Douglas Hospital

Seclusion And Restraints Committee

Final Report

9 June 1986

COMMITTEE MEMBERS:

Mrs. Andrée Dupuis
Miss Carol Mahoney
Ms. Marjorie Perzow
Ms. Hélène Provencher
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Mr. Sheldon Shapson
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Additional Appendices (bound separately)

EXECUTIVE SUMMARY

This final report is a compilation of the final reports of each of four working groups within the Committee on Seclusion and Restraints, a multidisciplinary committee operating under the aegis of the Douglas Hospital Comité de Régie, the Director of Professional Services, and the Administrative and Ad Hoc Multidisciplinary Committees on Quality Assurance.

The committee is composed of Mrs. Andrée Dupuis, Directrice adjointe des soins infirmiers au C.P.C.; Miss Carol Mahoney, Head nurse of the Clinical Teaching Unit (CPC III); Ms. Marjorie Perzow, Nurse Clinician Teacher in STRP; Ms. Hélène Provencher, Infirmière clinicienne enseignante au C.P.C.; Dr. Charles Serrao, psychologist and Service Chief of Burgess II and Wilson Pavilions; Mr. Sheldon Shapson, member of the Douglas Hospital Patients' Executive Council; Mr. Peter Steibelt, Chairman of the Patients' Rights and Ethics Committee; and Dr. Henry Olders, attending psychiatrist on Burgess I Pavilion and the committee's chairman.

The report opens with an Introduction, in which some historical background to seclusion and restraint is provided, as well as a statement of the indications which are commonly accepted today. Given that these treatments are often involuntary, the principle of least restrictive intervention should result in efforts to minimize the use of these modalities. A list of factors which influence frequency of use is presented, as a guide to where efforts to bring about changes could be directed.

The committee's mandate, detailed in a memorandum from Dr. T.S. Callanan (29 Aug 1985), can be summarized as follows:

- review the role of seclusion and restraint in the scientific literature;
- review the prescription and use of seclusion and restraint at Douglas Hospital;
- assess the need for seclusion rooms at Douglas Hospital, and the number needed;
- make general recommendations concerning seclusion and restraint, or alternative approaches.

The committee has decided to expand on this mandate in some areas (*eg* to explore also the use of seclusion and restraint at other hospitals in the Montréal area), and has also chosen to restrict its inquiry to seclusion and restraint as used for adult inpatient psychiatry, thus setting aside for the time being the important topics of pediatric and geriatric usage.

In order to accommodate the expertise and training of its members, the committee is divided into four working groups:

1. Survey of the Scientific Literature
2. Survey of Practice at Douglas Hospital
3. Survey of Practice at other hospitals
4. Legal and Ethical Considerations: Attitudes Survey

A breakdown of the tasks which the committee set out to perform is given in tabular form, indicating for each task or activity, which of the working groups carried the responsibility.

The next part of the report contains the reports of each of the working groups. Dr. Charles Serrao's report of a partial review of the scientific literature on the use of seclusion and restraints in behavior modification includes some recommendations. A review of a number of observational studies on the psychiatric use of seclusion and restraints is presented next in Dr. Henry Olders' report, along with information culled from the literature on seclusion room design and guidelines for using seclusion and restraints.

The working group on Practices at Douglas Hospital produced two separate reports, both nursing audits. The first, by Ms. Hélène Provencher, presents data from a one-month audit of seclusion and restraints in Reed I, the locked

intensive care unit. The second is also a one-month audit, but this time for nine units within STRP. Both reports include recommendations, particularly about the quality assurance findings of the audit. The preambles to each report compare the frequency of use to the data from the literature reviewed by Dr. Olders.

The working group on Practices at Other Hospitals has produced data from both general hospitals and psychiatric facilities, including anglophone and francophone institutions. This information reveals that there is a very wide range of policies and practices at the different facilities, and suggests that a consensus may be difficult to arrive at.

The working group on Legal and Ethical Issues includes a report on these very important aspects, complete with recommendations. A second report describes a survey of patient attitudes towards seclusion and restraints, including a brief literature survey. The findings indicate that Douglas Hospital inpatients generally favor the use of these treatment modalities for the appropriate indications, and many do not believe that these treatments are too frequently used.

The report includes a section containing the committee's conclusions and its recommendations for changes to policies and practice at Douglas Hospital.

INTRODUCTION

The Douglas Hospital, as an institution dealing with mental illness, must be continuously prepared to evaluate and if necessary, change, its policies, procedures, and treatments offered to its patients, not only because medicine as a discipline is continuously evolving, but also because the hospital's role in the community and in society changes over time. An example of the former is the introduction in the early 1950's of the phenothiazines, a class of medication which could calm agitated behaviour more effectively than other drugs then available.

This led to a widely held hope that medications, so-called "chemical restraints", would eliminate the need for physical restraints, felt to be barbaric and inhumane by many. However, it turned out that no medication was instantaneously effective; moreover, it still was necessary to physically restrain agitated and violent persons if they refused to take medications, so that an "injection" might be administered. Notwithstanding the limited efficacy of medications or other interventions (eg behavioural) in dealing with violence, there is also a growing awareness of serious side effects, such as tardive dyskinesia, which should narrow the range of indications for which antipsychotic medications are used.

A number of examples of the societal changes affecting the role of psychiatry can be given, including the trend to have such things as violence occurring in the family or as a result of alcoholism dealt with by mental health professionals, instead of a "drunk tank" at the local police station. Similarly, widespread drug abuse, a recent phenomenon, and drug-induced violence are looked upon as psychiatric problems. Even the disruptive and disturbed behaviour occurring in the jail setting nowadays prompts referrals for psychiatric evaluation and treatment. All of these factors have led to an increase in the amount of violence occurring in North American hospitals, especially psychiatric institutions, an increase only partially seen in statistics, given the evidence that violence is underreported by hospital incident reports.

None of the foregoing should be construed as condoning the inappropriate, excessive, or abusive use of seclusion or restraint. It was demonstrated as early as 1837 in an experiment at the Lincoln Asylum that restraints could be successfully abolished (except for patients who attempted to harm themselves), by providing more and better trained staff. This experiment was repeated the following year on a grand scale by John Conolly, Physician Superintendent of the Middlesex County Lunatic Asylum at Hanwell, with a population of 980 patients (Soloff, 1984). Conolly noted improvement in the behavior of many patients following the abolition of restraints. He said "Restraint and neglect are synonymous. They are substitute for the thousnd attentions needed by a disturbed patient".

How did these reformers deal with acutely violent, agitated, manic, and demented patients? The answer was seclusion. As the Metropolitan Commissioners in Lunacy to the Lord Chancellor wrote in their report to both Houses of Parliament in 1944:

"Seclusion is found to have a very powerful effect in tranquilizing, and subduing those who are under temporary excitement or paroxysms of violent insanity. As a temporary remedy, for very short periods, in case of paroxysms and of high excitement, we believe seclusion to be a valuable remedy" (Soloff, 1984).

The same holds true in 1976, as the Massachusetts Psychiatric Society stated in its *Amicus Curiae* brief to a Federal Court:

"Seclusion is a highly respected form of treatment, of great value to many severely disturbed patients and essential to the preservation of order and safety during psychiatric emergencies" (Soloff, 1984).

It seems clear, however, that in North America the use of seclusion and restraint continues in many psychiatric facilities. In 1984 the American Psychiatric Association published a position paper on this topic (Task Force Report 22, 1984),

in which three specific indications for seclusion and restraint were set forth:

- to prevent imminent harm to the patient or others, when other means of control are not effective or appropriate;
- to prevent serious disruption of the treatment program or significant damage to the physical environment;
- to assist in treatment as part of ongoing behaviour therapy.

Two additional indications were given, applying to the use of seclusion only:

- to decrease the stimulation a patient receives;
- to comply with a patient's request.

In applying such indications, a number of issues need clarification: what is the nature of the danger; how imminent should the danger be; how does one judge that other means of control are ineffective or inappropriate.

If we accept that seclusion and restraints are effective treatments and may be inevitable in some cases, what then can be done to reduce their use as much as possible while maintaining a reasonable degree of order and safety? Gutheil (1984) in his review of the literature, identified the following factors for which increases are associate with increases in rates of seclusion, restraint, forced medication, administrative discharge, transfer to security setting, and so on:

- violence of patient population
- number/proportion of involuntary patients, perpetrators of violent crimes
- attack on the facility from legal, political, professional, economic quarters
- inter-staff tensions, resentments, disagreements
- legal or departmental intrusiveness, regulation, undermining of on-site decisions.

It should be noted that prohibition of any of these interventions may lead to increases in rates of the others.

Decreases in the following factors are associated with increased use of restraints, seclusion, and so on:

- number of staff
- number of senior, experienced staff
- number of male staff
- public support of facility
- staff morale and sense of security
- available alternatives through regulation, policy, change, legal interdiction

Although the practices at Douglas Hospital should conform to North American standards, it may be even more important that they be appropriate to the cultural, political, and legal climate in Québec and in Montréal. It is clear that our practice does differ in important ways from that of many general hospitals in our region; for example, four-point restraints which are widely used elsewhere are proscribed here. Many of our adult inpatient units have rooms designed specifically for the isolation of patients and containment of aggressive behaviour, while seclusion rooms are unknown in most general hospitals in Montréal.

The Quality Assurance Working Committee on Seclusion and Restraint was formed in order to review the use of seclusion and restraint as a treatment modality within Douglas Hospital, and to make recommendations.

Definitions

Because definitions vary widely, it is necessary to state explicitly the meanings of the terminology used in this report.

SECLUSION (ISOLATION): "the state of a patient placed alone in a secure room" (Corporation Professionnelle des Médecins du Québec, 1986)

RESTRAINT: "a form of physical immobilization of a person" (Corporation Professionnelle des Médecins du Québec, 1986)

EMERGENCY SECLUSION OR RESTRAINT: refers to the unplanned use of these modalities to treat acute agitation, aggression, violence, etc. For the purpose of this report, any episode of restraint or seclusion which is not part of a written treatment plan is an "emergency" restraint or seclusion, by definition.

VOLUNTARY SELF-ISOLATION: when a patient requests to go into the seclusion room, or agrees to voluntarily seclude himself or herself without needing to be either locked or guarded to stay isolated, this is not considered as a seclusion episode, for the purpose of this report.

SECLUSIONARY TIME-OUT (TIME-OUT FROM REINFORCEMENT): this involves placing the patient in a special area devoid of reinforcement contingent on the occurrence of maladaptive behavior. It is administered immediately following each display of the specified target behavior, and is carried out with the minimum of emotional expression or verbal interaction, other than for briefly announcing why the consequence is being applied (Task Force Report 22, 1984).

CONTINGENT RESTRAINT: involves the immobilizing of some part of a patient's body either by a device (*eg* soft ties, restraint chair, cuffs and belts, posey jacket, Argentino suit) or by a therapist physically restraining that patient for a period of time following the occurrence of a specified violent act, for example, self-mutilation. Immediate and consistent administration after each episode of the target behavior is necessary. While contingent restraint is applied, the patient is also in time-out from reinforcement.

Mandate Of The Committee

The committee limited its mandate to the use of seclusion and restraints for adult psychiatric and mentally retarded patients only. The decision to limit the scope was made to maximize the likelihood of arriving at a set of recommendations within a reasonable time frame. These two areas also reflect the interests and training of the members of the present committee.

Topics which are being specifically excluded from the present mandate include:

- restraints used for geriatric patients
- restraints used for medically ill patients
- restraints or seclusion used with child patients
- any non-physical types of restraint, such as so-called "chemical" restraints, or Electro-Convulsive Therapy (ECT) used as restraint.

It is recognized that these are highly important, and as deserving of review as the two topics that will be considered. It is recommended that they might be made the mandate of another committee, or possibly of the present committee after completion of its present mandate.

Working Groups Within The Committee

In order to accommodate the expertise and training of its members, the committee formed four working groups:

WORKING GROUP	MEMBERS
1. Survey of the Scientific Literature	Dr. Charles Serrao Dr. Henry Olders
2. Survey of Practice at Douglas Hospital	Ms. Hélène Provencher Ms. Marjorie Perzow
3. Survey of Practice at Other Hospitals	Mme Andrée Dupuis Miss Carol Mahoney
4. Legal and Ethical Considerations; Attitudes Survey	Mr. Peter Steibelt Mr. Sheldon Shapson

Breakdown Of Tasks

The mandate of the committee can be broken down as a set of questions which can be grouped into two matrices, one for seclusion and the other for restraints. For each question, answers are to obtained from the scientific litera-

ture, from an examination of current practices at Douglas Hospital, from a survey of the practices at other hospitals, and finally, a synthesis of these three areas into a set of recommendations. The matrices which follow summarize the questions, and which working group is responsible for obtaining answers in each of the four areas.

Seclusion

The topic of seclusion includes its use for patients who are a danger to themselves or to those around them, as well as its use as part of a behaviour modification treatment program ("time out").

Division of Tasks among Working Groups:

	Review of the Scientific Literature	Practice at Douglas Hospital	Practice at other Hospitals	Recommendations
Who gets put in seclusion (ie what diagnostic categories)	1	2	3	1,2,3,4
Where does it occur (which wards)	1	2	3	1,2,3,4
When (which shift or time of day, week, season, or year)	1	2	3	1,2,3,4
Why (what kind of behaviour provokes it)	1	2	3	1,2,3,4
Who does it (level of training, experience, sex of staff)	1	2	3	1,2,3,4
How long	1	2	3	1,2,3,4
What are the effects on: the patient; staff; other patients	1	2	3	1,2,3,4
What physical factors are important (for safety, efficacy)	1	2	3	1,2,3,4
How is it perceived by: patients; staff; the community	1	2	3	1,2,3,4
What are the legal issues	1,4	4	4	1,2,3,4
What are the ethical issues	1,4	4	4	1,2,3,4
What are the procedures for: seclusion orders; assessment of patient behaviours; orientation of the patient; monitoring; use of medication or restraints; discontinuation of seclusion; documentation	1,3	2	3	1,2,3,4
Who is accountable	1	2	3	1,2,3,4
What auditing is done	1	2	3	1,2,3,4
How is staff trained (orientation, inservice)	1,3	2	3	1,2,3,4
What standards are used	1	2	3	1,2,3,4
What standard care plans are used	1,3	2	3	1,2,3,4

Restraints

The topic of restraints includes the use of the Argentino suit, two-point and four-point restraints, the Posey vest, the Posey belt, and mitts.

Division of Tasks among Working Groups:

	Review of the Scientific Literature	Practice at Douglas Hospital	Practice at other Hospitals	Recommendations
Who gets put in restraints (ie what diagnostic categories)	1	2	3	1,2,3,4
Where does it occur (which wards)	1	2	3	1,2,3,4
When (which shift or time of day, week, season, or year)	1	2	3	1,2,3,4
Why (what kind of behaviour provokes it)	1	2	3	1,2,3,4
Who does it (level of training, experience, sex of staff)	1	2	3	1,2,3,4
How long	1	2	3	1,2,3,4
What are the effects on: the patient; staff; other patients	1	2	3	1,2,3,4
What physical factors are important (for safety, efficacy)	1	2	3	1,2,3,4
How is it perceived by: patients; staff; the community	1	2	3	1,2,3,4
What are the legal issues	1,4	4	4	1,2,3,4
What are the ethical issues	1,4	4	4	1,2,3,4
What are the procedures for: orders for restraints; assessment of patient behaviours; orientation of the patient; monitoring; use of medication or chemical restraints; discontinuation of restraints; documentation	1,3	2	3	1,2,3,4
Who is accountable	1	2	3	1,2,3,4
What auditing is done	1	2	3	1,2,3,4
How is staff trained (orientation, inservice)	1,3	2	3	1,2,3,4
What standards are used	1	2	3	1,2,3,4
What standard care plans are used	1,3	2	3	1,2,3,4

REPORT FROM WORKING GROUP 1: SURVEY OF THE SCIENTIFIC LITERATURE

A. Report From Dr. C. Serrao

Note: I make a distinction between scientific literature and professional literature; the former refers to experimental or quasi experimental studies, the latter to clinical experience.

