

ARTICLE

Current trends in restrictive interventions in psychiatry: a European perspective

David O'Donovan , Cailín Boland & Angela Carballedo

David O'Donovan, BSc, BM BS, MCPsychI, MRCPsych, MSc, is a senior registrar, currently working in general adult psychiatry, in the Cooleck Mental Health Services, Dublin, Ireland. **Cailín Boland**, MB BCh, MCPsychI, MRCPsych, is a senior registrar in general adult psychiatry with Swords Mental Health Services, Dublin, Ireland.

Angela Carballedo, LMC, FRCPsych, MD, is a consultant psychiatrist in general adult psychiatry with Cooleck Mental Health Services, Dublin, a senior clinical lecturer in psychiatry in the School of Medicine at Trinity College Dublin, and an honorary senior lecturer in psychiatry in the Royal College of Surgeons in Ireland, Dublin.

Correspondence David O'Donovan. Email: d.odonovan@swhg.ie

First received 24 Jan 2022
Final revision 5 Apr 2022
Accepted 22 May 2022

Copyright and usage

© The Author(s), 2022. Published by Cambridge University Press on behalf of the Royal College of Psychiatrists

SUMMARY

This article reviews current evidence on the use of coercive measures, including seclusion and restraint, in psychiatric in-patient settings in Europe. There is a particular focus on evidence regarding the use of mechanical restraint. The review seeks to describe when the use of restrictive interventions such as restraint may be necessary, to explore the use of restraint in certain specialist settings and to investigate current laws and European policies on seclusion and restraint. The current rates of restraint in European psychiatric settings are explored, with a discussion of the limitations of the evidence currently available. The article discusses various consequences of seclusion and restraint, potential alternatives to their use and strategies to minimise their use and harm to patients. The use of coercive measures from an international context is considered, to provide context.

LEARNING OBJECTIVES

After reading this article you will be able to:

- differentiate between the various types of coercive practice used in European psychiatric settings, including mechanical restraint, physical restraint, pharmacological restraint and seclusion, with an understanding of when these measures are required in in-patient settings
- recognise the variation in European law and policy on the use of coercive measures in psychiatric in-patient settings, with an appreciation of the high variability in the reported rates of use of these measures across Europe (and within specific countries)
- evaluate the various physical and psychological consequences of restraint or seclusion for both patients and staff, with an appreciation of the current trends in literature that suggest alternatives to these restrictive interventions.

KEYWORDS

Restraint; coercion; in-patient treatment; psychiatry and law; European.

mechanical and pharmacological), as there are associated human rights and safety issues attached to these concepts. The aim of this article is to explore use of these interventions European in-patient mental health settings. Where possible, the most up-to-date evidence on the use of coercive measures in European psychiatric settings is provided, so current practice can be analysed. Older research and seminal papers in the area are included to provide background and further perspective.

The use of seclusion and restraint in psychiatric in-patient settings

The use of coercive measures such as restraint and seclusion is common in psychiatric hospitals, with considerable variation in regulations and clinical practice between European countries (Steinert 2009). Restraint is not just confined to psychiatry. It is also used in other medical specialties (such as emergency medicine, geriatrics and orthopaedics) and in non-medical settings (e.g. by law enforcement). For various reasons, the use of restraint in psychiatry is more controversial than its use in other fields (Negroni 2017).

It is widely acknowledged that those with acute and severe mental illness (such as acute psychosis or mania) are at highest risk of being secluded and restrained. There are many adverse effects associated with restraint, from the patient's death to harmful physical and psychological effects on both patients and staff (Sailas 2000; Sashidharan 2019). The potential for misuse or overuse of physical interventions in corrupted cultures of care has emerged as a social policy problem in recent years. Seclusion and restraint continue to be employed widely in mental healthcare, despite concerns about their consequences and the dearth of controlled evaluations of their value (Stubbs 2009).

When is restraint or seclusion necessary?

