Creating safety

Addressing seclusion practices

A partnership project of the Victorian Quality Council and Chief Psychiatrist's Quality Assurance Committee

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SECLUSION PRACTICE

A LITERATURE REVIEW

Content Owner	Victorian Quality Council & Chief Psychiatrist's Quality Assurance Committee
Author	Dr Angela Livingstone
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Seclusion Practice: A Review of the Literature and an Examination of Current Concerns

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SECLUSION

1. Introduction

This re-evaluation of the seclusion literature was undertaken for the 'Creating Safety: Addressing Seclusion Practices' project, a partnership project of the Victorian Quality Council and Chief Psychiatrist's Quality Assurance Committee. It is a follow-up to a previous literature review and retrospective study of seclusion in 2002, the results of which have been incorporated into this review.

A significant driver of the new literature has been the developments in the United States since the publication of the Hartford Courant investigation (Weiss, 1998) into deaths in restraint and seclusion. This, accompanied by some other work on deaths and serious injuries in restraint, led in 1999 to the United States Federal Health Care Financing Administration issuing an interim final rule, setting standards for seclusion and restraint for all federally funded programs. These standards included a controversial 'one-hour' rule which required that physicians or 'licensed independent practitioners' conduct a face-to-face assessment of all those secluded or restrained within one hour of the intervention. This requirement placed a large burden on hospitals, particularly those less resourced, and it was speculated that a possible repercussion has been for hospitals not to admit difficult patients, shifting their management to the correctional system (Honberg *et al*, 2003). The Joint Commission on Accreditation of Healthcare Organisations (JCAHO) has also responded to the public reaction on the issue and now views reduction in restraint and seclusion as a priority, stating that organisations must continuously explore ways to prevent, reduce and eliminate the use of these interventions.

Into this context came the success of the Pennsylvania Department of Public Welfare, which in 1997 under the leadership of Charles Curie had already implemented an aggressive restraint and seclusion policy in all of its nine large state hospitals, based around defining the use of seclusion and restraint as a treatment failure, with no function other than an emergency use (also incorporating a 30-minute rule for physician assessment of a secluded patient). This policy led within three years to a 74% reduction in incidents of seclusion and restraint, and a reduction in hours of restraint and seclusion use of 96% (Smith *et al.* 2005). This reduction in use of seclusion and restraint was not associated with an increase in the frequency or severity of staff injuries; in fact at one site the rate of staff injuries decreased dramatically as noted in Curie (2005). The program was nationally recognised with a Harvard University Innovations in American Government award, and the fact that the results were achieved without additional funding has contributed both to the impact of this program, and to the enthusiasm with which others have embraced the initiative.

Further along the groundswell of changing opinion, the Psychiatric Services journal devoted a special issue to the use of restraint and seclusion in September 2005, with several of the articles calling for the elimination of these interventions. A flurry of letters has ensued either supporting or querying the need for elimination, but all agree that a minimal use of both seclusion and restraint is desirable. Many articles detailing the success of reduction in seclusion or outlining a toolkit of techniques to assist in reduction have been published in the US and elsewhere.

1.1 The Australian Context

In 1993, the Australian Human Rights and Equal Opportunity Commissioner expressed concern about reports of loss of dignity by consumers when secluded, constituting a 'humiliating breach of their human rights'[1]. A review of seclusion took place in New South Wales in 1994, and in South Australia a review of the Nurses Board Standards for the use of restraint by nurses was conducted in 1994. Neither of these focused on reduction, rather they aimed at quality improvement; the appropriateness of seclusion rooms, monitoring and documentation requirements and debriefing of patients. More recently, the International Journal of Mental Health Nursing published a guest editorial on eliminating the use of seclusion and restraint in Australia (Grigg, 2006). However, variations across Australia in the regulation of seclusion make problematic any effort to decrease its use on a large scale.

Australian Regulation of Seclusion

The previously noted difficulty of finding clear and consistent definitions of seclusion has not significantly improved in the last four years. In Australia, definitions are mainly found in the State and Territory Mental Health Acts and associated documents, and there is a considerable degree of variation to be found. Nearly all of the states have some regulation, either in the form of legislation or in other directives, setting out the reasons for which a person may be secluded, what their legal status may be, who may make such a decision, the place in which someone may be secluded, the degree and type of monitoring that is to occur, and the requirements for documentation and notification of seclusion. The legal force of some of these protections may be lessened, however, where definitions of and provisions for seclusion are enshrined in administrative rather than legislative documents.

[1] HR&EOC, 1993, p.271

In the 2000 report to the Mental Health Working Group of the Australian Health Ministers' Advisory Council, *Application of Rights Instrument to Australian Mental Health Legislation*, the majority of Australian states and territories were assessed as being only in partial compliance with the *United Nations Principles for the Protection of and for the improvement of Mental Health Care.* The main reason for poor compliance was described as the lack of appropriate criteria for seclusion, or the inclusion of additional criteria such as destruction of property. Additionally, the use of common criteria for seclusion and restraint was not always appropriate; for instance a criterion of medical treatment was felt to be understandable in the case of restraint, but not seclusion. Another problem was the use of separate registers for such procedures, without a requirement to include them in individual patient records, or at least make a cross-reference.

In the state of Victoria, seclusion is defined under the *Mental Health Act 1986* as "the sole confinement of a person at any hour of the day or night in a room of which the doors and windows are locked from the outside". Seclusion is only to be used in public mental health services. Although the Act provides for the use of emergency seclusion in voluntary as well as involuntary patients, the Victorian Chief Psychiatrist's *Clinical Guidelines for the Use of Seclusion* suggest that where seclusion is required for a voluntary patient, consideration should be given to whether the person meets the criteria for involuntary status. Criteria include the prevention of absconding as well as immediate or imminent risk to the person or to others. Seclusion records are required to be sent to the Chief Psychiatrist but are not mandated to be recorded in the patient's file, although the form on which seclusion is recorded has a patient record copy.

Seclusion is not defined nor discussed in the New South Wales *Mental Health Act 1990*, however the 2005 policy directive from NSW Health *Seclusion Practices (Policies On), Use of Restraint and Use of IV Sedation in Psychiatric Facilities* defines seclusion as 'the placing of a person, at any time and for any duration, alone in an area with the door shut so that he/she cannot freely exit from that area'. Under this directive, informal patients may be secluded with their advance consent. The thorny issue of substitute decision makers for underage patients or for those with a legal guardian is also touched on briefly and clear directives are made regarding documentation in the patient's file as well as central reporting of all seclusion episodes. Interestingly, the draft document *Restraint, Seclusion and Transport Guidelines for Patients with Behavioural Disturbance* v.9, also by NSW Health, offers a slightly different definition for seclusion; 'the placing of a patient, at any time and for any duration and for any purpose, alone in an area with the door or other exit closed in such a way as to prevent the egress of the patient', which clarifies the point that seclusion for any purpose comes under this definition but demonstrates that the absence of a legal definition may lead to a lack of consistency.

The Queensland *Mental Health Act 2000* defines seclusion as 'the confinement of the patient at any time of the day or night alone in a room or area from which free exit is prevented' although 'the overnight confinement for security purposes of an involuntary patient in a high security unit' is excepted from this definition[2]. Seclusion is only permitted for involuntary patients, and the reasons for seclusion are to protect the patient or other persons from imminent physical harm where there is no less restrictive way of ensuring safety. Nothing is mentioned about documentation, and a report of seclusion is only required if the Director of Mental Health requests this.