Professional Literature

1. Articles critical of seclusion/restraint

Chehy-Pilette (1978) in an article titled "The Tyranny of Seclusion", strongly asserts that seclusion is a form of torture which is used largely for whimsical reasons and for the benefit of the staff, and which teaches the patient low self-worth and low esteem. It makes the very interesting accusation that "proof that seclusion is a successful deterrent of further behaviour is not founded on empirical evidence" (page 20).

Cohen (1977), in describing the first year at an Israeli psychiatric hospital after a move into a new building, asserts that physical (but not chemical or ECT) restraints were abolished. In place of mechanical restraints was substituted a "therapeutic community, with ward meetings and discussions - and violence disappeared" (page 545). In addition, "no windows were broken, no doors were smashed ... incontinence declined". Use was made of a token economy, and ECT was revived. It is unclear whether there was an increase in staffing, the figure mentioned being 42 nursing staff for 127 patients.

The participants in a debate held in a British psychiatric hospital (Strutt et al, 1980) raised the following points, among others: Bailey saw a very strong link between large, understaffed units and the need for seclusion; Peermohamed defended the use of seclusion but only when staffing is low and both clients and staff are at risk; Forest felt seclusion was open to vindictive use ("punishment") and that staff should instead focus attention on good behaviour; Corton found it interesting "to note that when the establishment was 11 [nursing staff] over the funded levels [ie overstaffed according to norms], seclusion did not take place at all", and that "if staff ratios are increased, the need for seclusion decreases". He suggested that "every effort and pressure to gain more funding for nursing staff from the authorities should include the argument that the more staff employed, the less likely the need to resort to seclusion". The debate was summarized as follows: "the vast majority of the audience agreed that patient:staff ratios played a vital role in the types of treatment that could be offered".

2. Articles implicitly in favour of seclusion/restraints

Dunea (1979) protests the intrusion of politics and legal red tape in Illinois psychiatry, stating that the lawyers "failed to see a difference between imprisonment in a prison and involuntary admissions to a mental hospital". He asserts that "the regulations about restraints and seclusion were clearly unworkable" and that "even supporters of the code admitted that many provisions were unrealistic".

Another author (Grigson, 1984) asserts that "while the traditional limit-setting use of seclusion or restraints was often effective for the moment, it was not successful for longterm behavioural change". He reports good outcomes with three patients who were subject to impulsive or involuntary acting-out, using the following variations to the traditional procedure: (a) verbal intervention well before the actual acting-out, and (b) the offer of seclusion, according to rules laid down by the patient earlier on. Thus engaged in treating themselves, the patients gradually eliminated their acting-out.

Hoaken, in a letter to the editor (1985) defended the use of restraints to protect elderly patients from injury. He poses the interesting question, "Do ethicists carry malpractice insurance?".

3. "How to" articles

Implicitly favouring the use of seclusion/restraint, and based on practical experience

and concerns, this group of articles formed the largest portion of the professional literature seen to date. These articles will be reviewed in detail for the final report.

Scientific Literature

1. Quasi-experimental studies, N=1 to N=3

Barkley and Zupnick (1976) punished stereotypic body contortions of a 10-year-old girl by holding her hands at her side until she quietened; they rewarded increasingly long intervals of appropriate behaviour. There was a dramatic decrease in stereotypic behaviours.

Refusal to shower in a 5′ 2″ 270 lb moderately retarded female was punished (Mansdorf, 1977) by removing rewarding stimuli (eg the T.V., radio, bedding and pillow from her bed, her personal bag, other patients), and cooperation was rewarded with the return of these stimuli. Refusals to shower dropped significantly and replicably and lasted over a 6-month follow-up period.

Physical restraints were used as a reward by Favell and his coworkers (1978) for three profoundly retarded clients who seemed to like being restrained. Increasing periods without self-injury were rewarded with access to the restraints, and self-injury fell significantly.

Shapiro et al (1980) punished the stereotypic mouthing or face-patting behaviour of three female retarded clients ranging from 6 to 8 years old, by manually restraining the children's hands for thirty seconds, and compared this procedure with one where misbehaviour led to thirty seconds of manual guidance in doing a simple motor task. Each patient experienced both conditions, and both of these were found to be equally effective.

Foamlined gloves and padded football helmets were used by Dorsey et al (1982) on three adolescent retarded clients who were prone to self-injury. In one condition the equipment was put on and kept on during the entire session, while in the other condition the equipment was applied contingent on self-injury, for two minutes in addition to which all toys were removed. Significant reductions were obtained and maintained during a three-month follow-up.

Hamad et al (1983) negatively reinforced a severely self-injurious 41-year-old profoundly retarded male, by permitting him increasingly long periods out of a hip-brace which prevented knee to head contact (the man had previously detached his retinas and lost his sight in both eyes owing to this behaviour). He was put on heavy D.R.O. schedule when out of restraints, plus was given 30 seconds of leg immobilization contingent on attempted self-injury. When the restraints were eliminated on the day shift, the same procedures were carried out on the night shift until he slept out of restraints all night.

Foxx and Dufrense (1984) rewarded absence of self-injury in a 6′ 6″ 22-year-old severely retarded and psychotic male, by giving access to restraints. Increasingly long periods free of self-injury were demanded for access to restraints, and in the event of self-injury the therapist removed the restraints from the treatment room for 5 minutes. In phase two, the client's need to hold objects in order to avoid self-injury was treated, by fading the size of the stimuli and by transferring this function over to a wristwatch and finally, at the client's request, to a pair of clear, non-prescription eyeglasses. Four and a half years later, the client showed no need to return to his previous forms of self-restraint.

The self-biting behaviour of a 9-year-old autistic girl was punished (Neufeld & Fantuzzo, 1984) by placing a transparent bubble helmet on her head. After three weeks, the self-injury had dropped to close to zero incidents.

Edwards (1974) punished the occurrence of aggressive or threatening behaviour in a 29-year-old male paranoid schizophrenic by placement in restraints. The restraints were removed contingent on a period of quiet, non-aggressive behaviour, and the period of this latter was gradually increased. During his time out of restraint, the man was rewarded on a D.R.O. schedule. After twenty days, the client was out of restraint comparable to other patients, and this was maintained at a one year follow-up.

Summary Of Literature Examined To Date

1. It is clear that opposition to use of seclusion or restraint is based on its perceived open-

ness to abuse, and not at all on any proven deleterious effect of these techniques.

2. It is also clear that in many cases the use of seclusion and restraint is brought on by laving large, understaffed units where both staff and patients are at risk of aggression.

3. The "how-to" literature, which was read but not summarized here, is largely commonsensical and anecdotal.

4. To date, no large, well-controlled experiment on seclusion or restraint has been located by us. All studies were quasi-experimental and based on very small numbers.

   It is very clear that there is a need for a larger, better controlled experimental study of this area, and that given the necessary resources such a study could be done at Douglas Hospital. Not only would such a study be useful to the professional community, but it would also serve to maintain the hospital's reputation as a research centre.

5. This review of the behavior modification literature as it applies to seclusion and restraints is incomplete, primarily because of lack of time. However, the questions to be answered are sufficiently important and complex that the present study will be continued.

recommendations for behaviour modification use of seclusion and restraint

On Burgess II and Wilson, there are two uses of seclusion and restraint:-

1. emergency, protective uses, similar to those on other types of units;

2. as part of a treatment package which includes rewards and whose objective is to teach clients new behaviors. While on one hand adaptive behaviours or approximations thereof are rewarded, on the other hand unadaptive behaviours are discouraged by removing or minimizing their exciting and attention-getting consequences. This is done for minor unadaptive behaviours by ignoring them as much as possible, and for major unadaptive behaviours such as aggression by removing the client to a boring but physically comfortable place ("timeout").

Factors justifying the use of seclusion and restraint on these units are:-

a) optimally low medication levels. In order to teach as effectively as possible, clients must be in the greatest possible contact with their surroundings, and therefore on the lowest possible optimal level of medications. To this end, medication control is avoided wherever possible in favour of physical/mechanical control.

b) low functioning clientele. Where the clientele have intellectual limitations and are frequently nonverbal, learning is slow and involves repetition and a great deal of trial and error (Ross, 1972). In such cases, boredom techniques are also less immediately effective than they would be with more intelligent individuals, who outgrow the technique relatively quickly.

Factors which do not justify the use of seclusion and restraint on these units are:-

a) less than ideal staff:client ratios. Lower-functioning clients depend heavily on staff to enrich their lives, and by helping them engage in rewarding activities thereby avoid maladaptive behaviours necessitating seclusion or restraint. The good effects of environmental enrichment and the bad effects of environmental deprivation have been noted in the scientific literature (*eg*, Vogel, 1968).

b) less than ideal supervisory levels. Where special supervisory input is not available, enriching staff:client interactions tend to be few. This is "an area of growing concern among behavioural researchers and administrators for retarded persons" (Montegar, 1977, p 533).

Recommendation #1

In view of the demonstrated improvement in quality of staff:client interactions within smaller groups (Harris, 1986), the staff:client ratio on these units should be brought more in line with that on other behavioural units. This would allow more positive programs to be instituted, with a corresponding decrease over time in the use of negative measures such as seclusion and restraint. The contras in these areas between Burland and Burgess II pavilions is illustrative of this process.

Recommendation #2

The supervisory levels on these units should increased up to the levels seen on other behavioural units. This would permit the implementation of behavioural supervisory techniques which improve both the frequency and quality of staff:client interactions (Montegar, 1977; Burg et al, 1979; Seys & Druker, 1986). It should be noted that the supervisor:client ratio on Burland pavilion is five times higher than on Burgess II and four times higher than on Wilson.

Recommendation #3

Over ten years there has been remarkably little problem with the use of seclusion and restraint on Burgess II and on Wilson. The invention of the Argentino suit on Burgess II by Dr. C. Serrao is an indication of the concern felt on these units about the safety and comfort of the clients. Nevertheless, the staff on these units invite the attendance of the hospital Ombudsman at the weekly case conference where therapeutic decisions are made. It is expected that the experience would be mutually beneficial.

Dr. Charles Serrao
12 May 1986

B. Report From Dr. Henry Olders

The following table (Table 1. Review of Studies of Inpatient Seclusion) summarizes the data from fourteen descriptive studies of the use of seclusion in adult and adolescent psychiatric inpatient units. It should be noted that only three of the fourteen studies reviewed are prospective - the others are all retrospective, and based on chart reviews.

None of the studies has made an attempt to validate the usefulness of seclusion as a treatment modality in comparison to other types of treatment for the types of behaviour which typically precipitate a seclusion event. Such a study would require that patients be prospectively randomized to a treatment (ie seclusion) group, or a control group (which could be either no treatment, or an alternative treatment, such as physical restraints, medication, "talking down", etc.).

The fourteen studies can be summarized in a number of ways. For example, taking all the studies together, there were a total of 6001 patients studied; of these, 5101 were typically on adult psychiatric inpatient units in general hospital settings (7 studies); 382 on general inpatient units in psychiatric hospitals (2 studies); 313 on locked crisis care units (3 studies); 25 on a long-stay ward in a psychiatric hospital (one study), and 180 on an adolescent unit (one study). The number of patients secluded in each of these groups were: 451, or 8.8%, in adult units of general hospitals; 90, or 23.6%, in general units in psychiatric hospitals; 99, or 31.6%, in locked crisis care units; 15, or 60%, on the long-stay ward, and an unknown number in the adolescent unit, for a total number of patients secluded of 655, or 10.9% overall for the 6001 patients studied.

Another index is the number of seclusion events per patient-day (calculated by multiplying the unit census by the number of days of the study; this assumes that unit occupancy was always 100%). For the general hospital units, there were three out of the seven studies giving adequate data; the number of patient-days was 68,240, and the number of seclusion events was 553, giving an index of 0.0081. For the one study providing adequate data for general units in psychiatric hospitals, the index was 0.013; for locked crisis care units, the index was 0.070 (3 studies); 0.0076 for the long-stay unit, and 0.019 for the adolescent unit. This index shows that for each day spent on a locked crisis unit, the risk of being secluded for any given patient is about ten times greater than it would be on the long-stay unit. The overall index, calculated for nine studies, is 0.0136; this is based on a total of 1538 events in 112,810 patient-days.

With respect to average duration of seclusion events, only 6 studies out of the 14 provided data. For the 885 events recorded, the average duration can be calculated as 6.3 hours.

Table 2 shows the data for three studies on the use of restraints. Two of the studies refer to inpatient units, and the third to a psychiatric emergency service. For the two studies dealing with inpatient units, the total number of patients restrained is 105, or 4.7% of the 2234 patients studied. For all three studies combined, there were 211 patients restrained, or 7.2% of the 2921 patients studied. For the two inpatient unit studies, the index of restraint events per patient-day is 0.0046. This is based on 202 restraint events in 44,085 patient-days.

