Rethinking restraint: A review of alternatives to mechanical restraint

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Introduction

Seclusion with or without restraints and forced administration of medications are measures used, particularly in psychiatric environments, to manage patients with challenging behaviours. Even though intended to be methods of last resort for preventing self-harm or harm to others, close to one in four of all individuals admitted to mental health beds in Ontario, are expected to experience at least one type of control interventions during their hospitalization[1]. Needless to say that despite being controversial practices, control interventions are still widely used despite continuous documentation on both their real and potential negative repercussions. Apart from various physical and psychological consequences, patient experiencing restraints/seclusion are at risk of sudden death[2-4], increased length of stay[3] and are less likely to improve clinically than patients who experience more patient-staff interaction[4].

In 2013, United Nations' Special Rapporteur on Torture, Mr. Juan M. Méndez condemned the use of restraints (both physical and chemical) as well as seclusion in psychiatry[5] - positioning them as potential forms of torture in the treatment of vulnerable populations. Despite such a strong statement by the United Nations, there remains issues of applicability in various countries to the extent that practical guidelines for the implementation of "restraint-free" environment and implementation of alternatives for healthcare workers remains minimal.

The purpose of this project was to review current literature with respect to restraint use, and more specifically, concentrate on those countries that have been able to implement alternative to their use. As such, this review focusses on those countries where the use of control measures is discouraged (through both legislation and policy).

Method

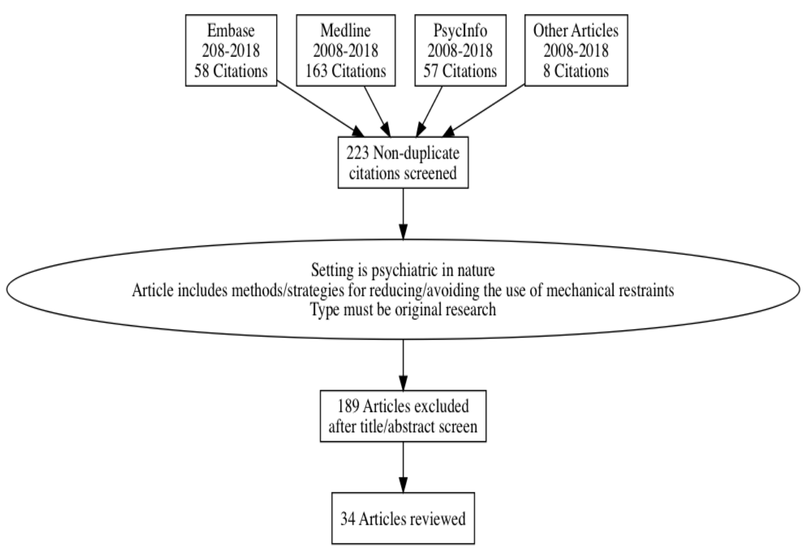
The literature search was conducted using Embase, Medline and PsychInfo resulting in 278 citations on the research subject*. Eight citations from exploratory searches were also included.

Inclusion criteria: Study setting is psychiatric in nature. Article must list or describe alternatives to use of mechanical restraints. Article is original research (i.e. not a commentary on other publications).

Exclusion criteria: Restraint is not initiated in preparation for routine or emergency medical procedures. Study setting is not a long-term care facility. Article is not a review of publications prior to 2008.

Included articles were screened by abstract to obtain a high-level overview of available techniques and alternatives in the management of violence and aggression in psychiatry. Articles of interest were additionally reviewed through full text to obtain a deeper understanding of individual interventions.

* Search strategy available upon request.



Results

The results of our analysis is separated in two sections: Documented *Alternatives to control measures* and *Reduction techniques in the management of violence and aggression.*

Alternatives to Control Measures

Alternatives to mechanical restraint are symptom-based approaches which replace mechanical restraints but rarely address underlying issues.

De-escalation techniques: Most situations can be verbally de-escalated if caught early and treated appropriately[6].

Seclusion: Whether in a dedicated seclusion room or behind the locked door of a hospital bedroom, seclusion remains a prevalent alternative to mechanical restraint. Variations include "Shielding"[7] and "Time out"[8].