In South Australia, the *Mental Health Act 1993* contains no reference to seclusion, and mention of seclusion was also absent from the April 2005 review of mental health legislation[3]. Despite this, the Policy EDM P6-02 *Restraint and Seclusion in Health Units (Including Mental Health Units)* from December 2002 defines seclusion as 'the sole confinement of a person at anytime in any room or space where the exit(s) are locked from the outside and cannot be opened by the person from the inside.' The criteria for seclusion are not differentiated from those for restraint, and include, as well as immediate or imminent risk to the person or others, the need for medical and nursing procedures, the need for medical treatment, the destruction of property and the risk of absconding. The policy is intended to apply to voluntary as well as involuntary patients. Reporting and documentation are well covered; yet this policy does not have the force of legislation. Interestingly, the Nurses Board of South Australia incorporates a definition of seclusion in its *Standards on the Use of Restraint and Seclusion in the State of South Australia*; 'the placement of a consumer in a room alone so that the consumer is unable to leave whether or not the door is locked or the consumer is kept in the room by other means, including leaving a person outside the room to prevent the consumer from leaving.' This is the only Australian definition found which covers the prevention of leaving by another person.

West Australia defines seclusion in the *Mental Health Act 1996* as 'sole confinement in a room that it is not within the control of the person confined to leave' and rules that seclusion is only permitted in an authorised hospital. It is not clear whether these provisions apply to voluntary as well as involuntary patients. No direction is given in the Act about reasons for the use of seclusion, and although records of each authorisation of seclusion are to be kept 'as specified in the regulations', no regulation about this could be found. It is also unusual that the *Mental Health (Administration) Regulations 1965*, amended to 13 November 1997, the definition of seclusion includes a time restriction; 'detention between the hours of 8 a.m. and 7 p.m. in a single room'.

[2] Queensland Health *Mental Health Act 2000* Resource Guide, section 8.6.3
[3] *Paving The Way*, Review of Mental Health Legislation in South Australia, Report, April 2005

The Northern Territory *Mental Health and Related Services Act 2004* incorporates a definition of seclusion as 'the sole confinement, at any hour of the day or night, of a person in a room of which the doors and windows are locked from the outside; or in an area approved by the Chief Health Officer'. Seclusion is permitted for voluntary as well as involuntary patients; however a voluntary patient must not be kept in seclusion for more than 12 hours. The reasons for seclusion are identical to those for restraint, and include the need for medical treatment and the destruction of property as well as to prevent the person from causing injury to himself or herself or any other person. Documentation is required to be kept in the patient's file, and to be inspected by a community visitor at least every 6 months.

The Australian Capital Territory legislation *Mental Health (Treatment and Care) Act 1994* makes note of the use of seclusion, specifying the reason for its use as being to prevent harm to the patient or to others, as well as requiring documentation in the patient's file, notification of the community advocate and maintenance of a register. Seclusion is only to be used under this legislation if the person is involuntary. No definition of seclusion is contained in the Act nor in the accompanying Regulations, although the administrative document *Psychiatric Services Unit Policy S:1* defines seclusion as 'the involuntary confinement of a consumer alone in a locked room to ensure the safety of themselves or others' and, unusually, there is provision in this policy for the use of seclusion in a community care facility

Tasmanian legislation allows the use of seclusion in the *Mental Health Act 1996*, specifying that this may be used 'for the protection of the patient or other persons with whom the patient would otherwise be in contact.' It defines seclusion as 'the confinement of a person alone in a room of which the doors and windows are locked from the outside.' Seclusion is restricted only to involuntary patients in this state, in approved hospitals. Documentation is not specifically covered, however all incidences of seclusion are to be reported to the Mental Health Tribunal.

The degree of variation in definitions and regulation of seclusion in Australian legislation is considerable. A need for national standards on appropriate use of seclusion is acknowledged in the *Draft National Action Plan for Safety Priorities in Mental Health* (v4.3 May 2005). However the Australian experience may be indicative of a wider problem, as can be seen in the international literature.

1.2 The Broader Context of Seclusion

Steel (1999) noted that many US states do not define the terms 'seclusion' and 'restraint' in their legislation, and in a survey of US states reported by Tardiff (1985), he found that of 36 responders, 19 had no statutory definition of seclusion. The quality and accreditation literature can be a useful alternative source of definitions, such as the Joint Commission on the Accreditation of Healthcare Organisations (JCAHO) which defined seclusion in 2002 as 'the involuntary confinement of a person in a locked room', yet as previously noted, legislative provisions are held to provide more protection for patients than administrative ones.

The UK has a standard definition of seclusion, enshrined in the Code of Practice of the *Mental Health Act 1983* (revised in 1999 and currently under review), which limits the use of this intervention to contain severely disturbed behaviour which is likely to cause harm to others, and each UK trust has a seclusion policy which accords with this. However, there is a range of definitions and rationales for seclusion across Europe, and it is worth noting the Italian point of view which eschews all involuntary interventions.

Mason (1992) attempted to clarify the issue after finding variation in seclusion definitions between authors, between professions, and between countries. He identified seven fundamental elements to a universal definition: *place, social isolation, egress, compulsion, time, rationale and establishment*, and found that no current definition contained all of these. He later argued (Mason, 1995) that these defining elements imply an underlying theme of control as central to the majority of definitions.

In addition to the lack of consistency around definition, it is commonly reported that rates, duration and methods of seclusion vary significantly, as do reasons for seclusion (Busch *et al.,* 2000), and the associations between seclusion and other interventions such as chemical or mechanical restraint, one-on-one nursing or locked wards. The Pennsylvania Office of Mental Health and Substance Abuse, in its report on seclusions based on data collected from 1985 to 1990, found that almost half of the justifications for seclusion had nothing to do with behaviour posing an imminent threat of danger to the patient or others, rather reflecting the attitudes of the hospital culture. This contention is also supported by Fisher (1994).

Since the widely publicised Hartford Courant newspaper investigation into seclusion and restraint (Weiss, 1998), a growing consensus has developed that seclusion and restraint must be minimised, if not eliminated. Many sources outline techniques for reducing the use of seclusion, some without examining the reasons behind this goal (Visalli and McNasser, 2000) (Templeton *et al.,* 1998), and some outlining a detailed libertarian (Morrall and Muir-Cochrane, 2002) or traumatology (Cohen-Cole, 2002) philosophy.

The experience of services attempting to decrease the use of seclusion has also varied widely. The Pennsylvania experience has been reported in a predominantly positive light, however Khadevi *et al.* (2005) in their attempt to reduce restraint and seclusion reported a significant increase in the number of assaults on patients and staff as the level of these interventions decreased.

Seclusion does have some supporters. Gutheil (1978) contended that, used appropriately, seclusion may be safe, effective and necessary to prevent injury, Soloff (1987) believed it was sometimes essential and that it was needful for clinicians at times to overcome their professional disdain for the intervention, and both Hammill (1989) and de Cangas (1993) reported that nursing staff described seclusion as a necessary intervention. This point of view has fallen out of favour in the past five years, yet popular beliefs are not necessarily correct. Within medicine, psychiatry has been described as particularly sensitive to trends in opinion, with new ideas rapidly reflected in attitudes towards diagnosis and treatment (Soloff, 1984). It is important to acknowledge this tendency and to act accordingly, using the evidence base to weigh approaches to controversial topics, rather than looking to prevailing opinion and political agendas. This review aims to draw new and old data together to contextualise, evaluate and analyse the current state of knowledge with regard to seclusion.