Table 1. Review Of Studies On Inpatient Seclusion

Study Reference	Wells, 1972	Soloff & turner, 1981	Oldham et al, 1983	Ramchandani et al, 1981	Phillips & Nasr, 1983
Type of Study & Duration	prospective 12 months	prospective 8 months	retrospective 313 sequential adms	retrospective 1 year	retrospective 2 x 6 months
Type of Unit	university hosp psychiatric unit	two acute inpt units in a university hosp	general inpt unit in a univ psych hosp	general hosp psychiatric unit	inpt unit at Ill. St Psychiatric Inst
No. of Beds; Staffing	22 rooms (10 locked) 8 nurses days, 4 nights	18+23=41 beds;	25 beds; 2 psych-iatrists & 3 residents	40 beds	29 beds high staff/pt ratio
Admissions/Year & Length of Stay (Avg)	337 3 1/2 weeks	20.2 days		985 adms/yr	?345 adms/yr
Patients Secluded/Studied	15/319 (4.7%)	59/562 (10.5%)	57/313 (18.2%)	46/985 (4.7%)	35/69 (51%)
No. of Seclusion Events	---	107	193	---	133 events of secl'n or restraint
Seclusion Events/Patient	1 [10 pts] (67%) 2-5 [4 pts] (27%) >5 [1 pts] (7%)	1 [40 pts] (68%) 2 [9 pts] (15%) >2 [10 pts] (17%)	1 [20 pts] (35%) 2 [18 pts] (32%) >2 [19 pts] (33%)	1 [39 pts] (85%) 1-3 [3 pts] (7%) >3 [4 pts] (9%)	1 [14 pts] (40%) >5 [4 pts] (11%)
Reasons for Seclusion	violent behavior (in almost all cases)	physical attack on staff 35%; preventive 24%; verbal threats 17%	escalating/agit-ation 38%; threats to staff 18%; assaults to staff 16%	agitated/loud/shout-ing 54%; threats/ attacks on staff 41%	actions/threats of violence 30%; agita-tion, etc 31%
Length of Seclusion	4 hrs to 5 days	mean 10.3; median 2.8 hrs (range 10 min - 120 hrs)	1.5 hrs mean	<1 hr 35% 7-9 hrs 46%	
Time of Seclusion	---	weekdays; less at night ---	10 am & 2 pm; Thursdays (p<.001)	8 am - 5 pm 33% 5 pm - 8 am 67%	8 am - 4 pm 58% 4 pm - 12 pm 27% 12 pm - 8 am 15%

Patient Characteristics			**Secluded**	**Not Secl'd**	**Secluded**	**Not Secl'd**	**Secluded**	**Not Secl'd**	**Restrained or Secluded**	**Not Restr Or Secl'd**
			(N=59)	(N=159)	(N=57)	(N=256)	(N=46)	(N=46)	(N=35)	(N=34)
Age (avg):	38	(range 17-75)	36.4	35.3 (ns)	26.8	31.7 (p<.05)			30	30 ns
Sex (males):	7	47%	47%	44% (ns)	63%	54% (ns)	48%	63% (ns)		ns
Race (black):	---		49%	36% (p<.1)	10%	15% (ns)	33%	22% (ns)		ns
Previous Hospitalizations:	7	47%	1 14% 2+ 49%	16% (ns) 28% (p<.001)	0-2 64% 2+ 36%	79% (p<.1) 21% (ns)				
Length of hospital Admission:	26 (range	days 1-56)	24.6 days	18.5 (p<.1)	52 days	48 (ns)	>3wks 33%	20% (p<.01)		
Diagnosis:										
Schizophrenia	7	47%	42.4%	40.9% (ns)	32%	41%	48%	20% (p<.001)		
Mania	3	20%	5.1%	1.9% (ns)	35%	12% (p<.001)	4.3%	35% (ns)		psychotic:
Depression	0	0%	11.9%	11.3% (ns)	10%	16% (ns)	4.3%	35% (p<.001)	57%	29%
Personality Disorder	1	7%	8.5%	12.6% (ns)	21%	18%	26%	11% (p<.001)		non-
OBS/drugs/EtOH	3	20%	6.8%	4.4% (ns)			0%	4.3% (ns)		psychotic:
other	1	7%	25.4%	28.9%	2%	13%	17%	24%	23%	59%
Medications:										
antipsychotics	15	100%	--	never married:			single:		voluntary:	
lithium	3	20%	--		74%	50% (p<.07)	65%	39% (ns)	33%	43% ns
antidepressants	---		--				involuntary:			

none	0	0%	--		59%	20% (p<.001)
Other:			When days at risk controlled, whites & blacks secluded equally; schizophrenics secluded less; men secluded longer	60% of seclusions occur in first week of admiss'n	70% of seclusions occur in first 48 hrs of admission; 69% restrained and/or medicated	physical threats are culturally acceptable for many pts on this unit

Table 1 (Continued). Review Of Studies Of Inpatient Seclusion

Study Reference	Schwab & Lahmeyer, 1979	Binder, 1979	Campbell et al, 1982	Convertino et al, 1980	Erickson & Realmuto, 1983
Type of Study & Duration	prospective 6 months	retro spective 6 weeks	retrospective 12 months	retrospective 5 weeks	retrospective 4 years
Type of Unit	locked general hosp psychiatric unit	locked crisis intervention unit	long-stay ward in 579-bed psych hosp	locked crisis care unit in CMHC	adolescent inpt unit
No of Beds; Staffing	24; 15 nurses	11; 23 nurses	25;	30;	13;
Admissions/Year & Length of Stay (Avg)	330 24 days	360 just over 6 days		7 days	
Patients Secluded/Studied	52/142 (36.6%)	22/50 (44%)	15/---	25/121 {21%}	---/180
No. of Seclusion Events	330	28	69	56	369
Seclusion Events/Patient	1 [33 pts] (63%) 2-5 [12] (23%) 6-10 [3] (6%) 11-24 [4] (8%)	1 [17 pts] (77%) >1 [5] (23%)			
Reasons for Seclusion	"destimulation" (28%)UG agitation (17%) poor impulse cntrl (15%)				
Length of Seclusion	---	15.7 hrs mean (min 1 hr, max 72 hrs)	2.6 hrs mean (23 hrs max; 53% <1 hr)		
Time of Seclusion		10pm - 2am (45%)	evng shift (46%)		
Use of Restraints	partial or full leather restraints (18%)				for 54% of defiant & 82% of escalating pts

Patient Characteristics	**Secluded**	**Not Secluded**
Age (avg):	32	38
Sex (males):	37%	28% (ns)
Race (black):	65%	66% (ns)
Previous Hospitalizations:	52%	49% (ns)
Length of hospital Admission:	30 days	25 days
Diagnosis:		
Schizophrenia	29%	29% (ns)
Mania	19%	7%
Depression	14%	14% (ns)
Personality Disorder	6%	3%
OBS/drugs/EtOH	8%	3%
other	10%	12%
Medications:		
antipsychotics	69%	39%
lithium	23%	10%
antidepressants	17%	31%

hyperactive ADD	29%
Conduct Disorders	31%
Schizoprenia or other psychosis	29%
other	11%

none	12%	28%

Comparison of Staff:

Initiating Seclusion	19	7
Age	21%	14% (< 25 yrs)
Training	--	--
Experience	63%	57% (< 1 yr)

Table 1 (Continued). Review Of Studies Of Inpatient Seclusion

Study Reference	Plutchik et al, 1978		Mattson & Sacks, 1978		Redmond, 1980		Gerlock & Solomons, 1983
Type of Study & Duration	retrospective 450 consec adms		retrospective 1 yr (1975)		retrospective 1 yr (1976)		retrospective 1 yr (1977)
Type of Unit	4 short term wards city teaching hospital		private voluntary div in gen'l hospital		inpatient unit of county teaching hosp		2 adult wards large teaching hospital
No of Beds; Staffing	100 beds		104 beds on 6 units heavily staffed		26 beds heavily staffed		29 beds x 2 units total 4 seclusion rooms
Admissions/Year & Length of Stay (Avg)	--- 19.7 days		--- 48 days		750/yr		~1160/yr 18 days
Patients Secluded/Studied	118/450 (26%)		63/875 (7.2%)		34/750 (4.5%)		116/1160 (~10%)
No. of Seclusion Events	225		(?183)				263
Seclusion Events/Patient	2.5 avg most once		(?2.9)		2/34 pts secl'd >3 consec days		1 [70 pts] (60.3%) 2-15 [46 pts] (39.7%)
Reasons for Seclusion	agitated, uncont- rolled (21.1%); physical aggr to pts (15.3%)		disruptive 34.4%; assaultive 25.1%; danger to self 7.1%		causing, at- tempting, or threaten- ing physical injury 33/34 (97%)		disturbed behavior for 93%
Length of Seclusion	4 hrs avg		---		< 2 hrs (all events)		17.6 hrs (pts secl'd once); 7.3 hrs (multiply secl'd pts)
Time of Seclusion	days (47%) evngs (32%) nights (21%)						
Patient Characteristics	**Secluded** (N=118)	**Not Secl'd** (N=118)	**Secluded** (N=63)	**Not Secl'd** (N=160)	**Secluded** (N=116)	**Not Secl'd** (N=108)	
Age (average):	28.1	32.8 (p<.05)		ns	28.7	28.1 (matched)	
Sex (males):	47.5%	40.7% (ns)		ns	56.9%	50.9%	
Race (black):	29.7%	24.6% (ns)					
Length of hospital Admission:	27.4	12.0 (p<.001)	58	38 (p<.05)	26.5	23.1 (ns)	
Diagnosis:							
Schizophrenia	64.0%	45.8% (p<.001)	63%	38% (p<.01)	25.9%	14.8%	
Mania	2.5%	0%	17%	4% (p<.01)	[with	depression]	
Depression	13.6%	22.1%			31.0%	23.1%	
Personality Disorder	6.8%	13.6%	10%	14% (p<.01)	6.0%	14.8%	
OBS/drugs/EtOH	4.2%	10.2%			11.2%	12.0%	
other	8.4%	8.5%	10%				
Medications:							
antipsychotics					63.8%	15.7%	
lithium					6.9%	7.4%	
antidepressants					5.2%	16.7%	
none					15.5%	41.7%	
Other:			complications: assault- iveness (32 episodes); self-injury (10); destruction of seclsn rm (5)		this was an audit which found poor documentation in pt charts		

Table 2. Review Of Studies Of Restraints

Study Reference	Soloff, 1978		Bornstein, 1985		Bell & Palmer, 1983	
Type of Study & Duration	retrospective; 6 mos on one ward, 16 on other		prospective 9 mos in 1980		retrospective 3 mos in 1979	
Type of Unit	2 acute inpatient units in large military teaching hospital		inpatient units of 2 large general hospitals		psychiatric emergency service	
No of Beds; Staffing	51 beds total; high staffing		35 locked; 65 open			
Admissions/Year & Length of Stay (Avg)	?~424		~1943			
Patients Restrained/Studied	28/777 (3.6%)		77/1457 (5.3%)		106/687 (15.4%)	
No. of Restraint Events	93 (67 psychotic; 26 nonpsychotic)		109		95 (11 charts unavailable	
Restraint Events/Patient	3.7 (psychotic) 2.6 (nonpsychotic) 30 episodes for 3 psychotic pts				1	
Reasons for Restraints	violent 40.5% nonviolent 59.5%		physical aggr vs staff 39.5% unknown 22%; verbal threat 18.4% self-destructive 12.8%			
Length of Restraint Event	---		12.5 hrs			
Patient Characteristics:	**Restrained** (N=28)	**Not Restrained** (N=30**;** random)	**Restrained** (N=109 events)	**Not Restrained** (N=59 pts)	**Restrained** (N=95)	**Not Rest** (N=426
Age (avg):	--	--	33.4	47.8	(15-34 yrs) 76.9%	60.5%
Sex (males):	85.7%	-- (ns)	61.5%	32.2% (p<.0003)	61.1%	46.0%
Race (black):	--	--	14.7%	0% (ns)	86.3%	89.0%
Previous Hospitalizations:	--	--	70%	69.5%		
Length of hospital Admission:	67	10 (nonpsy'tic) (p<.001)		22	17.5	
	74	34 (psychotic) (p<.001)				
Diagnosis:						
Schizophrenia			18.4%	5.1% (p<.0001)	46.3%	33.0%
Mania			21.1%	11.9% (p<.0001)	5.4%	1.9%
Depression			11.0%	45.8% (p<.0001)	2.2%	2.9%
Personality Disorder			14.7%	3.4% (p<.0001)	5.4%	3.6%
OBS/drugs/EtOH			19.3%	20.4%	21.5%	14.3%
psychotic	64.3%	18.3% (p<.0002)				
nonpsychotic:	33.7%	81.7% (p<.0002)				
Medications:						
antipsychotics			39%			
Other:	psychotic pts had more events in 1st half of hospital stay cf nonpsychotic (p<.025)		minor injuries in 5.5%; 63% of events when < 2 male orderlies on duty; 9% when >3 male orderlies			

Other Studies On Seclusion And/Or Restraints

A recent paper (Davidson et al, 1984) documents the attempts by the administrators of a large regional centre for the mentally retarded to decrease the long-established use of seclusion, mechanical restraint, and psychotropic drugs in the centre. During a three-year period (1978 to 1980), administrative and direct care staff were given instructions, in the form of clearly stated center policies and procedures, and feedback on the use of seclusion, restraints, and medication. The effects were studied, in a research design which included all residents in the centre (mean of 883.5 residents in the first year). Ages ranged from 3 weeks to 98 years, and the majority were profoundly mentally retarded.

After a five-month period during which baseline data were obtained, the new administrative policies were promulgated and the effects monitored. With respect to seclusions, use dropped from a mean of 1231.75 hours per month to 2 hours during December 1980, a drop of 99%. For restraints, comparable figures were 16,165.5 hours/month during the baseline period, dropping by 88% to 1971 hours in December 1980. The number of patients receiving psychotropic medications dropped from 36% during the baseline period, to 20% in December 1980, a decrease of 44%.

These data support the findings of Panyan et al (1970) who found that weekly posting of feedback sheets increased the use of operant training methods by nonprofessional staff in a state facility for the mentally retarded. It should be pointed out, however, that in the Davidson et al study, besides the administrative policy and the monthly feedback of seclusion and restraint data to staff, there was a decrease in patient population from 883.5 to 630.6 (means per year) over the three-year study period, a 29% drop which resulted in increased living space for the remaining residents. Rago and associates (1978) have suggested that an increase in living space of this order significantly reduced the frequency of aggressive acts in a population of profoundly retarded male adults. The Davidson study also reported an increase in the ratio of direct care staff to patients, from 1:1.88 in 1978 to 1:1.47 in 1980.

Yesavage and Zarcone (1983) performed a study on 85 male schizophrenic inpatients in a Veterans Administration Medical Centre, to relate drug and alcohol use to violence. In comparing data regarding the use of seclusion or restraints within the first 8 days of admission for a patient with that patient's reported behavior when taking drugs or alcohol, they determined that 98% of respondents reported alcohol use at least once weekly, and 98% reported having used illicit drugs at least once. Out of eight factors isolated from the questionnaire, it was found that the best predictor for being placed in seclusion or restraints was a self-reported history of becoming "loud" on drugs or alcohol; the next-best predictor was becoming assaultive while taking drugs or alcohol. The authors raise the question of why patients with a history of being "loud" are subject to seclusion and restraint when those who actually commit assaults give different histories of drug- and alcohol-related behavior.

In a survey of a large number (5580) of patients who had been hospitalized for at least one month in one of three state hospitals on Long Island, Tardiff (1981) looked at the incidence of use of three control measures: a) emergency administration of medication to control dangerous behavior; b)placement in seclusion, straight jacket, or other physical restraints to control dangerous behavior; or c) one-to-one supervision for behavior dangerous to self or others. The survey was for a 30-day period at the end of 1979.

The author reported that of the 5580 patients, only 1.9% were secluded or restrained during the 30 days; however, 13.3% of the 17-24 age group, and 11.3% of the 25-34 age group, were secluded/restrained. Patients hospitalized for less than 2 years were significantly more likely to have been secluded/restrained (or the other two control measures). Although patients with mental retardation or personality disorders represented only 6.9% of the total patient group, these patients were more likely to have received all of the three types of control measures. There was no relationship between use of control measures and the sex or race of patients. The author concluded that the use of these measures is appropriate, in terms of being related to the clinical state of the patients.

Okin (1985) studied the use of seclusion and restraint in seven state hospitals in Massachusetts, to determine whether hospitals of the same type, with similar admission and discharge policies and operating under identical regulations, had similar patterns of use of seclusion and restraint. All patients admitted over a two-week period in 1981 to the seven hospitals were followed until discharge or through 16 weeks of hospitalization, whichever occurred first. During 1981 there were 6000 admissions (53% involuntary) for an average combined daily census of 2500.

During the two-week period, admissions to the seven hospitals were 13, 26, 28, 21, 30, 55, and 25, and the incidences of confinement were 0%, 23%, 29%, 29%, 33%, 38%, and 48% respectively. Grouping the first two hospitals into a "low confinement" group, the next three into a "medium confinement" group, and the last two into a "high confinement" group, the rates of confinement for the three groups were 15, 30, and 41% respectively. The average number of confinements per patient was 1.7, 2.3, and 5.0 for the three groups; this correlated significantly with the rate of confinement. The average total hours of confinement per patient confined was 4.9, 8.9, and 18 for the three groups, again significantly correlated.