The primary goal of actions such as restraint and seclusion in in-patient psychiatry is to maintain the safety of everyone in the treatment environment. Although there are many advocates for eliminating

There is growing interest in understanding the use of coercive measures in psychiatry, particularly interventions such as seclusion and restraint (physical,

such actions completely and numerous strategies implemented to reduce their use, failure to use restraint or seclusion appropriately in emergencies can also result in adverse outcomes for the patient or others in the environment (Sashidharan 2019). It is widely accepted that problems such as self-harm, aggression and violent behaviour are frequently observed on psychiatric wards (Lozzino 2015).

The most common reasons for needing to consider the use of restrictive physical interventions are physical assault, dangerous or threatening behaviours, extreme overactivity that is likely to lead to physical exhaustion, attempts to abscond and self-harm or risk of injury by accident (Department of Health 2015: para. 26.40). Coercive measures may be necessary if de-escalating techniques are not sufficient to handle such situations. A skilled, hands-on method of physical restraint involving trained healthcare professionals is used to prevent individuals from harming themselves, endangering others or seriously compromising the therapeutic environment by safely immobilising the individual concerned (National Institute for Health and Care Excellence 2015).

The current code of practice for the UK Mental Health Act 1983 states that physical restraint should be used as a last resort where there appears to be a real possibility of harm if it is withheld, that it should be applied with the minimum degree necessary and be reasonable and proportionate (Department of Health 2015). Practically, this means that the least restrictive intervention possible should be used with the minimum amount of force necessary to achieve the objective; any intervention beyond this is legally and ethically unjustifiable (Sethi 2018). There is broad international consensus on the use of least restrictive and least dangerous measures under such circumstances (Høyer 2012).

It must be remembered that physical restraint and seclusion are coercive and potentially traumatic procedures to be used in specific circumstances as a last resort, when other methods have failed. With this in mind, interventions such as restraint should always be used as a safety intervention, rather than a therapeutic measure (Allen 2004). From an international perspective, the American Medical Association Code of Medical Ethics, specifically states that the restraint of patients is sometimes warranted, but should never be for punitive reasons, for convenience or to offset staff shortages (American Medical Association 2016).

If restraint is considered, it is important that aspects such as the type and duration of restraint be taken into account to prevent its unnecessary use. Documentation also plays a key role. The need for restraint should be regularly reviewed and documented in the patient's

medical record, with any period of seclusion ending as soon as clinically possible (Zaami 2020). The recommendations of the UN General Assembly state that physical restraint should only be employed in accordance with the procedures of the given mental health facility and only to prevent immediate harm to the patient or others, with patient dignity being of utmost importance (United Nations General Assembly 1991).

Prevention and Management of Violence and Aggression (PMVA; formerly Restrictive Physical Intervention) is a national guidance relating to the de-escalation, management and prevention of violence and aggression, including restrictive physical interventions for people with learning disabilities and autistic spectrum disorder in health, education and social care settings. The policy provides guidance and summarises the actions that staff are required to take in order to maintain a safe working area and their own and others' safety, and what to do if they find themselves in a potentially violent situation. This policy applies across all NHS Trust care groups and services (National Health Service Sussex Partnership 2020).

Types of restrictive intervention used in in-patient psychiatry

When a patient poses a severe threat that cannot be controlled by means of verbal intervention/de-escalation or the voluntary acceptance of clinically indicated medications, the use of emergency interventions such as pharmacological, physical and mechanical restraint or seclusion (Box 1) may be necessary.

Physical or 'manual' restraint has been defined as any manual method, physical or mechanical device, material or equipment attached or adjacent to a person's body that restricts their freedom of movement or normal access to their body, which commonly involves staff restricting and holding a patient by hand (Negroni 2017). The generally accepted definition of mechanical restraint refers to the use of devices (such as belts or handcuffs) or bodily garments for the purpose of preventing or

BOX 1 Restrictive interventions used in in-patient psychiatry

- Physical or 'manual' restraint commonly involves 'hands-on' restriction of movement
- Mechanical restraint involves items such as belts, handcuffs or garments preventing or limiting bodily movement
- Seclusion is the confinement of a person alone in a room
- Pharmacological restraint involves the administration of medications such as antipsychotics and benzodiazepines against the person's will (by coercion or threat)

limiting a patient's free movement of their body (Mental Health Commission of Ireland 2009).