2 The Literature Reviewed

The sources examined included prospective and retrospective studies, case studies and series, theoretical formulations, position statements, opinion-focused papers, investigative reports and community-oriented websites. These sources were variously obtained through Medline, Pubmed, Cochrane and Psycinfo searches, obtaining sources cited in other articles, and website search through Google and Google Scholar, and are listed at the end of the study.

Many of the published studies have been qualitative in nature, and there is a relative paucity of quantitative data. Interview-based reports predominate, and where figures exist they tend to be based on small populations and are poorly generalisable, as is evident in the Cochrane Review of seclusion and restraint (Sailas and Fenton, 2000), the findings of which are outlined below. As a consequence of this, studies of seclusion in areas less directly related to the immediate area of the study (acute adult inpatients) have been included where relevant and likely to shed light on the field. This included studies of seclusion in children, adolescent and elderly patients, forensic patients, some studies around the use of solitary confinement in the general prison setting, and psychological studies of environmental effects.

Several literature reviews of varying quality have been undertaken on the subject of seclusion, many combining it with the related practice of mechanical restraint. These reviews are listed below in chronological sequence.

Mason (1993) conducted a review of seclusion theory for the Special Hospital Service Authority for England and Wales, and found a significant lack of agreement as to the role of seclusion in modern psychiatry, with confusions evident about seclusion as therapy, containment or punishment.

Fisher (1994) undertook a well-balanced review of the use of restraint and seclusion as part of the New York State Office of Mental Health Restraint and Seclusion Task Force. He concluded, among other findings, that seclusion was effective in reducing agitation and injury, that it seemed to be a necessary requirement in the management of severely symptomatic persons and that seclusion had negative effects on both patients and staff. He found also that non-clinical factors such as staff attitudes had a greater effect on seclusion rates than demographic and clinical factors.

Lendermeijer *et al*. (1997) conducted a review focusing firstly on the divergence in data for almost all characteristics of seclusion, and secondarily on patient experiences, concluding with a strongly positive view of the need for and possibilities of seclusion.

Johnson (1997) limited his review of seclusion to the UK forensic system but included extensive new work. His approach to the literature was fundamentally an overview, although comprehensive in terms of sources, and little was drawn in the way of inferences from the data.

Steel's report (1999) was a comprehensive review and analysis of practice standards with reference to seclusion and restraint, and included a brief historical overview, a review of existing US guidelines, a limited comparison of model standards and lastly concentrated on the use of seclusion in specific populations (women, children, elderly, developmentally disabled, deaf).

Sailas and Fenton (2000) in the **Cochrane Review** of seclusion and restraint for people with serious mental illnesses viewed 2155 citations. Full articles of 35 studies were obtained, of which none met minimal inclusion criteria. A general view was expressed that the literature was at present inadequate to assess the value of this intervention in any evidence-based fashion.

Busch *et al*. (2000) conducted a defensive review, triggered by the 1998 investigation of the Hartford Courant into deaths associated with restraint and seclusion. The focus was primarily on systematic factors that may minimise the use of restraint and seclusion.

Fisher (2003) followed up his previous literature review on the use of restraint and seclusion with a review on the elements of successful programs to reduce their use, and the application of the identified elements to a successful restraint and seclusion reduction program in a state hospital in urban New York.

Fryer *et al*. (2004) conducted a thorough literature review of seclusion in children and adolescents as a preparation for a study on a small unit in northern Australia.

Muralidharan and Fenton (2006) in a **Cochrane Review** of the available literature explored containment alternatives to restraint, seclusion and pharmacological management for people with serious mental illness. They found no studies that met inclusion requirements for a controlled study of sufficient quality, and the conclusion was that current alternative approaches are not supported by evidence from controlled studies, and that practice entirely outside of well designed, conducted and reported randomised studies is difficult to justify.

2.1 Aims and Reasons for Seclusion

The most common reason given for the decision to seclude was the prevention or management of actual or imminent violence, which is also the only reason endorsed by the *United Nations Principles for the Protection of Persons with Mental Illness and for the improvement of Mental Health Care*. Reduction of environmental stimuli was cited as another reason, aiming for patient protection by avoiding the exacerbation of dysphoric mood states such as agitation or frustration. Seclusion was also used to reinforce coping skills, as an aid to cognitive processes secondary to a low-stimulus environment, and in reinforcement of compliance and conformity. There is a punitive aspect to seclusion mentioned in several of the papers, which is inherently controversial and requires close examination.

Seclusion and Violence

Reducing the potential for injury to both patients and staff is a major goal under the risk-management paradigm common to most current health care (Mason, 1998; Fennel, 1996). Under this rubric, seclusion tends to be defended in emotively laden language. Soloff (1987) stated rather categorically, "psychiatrists must overcome their professional disdain for physical controls, recognise and accept the limitations of psycho-dynamic understanding and pharmacological management, and develop a pragmatic balance of treatment approaches to the violent patient". Mason's identification (1993) of four alternatives when faced with an uncontrollably violent patient; "seclude them, restrain them, medicate them, or pass the problem to someone else", also illustrated this principle, continuing, "although the containment principle appears a desperate surrender to the lack of alternative effective therapies it is grounded at a practical level in that quite clearly, something has to be done when there is an outburst of violence".

Thompson (1986) and Uecock *et al*. (1996) found that violence to staff or to self was the most common reason for seclusion, and Soloff and Turner (1981) stated that violence to staff was responsible for the greatest frequency of seclusion episodes. Hammill *et al*. (1989) found that actual violence to staff, other patients or property precipitated the greatest frequency of seclusion episodes, and Kozub and Skidmore (2001) found seclusion to be protective against injuries to both patients and staff. Hafner *et al.* (1989), demonstrated in a comparative study that seclusion was effective in reducing the level of dangerousness in a psychiatric intensive care unit, with secondary benefits to staff morale. Lendemeijer *et al.* (1987) likewise concluded that seclusion is an efficacious means of managing potentially dangerous behaviour.

Secluded patients themselves, in a study of hospitalised schizophrenic inpatients by Hammill (1989), described a seclusion room as necessary on inpatient psychiatric units for the control of disruptive, aggressive patient behaviours. Walsh and Randell (1995) supported this view, commenting, "those who have suggested elimination of these interventions have given little attention to the severely violent patient and have failed to suggest practical alternative interventions".

An alternative viewpoint is expressed by Owen *et al.,* who found that the use of seclusion led to a significant number of violent incidents, and by Lion *et al*. (1981) who found in a study on staff assaults in a public hospital found that the majority of assaults on staff occurred while patients were being restrained, often as a preparation to being secluded.

Seclusion as Protection of the Vulnerable Patient

Gutheil (1978) supported the use of seclusion based upon the principles of preventing injury, isolating the individual from interpersonal contact and reducing sensory overload. His premise was that the patient would be safe, through containment, from the deleterious effects of injuring others, and that others would be kept safe from the patient's actions. Additionally, through social isolation the patient would be relieved of the potentially intense pressures of social and therapeutic relationships and through reduction in stimuli the patient would gain respite from often overwhelming sensory input. He concluded that, used appropriately, seclusion was safe and effective. This approach expanded on Fitzgerald's work (1973), where he found that seclusion could "provide a feasible, humane and therapeutic method of treating uncontrolled, destructive, panic-stricken, regressive and other severely ill patients". In contrast, in a self-report study of 26 secluded schizophrenic inpatients (Hammill *et al.,* 1989) patients reported that seclusion made them feel angry and sad, rather than protected or safe.

Seclusion as Discipline or Punishment

The concept of punishment is found primarily in accounts of consumer experiences rather than as a justification for the use of seclusion, and the use of seclusion in this way contravenes the *United Nations Principles*.