The author was unable to explain the differences in confinement practices on the basis of patient sex, race, number of prior admissions, whether voluntary or involuntary, marital status, diagnosis, age, length of stay, or patient behavior prior to admission. There were significant differences between the groups with regard to the nature of the precipitant for confinement: in the low-confinement group, 30% of confinements were in response to threats of violence, while the other 70% were because of actual violence. For the medium-confinement group, 65% of confinements were because of threatened violence; this number was 80% for the high-confinement group. These differences could not be explained on the basis of patient race, legal status, or marital status (the only three demographic variables that differed significantly between the three hospital groups).

The author concludes that factors related to the hospitals' practices and conditions are responsible for the differences in incidence of confinement, and not patient variables. Possible hospital factors could be differences in staffs' perceptions of similar patient behaviors; the influence of hospitals on the behavior of patients, either by failing to prevent or actually promoting violence in some cases, and reducing it in others. It is theoretically possible, however, as the author points out, that a low incidence of seclusion and restraint is gained at the expense of having a therapeutic and stimulating milieu, and may be sustained by overuse of medication. A low use of seclusion and restraint might also result in increased patient and staff injuries.

A remodelling project because of hospital reconstruction resulted in a temporary move of a twenty-bed inpatient unit to another building, where no seclusion room could be provided. This led to an interesting and unexpected result (Innovations, 1979): the absence of a seclusion room led to a decline in the staff's use of restraints. In the hospital unit, the rule was that patients in restraints in the seclusion room were to be checked every fifteen minutes. "Without a seclusion room, patients in restraints were assigned staff on a one-to-one basis, a change which apparently discouraged the use of restraints."

A paper (Grabowski & Thompson, 1977) which describes a three-year project to implement a behavior modification program on a 67-resident unit for mentally retarded adult males (mean IQ 23.4 for 49 residents; the remainder were untestable). The program was designed to reduce or eliminate maladaptive behaviors including self-abuse, assaultive behaviors, and autistic self-stimulation. The existing custodial care staff was given five hours of classes in behavior modification principles. Satisfactory completion of a series of quizzes given at the end of each lecture, and of the programmed materials, as well as the successful modification of one behavior of a patient resulted in a "merit increase" in pay. At the beginning of this program, there were eight "side rooms" used for secluding patients. All but one of these rooms were converted to training rooms. Some of the results of the project were an increase, over the first two years, from a 34% rate (*ie* 34% of the 67 residents) of self-toileting to 98%. Wearing clothing increased from 50% to 93%; self-feeding from 50% to 96%; speech from 6% to 45%; and the use of major tranquilizers decreased from 92% to 38%. The number of hours per month that residents were

placed into seclusion for assaultive behaviors decreased from 2400 hours (equivalent to 3.3 patients secluded full time) to zero hours per month by the sixth month of the program. The number of serious injuries decreased from 6.5 per month (over 10 months before the program was initiated) to 1.0 per month in the program's second year. Unfortunately, the program was eventually terminated as a result of a freeze on hiring of new state hospital employees imposed by the Minnesota State Legislature (Thompson & Grabowski, 1977, p 555).

Design Of Rooms Used For Seclusion Or Restraints

The design of the Ingleside Mental Health Centre in Pasadena, California, a 100,000 square foot facility, used the experiences recorded by a cultural anthropologist who spent nine days as a "simulated" patient in a therapeutic environment. The design, which received a citation (Ingleside, 1981), included the following comments about restraint rooms:

1. The Restraint Room in which highly agitated patients are physically restrained should be next to the Nurses' Station. "A restrained patient is accompanied by a staff person at all times. The Restraint Room should have soft surfaces throughout (recommend carpeted floor and walls). The bed could simply be a raised carpeted section of the floor equipped with recessed loops for the restraint straps.
2. The bed should be oriented so that the head of the bed is in the far side of the room away from the entry so that the patients (who might be struggling) do not have to be turned.
3. The door should have a small, but floor to ceiling, window with shades so that the staff can view the patients.
4. The interior of the room should not be easily visible from patient areas."

Gutheil and Daly (1980) stress that designing a seclusion room requires identifying the maximum stresses it will endure; factors to take into account include patients' potential physical strength (*eg* in catatonic excitement or PCP intoxication), the use of "tools" such as concealed coins, and the need to avoid points of purchase that can be gripped or pulled. For example, walls could be constructed of tongue-and-groove hardwood, steel sheeting, industrial linoleum floor material, or asbestos-based industrial panels; materials must be closely joined and applied without accessible fasteners or free edges. The room could be lined with certain kinds of carpeting to provide some cushioning against impact. The color should be calm but definitive (not white or gray). Materials and pigments should be non-toxic.

Ideally, ceilings should be too high to reach. Doors, of heavy, solid-core hardwood or steel, should be hung to swing outward; hinge pins and mounting screws should be outside the room. The door should close without a latch to preclude jamming or injury. There should be no inner knob or handle on the door. It should be lockable with a key which operates a solid-tongue deadbolt.

There should be an unbreakable observation window, of plexiglas at least 1 cm. thick, permitting a view of the entire interior. Maximum dimensions should not exceed 20 to 25 cm. to minimize breaking stress. It should be mounted flush with the inside of the door with fastenings that the patient cannot remove. If feasible, a window to the outdoors maintains day-night perception. It must be inaccessible, perhaps behind a heavy-duty screen or gille, and unbreakable.

Effectiveness of heating and cooling may be a matter of survival, *eg* for patients on antipsychotic medications that impair thermoregulation. Controls should be outside the room.

At Creedmoor Psychiatric Center, the 13 seclusion rooms in the adult facility were designed for the safety and comfort of secluded patients (Fedoryk, 1980). A seamproof floor of a smooth, resilient, waterproof material that provides for easy bacterial decontamination, extends 6 inches up the walls. Walls are padded from 6 inches off the floor to a height of 86 inches by 4-inch-thick mattresses, which are each covered with a completely waterproof, flameproof to 1200 F, nonallergenic, soil repellent, virtually indestructible material. Each completed mattress unit is blind fastened from a plywood backing to furring

strips on the walls, and edges are sealed with hardwood stock. Doors are padded like the walls, which reduces noise considerably. A vision panel made of wire glass in metal stops, covered on the patient's side with 1/4 inch polycarbonate (unbreakable and self-extinguishing) is set into the door. Doors swing outward. Large windows, equipped with maximum detention screens and padded where required, can be opened by staff for natural ventilation. Fire-rated acoustic tiles are glued to ceilings to reduce the sound level. Several mattresses are distributed throughout the floor of the room and are covered with the same material as the wall covering.

An article on the use of seclusion in a 579-bed psychiatric hospital in rural Aberdeenshire, constructed in the "villa system" (Campbell et al, 1982; see Table 1 in this section), describes the two siderooms on a long-stay ward for disturbed and aggressive females. Each room is 9 by 12 feet, equipped with a fixed wooden bed base and mattress, an armour-plated window, and a fish-eye lens for observation of the patient by nursing staff. The rooms are painted gray.

In some jurisdictions, hospital accreditation bodies have had a significant impact on seclusion room design. For example, in a facility for mildly mentally retarded patients with severe behavior problems including physical aggression, manipulative self-abuse, and destruction of property, a behavior modification program involving ten minute timeouts made use of a seclusion room. The use of a locked timeout room was prevented by accreditation agencies, so the room lock was modified so that the door would remain latched unless a foot pedal was operated by staff (Foxx et al, 1982), thus freeing the hands of staff so that they could record data. Other aspects of the room design mentioned were the size (6 by 8 feet), 8 inch thick padding on the walls to a height of 9 feet, on the door, and also on the floor. The requirement for continuous observation was met by providing a window in the door.

In the United States, some states have written regulations governing various aspects of seclusion and restraint, including design of seclusion rooms. Tardiff & Mattson (1984) found that out of 23 states whose regulations were reviewed, eight gave some specifications about the seclusion room. The most detailed were Florida's regulations, which spell out basic characteristics including the following: doors should be wide enough for two persons to enter; floors are to be smooth; single piece ceilings out of client's reach; unreachable circulation venting windows; painted in soothing colors; have a mattress.

Techniques For Dealing With Violence Or Aggression

There is a wealth of information, particularly in the nursing literature, on how clinical staff can react to aggression or violence by patients. Anders (1977) describes techniques for subduing and restraining the aggressive patient, using four-point restraints. In an article which focuses on the nursing care for patients in long-term (*ie* days) seclusion, Baradell (1985) stresses the humanistic care of the patient, when the seclusion is seen as a therapeutic "time out" from the therapeutic milieu. The phases of initiation of seclusion and the often gradual re-integration back into the milieu need to sensitively dealt with. An eminently practical article by Barash (1984) gives suggestions for "talking down" aggressive patients, and techniques for applying four-point restraints. This paper could be part of the teaching materials for in-service crisis intervention training, as could an article addressed to teachers of nursing students (Block, 1976) to help them prepare their students for the use of restraints. DiFabio and Ackerhalt (1978) describe how to conduct a seminar on the use of patient restraints, in which role playing is featured as a teaching tool.

The detailed set of guidelines and procedures for using seclusion set out by Fitzgerald and Long (1973) are a useful conclusion to the authors' interesting discussion about the effects of conflict between clinical staff on the behavior of patients and on the possible abuse of seclusion.

Bennett (1984) in a very brief report, provides some general legal advice to nursing staff who use restraints.

Although the bias of Guirguis (1978) is clearly that restraints are used too much, the guidelines which he presents for managing violent episodes contain much of value to staff who deal with seclusion and restraints:

1. Employ a calm, non-critical, non-domineering approach;
2. The first approach is talking/listening, without physical confrontation;
3. Avoid threats or promises that cannot be kept;
4. Don't worry about property - it can be replaced;
5. Physical confrontation must be used when it appears likely that someone may be hurt;
6. Have an established Emergency Code and use it judiciously;
7. Physical confrontation should be used only when enough staff is present to avoid injury;
8. One staff member should be assigned to attend to other patients;
9. Restrain the patient, using minimum force necessary, applied in a way that attempts to calm the patient;
10. Restrain using clothing, not limbs; grab limbs near major joints; put the patient on the floor; remove shoes; no pressure should be applied on the chest, throat, or neck;
11. An MD should be present to administer IM or IV medications;
12. Seclude the patient, but only for the duration of the episode;
13. A staff should stay with the patient, providing constant, firm but kind reassurances, until the patient is sedated;
14. There should be a comprehensive training program for all staff in the management of violent and disturbed behavior.

The author also recommends that staff should have an opportunity to discuss their feelings and experiences with senior staff. All restraint incidents should be reviewed, to learn from the experience. Staff have a right to expect support from seniors where action was taken in good faith for a patient's safety and benefit.

Policies And Procedures Governing Seclusion And Restraints

In their review of written State regulations regarding the use of seclusion and restraints, Tardiff and Mattson (1984) determined that out of 23 states with written statewide regulations, 12 permit only physicians to order these treatment modalities. Of these 12, 3 states require the physician to examine the patient and write the order within one hour after the initiation of the seclusion or restraint episode, 1 state within two hours, 4 states within four hours, 1 state within eight hours, and 3 states within twelve hours or more.

For most states, the maximum time limit for each episode is 24 hours. For 3 states, the limit is eight hours, and two other states limit each episode to four hours or one hour respectively.

With respect to an off-unit review, 9 states stated that such a review was necessary for any episode lasting more than 24 hours. Three states require the hospital director to be notified of any episode lasting longer than eight hours.

Thirteen states had a mention regarding PRN orders. Of the 13, only 3 allow orders for PRN seclusion, and only 2 states permit PRN restraints.

REPORT FROM WORKING GROUP 2: SURVEY OF PRACTICE AT DOUGLAS HOSPITAL

A. Report From Ms. Helene Provencher

The following pages contain the report on a nursing audit of the use of seclusion and restraints on Reed I, a locked intensive care unit within the CPC Program, prepared by Hélène Provencher and her colleagues.

The audit, in addition to its findings regarding the nursing care given and its documentation, also provides some data which allow comparison with the scientific literature. For seclusion, there were 96 events on the 11-bed unit during a 30-day period, giving a value for the index of seclusion events per patient-day of 0.29, which is just over four times higher than the index for locked crisis care units (3 studies) in the literature reviewed.

If the 15 events relating to the fifteen days of continuous seclusion of one patient in his own room are excluded, the remaining 81 events give an index of 0.25, approximately three and one-half times the index from the literature. However, the average duration of seclusion on Reed I of 6.4 hours (3.2 hours if the 15 days of continuous seclusion are excluded), compares favorably with the 15.7 hours reported in the only locked crisis care unit study which included data on duration.

Additional data obtained (not included in the audit report) show that there were 14 patients on Reed I sometime during the thirty-day period studied, who were not put into seclusion. This works out to 27 patients secluded, out of a total of 41 patients studied, or 66%, which is higher than any of the 12 studies for which this data was available, and certainly higher than the 10.9% overall reported, or the 31.6% value for the locked crisis care units.

With respect to restraints on Reed I, 11 patients, or 29%, were restrained. The index of restraint events per patient-day is calculated as 0.055, and the average duration was 5.07 hours. This compares unfavorably with the 4.7%, and the index of 0.0046 obtained for the two inpatient unit studies described previously. However, the duration is less than half that of the one restraints study which provided this information (12.5 hours).

In summary, we can conclude that on Reed I, both seclusion and restraints are used more frequently than reported in the scientific literature.

B. Report From Ms. Marjorie Perzow

The following pages contain the report on the Nursing Audit on the use of seclusion and restraints within STRP, covering the 31 days of December 1985. This report is the work of committee member Marjorie Perzow and her colleague, Micheline Leblanc-Blackburn. The appendices attached to the original audit report have been appended to the present report.

The audit results, broken down by nursing unit, allow for some interesting comparisons to be made with the studies reported on in the survey of the scientific literature. For Burgess I and Durost II, two units which can be described as general adult inpatient units, the rate of seclusion was 23 patients out of a total of 77 patients on these two units during the month of December 1985, or 30%. This is higher than the 23.6% average for the two studies of general inpatient units in psychiatric hospitals, but is much lower than the 51% for the 29-bed inpatient unit at Illinois State Psychiatric Hospital (Phillips & Nasr, 1983). The index of seclusion events per patient-day, calculated for a census of 34 patients on each unit, is 0.027, which is more than twice the index of 0.013 calculated for the unit at Illinois. This is probably the more important comparison, given that the Illinois study extended over a total of twelve months, compared to a total of two months for Durost II and Burgess I taken together (if the study goes on for long enough on a unit with little turnover, eventually many

patients may have been secluded, even if the total number of seclusions is low).

For Perry 2C and 3C, locked wards housing chronic patients some of whom are in acute exacerbation of their illness, the most appropriate comparison is probably a locked crisis care unit. The number of patients secluded on Perry 2C and 3C was 22 out of 50, or 44%, which is higher than the 31.6% reported for the three studies of locked crisis care units. The index of seclusion events per patient-day is 0.071, which is equivalent to the value of 0.070 for the locked crisis care units in the three studies reviewed. If we exclude the data for one patient on Perry 2C who was secluded 141 times as part of a behavior modification program, the percentage of patients for the two units drops slightly to 42%, but the index of seclusion events per patient-day drops to 0.025, considerably lower than for the locked crisis care units reported on in the literature. However, it should be pointed out that both Perry 2C and 3C have very low rates of turnover in comparison to a typical intensive care or crisis care unit in a general hospital or Community Mental Health Centre.