Pharmacotherapy: The administration of pharmaceutical agents to calm or sedate agitated or aggressive patients is common practice[9].

Prophylactic administration is also used to prevent the onset of agitation.

Manual Restraint: These techniques involve the physical holding and immobilization of patients, often by nurses. This practice is more common in Europe and has roots in the criminal justice system[10].

Manual restraint, especially those positions in which a client is immobilized facing downwards, is considered a last resort measure, much like mechanical restraint, due to risk of injury to both client and caregiver[10].

Reduction Techniques

Resources and practices that are meant to decrease the need for mechanical restraint through preventing the situations precipitating restraint use.

Environmental Stimulation: Many studies report the need for "therapeutic environments"; environments that are comfortable and stimulating[11]. Much like sensory deprivation in seclusion has been shown to negatively influence mental health and wellbeing, sensory insufficiency counteracts many potential benefits of care. Two different approaches seem prevalent: 1) Specific sensory or comfort rooms; 2) Ward-wide comfort/sensory improvement

Patient crowding: Allowing sufficient space, including sufficient private/personal space, is associated with a decreased rate of mechanical restraint use[12].

Staff-patient Ratio: Sufficient staffing allows for more staff security and time. This allows staff to better avoid restraint use. However, budget issues and the unpredictability of some units may impose limits on staffing.

Overstaffing may also lead to the perception of overcrowding and actually increase the number of mechanical restraint incidents[(12)].

Staff culture, training and teamwork: How a unit responds to aggression or hostility depends as much on the staff as on the alternatives available[11,12]. What is expected? Accepted? Normal? Are coworkers available to help and assist? Do staff feel capable of and confident in using alternative interventions? Do staff have time to get to know patients or deescalate situations? Do staff know the consequences?

Mandatory review: Units in which a systematic follow-up evaluation is performed following each incident of mechanical restraint report fewer incidents of mechanical restraint[12].

Patient involvement: Allowing patients to be active participants in their care, relying on them as active proponents of their own health and allowing their input in the governance of the unit (e.g. in developing rules) may decrease incidents of aggression and agitation[(11)], leading to less restraint use.

Discussion and Conclusion

In conducting the analysis, we noticed that alternative practices that existed to manage violence and aggressions were culturally bound and varied depending on the country of origin for the study. When compared to Canadian practice, several countries have practices of interest. Only a few are presented here for discussion.

In general, European countries report lower uses of restraints than North American countries[13]. However, they have developed a multitude of methods of physical restraint; thus making restraint practices a much more "hands-on" approach and may lead to a greater hesitance to restrain patients.

Community focus: Italian mental health care focuses on prevention and community treatment, with mental health care centres spread throughout the country, open to anyone without need for a prescription or referral[14]. This proactive approach tends to result in fewer crisis situations for patients and thus decreases the strain of mental health issues on Italy's population. The community focus of their care also means that few patients are sent to the general hospitals, most being informally admitted to the care centers and then working through day-hospital programs[14]. This approach avoids, to some extent, the stigma and social isolation that North American users often experience during and because of hospital stays.

Human contact approach: Norway differs from many other countries in that the healthcare provider's presence is believed to be therapeutic and supported by legislature. This is achieved through the promotion of "shielding", a practice by which clients are moved to a quiet room and accompanied by a staff member[7] instead of seclusion. While this may, in some instances, be hazardous for team members, the practice is often viewed positively by patients and represents a more patient-informed culture of care. The initiation of shielding in North American facilities would likely be met with resistance but may encourage practitioners to listen more closely to client feedback and, by decreasing client trauma, decrease care times.

No restraint: Iceland has reportedly managed to develop a mental health care system which functions without coercive treatment making it the only country in the world which truly practices restraint-free psychiatry. However, no recent studies published in English addressing Icelandic psychiatric practices were found in our search. As such, this remains an interesting and important gap in current research literature.