Mason (1993) discussed the literature on this controversial topic, noting that authors who do refer to the use of seclusion as punishment tend not to linger on the topic, usually limiting themselves to personal opinion. Punitive measures tend to induce reactions in the punisher such as guilt, painful identification with the punished and the possibility of erotic transference (Stoller, 1985), and the motives underlying disciplinary action against any person in a less powerful position are likely to be uncertain (Winnicott, 1949). Gentilin (1987) recognised this conflict, commenting, "there are occasions when people, in order to rationalise passive-aggressive impulses, will couch disciplinary measures in terms of the patient's own best interest".

In practice, the boundaries and definitions of punishment may be indistinguishable from the more acceptable concept of discipline, an intervention aimed at achieving conformity and control rather than retribution, although this is also not supported by the *United Nations Principles*. Actions that may be primarily vengeful may readily be rationalised as therapeutic discipline, either on a conscious or unconscious level, and the need for such rationalisation may be intensified by blurred boundaries around autonomy. It has been queried whether patients whose autonomy is so damaged as to necessitate involuntary treatment can be held responsible for their actions to the extent of justifying discipline. Pollard (1993) was of the opinion that involuntary status may result from impaired decision-making only in the area of recognising need for treatment, and that therefore decisions about responsibility for particular actions must be based on the individual patient's situation; however he did not address any disciplinary outcomes of assigning responsibility.

Behaviour modification principles support disciplinary action as an element within operant conditioning, where discipline is used to suppress behaviour by removing a positive reinforcer or presenting a negative reinforcer (Ferster and Skinner, 1957). Tardiff (1985) stated that a negative reinforcement need not be painful, (although some ego-dystonia is an integral element of Skinner's concept) and that "seclusionary time-out" can be actively therapeutic when used in behavioural programmes. He emphasised that this should not be confused with social retribution, and stressed that the purpose was to encourage self-control and conformity with basic social rules. Gostin (1986) also commented on the problem of differentiation between acceptable discipline and unacceptable punishment, stating that discipline should be performed in a therapeutic spirit and not one of revenge or punishment.

Mason (1992) separated seclusion from the concept of time-out, identifying time-out as an appropriate part of a planned behavioural programme, but blurred his own boundary in later work (Alty and Mason, 1994), stating that seclusion could be an appropriate sanction against "rule breakers" and that its fundamental role was to control behaviour. Crichton (1997) argued similarly that the aim of discipline on the ward was to encourage self-control, and examined legal justifications for disciplining detained patients, citing the British House of Lords ruling that "implicit in the power to detain is the power to control and discipline"[4].

More recently, Zusman (2001) indicated that the treatment purpose of seclusion and restraint remained often unclear, stating "healthcare professionals are aware.....it is absolutely unacceptable to use restraint or seclusion as punishment, but the line between emergency use .... to control a dangerously violent patient, and use ... to teach the patient not to behave that way again after the violence has subsided, is often unclear". As Fennell remarked in 1996, "the problems of unravelling the punitive and the protective elements in seclusion remain as intractable as ever".

Seclusion as Therapy

Although predominant opinion regards seclusion as counter-therapeutic, several authors have supported the concept of a therapeutic element to seclusion, either intrinsic or opportunistic, which the often-coercive nature of seclusion does not of itself preclude.

Fitzgerald and Long (1973) argued that seclusion could help in the development of "trusting therapeutic relationships between the patient and members of the treatment team" that might not otherwise have been possible within the main ward. Cotton (1989) opined that seclusion might prove beneficial as part of a behavioural programme in the treatment of children displaying maladaptive behaviours, that it could help the development of more adaptive behaviours and the re-channelling of maladaptive impulses. Grigson (1984) contended that maturational needs in adults could be addressed by treatment programmes that included seclusion; focusing upon the "interferences in maturation that cause these patients to maintain the same impulsive and destructive behavioural patterns for most of their lives". More recently, Lendemeijer (1997) viewed the intervention as capable of creating therapeutic possibilities for care and Crichton (1997) stated that "the control of rule breaking goes beyond simply the need to keep order and maintain a safe environment, it is also part of the treatment objective".

[4] Poutney v Griffiths 1976 A.C. 314

Schreiner et al (2004), in their study of treatment-resistant adolescents with a dual diagnosis, reported with surprise that several patients commented on positive experiences with seclusion and restraint, some feeling that this was the only way they could regain control of their behaviour. Similarly, Binder and McCoy (1983) noted that three out of 24 patients surveyed described no bad aspects to seclusion. McBride (1996) noted that seclusion is said to provide the patient with feelings of safety and reassurance, but cautioned that this assumes that seclusion is enacted because the patient is unable to control their behaviour.

Seclusion to Protect the Ward Environment

Seclusion may be used to safeguard the therapeutic milieu for other patients by the removal of an otherwise uncontrollably disruptive individual. Under the utilitarian ethical framework, this intervention is justified, even in the absence of any therapeutic benefit to the secluded patient, by the benefit to the greater number of patients (Kilgalen (1977), Oldham (1983)). It has also been argued that the goal of maintaining a therapeutic ward environment is likely to benefit the secluded patient at some stage of their admission, if not at the time when seclusion is required (Fisher, 1994).

2.2 Factors Influencing Seclusion

Many studies have examined variations in seclusion use with particular characteristics of the individual patient (age, gender, country of birth, length of stay and diagnosis), and these have frequently yielded contradictory results. Generally these studies are restricted to examining the seclusion practices of a selected service or group of services. External factors such as the nature and staffing of a service, the physical environment and the ward culture may play a role, as may temporal variables.

Patient Factors: Age

Soloff and Turner (1981) found in a prospective study of 59 patients that those secluded were not significantly younger than non-secluded patients, and Freuh (2005) and El-Badri and Mellsop (2002) found no significant association. However, Oldham *et al.* (1983) in a retrospective study of 57 patients found that the average age of those secluded was 26.8 years; significantly younger than the average age of a non-secluded control (31.7 years), and Thompson (1986) found in a retrospective study of 66 patients that the average age of a secluded patient was 36 years; significantly less than all patients admitted (44.4 years). Supporting evidence comes from Mattson and Sacks (1978), who found that secluded patients were younger, as did Plutchik *et al*. (1978), and Schwab and Lahmeyer (1979). Fisher (1984) indicated that the only consistent demographic

theme was an inverse relationship of patient age to the probability of seclusion and Mason (1995) concurred with this, noting that the likelihood of seclusion diminishes steadily with increasing patient age. This was also supported by the findings of Harte (2002) that secluded patients tended to be significantly younger (mean age 35.1 years) than the average age of all patients (38.2 years).

Patient Factors: Gender

Thompson (1986) found that secluded patients were significantly more likely to be male (p-value <0.05). Carpenter *et al.* (1988) and El-Badri and Mellsop (2002) found a similar association, as did Garrison (1984) in a child study, and Miller *et al.* (1989) in an adolescent service.

Gender, however, was not found to be a significant factor in the seclusion decision by Plutchik *et al.* (1978), Soloff (1978), Binder (1979), Soloff and Turner (1981), Oldham *et al.* (1983), Tardiff (1981), Hammill (1989) or Freuh (2005). Ibikunle *et al.* (2000) did not find gender significant in a child population, and one study (Way and Banks, 1990) found that females were actually more likely to be secluded.

A more complex relationship between gender, age and seclusion was found in the Harte study (2002), which found that in the younger age brackets men were more likely to be secluded, and that in the older age brackets, the gender-based risk of seclusion is reversed.