For the episodes of restraint (excluding those on the behavior modification units, Burgess II and Wilson), only one unit, Durost II, employed restraints a total of 5 times for two patients. This gives a frequency of use of 2 out of 37, or 5.4% for that unit (of the same order as the percentage of 4.7 for the two inpatient units in the restraints literature), or 2 out of 127 (1.6%) for the four units mentioned above. The index of restraint events per patient-day is 0.0047 considering Durost II only (equivalent to the index from the two inpatient studies of restraints in the literature), or 0.00068 for the four units taken together.

In summary, the audit data show that for STRP, the frequency of use of seclusion for at least two of the units is higher than that reported in the scientific literature. Restraints tend to be used less frequently (if the behavior modification use is excluded) for STRP as a whole than for units described in the scientific literature. It must be remembered, however, that the comparisons are not strictly valid; for example, the two inpatient units described in the restraints literature may not have had access to the use of seclusion as an alternative to restraints, given that many general hospital psychiatric units do not have seclusion rooms.

REPORT FROM WORKING GROUP 3: SURVEY OF PRACTICE AT OTHER HOSPITALS

A. Report From Miss Carol Mahoney

The table following lists the verbal responses given to a questionnaire on the use of restraints, by the Head Nurses of two psychiatric nursing units: the Brief Therapy Unit at the Allan Memorial Institute, and the Psychiatry Unit at the Reddy Memorial Hospital.

Carole Mahoney
Infirmière-chef au CTS/CPC III

Restraints Questionnaire	Allan Memorial Institute Brief Therapy Unit	Reddy Memorial Hospital Psychiatry Unit
What kind of behaviour provokes restraints?	escalating behaviour, aggression; to prevent acting out. to potentiate meds & to aid sleep	to prevent aggression; post acting out; sometimes a behavioral approach to acting out. sometimes in the elderly to prevent exhaustion
Who gets restrained?		Mostly male 20 -35 years
When does it occur?	change of shift; increased staff; increased symptomatology - depends on ward barometer.	most often days
Who does it?	Nurse will take decision. Help is called if needed - "code 7"	Nurse in charge decides. Usually requires calling for help of 4-5 orderlies.
How long?	As needed until settled	As needed until settled, usually not more that 2 hours with sedation
Effects on patient, staff, other patients?	Primary nurse remains with patient in restraints, gives explanations & assurances as indicated until pt settles. Patient meetings are held to give clarification to other patients.	Both the restrained pt& other pts feel negative about use of restraints. Generally the staff feel relieved that the situation is controlled.
Physical factors for safety, efficacy?	one-to-one basic care by primary nurse. Q 5 minute observation - usually constant.	Vital signs q 4 hours. Q 20 min observation. Check circulation, etc.
What standards and procedures are used?	No standing orders but nurse may restrain & obtain Dr.'s order usually within 2 hours. Restraint record sheet filled q 8 h if used. New order needed q 24 hrs. Nursing Care Plans are individualized.	On admission, prn order for restraint if history of aggression. Otherwise nurse may restrain patient & get order as soon as possible, ie place call for duty doctor as soon as restraints applied. Seclusion Protocol in terms of nursing care of patient in restraints written by head nurse of department. Charting q 20 minutes. Decisions taken by charge nurse. Removal - after questioning patient, comfort of patient and staff, observable change.
Staff training?	NAPI course	No training given

B. Report From Institut Philippe Pinel

This report (Hodgins & Verville, 1984) is a detailed study of the use of seclusion at Philippe Pinel Institute, a forensic psychiatric hospital for male patients charged with crimes who have been found incompetent to stand trial, or not guilty by reason of insanity. Four types of seclusion are used: 1) The patient is secluded in his own room for a period of time determined by the treating team; 2) same as 1, except all the patient's personal belongings are taken out of his room; 3) continuous seclusion (except for two hours per day) in the patient's own room, and 4) seclusion in a seclusion room which is furnished only with a bed attached to the floor.

The study covered the twelve months from September 1981 to August 1982 inclusive. Data were collected on all seclusion events, for the patient's age, date of admission, unit, judicial situation of the patient, diagnosis, date, duration, hour and the reason for the seclusion, and whether restraints or medication were used. There were a total of 2219 seclusions, affecting 341 patients.

The report consists of a number of tables and graphs in which the numbers of patients (and percentage of the total number of patients secluded), the number of seclusion events (and percentage of the total number of seclusion events), and the average number of seclusion events per patient are broken down by group (admissions, criminals, psychotics, adolescents, and chronics), by treatment unit, by diagnosis, by age group, by judicial situation, by length of stay in the hospital, by month of the year, by day of the week, by time of day, by reason for seclusion, by frequency of seclusion, by type of seclusion and patient group, by duration of seclusion, and by whether restraints or medication were used. Data showing the relationship between type of seclusion and reason, between duration of seclusion and type, and the duration of seclusion as a function of diagnosis, group, and reason, were also given.

The report summarizes the study findings as follows:

1. que l'isolement est beaucoup utilisé à l'IPPM,
2. l'"isolé-type" à l'IPPM, c'est-à-dire le patient le plus fréquemment isolé à l'IPPM est un adolescent ayant comme situation judiciaire l'Ordonnance du Tribunal de Jeunesse et comme diagnostic "Pas de désordre psychiatrique",
3. on isole surtout au début du séjour des patients à l'Institut et ce pour des durées d'isolement relativement longues,
4. on isole surtout dans des situations oó les patients refusent d'obéir, sont aggressifs, impolis ou lorsqu'ils manifestent des comportements considérés comme étant inadéquats,
5. la forme d'isolement la plus populaire à l'Institut est l'isolement considéré comme étant la moins sévère, soit l'isolement de Réflexion (type 1 above),
6. pour l'ensemble des patients isolés à l'IPPM, l'isolement semble proportionné à l'acte mais on ne peut pas établir ce fait lorsqu'on tient compte des différents groupes ou des différentes catégories de diagnostic des patients.

Unfortunately, the report failed to provide any data about the patients who were not secluded, or the census on various units. Thus, it is impossible to compare this data either with the scientific literature or with the data from Douglas Hospital in terms of frequency of use.

C. Report From L'hopital Louis H. Lafontaine

The information obtained from this large institution in the East of Montréal consists of four documents:

1. Procédure d'isolement et contraintes
2. Critères d'une chambre d'isolement ou d'observation
3. Rélève des contraintes et des isolements pour l'ensemble de l'hìpital pour une semaine en août 1983

4. Rélève des contraintes et des isolements pour l'ensemble de l'hìpital pour une semaine en janvier 1984

The first document is relatively standard in describing the nursing procedures to be followed when secluding or restraining a patient. Points which are interesting from the point of view of this committee include:

1. the nurse is responsible for ensuring that all the steps of the procedure are properly followed; for designating the person who will monitor the patient; for ensuring that all visits are made and that the flow sheet is properly filled in, and for notifying his or her immediate superior within a reasonable delay.
2. before being placed in seclusion, the patient must be rigorously searched and placed in a johnny-shirt. The seclusion room must also be carefully checked and everything except the bed removed.
3. the patient in seclusion must be checked every 15 minutes (more frequently if the nurse responsible for the patient deems it necessary).
4. if secluded for more than 1/2 hour, a staff must physically enter the room every 1/2 hour or less to check the patient.
5. the seclusion flow sheet must contain the date of the medical prescription and the name of the physician; the type of seclusion, the date, the time, and the duration.
6. every check must be recorded, indicating the time, the signature of the person making the check, and the patient's behavior.
7. disposable dishes and utensils are strongly recommended for the patient's meals.
8. no visitors are allowed to the patient in seclusion.
9. the nursing progress notes in the patient's chart must contain a note for each shift, relating the circumstances of the seclusion and the evolution of the patient's behavior.
10. after the seclusion, the seclusion room must be carefully checked, the bed disinfected and the linen changed.
11. a patient who must be restrained must also be placed in seclusion.

With regard to the seclusion room, interesting points are: the room must have a bed whose head and foot can be raised and lowered, placed in the centre of the room, screwed to the floor, with the upholstered head of the bed facing the door. The bed must have a set of leather straps permanently attached at four points; each employee should have a key for these straps. The room must have independent lighting systems for day and night, covered with a protective grille, and controlled from outside the room. Fire prevention systems and sprinklers must also be covered with a grille. The door must have a window, 27 by 32 inches, of tempered glass; a semi-opaque screen must cover the window outside the door. An electric outlet must be positioned on the right side of the bed, at its head, covered with a lockable metal plate, and controlled by a switch outside the room. Exterior windows must be prevented by means of special screws from opening more than 6 inches, and must be made of unbreakable glass. An opaque blind, without a cord, must be installed. There must be exterior bars over the windows (a final decision on this has yet to be made). The room must be at least 8 1/2 by 13 1/2 feet, with walls that are sound-insulated. Heaters should be covered with a lockable wooden or metal panel. Floors should be easy to maintain, for example, tiles. The room should be painted a restful color, *eg* pale blue, but not white.

The two reports on the use of restraints and seclusion within the whole hospital unfortunately do not contain data on the patients who were not secluded or restrained during the two weeks reported on, thus making comparisons to the literature or to Douglas Hospital practice for frequency of use, impossible. However, the data do show that seclusion is used slightly more than restraints (67 vs 57 for Jan 84; 56 vs 44 for Aug 83). These numbers also indicate an increase form the first period to the second. The most frequent reason was agitation (40 events for both periods together), next was "acting out" (38) followed by verbal aggression (22), and "unacceptable behavior (*eg* self-mutilation) (17).

D. Data From Hopital Charles Lemoyne

The following information is contained in a letter from Christine Geoffrion, infirmière-chef, dated 17 Dec 1985, and addressed to Andrée Dupuis, Directrice adjointed des soins, CPC:

The two psychiatric inpatient units at Charles LeMoyne hospital have 85 beds total. Patient ages range from 14 to 70, for both sexes. Seclusion is not employed on these short-stay units. There are some chronic patients on the units awaiting placement.

Restraints are used for many reasons, but the two most important are:

a. • safety of the patient

b. • safety of staff

Restraints are normally discussed by the team, and a medical prescription is then written. In an emergency situation, the head nurse or his or her replacement can authorize their use, with the medical authorization placed in the patient's chart afterwards.

Observation notes must go into the chart, and must contain:

1. the reasons for using restraints
2. the patient's condition
3. whether a PRN order had been written
4. observation checks made
5. type of restraints used
6. duration
7. condition of patient's skin at the sites of restraints

During the course of their employment, staff receive training in the understanding of aggressive behavior. Some staff have had NAPPI training. Prior to the use of restraints, an attempt is made to de-escalate the situation using verbal interventions. Reasons for the action are always explained to a restrained patient.

The hospital does not have a written policy regarding restraints use. However, there is a nursing care plan describing the techniques for using restraints and the observations that must be charted.

Lockable four-point plastic restraints with cotton straps (Posey type) are used. Restraints are applied based on the decision of a nurse, by male PAB's in the presence of a nurse.

The usual duration is from 1/2 to one hour. These durations are spelled out in the treatment plan and are explained to the patient. If the patient's condition necessitates it, longer periods will be used, and the patient is advised accordingly.

Attempts are made to explain the state of a restrained patient to other patients who raise questions, to reassure them. However, some aggressive patients still disagree about their use. The staff do not like to use restraints, but when there are few options, they understand well the necessity. Discussions are held to arrive at a consensus regarding restraints for each patient, so as to ensure objectivity.

Daily reviews are made of the need for and the results from the use of restraints (*eg* can the patient control himself better? can he tolerate group situations? Can he talk about his fears, impulses, and aggressive behaviors?) The head nurse also verifies on a daily basis, restrained patients, medical prescriptions, the nursing notes, and the team discussions.

REPORT FROM WORKING GROUP 4: LEGAL AND ETHICAL ASPECTS OF SECLUSION AND RESTRAINTS

The following pages contain the Final Report of the Working Group on Legal and Ethical Issues, consisting of Mr. Sheldon Shapson (Patient Representative on the committee), and Mr. Peter Steibelt (Chairman of the Patients' Rights and Ethics Committee).

Patient Attitude Questionnaire On Seclusion And Restraints

Introduction

Although seclusion and restraints are used in many psychiatric facilities, there are few studies which explore the attitudes of patients towards these treatment modalities. With regard to seclusion, Binder and McCoy (1983), using a semi-structured interview format, assessed the attitudes of patients who had been secluded during an eight-month period on a locked crisis intervention unit in a community mental health facility. Out of the 27 patients who had been secluded, 24 agreed to be interviewed within one week of their release from seclusion. There were 13 men and 11 women, all between 18 and 67 years of age. Most did not know why they had been secluded, in spite of having been told at the beginning of their seclusion. The majority felt that nothing was good about the seclusion experience, and half felt that seclusion had not been necessary. They also had negative attitudes toward the seclusion of others. However, the majority reported that seclusion had no adverse effect on their attitude toward treatment on the inpatient unit.

These authors concluded that it is important to discuss further with a patient the reasons for his seclusion at the time he is released from seclusion. Because it is often viewed by patients as an unnecessary, negative, and anxiety-provoking experience, it should be used as a last resort and only after other interventions have failed. To help prevent patients from becoming upset over another's seclusion, individual or group sessions to discuss seclusion episodes might be used.

Another study also used interviews, although structured ones, with 30 patients who had been secluded at least once, and 25 randomly selected non-secluded patients, on the four inpatient wards (100 beds total) providing short term inpatient psychiatric care to an integrated population of adolescents and adults (Plutchik et al, 1978). The secluded patients were significantly younger and had a larger percentage of males that did the non-secluded ones.

There were differences in the responses of patients who had been secluded compared to the non-secluded group. For example, secluded patients believed one hour to be a desirable length of time for seclusion, compared to four hours for the non-secluded group (incidentally, the average length of seclusion was also four hours). Non-secluded patients were more likely to justify seclusion for any reason. They also reported feeling safe, that the staff was doing a good job, and that the secluded patient got what he deserved for misbehaving, when another patient was being secluded. In contrast, the secluded group felt angry at staff when another patient was secluded, and worried that the same thing might happen to them.

The secluded patients picked the following terms when asked how they had felt while in seclusion: bored, depressed, angry, disgusted, confused, helpless, and safe. They felt that the seclusion room had helped them calm down, but also felt frustrated. About 40% said that being put in seclusion did not help them at all.

Seventy per cent of the patients felt that the seclusion room should be available for use by "self-referred" patients. Most did not think that having a staff member accompany a patient into the seclusion room was a good idea.

In order to determine the attitudes of Douglas hospital patients towards the use of seclusion and restraints, a study was initiated to survey all adult inpatients by use of a multiple choice questionnaire. This study, reported below, was preceded by a pilot study performed by Messrs. Peter Steibelt and Sheldon Shapson, in which a questionnaire on restraints and seclusions was distributed randomly to patients at the Douglas Hospital.

In this pilot study, a total of 36 questionnaires were filled out. The breakdown of results was as follows:

1. While hospitalized, have you ever been in restraints?

Yes	18 / 36	No	16 / 36	2 did not reply
	50%		44%	6%

2. While hospitalized, have you ever been secluded?

Yes	24 / 36	No	12 / 36
	67%		33%

3. Do you think you should have been?

Yes	8 / 36	No	27 / 36	1 did not reply
	22%		75%	3%

4. Were you properly treated?

Yes	22 / 36	No	10 / 36	4 did not reply
	61%		28%	11%

5. If not, explain why not.

Some replies were as follows:

- No one came to see patient.
- Patient was not given supper.
- Patient was not given toilet paper or cigarettes.
- Medication was unsuitable.
- Patient's clothes were taken off and she banged her head against wall.
- Some improvements could have been made (but no elaboration on what improvements).