The definition of seclusion that is generally used in psychiatry settings and in the law is the placing or leaving of a person alone in any room, at any time of the day or night, with the exit door locked or fastened or held in such a way as to prevent the person from leaving (Mental Health Commission of Ireland 2009).

Pharmacological restraint usually means the administration of medication against the patient's will, through coercion or through pressure or insistence by staff (Raboch 2010). The use of pharmacological restraint in psychiatric in-patient units is widespread globally and can involve the concurrent use of physical restraint. Generally, typical or atypical antipsychotics and benzodiazepines are used for this purpose, even though the scientific evidence regarding their efficacy for the treatment of acute aggression is limited (Rocca 2006). Agents such as intramuscular midazolam have been found to be effective in providing sedation in acute agitation, but because of increased oxygen saturation problems, its use is restricted to the emergency departments of general hospitals (Bak 2019).

Seclusion is used worldwide, but concerns remain regarding its appropriateness and the lack of alternatives, with patient perspectives highlighting subsequent difficulties in the patient–professional relationship in some instances (Allikmets 2020). The consequences of these practices will be explored in further detail later in this article.

The usual sequence of events is that when techniques such as de-escalation, enhanced observations, disengagement and oral medication do not resolve the situation, tertiary strategies (restrictive physical interventions) can be used in accordance with civil and criminal law, with all staff being accountable for any force they use (National Health Service Sussex Partnership 2020). If physical restraint is not sufficient, it may be combined with rapid tranquillisation (with benzodiazepines or antipsychotics) or with seclusion measures and then mechanical restraint (although mechanical restraint is not widely used in the UK and is not authorised in NHS PMVA guidelines: (National Health Service Sussex Partnership 2020).

Mechanical restraint in European psychiatric in-patient settings

A major difference between physical restraint and mechanical restraint lies in its duration: physical restraint is intrinsically limited to a few minutes, whereas mechanical restraint may last for several hours (Negroni 2017). Mechanical restraint in psychiatry is not completely independent of physical or

'manual' restraint, in that physical restraint is normally employed in order to implement mechanical restraint (Negroni 2017). The use of mechanical restraint is widespread across Europe and internationally, but it is not permitted for general use in countries such as the UK. There is no clear international consensus on specific indications for its use (Bak 2012a).

In a large study on the use of mechanical restraint in acute psychiatric wards in Italy over 7 years, it was found that it was primarily used as a safety procedure to manage the aggressive behaviour of male patients. Risk factors associated with increased use of mechanical restraint included neurocognitive disorders, organic comorbidities, being detained under mental health legislation and a long duration of admission (Di Lorenzo 2014).

Forensic psychiatry

In forensic psychiatry settings in the UK and elsewhere in Europe, mechanical restraint such as the use of handcuffs is still widespread (Flammer 2020). Many countries have introduced legislation aimed at reducing or eliminating such interventions, with evidence suggesting that these coercive measures might have paradoxical effects in provoking further violent and aggressive behaviours (Hui 2016).

In a large study of 1698 hospital admissions of individuals with severe mental illness and comorbid substance misuse over a 6-year period in Denmark, the use of mechanical restraint ranged between 1 and 4%. A diagnosis of schizophrenia, the use of stimulant substances and male gender were associated with an increased risk of being subjected to mechanical restraint (Lykke 2019).

Refeeding in liaison psychiatry and CAMHS

One of the more controversial areas of mechanical restraint is its use in refeeding in people with anorexia nervosa in liaison psychiatry and child and adolescent mental health services (CAMHS). In the UK, nasogastric feeding with the assistance of restraint can be administered when a patient refuses to eat the minimum amount of calories to stay alive. The UK Mental Health Act 1983 specifies that feeding is recognised as a treatment for anorexia nervosa and can be done against the will of the patient with the use of restraint, as a life-saving measure (Department of Health 2015).

Laws and European policy on restraint

In some countries, the law permits the use of mechanical restraint in psychiatric in-patient units, whereas in other countries, such as the UK, only seclusion and physical restraint are legal (except in

exceptional circumstances in special hospital environments) (Bak 2012a). Reliance on seclusion, restraint and psychotropic medication for behaviour management has been the primary focus of human rights litigation by the US Department of Justice against state psychiatric hospitals in the past (Donat 2005).