Patient Factors: Country of Birth

Although Fisher (1994) did not find evidence of ethnicity as a significant variable in seclusion, Noble and Rodger (1989), stated in a British paper that "Afro-Caribbeans tended to be younger, more verbally aggressive, more seriously violent and more psychotic….often big and physically strong. These are all factors which contribute to staff apprehension and to the use of restrictive measures". Mason found in 1995 that whilst the number of secluded patients defined as 'coloured' across the British forensic hospital system was proportionate to the hospital population, they tended to spend longer in seclusion. He attributed this to either 'malevolent racism' or to misperceptions and unconscious beliefs as highlighted in the 1993 work of Prins.

El-Badri and Mellsop (2002) found that Maori patients and those from other backgrounds were secluded more frequently than New Zealanders of European descent. In the US, Carpenter (1988) found higher rates of seclusion in black patients, as did Soloff and Turner (1981) although this rate was not significant after controlling for a longer duration of admission for white patients, while

Hammill (1989) found no distribution difference by race. Smith et al. (2005) noted that seclusion rates were higher for racial or ethnic groups than for whites in the early years of the Pennsylvania program, but in a positive finding as the overall rate of seclusion declined, the rate decreased more sharply in this population.

However, Harte (2002) found that there was no significant difference between secluded patients by country of birth. There have been no specific studies around seclusion and language-background of the patient.

Patient Factors: Severity of Illness

Swett (1994) found that one of the strongest predictors of seclusion was a patient's total assets score on the Nurses Observation Scale for Inpatient Evaluation (NOSIE), which measures positive and negative aspects of behavioural functioning. Similarly, in a study of the use of seclusion in mentally ill children by Ibikunle and Kettl (2000), they found that those children secluded were treated with more medications and stayed longer in hospital, which may reflect more serious disturbance and in the Harte study (2002), secluded patients had significantly longer admissions (mean 20.1 days) than non-secluded patients (mean 10.7 days). It is possible that effects of seclusion itself may play a role.

Patient Factors: Diagnosis

Pinel's original observation that reason for seclusion was "most frequently occurring in maniacal cases of the nervous temperament" has since been extensively refined. Oldham *et al*. (1983) found that those significantly most likely to be secluded were those with a diagnosis of mania or excited schizoaffective disorder (35% of seclusions, 12% of non-secluded controls, $p<0.001$). According to Binder (1979), patients with diagnoses of a psychosis had increased seclusion rates in comparison to those with non-psychotic diagnoses, and Plutchik *et al.* (1978) found that significantly more secluded patients than controls were diagnosed with schizophrenia. Betemps *et al.* (1993) found that patients with a diagnosis of schizophrenia accounted for over 65% of all incidents of seclusion and restraint, followed by 17.8% for those diagnosed as suffering from affective psychosis, and Thompson (1986) found that diagnoses of bipolar affective disorder, schizophrenia and mental handicap were significantly associated with seclusion. There was a significant positive correlation between a diagnosis of a schizophrenic disorder and the probability of being secluded in the Harte study (2002).

Other findings demonstrate the variability in the literature. Fisher (1994) found that "character disorders, manic symptoms, abnormal EEG's and mental retardation" were associated with higher seclusion and restraint rates. Soloff and Turner (1981) found no significant differences in seclusion between diagnostic categories, apart from patients with a diagnosis of neurosis who were not secluded at all in their study.

The findings relating personality disorder and substance use to seclusion were mixed. Plutchik *et al.* (1978) found personality disorder to be a protective factor, along with depression and drug and alcohol problems. However, Oldham *et al.* (1983) found that a diagnosis of personality disorder was slightly associated with increased incidence of seclusion, and that substance abuse was negatively associated with seclusion, and Swett (1994) found that the strongest diagnostic predictor was borderline personality disorder. Beck and van der Kolk (1987) reported that patients with a history of childhood incest were more likely than other patients to spend time in seclusion.

Patient Factors: Legal Status

Oldham (1983) found that secluded patients were significantly less likely to have voluntary status on admission. Thompson (1986) found that 19.4% of patients admitted under involuntary status were secluded, statistically significant by comparison to 1.9% of informal admissions. Soloff and Turner (1981) found that patients admitted to the unit under court commitment were significantly more likely to be secluded during their admission and Harte (2002) found that 78.9% of persons secluded were under involuntary status at some point in the seclusion admission.

Patient Factors: Medication

One study (Chengappa *et al.,* 2000) examined the impact of risperidone on rates of seclusion and restraint shortly after the introduction of this medication, finding that in a cohort analysis there was a significant reduction in seclusion rates for the risperidone treatment group. It was also noted in Fisher (2003) that the aggressive use of clozapine was possibly instrumental in achieving a decrease in seclusion and restraint.

Staff factors

Several studies have examined the implications of staffing levels, experience and attitudes upon seclusion use, with mixed results. Mattson *et al.* (1978) found that staffing levels, staff availability, general anxiety on the ward and staff training all affect the decision to seclude. Gerlock and Solomons (1983) concluded that staff attitudes towards seclusion could greatly influence timing, patient selection and duration of seclusion, due to the varying tolerance levels of staff towards disturbed behaviour, and Morrison *et al.* (1987) found that the

level of experience of the charge nurse related most strongly to the use of seclusion. De Cangas (1993) related a higher male-to-female staff ratio to an increased number of seclusion hours. Crichton (1997) found that seclusion rates were affected by staff demographics, work setting, experience and training and Castle *et a*l. (1997) noted that while high staff-to-patient rations predisposed to more episodes when the extra staff were nurse assistants, a similarly high ratio decreased episodes when the extra staff were registered nurses. However, Schwab and Lahmeyer (1979) found no correlation between either the age or experience of the nursing staff and the frequency with which seclusion was used.

Crisis events leading to seclusion or restraint were noted by Schreiner *et al*. (2004) to occur most often at nursing shift change, particularly the day-to-evening shift.

More controversially, several other studies have highlighted how staff attitudes can contribute to the duration of seclusion and have questioned motives for its use. Gair (1985) discussed seclusion use as a result of staff's sadistic tendencies. Although Alty and Mason (1994) found no support for this, Mason (1993) had previously suggested that duration of seclusion was closely related to the "affronting of staff dignity at the time of the crisis leading to the use of seclusion."

Environmental factors: Physical Environment

The physical environment and its potential effects upon the use of seclusion have been examined in several studies. The strongest correlation was found in relation to unit overcapacity, which was convincingly found to be associated with an increased incidence of seclusion and restraint (Brooks *et al.,* 1994), (Palmstierna *et al.,* 1991). Few studies mentioned the architectural features or noise levels of the ward, although these have been found to be predictive of stress and violence in other settings (Verderber and Reuman, 1987; Kuo and Sullivan, 2001). Although several studies have examined the rates of seclusion within a locked ward, there were no studies examining the effect a locked area (such as a high dependency unit) available to an otherwise open unit would have on the rates of seclusion.

Environmental factors: Ward Culture

Studies examining the nature of the institutions included Walsh and Randell (1995), who stated, "length of time in seclusion or restraint often appears to be dependant upon common practice rather than upon clinical criteria". Fisher (1994) and Crichton (1997) both implicated the ward culture as determining the staff's response to disturbed behaviour, and the Pennsylvania Office of Mental Health and Substance Abuse, in its report on seclusions based on data collected from 1985 to 1990, found that almost half of the justifications for seclusion

reflected the attitudes of the hospital culture and had little to do with behaviour posing an imminent threat of danger to the patient or others.