6. Were you given adequate supervision?

Yes	20 / 36	No	12 / 36	4 did not reply
	56%		33%	11%

7. Was the restraint or seclusion of benefit to you?

Yes	13 / 36	No	12 / 36	11 did not reply
	36%		33%	31%

8. Were you fearful of your life while being secluded or restrained?

Yes	13 / 36	No	14 / 36	9 did not reply
	36%		39%	25%

9. Do you think that your rights were violated?

Yes	16 / 36	No	14 / 36	6 did not reply
	44%		39%	17%

10. Do you think that some patients might have to be secluded or restrained on occasion?

Yes	29 / 36	No	7 / 36
	81%		19%

11. Here is a sampling of additional comments from patients:

- To calm them down, restraints can be helpful.
- If patients are a threat to others, restraints and seclusions can be helpful.
- Bad patients should be kept in siderooms.
- If patients might hurt other patients or interfere with them, restraint or seclusion can be necessary.
- Restraints and seclusion should be used to protect other patients.
- Side-rooms should be used when someone is out of control.
- If patients are a danger to themselves or others, restraint and seclusion is justified.
- Problems with some patients with orderlies when they were in seclusion. This is hard to verify.
- Some patients just said that they were mistreated.
- Patients argued about injections and increase of pill intake when in isolation.
- Lack of proper supervision while being secluded and no means of protection in rooms.

Method

Based on the experience with the pilot study questionnaire, a new questionnaire (appendix) consisting of both demographic questions as well as questions designed to solicit patient attitudes towards the use of seclusion and restraints, was designed and was given in early April 1986 to all inpatients of the Specialized Treatment and Rehabilitation Program and the CPC Program. The questionnaires were delivered to each nursing unit for distribution to patients by nursing staff, who were also responsible for collecting them from the patients. The instructions provided to staff were to solicit the voluntary cooperation of patients, and to help only if asked to do so by patients. The head nurse on each unit collected statistics on the number of patients off the unit (either on authorized leave - vacation or to another hospital, or unauthorized leave); patients considered too ill or otherwise incompetent to answer the questionnaire; patients who refused, and finally, the number of questionnaires lost or destroyed by patients.

Nursing units were asked to have the questionnaires ready for pickup forty-eight hours after they were delivered to the units. Most of the fourteen units returned them before the forty-eight hours were over.

The questionnaire data was then entered into a data base, using an analytic data base system called "Reflex" (Borland International, Scotts Valley, California), running on either a Sperry PC or a Compaq Plus (both are IBM PC compat-

ible personal computers, equipped with a 10 Megabyte fixed disk and 640 Kilobytes of Random Access Memory).

Statistical analyses to test correlations were not done, and therefore the trends identified in the "results" section could not be verified as having statistical significance.

Results

A total of 488 questionnaires were distributed, to all inpatient units in the STRP and CPC programmes. Of these, 256 (57.1%) were returned either completely or partially filled in; 49 (10.9%) patients refused to complete the questionnaire; 14 (3.1%) of questionnaires were lost or destroyed, and 128 (28.6%) could not be filled in either because the patients were absent on Authorized Leave (11, or 2.5%), on Unauthorized Leave (2, or 0.45%), or because the patients were too ill or incompetent (115, or 25.7%).

For the 256 returned questionnaires, 193 (75.4%) responded on the English-language form, and 60 (23.4%) on the French-language form. With respect to gender, 147 (57.4%) reported themselves to be male, and 91 (35.5%) as female, while 16 (6.3%) did not respond to this question. Age distribution was as follows: 18 - 25 years, 27 (10.5%); 26 - 49 years, 142 (55.5%); 50 or over, 62 (24.2%); no response, 20 (7.8%). Marital status: single, 170 (66.4%); married, 33 (12.9%); separated or divorced, 23 (9.0%); no response, 22 (8.6%).

Out of this group of 256 patients, 18 (7.0%) indicated that they had never been hospitalized at Douglas Hospital - an obviously incorrect response for all except one patient on the Research Unit, who was either an outpatient or a non-patient volunteer; hospitalized once at Douglas, 59 (23.0%); hospitalized 2 - 5 times at Douglas, 77 (30.1%); hospitalized more than 5 times at Douglas, 50 (19.5%); no response, 47 (18.4%).

Unuseable questionnaires were then removed. Criteria used to determine whether a questionnaire was unuseable were:

1. If all the "Agree" boxes for questions 6 through 13 were checked (9 questionnaires out of 256, or 3.5%). The rationale is that a person could not reasonably agree with both question 6 or 7 and also agree with question 9 or 10;
2. If all the "Disagree" boxes for questions 6 through 13 were checked (5 questionnaires out of 256, or 1.9%). The rationale is the same as for 1 above;
3. If all the "No Opinion" boxes for questions 6 through 13 were checked (16 questionnaires out of 256, or 6.2%). Here, the rationale is that to include the results from someone who offers no opinions whatsoever would not add to the results;
4. If both "inpatient" in Q1 and "never admitted to psychiatry" in Q2, or both "inpatient" in Q1 and "never admitted to Douglas Hospital" in Q14 were checked (45 questionnaires out of 256, or 17.5%). These are illogical combinations, and suggest that the individual did not comprehend the questionnaire;
5. If no answer boxes at all were checked for questions 6 through 13 (17 questionnaires out of 256, or 6.6%). As for 3 above, to include results from a questionnaire which offered no opinions whatsoever would bias the final results.

A total of 87 questionnaires out of 256, or 34.0%, met one or more of the five exclusion criteria described above. This left 169 "useable" questionnaires (66.0%) on which the remainder of the analysis was based.

The 169 questionnaires were broken down as follows: 128 (75.7%) in English; 40 (23.7%) in French; there were more than twice as many male as female respondents in English (87 male and 38 female) while the sexes were almost evenly distributed for francophones (19 male and 17 female).

For these useable questionnaires, responses for questions 6 through 13 are detailed in table 1. Please note that the wording for questions 9 and 10 has a different meaning in the English and French versions (an unintended error) and therefore results for these questions are tabulated separately.

Table 1. Responses For Useable Questionnaires

	Agree	No Disagree	No Opinion	Response
6. Use of the seclusion room and/or restraints is appropriate for patients with uncontrollable aggressive or violent behaviour....	91 (53.8%)	44 (26.0)	26 (15.4)	4 (2.4)
7. Self-destructive or suicidal patients should be restrained and/or put into the seclusion room..	98 (58.0)	46 (27.2)	17 (10.1)	5 (3.0)
8. The seclusion room and/or restraints should be available to patients who request it.....	78 (46.2)	53 (31.4)	31 (18.3)	3 (1.8)
9. Use of the seclusion room is never justified, even for the most severe cases.....	35 (27.3)	57 (44.5)	31 (24.2)	3 (2.3)
La chambre d'isolement n'est jamais indiquée sauf pour les cas serieux.....	22 (55.0)	9 (22.5)	7 (17.5)	1 (2.5)
10. Use of restraints is never justified, even for the most severe cases.....	30 (23.4)	62 (48.4)	26 (20.3)	9 (7.0)
Les contentions ne sont jamais indiquées sauf pour les cas serieux.....	20 (50.0)	13 (32.5)	6 (15.0)	1 (2.5)
11. The seclusion room is used too frequently at Douglas Hospital.....	58 (34.3)	66 (39.1)	36 (21.3)	8 (4.7)
12. Restraints are used too frequently at Douglas Hospital.....	52 (30.8)	63 (37.3)	43 (25.4)	9 (5.3)
13. The seclusion room and restraints are effective treatments to modify destructive behaviour.....	97 (57.4)	39 (23.1)	21 (12.4)	8 (4.7)

For each questionnaire, a series of indices were calculated. These indices include:

Title	"Agree"	"Disagree"	"No Opinion"	Maximum Value
1. In favor of both	6+7+8+13			4
2. Against both		6+7+8+13		4
3. Net both = (In favor of both) - (against both)				
4. Net frequency	11+12	-11-12		
5. In favor (unamb.)	6+7+8+13	11+12		6
6. Against (unamb.)	11+12	6+7+8+13		6
7. Net (unamb.) = (in favor) - (against)				
8. In favor total	6+7+8+13 6+7+8+9+10+13	9+10+11+12 (En) 11+12 (Fr)		8
9. Against total	9+10+11+12 11+12	6+7+8+13 (En) 6+7+8+9+10+13 (Fr)		8
10. No opinion (side 1)			6+7+8+9+10+11+12+13	8

Overall, more respondents were in favor of the use of seclusion and restraints than against. Average values for the various indices were:

1. In favor of both	2.15
2. Against both	1.08
3. Net both	1.08
4. Net frequency	-0.11
5. In favor	2.92
6. Against	1.73
7. Net	1.19
8. In favor total	3.87
9. Against total	2.24
10. No opinion side 1	1.45

Anglophones (N=128, or 75.7%) were more likely to favor seclusion and restraints (net = 1.55) than the 40 (23.7%) francophones (net = 0.05). There was a trend for older respondents to favor these two treatment modalities more than younger respondents (Net values were 0.37, 1.11, and 1.74 for the 18 to 25 years (N=19, or 11.2%), the 26 to 49 years (N=99, or 58.6%), and the fifty and over (N=39, or 23.1%) age groups respectively. Similarly, older groups tended to feel less than younger ones that seclusion and restraints were used too frequently at Douglas Hospital (Net frequency averages were 0.32, -0.03, and -0.59 for the three age groups respectively).

Respondents who were married or had been married (ie separated or divorced) at the time of the interview (N=35, or 20.7%) were more likely to favour seclusion and restraints, and were also more likely to believe that these modalities were not used too frequently at Douglas Hospital, than single (ie never-married) respondents (N=123, or 72.8%).

When gender was looked at, no overall trend was found which distinguished between male (N=106, or 62.7%) and female (N=56, or 33.1%) respondents, except that females were less likely to believe that Douglas Hospital used seclusion

and restraints excessively (Net frequency averages were 0.01 for males, and -0.39 for females).

The five (3.0%) francophone males in the youngest age group (18 to 25 years) were the only identifiable group who strongly opposed seclusion and restraints. This group averaged -2.20 on the "net" index, and also had the highest score on the "net frequency" index (0.80), indicating a strong belief that seclusion and restraints were used too f requently at Douglas Hospital. In contrast, the anglophones with the greatest life experience (ie the oldest age group, either married, separated, or divorced - N=9, or 5.33%), were the most favorable of any identifiable group towards seclusion and restraints (net = 2.89) and least likely to believe that these modalities are excessively used at Douglas Hospital (net frequency = -1.11).

Taken all together, the patients in the Specialized Treatment and Rehabilitation Program (N=120, or 71.0%) were less favorable towards seclusion and restraints (net = 0.98) than patients of the Centre de Psychiatrie Communautaire (N=49, or 29.0%; net = 1.69) although both groups were favorably disposed in general.

Within STRP, the chronic care units (Perry 2A, 3B, and 4A; N=38, or 22.5%) favored seclusion and restraints less (net = 0.32) than either the acute care units (Burgess 1 and CPC 3; N=28, or 16.6%; net = 1.07) or the pre-discharge units (Perry 4B and 4C; N=31, or 18.3%; net = 1.97).

There was a trend for individuals with a greater number of hospitalizations to be more opinionated, as reflected by a decreasing average for the "no opinion (side 1)" index (2.00, 1.44, and 0.95 respectively for those hospitalized only once at Douglas (N=40, or 23.7%), those hospitalized 2 to 5 times (N=64, or 37.9%), and those with more than 5 hospitalizations at Douglas (N=43, or 25.4%). These three goups also showed a progressively increasing belief that seclusion and restraints are not used too frequently at Douglas Hospital (net frequency averages were 0.10, -0.20, and -0.40 for the three groups respectively).

For the final stage of analysis, all the questionnaires out of the 169 "useable" ones where there were no responses given to questions 18 through 22, were filtered out. There were 66 such questionnaires, where the respondents had provided no opinions about their own personal experiences with seclusion or restraints at Douglas Hospital, or where they had had no such experience. Demographic analysis of these 66 responses showed a close correspondence with the larger sample of 169 in terms of distribution by language, gender, age, or marital status. These 66 respondents did, however, report fewer hospitalizations.

The questionnaires of the remaining 103 respondents, who had included responses to questions 18 through 22, were analyzed. In terms of demographics, this group was similarly distributed to the "useable" group in terms of language, gender, age, and marital status. This group reported the following for the number of times hospitalized, put into seclusion, or into restraints (Table 2. Numbers of Admissions, Seclusions, and Restraint Episodes):

Table 2. Numbers Of Admissions, Seclusions, And Restraint Episodes

	Never	Once	2 - 5	Over 5
Number of admissions to Douglas Hospital:	()	20 (19.4)	42 (40.8)	33 (32.0)
Episodes of seclusion in the past five years:	10 (9.7)	21 (20.4)	39 (37.9)	26 (25.2)
Episodes of restraints in the past five years:	46 (44.7)	21 (20.4)	12 (11.7)	11 (12.6)

Table 3. Responses For Personal Experiences

Most recent event was an episode of seclusion (N=59, or 57.3%)
or of restraints (N=14, or 13.6%)
not specified (N=19, or 18.4%)

	Agree	Disagree	No Opinion	No Response
18. This measure was justified by my behaviour.....	52 (50.5)	33 (32.0)	15 (14.6)	0 (0.0)
19. The reason for using this measure was adequately explained to me.....	48 (46.6)	40 (38.8)	12 (11.7)	2 (1.9)
20. I was adequately supervised while I was in the seclusion room or in restraints.....	53 (51.5)	26 (25.2)	16 (15.5)	4 (3.9)
21. My needs for food, drink, and elimination were adequately met.....	62 (60.2)	27 (26.2)	9 (8.7)	1 (1.0)
22. The length of time I was kept in the seclusion room or in restraints was appropriate, given the circumstances.....	41 (39.8)	40 (38.8)	15 (14.6)	4 (3.9)

A number of indices were also calculated for each respondent, and averaged for various groupings. The indices used were:

1. Positive Experience: = sum of “agree” responses for 18 through 22
2. Negative Experience: = sum of “disagree” resonses for 18 through 22
3. Net Experience: = (Positive Experience) - (Negative Experience)
4. No opinion (side 2): = sum of “no opinion” responses for 18 thru 22

For the group of 103 respondents as a whole, the average values of these indices were:

1.	Positive experience	2.49
2.	Negative experience	1.61
3.	Net experience	0.87
4.	No opinion (side 2)	0.65

There was a slight trend for anglophones to be more positively inclined towards seclusion and restraints than francophones (net experience = 1.12 vs. 0.15). Surprisingly, males were more positive about their experiences than females (net experience = 1.06 vs. 0.43). There were no trends apparent for age or marital status.

There was a very slight trend for STRP patients to report more favorably (net experience = 1.00) than CPC patients (0.46). Within STRP, the Chronic Care Units were less favorably inclined (net experience = 0.08) than the Pre-discharge Units (1.71), while the Acute Care Units reported an overall unfavorable experience (net experience = -0.13). Across both programs, respondents on the locked units (Perry 2C and 3C, and Reed 1) were more favorable toward seclusion and restraints (net experience = 1.92) than any other grouping of units.

In general, those who had been most recently put into seclusion were less favorably inclined (net experience = 0.71) than the restrained group (1.36). There were no trends detectable for number of episodes of either seclusion or restraints. However, those with more hospitalizations tended to give a higher number of "no opinion" responses.