In Europe, regulations on the use of restraint vary considerably from country to country (Mayoral 2005). Variability in clinical practice, coupled with differences in international, European, state, and local laws and regulations, makes it difficult to develop guidelines for clinical practice which would standardise and regulate the use of these measures (Fernández-Costa 2020). This absence of European-wide regulation on coercive measures has been highlighted in a multicentre study carried out in 12 European countries (Kalisova 2014).

According to German law, it is mandatory that patients undergoing compulsory admission and/or restraint have their case legally reviewed and have a personal hearing with an independent judge. Mental health professionals are not allowed to proceed with these coercive measures without the judge's approval (Thome 2020).

Even though mechanical restraint is used within the law in many European countries, thorough ethical consideration of the patient's right to self-determination and human rights should be undertaken in determining the extent to which this intervention should be used. The European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment has stated that applying instruments of physical restraint to psychiatric patients for days cannot have any medical justification and amounts to ill treatment (Bak 2012a).

Article 3 of the European Convention on Human Rights is the only absolute Convention right and it states that 'No one shall be subjected to torture or to inhuman or degrading treatment or punishment'. This must be considered in the clinical setting in complaints arising from conditions of detention, seclusion, control and restraint (Curtice 2010). Judgments from the European Court of Human Rights have noted that the use of handcuffs or other instruments of restraint does not normally give rise to an infringement of Article 3 if the measure has been imposed in connection with lawful detention and does not entail the use of force or public exposure exceeding what is reasonably considered necessary (Curtice 2010).

In Ireland, the Mental Health Act 2001 states that seclusion or bodily restraint by mechanical means can be used for the purposes of treatment or to prevent the patient from injuring themselves or others. However, it must be carried out in accordance with certain rules, such as ensuring the patient's

dignity and safety, and only when all alternative options have been tried and proven unsuccessful (Mental Health Commission of Ireland 2009).

Frequency of use of coercive measures in European countries

Globally, both mechanical restraint and seclusion are forbidden in some countries for ethical reasons. Available data suggest major differences in the percentage of patients subject to coercive interventions and significant differences in their frequency and duration between countries, with highest rates in Poland, Greece and Italy (Steinert 2009; Kalisova 2014). The difficulties experienced by researchers comparing countries are due to lack of available data, variability in reference sampling within countries and non-uniform terminology (Mayoral 2005). For example, terms include 'physical psychological restraint', where a patient is threatened with mechanical restraint, unless he or she agrees to undergo drug therapy.

There are means of restriction used in psychiatric in-patient units that differ from physical restraint, pharmacological restraint or seclusion, but nonetheless affect the patient's personal freedom; these must be classified as restraint, although they are less invasive than physical or pharmacological restraint (Negroni 2017). These include 'environmental restraint', i.e. restricting a person's free access to all parts of their environment (for example, the locked doors of a psychiatric ward), and 'psychological restraint', such as the withholding of privileges and participation in activities. Owing to this heterogeneity, there is no uniform and internationally accepted terminology that includes all such restrictive interventions.

Individual studies and broader reviews that have attempted to determine the overall rates and average duration of restraint vary enormously in their findings (Beghi 2013). A review of 45 empirical studies of manual restraint (defined as physically holding the patient to prevent or restrict movement) in adult psychiatric in-patient units (mostly from the UK) found that on average up to five occurrences per month might be expected on an average 20-bed ward. Restraint was found to last 10 min on average and tended to involve younger male patients, who were detained under mental health legislation (Stewart 2009).

In a 2010 study of coercive practices during involuntary hospital admissions in ten European countries, forced medication was seen to be the most common coercive intervention (56%), followed by restraint (36%) and seclusion (8%), with the rate of mechanical restraint exceeding the average figure

in centres in Germany and Greece (Raboch 2010). A recent study of coercive measures in forensic psychiatric hospitals in Germany noted that one-quarter of patients are affected by such measures, with seclusion (21.2%) being used much more often than mechanical restraint (3.2%). This contrasts with general psychiatric hospitals in Germany, where restraint is more common than seclusion (Reinwald 2022).