Environmental factors: Forensic Setting

It is commonly assumed that seclusion is used more frequently and for longer periods within forensic psychiatry settings than in general psychiatry, dealing with a group selected for a higher rate of dangerousness. Mason (1992) argued that this view "remain(ed) extant due to absence of research and published data" and stated later it was "largely based on hearsay and speculation" (Mason, 1993), yet other authors have found an increased incidence of violence within forensic systems. The United Kingdom Mental Health Act Commission looked at incidents within a forensic service and concluded that "incidents occurred more frequently…..were also more serious in nature and resulted in greater injury" (Larkin *et al.,* 1988). Coldwell and Naismith (1989) argued that "all special hospital patients have been considered to display dangerous, violent or criminal propensities, and that the majority have histories of violent behaviour", and that therefore a higher rate of violent behaviour might be expected. Expanding on the differences between actual and threatened violence, Heilbrun *et al.* (1995) noted that forensic patients differed from civil subjects in showing "greater frequency of threats, agitation and verbal hostility, (whereas) civil patients were more frequently aggressive toward others and destructive of property."

Environmental factors: Rural Setting

Crenshaw and Francis (1995) found that smaller hospitals tended to have higher rates of seclusion and restraint. This is in contrast to the finding of Harte (2002) that rural hospital had significantly lower rates of seclusion than either inner or outer metropolitan hospitals, and that outer urban hospitals had the highest rates of seclusion.

Temporal Factors

Seclusions have been shown to cluster early in the admission. Binder (1979) determined that most seclusions occurred in the first twenty-four hours, and Ibikunle (2000) found that 84.7% of seclusions occurred in the first half of the admission. Hammill (1989) in a small study of 26 patients found that seclusions occurred from day 1 to day 25, with a mean day of seclusion of 5.3. Soloff and Turner (1981) had earlier found that psychotic patients were secluded predominantly in the first half of their hospital course, whereas nonpsychotic patients were secluded both early and late in their admission. Harte (2002) found that the majority of seclusions (62.4%) fell within the first 48h of admission, and 43.5% of seclusions occurred within the first 24 hours of

admission. Conversely, Garrison (1984) found that incidents leading to restraint or seclusion were less likely to occur during the first five days of an admission than in any five day period thereafter.

Garrison also described seclusion as most frequent on Mondays and on the ward's busiest day, and lowest on Saturdays and Sundays.

Coldwell and Naismith (1989) in a study of psychiatric inpatient violence indicated a seasonal variance in assault, with increased frequency of assault in winter months. Seclusion rates would be therefore expected to increase in winter, and indeed Gerlock *et al.* (1983) found that seclusion rates were increased in winter and spring, with the highest rates during April and January (northern hemisphere). This was supported by the Harte (2002) data, showing a bimodal peak in the number of episodes of seclusion in early winter and late spring.

Another theory of temporal variation is sometimes known as the "Transylvanian hypothesis". This was summarised by Geller *et al.* (1976) as the possibility that "deviant and violent behaviour occurs most frequently when the moon is full". Danzl (1987) found that 80% of the nurses and 64% of the doctors in a US emergency department believed the lunar cycle had some effect on patients, and Vance (1995) found that 81% of psychiatric sector professionals believed in lunar influence as opposed to 43% of the general population of the US. Seclusion rates could be expected to be increased, both on and immediately after the day of the full moon, however Gerlock *et al*. (1983) did not find any association of seclusion rates with lunar phases, nor did Harte (2002). It is notable that several sources have found methodological errors in the studies that support a relationship (Puech, 1999).

2.3 Outcomes

Psychological Outcomes

The more positive views on outcomes of seclusion are found in theoretical papers or from staff interview studies, whereas data gained from patient interview sources tends to emphasise the traumatic effects of seclusion.

Orne *et al.* (1964) observed that a subject's reaction to a sensory deprivation experiment could be profoundly manipulated by external cues imposed by the experimenter. It is known that for some patients, sensory deprivation may be calming and enjoyable (Grunebaum *et al* 1960), and schizoid patients in particular found the experience "pleasant and undisturbing." Similarly, favourable views of seclusion are found in other studies, where the subjective nature of the seclusion experience is emphasised (Blanch *et al.,* 1990), together with the need for debriefing and sensitivity on the part of the staff (Outlaw *et*

al., 1992). Mason (1992) likewise argued that the central question is how seclusion is perceived; if implemented as a punitive action but not felt as such by the subject, or perceived as punishment where this is not the intent, then the response depends on perception rather than intent.

However many sources report negative psychological outcomes from seclusion. Williams *et al.* (1997) found evidence of acute stress reactions in patients after seclusion, and Castle and Mor (1998) found that the experience of seclusion exacerbated patient agitation. Mohr *et al.* (1998) interviewed children after their hospital stays and found many were further traumatized when restrained or secluded, or by watching others undergo the procedure, tending to view such treatment as punishment. Binder and McCoy (1983) found that 24 of 27 secluded patients studied had negative reactions to their experience.

These studies raise the issues of whether seclusion re-traumatises the patient at their most vulnerable, whether this damages the therapeutic alliance, and, if so, whether this can be justified. A Massachusetts study by the Department of Mental Health (1996) considered patients who were especially vulnerable, and for whom these negative outcomes would be more likely. These included those with a history of physical or sexual abuse (who may be at increased risk of re-traumatisation), the elderly, the physically frail, and developmentally disabled or sensory impaired patients[5]. Children and adolescents may also fall into this category.

Wadeson *et al.* (1976) reviewed the artwork of acutely psychotic patients during a three-year period of admissions to a clinical research unit. Both artworks produced at the time and subsequent works seen at follow-up were dominated by the seclusion experience and exhibited continuing preoccupation with and bitterness about seclusion.

Physical Outcomes

There is a balance of evidence that seclusion may reduce both violence and injury to patients and staff, and that sometimes there are no other effective interventions available. However negative physical outcomes can be serious or fatal.

The *Hartfort Courant* 1998 deaths database[6] estimated that at least 50 to 150 deaths each year occurred during or immediately after the use of seclusion and restraint in the United States. The numbers reported were likely to under-reflect the magnitude of the problem, as many US states and the federal government

[5] Massachusetts Dept of Mental Health; Report and Recommendations of the Task Force on Restraint and Seclusion of Persons who have been Physically or Sexually Abused, Jan 25 1996.
[6] http://courant.ctnow.com/projects/restraint/death_data.stm

itself do not monitor the use of restraint or seclusion, or negative outcomes arising from such. The associated study examined 149 deaths closely, finding seven deaths associated specifically with seclusion. Two patients lit fires in seclusion, one patient asphyxiated on a sock in his airway, and one patient died from a subdural haemorrhage. Two patients' deaths in seclusion were attributed to pre-existing medical conditions and one was linked to polypharmacy.

2.4 Rates of Seclusion

Australia

The Australian Council on Healthcare Standards (ACHS) collects data submitted voluntarily by health care organisations (HCOs) on an array of clinical indicators, which include the use of seclusion (*Appendix 3*). In Victoria, data were submitted from 14 HCOs in 1999, which had an overall seclusion rate of 14.85% of admissions, and from 13 HCOs in 2000, showing an overall seclusion rate of 14.4% of admissions. This compares to overall seclusion data through Australia of 9.93% of patients admitted to public hospitals and 1.68% of admissions to private hospitals. This fits closely with the data from the *Report on Seclusion to the Chief Psychiatrist's Quality Assurance Committee* (Harte, 2002), which found that 13.1% of admissions into public mental health services in Victoria in 1999-2000 included a seclusion episode at some stage. It is possible that rates for the other states may be under-represented in the ACHS figures as data collection was more complete within Victoria, and a higher rate of Victorian hospitals submitted voluntary data.