Conclusions

1. The proportion of useable returns (66%) indicates that questionnaires of this type are a useful way to solicit information about patient attitudes and concerns.
2. At Douglas Hospital, a majority of adult inpatients feel that seclusion and restraints are appropriate treatments for aggressive or violent behavior. A slim majority feel that this hospital does <u>not</u> use these modalities too frequently.
3. Most patients believe that these treatments are effective at modifying destructive behavior.
4. Being anglophone, older, married or once married, indicated more favorable attitudes towards these treatments. The one group most opposed consisted of young single francophone males.
5. In general, gender did not distinguish between responses, except females were less likely to feel that seclusion and restraints are excessively used.
6. CPC patients are more favorably disposed than STRP patients.
7. For those patients who had themselves been restrained or secluded within the past five years at Douglas Hospital, most felt that the measure had been justified, and were satisfied that they had been adequately cared for while secluded or restrained.

OVERALL CONCLUSIONS

The committee believes that seclusion and restraints are effective treatment modalities, and have an important place in dealing with violent and aggressive behavior. However, patients rarely accept these treatments on a completely voluntary basis, and because these measures restrict the patient's freedom, the principle of "least restrictive treatment" must be considered.

The hospital has a responsibility to take the steps necessary to minimize the use of these restrictive treatments to the lowest level consistent with maintaining a reasonable degree of order, safety, and therapeutic atmosphere. At the same time, other interventions, such as ECT or "chemical restraints", administrative discharge, or transfer to high security settings, should not be used more frequently than necessary to achieve optimum patient treatment.

Given that the scientific literature indicates continuing use of these treatment modalities, that prevailing scientific opinion holds that these are effective treatments, that patients favor the use of these treatments, that the legal and ethical issues are not insoluble, and that patients have a right to effective treatment, the committee presents a series of recommendations which if accepted and acted upon by the hospital, will hopefully lead to a use of these treatments which is closer to the theoretical optimum of maximum effectiveness, minimum violation of patient rights, maximum safety for patients and staff, minimum restriction of patient freedom, and all at a reasonable cost.

The committee believes that seclusion is a less restrictive treatment than restraints, and is appropriate for many patients who are not self-destructive. Accordingly, the principle of providing a seclusion room for each unit where patient characteristics and frequency of use warrant it, is preferable to the alternatives of secluding patients on other units, or using restraints when seclusion would be acceptable. The committee does not have enough data, however, to make recommendations about any changes in the number of seclusion rooms presently available.

The committee wishes to acknowledge the many positive steps that Douglas Hospital has already undertaken, which influence seclusion and restraints usage, affect patient rights, and will facilitate implementation of this committee's recommendations. Among these strengths are:

1. The hospital's participation in the development of the Argentino suit, a type of mechanical restraint which is much safer and more comfortable for the patient, and is easier to use, than previous devices.
2. The hospital's support of its Research Department, wherein may be found the expertise to plan and support the definitive controlled prospective study on the use of seclusion and restraints for modification of behavior, which we are recommending the hospital undertake to do.
3. The creation of an "Ombudsman" position, to report directly to the President of the Hospital and the Board of Directors. This office will do much to enhance patients' rights, and can be centrally involved in monitoring the use of seclusion and restraints.
4. The creation of the Burland pavilion behavior modification program for children. This program is on the cutting edge of treatment approaches for mentally retarded and behaviorally disordered individuals, and reflects the hospital's strong commitment to provide the best available treatment, given today's severe financial constraints.
5. The ongoing reduction in patient census on Burgess II, which will allow more individual therapeutic work with patients by staff, and thereby will tend to reduce the use of seclusion and restraints.

RECOMMENDATIONS

1. Ongoing Monitoring Of Seclusion And Restraint Practices

The literature suggests that outside observation of an activity performed by others will result in changes to the activity. This is true in the factory, and, as Barath (1978) described, in a psychiatric facility. A "seclusion audit" was shown to result in a decreased use of seclusion, closer monitoring of patients in seclusion, and decreased time in seclusion. Moreover, a program of ongoing monitoring of each unit's practices on a periodic basis, with feedback provided to each unit, will result in a reduction of the use of seclusion and restraints (Davidson et al, 1984). This will be most likely to occur in a setting where hospital administration has made clear its position that minimal use of these treatment modalities is desirable, where staff are motivated to use alternative ways of dealing with aggression and violence, and where units will be in friendly competition with each other to reduce the use of these treatments.

We recommend, therefore, that a monitoring system be set up on a permanent basis, to record the seclusion and restraint events on each unit on a monthly basis, with calculation and compilation of statistics such as average duration, average use per shift, and so on, and that these data be reported monthly to the hospital administration, nursing administration and Nurse Clinician Teachers, the Ombudsman, and to each clinical unit.

It is important that such a system be structured so as not to increase the burden on clinical staff. Accordingly, monitoring could be done by clerical staff from the Medical Records Department, and logged on a microcomputer programmed for this purpose, which could generate the necessary reports automatically.

A monitoring system of this type will allow the hospital to audit, on a continuous basis, the use of seclusion and restraints. Thus, it will perform a vital quality assurance role, and provide data for hospital accreditation and other needs. Because such a monitoring system would also keep track of incidents of aggression, violence, destructive behaviors, and so on, it could greatly facilitate data collection for clinical research into the effectiveness of various treatments which affect such patient behaviors.

Any other programs or changes which are intended to modify the hospital's practices with respect to seclusion or restraints should be implemented only after such a monitoring system is in place. This will allow the effects of any changes to be monitored, so that practices which are not cost-effective can be identified and revised.

2. Standing Committee On Seclusion And Restraints

We recommend that a standing committee on seclusion and restraints be struck, to meet every month, with a mandate to:

a. Review the application of the various recommendations of this committee, once accepted by the hospital;

b. Monitor the ongoing use of seclusion and restraints, via reports from the monitoring and reporting system;

c. Deal with patient or staff concerns about seclusion and restraints;

d. Review all treatment plans which include the use of seclusion or restraints, within a month of implementation of each such treatment plan;

e. Monitor, where necessary, the use of alternatives to seclusion and restraints, such as ECT or medication used for restraint.

This committee, which could be a subcommittee of the Patient Rights and Ethics Committee, could have the following composition:

a. The Ombudsman;

b. An expert on behavior modification;

c. A nurse involved with day to day patient care;

d. A behavioral technician working directly with patients;

e. A representative from the hospital's administration (could be someome from nursing administration);

f. A patient or former patient, or the parent/guardian of a patient;

g. An outside consultant (a clinician experienced in working with chronic mental patients or mentally retarded/behaviorally disturbed patients) who has no other regular involvement with the hospital, so as to avoid conflict of interest;

h. An expert on biological treatments (*eg* on medications and ECT which might also be used for restraining patients). This could be a psychiatrist;

i. A nurse-clinician-teacher.

3. Written Consent For Treatment Plans Which Include The Use Of Seclusion Or Restraints

When a treatment plan which includes seclusion or restraints as treatment modalities is drawn up, a written, witnessed consent should be obtained from the patient, the patient's parental authority or guardian, or, if the patient is legally incompetent, from the patient's tutor or curator. A copy of the consent to the treatment plan which bears these signatures should be placed in the patient's chart.

The wording of the consent could be:

> "It has been explained to me that this treatment program may include the use of seclusion and/or restraints (strike out if not applicable). I am aware that my consent can be withdrawn by me at any time. I hereby consent to the use of these treatment modalities". [signature of patient (or tutor, etc.), date, and signature of witness].

Whenever possible, the patient should be encouraged to engage in his or her own treatment plan, including seclusion and restraint, so as to foster independence and growth (Grigson, 1984). Although the primary concern must be the protection of patients and others, by addressing patients'maturational needs and getting them to participate in their own treatment, they "begin to consider options other than the automatic impulsive and destructive behaviors they have used in the past when angry, frustrated, or fearful" (Grigson, 1984). In line with this philosophy, the committee recommends that the process of "patient contracting", when it results in a written contract signed by both the patient and a member of the treatment team, can substitute for the written consent as recommended above.

The committee recognizes that, particularly in the case of the Public Curator, there may be inevitable delays in obtaining either a verbal or a written consent. We recommend that because the speedy implementation of appropriate treatment is in the patient's best interests, such treatment not be delayed because of bureaucratic delays, and that a procedure be worked out between the hospital and the Public Curator whereby an interim consent can be used, for example a substituted consent by the hospital's Director of Professional Services.

In the case of an emergency use of seclusion or restraints, the committee recommends that Douglas Hospital procedures <u>not</u> require the automatic notification of patient's family, parental authority, guardian, or curator, as recommended by the Corporation professionelle des medecins du Quebec (1986). A priority, of course, for competent patients especially, is the hospital's obligation to guard the patient's right to confidentiality. But even for minors or incompetent patients, the patient's physical presence in the hospital implies a consent to those emergency treatments necessary for the health and safety of the patient or others, and seclusion or restraints, considered to be neither life-endangering, nor a gross infringement of a patient's rights when used briefly in an emergency situation, should not require an automatic notification of family or others.

It does not need to be said that for such emergency usage, consent usually cannot and need

not be obtained. In fact, Soloff & Turner (1981) made reference to a legal opinion stating that " the use of force in the management of a voluntary patient voided his consent to treatment and required judicial review. The practice of obtaining advance consent for seclusion `if needed' as part of a voluntary admission was felt inadequate in view of patient resistance at the time of seclusion." These authors instituted a policy to obtain an emergency commitment following any locked seclusion for voluntary patients. This committee does not believe that the emergency use of seclusion or restraints warrants declaring a patient incompetent and instituting curatorship proceedings, but if the patient is sufficiently dangerous to himself or to others to require emergency seclusion or restraint, then serious consideration should be given to putting that patient under "cure fermée".

If the patient's ongoing clinical condition requires that restraints and seclusion continue to be used, *ie* it can no longer be considered an "emergency" use, but the patient refuses to provide consent, then it may be necessary to declare the patient incompetent and obtain a curator's consent.

4. Prn Orders For Seclusion Or Restraints

The committee recommends that "prn" (pro re nata, *ie* as the occasion arises) orders for the emergency use of seclusion and restraints be no longer permitted, and that "stat" orders only be used. If a patient's behavior is such as to necessitate restraints or seclusion, and other crisis intervention modalities have not worked or need more time to work, the nursing staff on the unit should have the authority and responsibility to restrain or seclude the patient, and at the same time call the physician on duty to come to assess the patient and to write a "stat" order. The nursing staff will be responsible for obtaining at least a telephone order within one hour of the patient being secluded or restrained. The physician on duty must come to the unit to do an assessment and to countersign a verbal order, within two hours of being notified by nursing staff. If the physician cannot be reached or fails to arrive on the unit, nursing staff should continue to use seclusion or restraints past the specified time limits only on the authority of the nursing supervisor. In such a case, the nursing supervisor must make all reasonable efforts to contact a physician, which may include calling the backup psychiatrist on call, the general practitioner on duty, the Program Director, or the Director of Professional Services.

Such emergency use of seclusion or restraints may not exceed four hours without a second order from the physician. A second physical assessment is necessary to continue the treatment beyond six hours (It is necessary to state that the committee did not reach a satisfactory consensus on the values for these time limits, and that further discussion among the interested parties, *ie* nursing staff and physicians, should take place).

When clinical staff make the decision that a given patient may require the use of seclusion or restraints, based on documented historical and current treatment data, a physician may write, as part of a written treatment plan, medical orders for seclusion or restraints to be used "prn", that is, based on the judgment of the clinical staff present at the time these treatments are used. A specific time limit should be included in the order, as well as the indications for use of the treatment. The duration for seclusion or restraint orders may not exceed the allowable duration for medication prescriptions on that unit, or one month, whichever is less.

All such written treatment plans which include prn orders for seclusion or restraints are subject to review, within one month, by either the Standing Committee on Seclusion and Restraints (described below) or the Ombudsman.

The committee recognizes that the above recommendation will place a heavier burden on physicians, particularly the "on duty" psychiatrist or psychiatric resident. Nursing staff and supervisors may also have an increased workload. We suggest, therefore, that this recommendation be initially implemented as a pilot project on a single nursing unit, for six months. If the increased workload, when extrapolated to the whole hospital, necessitates an increase in physician coverage, this could be done by contracting with physicians (including GP's with psychiatric privileges) to cover the emergency room on a "shift" basis, or by having two "on

duty" psychiatrists for at least a part of each evening or weekend duty period.

5. Physician Orders For Seclusion Or Restraints

Orders for seclusion or restraints must include three components:

a. A specification of the treatment;

b. A time limit for the treatment;

c. The behavior of the patient which has resulted (for "stat" orders) or may result (for "prn" orders) in the use of that treatment modality, for example, aggression, violence, or destructive behavior;

A fourth component is additionally required for "prn" orders only:

d. a time duration during which the order is valid. This duration may not exceed one month.

Physician orders for seclusion and restraints should not be carried by nursing staff unless all required components are included.

6. Continuous Observation For Patients In Seclusion Or Restraints

The committee recommends that patients who are put into seclusion or restraints on the basis of a "stat" order (*ie* for an emergency situation, and not as part of a written treatment plan) be observed continuously (*ie* be on "constant care") while in restraints or secluded. Constant care should also be mandatory for patients secluded or restrained as part of a written treatment program, unless the physician's order specifically directs otherwise. In no case, however, should the time interval between visual observations exceed 10 minutes, and between physical assessments of the patient exceed 20 minutes.

The above applies only while the seclusion room is locked. It does not apply for patients who voluntarily request to go into the seclusion room, and for whom the door is left unlocked. If patients remain in the seclusion room when the need for seclusion is over (for example, a patient who falls asleep while secluded), then the door should be unlocked and left ajar, and the documentation should state that the procedure was terminated at the time that the door was opened and continuous observation was discontinued.

Patients who are secluded or isolated in a room other than a specifically constructed seclusion room (see recommendation below) must be continuously observed at all times, by a staff who may be stationed just outside the open door of such a room or of a "low stimulation" area. Patients may not be locked into a room other than a specifically constructed seclusion room.

There are three reasons for making this recommendation:

a. Constant observation will greatly enhance patient safety (particularly for potentially self-destructive patients who are placed in a seclusion room or secluded in another type of room).

b. The presence of another person will help to allay the anxiety and agitation of a patient who needs to be placed into restraints. Verbal interventions will help the individual to regain his or her self-control more quickly, and thus shorten the time that restraints are necessary.

c. For both seclusion and restraints, the "inconvenience factor" of needing to provide constant care will help ensure that these treatment modalities are used only when necessary, and not for the convenience of staff.

Again, the committee recognizes that this recommendation mandates an increased level of staffing in certain circumstances, including a greater staff-to-patient ratio of regular staff for units where these treatment modalities are frequently employed. These needs could be more accurately predicted after a pilot study of six months on a single nursing unit.

7. Design And Construction Of Seclusion Rooms

Wall padding in seclusion rooms is considered to be vital in certain psychiatric facilities to minimize the possibility of injury due to self-destructive behaviors such as head-banging.

The committee recommends that the question of providing padding on the walls of Douglas Hospital seclusion rooms be reopened, given the success with this type of construction enjoyed by other hospitals, and the availability of modern materials (such as solid rubber floor coverings) which are practically indestructible, waterproof, and hygienic.