While there are many methods by which a ward or organization can decrease the use of mechanical restraints, the methods used in countries where mechanical restraint is controlled by national legislature are not, for the most part, so different from those used in North America. It seem then that differences in the rates of mechanical restraint are more probably due to the culture and management of psychiatric wards, which either allow or discourage the seeking of alternatives and which either allow or proactively prevent situations in which various forms of restraints are considered.

References

[1] Canadian Institute for Health Information. Restraint use and other control interventions for mental health inpatients in Ontario. Canadian Institute for Health Information. 2011. P. 18.
[2] Farnham FN, Kennedy HG. Acute excited states and sudden death. British medical journal. 1997. (315):1107-8.
[3] Sallah D, Sashidharan S, Struthers JSBJ. Independent Inquiry into the Death of David Bennett set up under HSG(94)27. Norfolk, Suffolk and Cambridgeshire Strategic Health Authority - Department of Health; 2003. p. 62
[4] Weiss EM, Altimari D, Blint DF. Deadly restraints: a nationwide pattern of death. The Hartford Courant. 1998.
[5] Méndez JE. Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, Juan E. Méndey. Human Rights Council, Twenty-second session, Agenda item 3. United Nations; 2013.
[6] Richmond, J., Berlin, J., Fishkind, A., Holloman, G., Zeller, S., Wilson, M., . . . Ng, A. Verbal De-escalation of the Agitated Patient: Consensus Statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup. Western Journal of Emergency Medicine [Internet. 2010 [cited 2018 Feb 27]; *13*(6); 17-25. Available form: PubMed Central.
[7] Haugom, E., & Granerud, A. Shielding in Mental Health Hospitals. *SAGE Open*, 6(6), SAGE Open [Internet]. 2016 [cited 2018 Feb 27]; 6(6). Available from: SAGE Open.
[8] Bowers L, Van Der Merwe M, Nijman H, Hamilton B, Noorthorn E, Stewart D, et al. The Practice of Seclusion and Time-out on English Acute Psychiatric Wards: The City-128 Study. Archives of Psychiatric Nursing. [Internet]. 2010 [cited 2018 Feb 27]; 24(9):275-286. Available from: Scholars Portal.
[9] Knutzen M, Bjørkly S, Eidhammer G, Lorentzen S, Helen Mjøsund N, Friis S, et al. Mechanical and pharmacological restraints in acute psychiatric wards—Why and how are they used?. Psychiatry Research [serial on the Internet]. (2013, Aug 30), [cited February 27, 2018]; 209(6): 91-97. Available from: EBSCOhost.
[10] Paterson, B. Control and restraint: Changing thinking, practice and policy. Mental Health Practice [Internet]. 2009 [cited 2018 Feb 27]; 13((7): 16-20. Available from: EBSCOhost.
[11] Wilson C, Rouse L, Rae S, Kar R. Mental health inpatients' and staff members' suggestions for reducing physical restraint: A qualitative study. J Psychiatric Mental Health Nursing [Internet]. 2018 [cited 2018 Feb 27];00:1–13. Available from: PubMed.
[12] Bak J, Zoffmann V, Sestoft D, Almvik R, Brandt-Christensen M. Mechanical Restraint in Psychiatry: Preventive Factors in Theory and Practice. A Danish- Norwegian Association Study. Perspectives In Psychiatric Care [Internet]. 2014 [cited Feb 27, 2018]; 50(8): 155-166. Available from: EBSCOhost.
[13] Whittington, R., Bowers, L., Nolan, P., Simpson, A., & Neil, L. Approval Ratings of Inpatient Coercive Interventions in a National Sample of Mental Health Service Users and Staff in England. Psychiatric Services [Internet]. 2009 [cited Feb 27, 2018]. 60(6): 792-798. Available from: ProQuest
[14] Mezzina R. Community Mental Health Care in Trieste and Beyond: An "Open Door–No Restraint" System of Care for Recovery and Citizenship. The Journal of Nervous and Mental Disease [Internet]. 2014. [cited Mar 6, 2018]; 202(6); 440-445. Available from: Ovid

A complete list of included articles, along with pertinent search strategies, may be found at:
https://drive.google.com/drive/folders/1JDfA6hrxkUgRkVcrECLwfo5qy7HJChe5?usp=sharing

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