International

There are relatively few studies of seclusion rates, and these come mostly from the United States and from Britain. Evidence suggests that seclusion is less used in European countries, including the United Kingdom, than in North America (Bogaert, 1980). Fisher (1994) described three ways of measuring the rates of seclusion; the first measuring the proportion of patients admitted over a defined time period who were secluded during admission. The second examined the proportion of inpatients secluded over a defined time period. The third measured the number of hours of seclusion per patient or per episode. Wide variations in rates were evident with each of these techniques, and the studies quoted below exclude studies of forensic, crisis intervention or intensive care units.

Sequential Admission Studies
A study by Oldham *et al.* (1983) looked at 313 voluntary and involuntary sequentially admitted patients to a New York state hospital. He found that 18% of patients were secluded at some stage.

Hammill *et al.* (1989) in a study of 100 voluntary and involuntary sequential admissions to an adult schizophrenia unit in Pittsburgh found that 26% required seclusion during their hospitalisation.

Plutchik *et al.* (1978) in a study of 450 consecutive admissions at an adult and adolescent New York municipal hospital reported that 26% of patients were secluded at some stage.

El-Badri and Mellsop (2002) found a seclusion rate of 16% in a general adult unit in New Zealand

Other Studies of Seclusion Rates

Freuh *et al.* (2005) conducted a study of 142 randomly selected adult psychiatric patients recruited through a day hospital program in South Carolina, of which 59% were found to have experience of being secluded.

The Report of the Government of Ireland Inspector of Mental Hospitals (2000) reported 21,000 admissions to public hospitals in Dublin (10% involuntary) resulting in 2942 episodes of seclusion administered to 559 patients (2.7% of admissions)[7]. Dublin populations are divided into catchment areas, each of which is served by local mental health centres. The figures reported from this source included patients in intensive care units as well as in acute units, but also included child, adolescent and aged psychiatry seclusion incidences.

In a four-week comparative trial by Way and Banks (1990), between 0.4 and 9.4% of admitted patients were secluded at some stage in New York State adult public psychiatric hospitals, with a total of 657 patients secluded.

Thompson (1986) found that 2.6% - 3.3% of the patients admitted to hospitals in the Newcastle area of England over a period of three years were secluded at some stage of their admission. The catchment area was 426,000 persons, the total number of admissions was 7404, and the total number of seclusions was 213. This study did not examine child, adolescent or aged psychiatry services.

Soloff and Turner (1982) conducted an 8-month prospective study of 39 secluded patients and 159 controls on two acute treatment units of a Pittsburgh university hospital, finding that 10.5% of admissions required seclusion on at least one occasion.

Schwab and Lahmeyer (1979) undertook a prospective trial over 6 months in a single unit of a US university hospital, finding that 36.6% of admissions required seclusion at some stage.

[7] Government of Ireland 2001, http://www.doh.ie/pdfdocs/inspect00.pdf p231

Mattson and Sacks (1978) described seclusion in a private voluntary psychiatric ward of a New York general hospital, finding that 7.2% of patients required seclusion over the study period.

Duration of Seclusion

The modal duration of seclusion was reported by Oldham *et al.* as 1.25 hours (1983), by Hammill *et al.* (1989) as 1.0 hours, and by Soloff and Turner (1982) as 10.8 hours. Plutchik *et al.,* found on chart review that the modal seclusion duration was 4.1 hours. Thompson (1986) gave the median duration of seclusion in Newcastle as 4.3 hours.

The Quality Assurance Committee report (Harte, 2002) noted the modal seclusion duration in Victoria for the year 1999-2000 to be 4.8 hours.

3 Current Concerns

3.1 Ways to Reduce Seclusion

Grigg, in her 2006 editorial on eliminating seclusion and restraint in Australia, identified six core interventions; leadership to support organisational change, use of data to inform practice, workforce development, use of seclusion and restraint prevention tools, inclusion of consumers and families and rigorous debriefing.

The New Zealand Mental Health Commission report on seclusion (2004) identified several key factors that increase the potential for inappropriate seclusion. These include unclear policy and guidelines which do not clearly define seclusion or which differentiate it from other practices such as the routine locking of bedroom doors at night, overcrowding in mental health services, poor ward design, low or inflexible staff numbers, inexperienced staff, poor staff retention, poor information sharing and service use acuity.

Fisher (2003) reviewed the literature on successful restraint and seclusion reduction, identifying high level administrative endorsement, recipient participation, culture change, training, data analysis and individualised treatment. He was able to apply these elements in practise to produce a significant reduction in seclusion at a large state-run New York hospital. Apart from the modifications to the institutional culture, the underlying illnesses of the patients were treated as a first priority, using techniques such as the aggressive use of clozapine. Another interesting element of his program was the use of DBT techniques to enhance the emotional coping skills of the patients, which was also found to have a positive effect on the staff.

Templeton *et al*. (1998) reported that despite no major changes in medication or nursing policies over a study period of three years, seclusion rates dropped

dramatically which they feel was due to the audit being performed. This is in contrast to the finding of Donat (2005) that the only variable significantly associated with reduction in the use of seclusion and restraint was a change in the processes for first identifying critical cases and then initiating a clinical and administrative case review.

In the Pennsylvania restraint and seclusion reduction program, data collection and analysis, organisational change strategies, staff training, risk assessment and treatment-planning tools, patient debriefing, recovery-based treatment models and adequate staffing were all identified as key interventions, and the additional effect of culture change in the hospitals due to open public access to restraint and seclusion incidence data, creating competition among hospitals to reduce restraint and seclusion, and giving awards and acknowledgements for improvements[8].

One intervention cited by several sources is the use of advance crisis planning (Cohen-Cole, 2000; Bloom, 2002; Smith *et al.,* 2005; Donat, 2005). Routinely, on admission, patients are asked about specific circumstances which may trigger problem behaviours and their preferred options for managing such behaviours; and a scale of interventions is identified which may in fact range up to seclusion. If restrictive interventions become necessary, the plan may be reviewed and altered. The inclusion of the patient in the planning process empowers the patient and individualises the treatment, decreasing the need for more restrictive treatment options.

3.2 Alternatives to Seclusion

Other than the intrusive and potentially dangerous interventions of seclusion, mechanical restraint and chemical restraint, what other interventions may assist behaviourally disturbed individuals in mental health settings? As noted in the Cochrane review (Muralidharan and Fenton, 2006), there is no evidence base from which to evaluate the effectiveness of alternative strategies, however a number of articles discuss a range of options. Early recognition and intervention to prevent escalation is a priority in most of these (Schreiner *et al*. 2004, Smith *et al*. 2006). Some others continue the principle of containment, using a continuum of seclusion-like interventions such as separation from others in a safe and controlled environment (for instance a high dependency unit); room restrictions or programs; limit setting; and 'time-out' from reinforcement (Mohr *et al.,* 1998). Similarly, Canatsey and Roper (1996) proposed removal from stimuli (RFS) in a seclusion room with an unlocked door as a less traumatic modification of seclusion.

[8] (The Pennsylvania Department of Public Welfare, Office of Mental Health and Substance Abuse Services, *Leading the Way Toward a Seclusion and Restraint-Free Environment – Pennsylvania's Seclusion and Restraint Reduction Initiative*, (Harrisburg: Office of Mental Health and Substance Abuse Services, 2000)

The New Zealand Mental Health Commission report on seclusion in 2004 highlighted the separate components of seclusion as being containment, isolation and reduction in sensory input, querying whether patients who are secluded require all three of these elements. Strategies to identify the specific needs of the service user and to respond to these individually are espoused in the document.