A small window in the door of a seclusion room does not provide an adequate view of the whole interior. Furthermore, the sight of an observer (or even a curious patient) may infuriate an irritable patient, or be intolerably humiliating to a depressed patient.

We recommend that future seclusion rooms be designed to incorporate a one-way mirror sufficiently large to enable the entire interior to be viewed (Woffard, 1986). There should be a separate observation room or cubicle on the outside of the one-way mirror. Lighting up this cubicle would permit the seclusion room occupant to see the observer (to reduce the fear of paranoid patients). Where practical, existing seclusion rooms should be remodeled to incorporate these same features.

8. Use Of Alternative Treatment Methods

For the emergency use of seclusion or restraints, the nursing progress notes should reflect the alternative treatment methods which were tried and were unsuccessful, for each episode of seclusion or restraints. For example, medication (what kind, how much and by what route, and when given); verbal intervention (talking the patient down); "show of force" or other confrontation, or offering a voluntary seclusion. The types of intervention could be coded for entry on the seclusion and restraints flowsheet.

9. Review Of Reasons For Seclusion Or Restraints

The existing nursing procedures call for teaching of the patient and family about the purpose and necessity for seclusion or restraints. The committee recommends that this be formalized as a directive that, at the conclusion of an episode of emergency seclusion or restraint, the reason(s) necessitating this form of control should be reviewed and discussed with the patient, with the aim of helping the patient to understand what he or she could do in the future to avoid being secluded or restrained. This discussion would preferably be done by the nursing staff who placed the patient in seclusion or restraints (ie who made the decision to do so) or by the patient's primary therapist or mentor.

The seclusion and restraints flow sheet should include a space for the initials of the staff who has done such patient education. In addition, the unit's head nurse or assistant head nurse should verify that the post-event review and discussion with the patient has taken place.

10. Research On Use Of Seclusion And Restraints In Behavior Modification

There is a considerable body of scientific literature which supports the use of seclusion and restraints as effective treatment modalities for aggressive and self-destructive behavior. However, there appears to be little research of a prospective nature which compares the efficacy of various modalities and treatment conditions, for example, different physical conditions for time out (such as size of time out room, colour of paint, effects of monitoring), or length of time out. More specifically, the conditions and modalities in use at Douglas Hospital, including the Argentino suit, have not been subject to objective assessment by a weel-designed comparative study.

The committee recommends that Douglas Hospital undertake its own research project. Our continuing use of these modalities of treatment for modifying the behavior of mentally retarded patients should be contingent on the outcome of such a study, which could take place on Burgess II.

With regard to the Argentino Suit, designed at Douglas Hospital by Dr. Charles Serrao, the need for adequate research is particularly pressing. This suit is widely used at Douglas Hospital and is the staff who use it believe it to be on the leading edge of technology in this field, with an admirable safety record. As a World Health Organization affiliated research centre, we have an obligation to verify this belief and if supported by a good study, to promulgate the use of the Argentino Suit in the rest of the world.

11. Use Of Chemical Restraints

As a result of pressure to reduce the use of seclusion or restraints within a framework of budget restrictions and low staff-to-patient ratios, it is possible that the use of chemical restraints (medications given solely for the purpose of reducing assaultive or destructive behavior) might increase. This type of treatment, while possibly less visible, can be as much of an intrusion upon patients' autonomy as seclusion and restraints.

To prevent an unwarranted increase in the levels of sedating medication given to patients to offset reduced availability of seclusion and restraints because of the restrictions on their use being proposed in this report, we recommend that medication audits be carried out, with audit results to be reviewed by the same bodies that review the use of seclusion and restraints. If warranted by the results of a periodic audit, an ongoing monitoring and reporting system could be instituted also, similar to the monitoring system recommended for seclusion and restraints.

12. Seclusion And Restraints For Pediatric And Geriatric Patients

Although this committee made a decision to limit its inquiry to the use of seclusion and restraints in emergency or behavior modification situations for adult patients, these treatment modalities applied to child or geriatric patients deserve study. We recommend, therefore, that the hospital mandate inquiries in these areas, similar to the mandate for the present inquiry.

13. Inservice Education For Clinical Staff

For staff who must deal with aggressive, violent, or destructive behavior, the hospital has a responsibility to ensure that such staff are adequately trained not only in the safe use of seclusion and restraints, but also in the assessment on such patient behaviors and alternative methods of dealing with these behaviors (Guirguis, 1978). Other institutions and jurisdictions mandate such training for all clinical staff: at the Institute of Living in Hartford, Connecticut, staff are required to meet a competency baseline before the end of their employment probation period, and must attend a four-hour "crisis Intervention" refresher course (consisting of two hours each of verbal intervention and physical intervention methods training) each year as a condition of continued employment (Woffard, 1986). The state of Massachusetts requires that staff working in mental health facilities receive sixteen hours per year of such training (Woffard, 1986).

Specifically, we recommend that inservice education programs in crisis intervention, including verbal and physical methods, be made compulsory for clinical staff, to be provided on hospital time and at the hospital's expense. Successful completion of a comprehensive training program should be mandatory for all staff working with patients, either during a probation period for newly hired staff, or during a twelve-month period after the time that the course first becomes available, for present staff. A refresher

course should also be mandatory for all such staff, to be taken once during every year after the first course. Failure of a staff to attend a refresher course by the end of a twelve month period would mean that the staff would not be permitted to work until after completing the refresher course. Such training could make use of videotapes, role playing, and other ways of sensitizing staff to their role in reducing violent behavior.

For clinical staff regularly engaged in implementing behavior modification programs which include the use of seclusion or restraints, it is recommended that training in the theoretical and practical aspects of behavior modification treatments be made compulsory. This should include both initial training and qualification as a prerequisite to employment as a behavior modification technician or similar job classification, but also periodic refresher training for these staff.

14. Review Of Specialized Treatment Programs

We recommend that the hospital undertake to review those specialized treatment programs which have not had such a review in a number of years, to ensure that their mandate, their patient population, their census, their level of staffing, the type of staff qualifications, and the physical facilities, remain adequate, given the changes in what is considered "state of the art". For example, can we adequately justify the changes in treatment for a given patient who "graduates" from a program such as on Burland Pavilion to Burgess II, simply by becoming eighteen years old? Or does the increasing intellectual capacity and physical strength of an intellectually handicapped patient who is becoming a young adult necessitate an even more intensive degree of behavior modification treatment and higher staffing, than was necessary for the same patient as an adolescent?

15. Recreational Activities As Positive Reinforcements

We recommend that the hospital's existing recreational facilities (swimming pool, bicycles, cross-country skiing equipment, bowling lanes, gymnasium) be more intensively used as rewards to reinforce positive behaviors, *ie* absence of aggression or destructiveness, so as to reduce the use of seclusion and restraints. This would require staff with training in both behavior modification techniques and in recreation, or in recreation as therapy. Even for patients who do not like recreation enough to have it serve as a positive reinforcer, exercise and physical activity can serve to discharge tension and energy which might otherwise result in aggression. Thus, increased patient programming of this nature would likely reduce the use of seclusion and restraints.

16. Optimization Of Staff To Patient Ratios

The committee recommends that the monitoring system described above be used to collect data on the effects of staff-to-patient ratios on the use of seclusion and restraints, taking into account variables such as staff training and experience, regular staff versus "float" staff, which shift, weekend versus weekday, and the percentage of unstructured time for patients on the unit. This data should then be used to develop a formula for optimizing the staffing on each unit.

17. A "Blue Code" Team

The committee recommends that specialized training be given to a volunteer group of PAB's and possibly other staff, such as cleaning staff, to enable them to respond to "blue codes" with minimal delay and maximal patient and staff safety. The members of such a team must be sufficient to ensure that a minimum of five are available on each shift. Each member should carry a pager when on duty in the hospital. They

should receive a premium in pay, considering the personal risks they are asked to undergo, and continuing membership on the team should be contingent on consistent performance (*ie* responding to blue codes within a maximum time limit). "Esprit de corps" is important for such a team, and regular team meetings in addition to "post-mortem" discussions after each blue code would help to ensure this (Ellman, 1985).

When the team can be counted on to provide a quick and rapid response, clinical staff on all units will feel more safe in dealing with aggression and potential violence, and this sense of security will result in reduced use of seclusion and restraints as nursing staff become more confident and therefore more able to use non-physical means of intervention effectively. Moreover, a team which is trained to work together will occasion fewer injuries to patients and staff alike. If the code blue team is readily available to physically subdue patients, then crisis intervention training for other staff can focus more on self-defense and less on techniques for physically subduing patients. Finally, the rapid availability of a code blue team to provide a "show of force" will result in less physical contact (*ie* less invasion of patient autonomy) when convincing patients to take medication or submit to seclusion in emergency situations.

The committee wishes to emphasize that very careful screening and selection of candidates for such a "blue code" team is essential to prevent the team from becoming a "goon squad". Furthermore, to help convey the message that the team's work is considered valuable and important, the committee recommends that either the psychiatrist or resident "on duty", or the Nursing Supervisor, be given the role of team leader, and the responsibility for conducting a "post mortem" discussion with the team after a "blue code" has been called.

18. Regularly Scheduled Reviews

The committee recognizes that the recommendation that all written treatment plans which include the use of seclusion or restraints be reviewed by either the Standing Committee on Seclusion and Restraints or by the Ombudsman, may impose a penalty of long delays, many written communications, and other bureaucratic inefficiencies on those units which use such treatment plans frequently, such as Burgess II. It is recommended that these units have the opportunity to elect to invite the Ombudsman to attend their unit or team rounds on a regular basis, to review treatment plans in a way which enhances efficiency, by meeting directly with those members of the clinical staff who are responsible for formulating and implementing treatment plans, and evaluating their success, and where all applicable documentation is readily available along with the staff who can interpret it where necessary.

Of course, it needs to be understood by all concerned that the role of the Ombudsman in attending rounds regularly is not to second-guess clinical decisions, but to ensure that patient rights receive high priority.

19. Incentives To Clinical Staff

Given the proven success of behavior modification techniques, particularly positive reinforcement, in increasing the frequency of acceptable behaviors in patients and reducing undesirable behaviors, we should not neglect these techniques in the training of clinical staff. With regard to the use of seclusion and restraints, some mechanism for rewarding staff who are most successful in applying alternative treatment modalities so as to minimize use of seclusion or restraints, should be sought. For example, individual staff or teams could be rewarded by positive reinforcements such as time off, bonuses in pay, salary increases based on objective performance reviews, paid leave of absence for professional development, or employer-paid tuition for employees attending courses.

One idea which has been tested is a monthly lottery for which tickets are awarded based on individual staff performance, the prize being, for example, a day off (Iwata, 1976).

Development of such incentive programs would require creativity. Granting of incentives would also have to be based on objective monitoring of performance (for example, the monitoring sys-

tem referred to elsewhere could be used for this) and would need to have safeguards built in to prevent abuses, such as favoritism.

20. Lower Patient Density To Reduce Aggression

Everything else being equal, population density is directly related to aggressive behavior, for both human and animal populations (Harris et al, 1974; Rago et al, 1978). For locked units, this is particularly true.

We recommend that a study be undertaken to establish the optimal living space requirements for patient populations similar to those on Douglas Hospital locked wards. Such a study would involve reviewing the literature, and surveying other institutions with similar patients. When results are available, norms can be established for our patients, and efforts can be made to adjust the unit census of our locked units such as Perry 2C and 3C, Burgess II, Wilson, and Reed I, to reduce the incidence of aggressive behavior related to overcrowding, and thereby reduce to use of restraints and seclusion necessary to control or modify such behavior.

21. Effects Of Caffeine On Need For Seclusion Or Restraints

There is a growing body of literature on the effects of caffeine in psychiatric populations (Pilette, 1983; Wells, 1984). It has been found that caffeine interferes with the effectiveness of antipsychotic medication in reducing agitation and aggressive behavior, and that high caffeine intakes are correlated with higher usages of sedating medications by psychiatric patients (Greden et al, 1981). These findings suggest that reducing or eliminating caffeine intake for Douglas Hospital patients can reduce the frequency of use of seclusion and restraints, by increasing the effectiveness of antipsychotic medication, and by decreasing symptoms of anxiety and agitation due to caffeinism.

The committee recommends that only decaffeinated or non-caffeinated coffee, tea, and soft drinks be made available to Douglas Hospital patients, whether through dietary services, vending machines, or the snack bar. Given the ready availability of caffeine-containing beverages off the hospital grounds, it would be difficult to accurately assess the effects of such a policy on the frequency of seclusion and restraints, except on locked units.

22. Administrative Policies

The scientific literature seems to be in agreement that treatment programs which combine positive reinforcement (for behaviors which are incompatible with the undesirable or maladaptive behaviors which the treatment hopes to extinguish or decrease) with "time out" for maladaptive behaviors, are more effective than programs which utilize positive reinforcement only or use "time out" exclusively (L'Abbé & Marchand, p 129, 1984; Craighead et al, p 123, 1981; Bigelow, p 36, 1977). However, although many programs have been designed with the financial constraints and the low staff-patient ratios of institutional care facilities in mind (Kazdin, 1978), these same programs have frequently been curtailed because of political and financial decisions outside the control of the institution (Paul & Lentz, 1977; Thompson & Grabowski, p 555, 1977) or sometimes because of lack of support from within the institution (Sibbach & Ball, 1977).

the committee recommends that the hospital administration continue its policy of giving highest priority to patient needs, particularly in its dealings with government. Some of the provisions in such a policy should be:

a. Union contracts with sufficient flexibility to permit clinical staff to be positively reinforced for outstanding performance, by means of merit pay, time off, educational programs, etc.

b. Budget allocations which recognize the importance of departments such as Rehabilitation and Occupational Therapy in structuring patient time and in teaching adaptive behaviors, which lead to decreases in the types of aggressive and destructive

behaviors that are treated with seclusion and restraints.

c. Particularly in the case of chronic treatment units, support for restructuring of programs away from the "custodial" model and towards an active approach based on social learning programs (also known as token economies) and the medical-therapeutic milieu model. Such treatment programs can reduce or eliminate the use of seclusion and restraints (Grabowski & Thompson, p 97, 1977; Paul & Lentz, 1977). To implement these types of programs, increased budgets are an important aspect of providing for the increased staff-to-patient ratios necessary for individualized reinforcement schedules, for the behavior modification expertise necessary to design and set up the programs and to work out individual treatment plans, and for the staff retraining necessary to deal with resistance to change in "institutionalized" staff (Sibbach & Ball p 151, 1977)

23. Visits To Other Facilities

The committee recommends that its work be continued by site visits to other institutions where seclusion and restraints are employed. One important benefit of such visits would be the opportunity to study design and materials used in seclusion rooms, and the problems and advantages experienced with those designs. Another benefit would be that we would learn firsthand about the administrative policies of other hospitals and the effect these have on use of seclusion and restraint. Site visits to facilities in the United States are felt to be particularly valuable, because the legal climate there has encouraged a high regard for issues affecting patient safety and patients' rights, including right to treatment.

24. Revision Of Nursing Procedures And Medical Procedures

At the time of writing, the Nursing Policies and Procedures regarding the use of seclusion and restraints at Douglas Hospital are being revised. The same applies to the sections of the Bylaws and Regulations of the Council of Physicians, Dentists, and Pharmacists which apply to seclusion and restraints.

The committee recommends that this revision process be continued so as to incorporate those recommendations of this committee which receive the approval of the Hospital Administration. We suggest that the accumulated expertise of the committee members be utilized in a review of the revised policies, procedures, and regulations.

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APPENDIX 1. ADDITIONAL READINGS

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