of Psychiatry*, **140**, 1450–1454.

GREENBLATT, M., YORK, R. H., BROWN, E. L., *et al* (1980) *From Custodial to Therapeutic Patient Care in Mental Hospitals*. New York: Arno Press.

GUTHEIL, T. G. (1978) Observations on the theoretical bases for seclusion of the psychiatric patient. *American Journal of Psychiatry*, **135**, 325–328.

HACK TUKE, D. (1892) *A Dictionary of Psychological Medicine*. London: J & A Churchill.

HMSO (1970) *Report of the Committee of Inquiry into Allegations of Ill-Treatment of Patients and other Irregularities at the Ely Hospital, Cardiff*. London: HMSO.

—— (1972) *Report of the Committee of Inquiry into Whittingham Hospital*. London: HMSO.

—— (1978) *Report of the Committee of Inquiry into Normansfield Hospital*. London: HMSO.

—— (1980) *Report of the Committee of Inquiry into Rampton Hospital*. London: HMSO.

MATTSON, M. R. & SACKS, M. H. (1978) Seclusion: uses and complications. *American Journal of Psychiatry*, **135**, 1210–1213.

MAUDSLEY, H. (1879) *The Pathology of Mind* (3rd edn). London: MacMillan & Co.

PHILLIPS, P. & NASR, S. (1983) Seclusion and restraint and prediction of violence. *American Journal of Psychiatry*, **140**, 229–232.

PIPPARD, J. & ELLAM, L. (1981) *Electroconvulsive Treatment in Great Britain. A Report to the Royal College of Psychiatrists*. London: Gaskell.

PLUTCHIC, R., KARASU, T. B., CONTE, H. R., *et al* (1978) Toward a rationale for the seclusion process. *Journal of Nervous and Mental Disease*, **166**, 571–579.

ROYAL COLLEGE OF PSYCHIATRISTS (1981) Isolation of patients in protected rooms during psychiatric treatment. *Bulletin of the Royal College of Psychiatrists*, **5**, 96.

—— (1982) Locking up patients by themselves. *Bulletin of the Royal College of Psychiatrists*, **6**, 199–200.

RUMPLER, C. H. & SEIGERMAN, C. (1978) A behavior modification approach to dealing with violent behavior in an intensive care unit. *Perspectives in Psychiatric Care*, **16**, 206–245.

SCHWAB, P. J. & LAHMEYER, C. B. (1979) The use of seclusion on a general hospital psychiatric unit. *Journal of Clinical Psychiatry*, **40**, 228–231.

SOLIDAY, S. M. (1985) A comparison of patient and staff attitudes toward seclusion. *Journal of Nervous and Mental Disease*, **172**, 282–286.

SOLOFF, P. H. & TURNER, S. M. (1981) Patterns of seclusion: a prospective study. *Journal of Nervous and Mental Disease*, **169**, 37–44.

SREENIVASAN, U. (1983) Limitation of freedom of movement in adult psychiatric units: the position of the Canadian Psychiatric Association. *Canadian Journal of Psychiatry*, **28**, 64–67.

STRUTT, R., BAILEY, C., PEERMOHAMED, R., *et al* (1980) Seclusion: can it be justified? *Nursing Times*, **September**, 1629–1633.

TARDIFF, K. (1981) Emergency control measures for psychiatric inpatients. *Journal of Nervous and Mental Disease*, **169**, 614–618.

THOMPSON, P. (1986) The use of seclusion in hospitals in the Newcastle area. *British Journal of Psychiatry*, **149**, 471–474.

TUKE, S. (1974) *Description of the Retreat*. London: Dawson.

WADESON, H. & CARPENTER, W. T. (1976) Impact of the seclusion room experience. *Journal of Nervous and Mental Disease*, **163**, 318–328.

WELLS, D. D. (1972) The use of seclusion on a university hospital psychiatric floor. *Archives of General Psychiatry*, **26**, 410–413.

Adrian Angold, BSc, MB, MRCPsych, *MRC Training Fellow, MRC Child Psychiatry Unit, Institute of Psychiatry, De Crespigny Park, London SE5 8AF*