In a study of an adult psychiatric centre by Visalli and McNasser (2000), improved information management reduced the rate of seclusions. All information gathered went into treatment plans, enabling staff to interact more consistently. Another element of this program was the debriefing of clients, gathering their ideas on how to avoid recurrence of the situation which led to seclusion or restraint. Other findings from this study concerned staff and organisational changes that were found to reduce the use of seclusion, such as an interdisciplinary approach to individual treatment, and organisational leadership. Their study led to the suggestions of behaviour contracts setting the expectations between patient and treatment team, behaviour management plans and a Behaviour Management Review Committee to help the treatment team develop and review the plan Similarly, Donat (1998) found that behavioural consultation on 'difficult' patients resulted in a dramatic fall in the use of seclusion and restraint.

A Cochrane study (Chung *et al.* 2002) explored the use of Snoezelen® rooms (flexible environments providing gentle stimulation of primary senses where a patient is accompanied by a therapist) as an intervention. This has been primarily used in the management of intellectual disability and acquired brain injury from the 1970's, and more recently in dementia services. It is a cost-intensive intervention but appears to yield a wide range of positive outcomes in patients with impaired cognition or language skills, and may have useful applications in other areas of mental illness.

3.3 Seclusion in Special Populations

Children

There is an extensive literature on the seclusion and restraint of children, covered thoroughly in an excellent literature review by Fryer *et a*l. (2004). It is hard in these studies to differentiate between a generally accepted time-out process for a younger child and the forcible seclusion of an older adolescent. The finding of Donovan *et al*. (2003) that children aged 5 to 11 or less were more likely to be secluded probably reflects the uncertainty around this boundary, and this is further investigated due to divergent results in Garrison's literature review (1984). She noted that where younger children are secluded more frequently this is attributed to their developmental challenges and staff having a limited range of options of how to manage the child, and where older children were

more frequently secluded this was rationalised in terms of their greater size. The concept that seclusion in younger children is qualitatively different is supported by a study by Martinez (1999), where information collected from children and adolescents separately showed that children had a predominantly positive view of seclusion and adolescents had a predominantly negative one.

Garrison raised specific concerns about seclusion and restraint in children; that the risk of psychological damage may be increased due to the child's developmental and psychopathological status, and that the potential for substitute consent of a parent or guardian raises increased ethical concerns. It is also worth noting that many of the deaths and injuries in the Hartford Courant investigation occurred in children. The use of seclusion in children and adolescents needs to be carefully considered in each situation.

Elderly Persons

The restraint of the elderly, often in general health care settings, is a far more common practice than seclusion, however seclusion is still sometimes used in this population. Older persons affected by degenerative brain disease may be unusually loud, may become combative when approached or touched, or may intrude upon others, and older persons with psychotic or mood disorders may also become severely behaviourally disturbed.

The physical frailty of many older persons also needs to be borne in mind in the seclusion process, the amount and type of medication they are on considered, and their vulnerability to injury and choking borne in mind. Exclusion of delirium or pain as a cause of the problematic behaviour is vital as seclusion will exacerbate rather than relieve the problem.

Intellectually Disabled

Garrison (1984) commented that seclusion rates were higher for those with diagnoses of mental retardation, developmental disability and neurological impairment, and Millstein (1990) found that children with weak verbal skills and a high incidence of specific learning disabilities were more likely to be secluded. Individuals with dual disability may be at high risk for seclusion and restraint in mental health settings because these settings generally are designed for persons with greater cognitive and verbal abilities and communication problems may trigger or exacerbate problem behaviours. Such patients may also have relatively high rates of self-injurious behaviour (e.g., biting, pinching, head banging) that could prompt a decision to seclude.

For those with an intellectual disability, particularly where their ability to communicate may also be impaired by mental illness, behaviour may be the principal means of communication. Problematic behaviour in this setting where possible should be assessed for meaning before making decisions to use

seclusion and restraint. Where agitated or violent behaviour is a new phenomenon the person should be carefully assessed for an underlying medical condition.

It is important wherever possible for the nature of the intervention and the reasons for it to be explained at a level the person is able to comprehend, preferably before the person is secluded. It is also important to consider the existence and involvement of substitute decision-makers such as a guardian.

Sensory Impaired

Seclusion and restraint may be more traumatic and potentially more dangerous for those who may be unable to understand what is happening or unable to communicate their questions or concerns. The US National Association of State Mental Health Program Directors in their publication *Reducing the Use of Seclusion and Restraint Part III (Lessons from the Deaf and Hard of Hearing Communities)* noted that communication problems may lead to unnecessary interventions, and special care must be taken to achieve effective communication, firstly to avert the use of seclusion and restraint if possible, and secondarily to minimise the trauma of the intervention to the patient.

History of Trauma

A history of physical and sexual abuse is known to predispose to the development of a psychiatric disorder, and such a history also appears in several smaller studies to predispose to seclusion and restraint in the mental health system (Beck and van der Kolk, 1987).

It has been shown that up to half of psychiatric inpatients have histories of physical or sexual abuse or both (Carmen *et al*. 1984, Swett *et al.* 1990), with sexual abuse possibly more common in women (Craine *et al*. 1988). A number of studies have also noted an association of seclusion with borderline personality disorder as described in Swett (1994), which is a diagnosis highly linked to past experiences of trauma and abuse.

Where a person has a history of abuse, seclusion and restraint can trigger responses to traumatic previous experiences. Responses may be extreme, and may include PTSD symptoms such as flashbacks (hallucinations), dissociation, aggression, self-injury and depression. Advance care plans may be particularly useful for those with an identified history of abuse.

4. Summary of Literature Review

Seclusion has long been used as an emergency measure to control violent or agitated patients. However, until recently variation in practice were common and largely unstudied, with a consensus on neither the rationales for nor the effects of seclusion. Even 'seclusion' itself has been so variously described that comparative studies are difficult. This present work is based on a previous report, but covers several previously untouched-on topics.

This report brings together international definitions of seclusion, compares different legislative approaches on three continents, and attempts to assess the actual effect of the practice. It looks at the use of seclusion as a measure to maintain the security of the patient and others, but also among other reasons as a punitive measure. Other factors considered are those in relation to the patient (age, gender, ethnicity, diagnosis, severity of illness, legal status, medications), staff, physical environment, cultural influences, legal environment, even the time of day and annual variations. Psychological and physical outcomes are summarised, along with international figures on the rate and duration of seclusion, and its impact on special populations such as children, the elderly or the impaired.

A groundswell of interest in seclusion and restraint since the previous report has led to substantial amounts of new data, generally focused on reducing the rates of these interventions. Much of the new data shows as much disparity between the existence and detail of seclusion regulation and as much divergence around associations with seclusion as the older data, but the regulatory issues are widely being addressed. It is also encouraging to note that most administrations which have attempted to reduce their use of seclusion and restraint have achieved better-than-expected outcomes.

While the rationale for seclusion has been narrowed in international consensus to the prevention of injury, practice is still very varied, and may remain far from theory in some areas. It is a matter for concern that much current Australian legislation in this matter does not conform to UN principles in regard to mental health care. The rationale of property damage in particular is ethically dubious, and this concern is reflected in the Exposure Draft of the Victorian Government's new *Disability Bill*, where restraint or seclusion can be used for property damage only where the damage could involve the risk of harm to themselves or any other person. Similarly, the rationale of prevention of absconding is also of concern.

It is hoped that this review will aid the process of quality improvement for the use of seclusion in Victoria, and that the bibliography may in itself act as a major aide to further research.

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