Even within specific countries (such as the UK), there can be significant variation in the rates of restraint that are reported, with confounding issues such as heterogeneity of service profiles, organisational reporting bias and confusion about definitions (Sethi 2018). In Denmark, there is up to a ten-fold difference in the rates of restraint reported by various psychiatric hospitals in the country (Bak 2012b).

In Iceland, there is one psychiatric hospital serving the country's 300 000 inhabitants, and reports by local experts suggest that seclusion and mechanical restraint were abolished some 30 years ago and have not been used since (Snorrason 2007). Traditionally, Iceland has used less coercion within its mental health system compared with other northern European countries, with low rates of involuntary admission (Matthiasson 2017).

An 11-year comparison of physical restraint and seclusion data across Ireland (from 2008 to 2019) showed a year-on-year increase in the number of physical restraint episodes (with a slight decrease in 2019), with steady general increase in the number of residents experiencing physical restraint. There was a general decrease in the number of seclusion episodes recorded over this time (Mental Health Commission of Ireland 2020).

In Italy, following a national recommendation for the prevention of all mechanical restraint measures in 2010, there was a significant reduction in such practices, for example a 62% reduction in the Emilia-Romagna region over the following 5 years, from 2011 to 2016 (Regione Piemonte 2007).

Restraint measures have been shown to be more prevalent in psychiatric hospital care in certain countries, such as India, than they are in Europe. One study highlighted that restraint was used on 66.5% of a sample of 200 patients in India (20% were subjected to physical restraint, 58% to chemical restraint, 18% to seclusion and 32% to involuntary medication) (Gowda 2018).

Consequences of restrictive interventions

There is a paucity of evidence for the benefits of coercive practices in terms of their efficiency, efficacy, frequency and effectiveness (Chieze 2019). As mentioned above, the risks of seclusion and restraint

range from adverse physical and psychological effects on patients and staff to the death of the patient. There are estimates of the incidence of post-traumatic stress disorder after such occurrences ranging from 25 to 47% (Sailas 2000; Chieze 2019).

Seclusion and restraint may cause re-experiencing of childhood trauma (or of previous traumatic experiences of these coercive practices). This is particularly relevant to psychiatric in-patients, given the high levels of physical and sexual abuse reported in this population. The subjective perception of such coercive events has a high interindividual variability, and can be positive (with feelings of safety or help), but they are most commonly associated with negative emotions, particularly feelings of punishment and distress (Chieze 2019).

A systematic review that included a qualitative analysis of patients' perspectives on being physically restrained identified themes including negative psychological impact, re-traumatisation, perceptions of unethical practices and broken spirit (Strout 2010). Compared with other coercive measures (notably, forced medication), seclusion seems to be better accepted, whereas restraint seems to be less well tolerated, possibly because of the perception of seclusion as being 'non-invasive' (Chieze 2019). Another systematic review found that patients tended to consider seclusion to be less intrusive and more acceptable than mechanical restraint, while mechanical restraint was associated with being preferable for patients with regard to the duration of coercion (Gleerup 2019).

It is generally acknowledged that over the past two decades there has been a reduction in the prevalence of restraint episodes globally due to evolving regulations and education or training, but there is still concern about the morbidity and mortality related to the practice (Rakhmatullina 2013). The most frequently reported events of physical harm secondary to coercive measures found in the literature are patient death, alongside cardiac arrest, pulmonary embolism, venous thromboembolism and physical injuries. However, it is acknowledged that this is an under-researched area (Kersting 2019).

The perspectives of nursing staff, the risk of injury to staff from physical aggression, the effect on ward culture and staff burnout are important considerations in assessing the consequences of coercive measures and in considering implementation of strategies to reduce their use (Cochrane 2018).

Measures to reduce the use of restrictive interventions

Gaining insight into theories on causes of violence and aggression and understanding factors that

may pre-empt or exacerbate violent episodes can be helpful in beginning to reduce use of coercive measures (Ewington 2016). A Finnish study exploring the experiences and suggestions of psychiatric in-patients reported that providing patients with meaningful activities, making patient–staff agreements, empathetic patient–staff interaction and adequate planning reduced the need for restrictions and offered alternatives to seclusion and restraint (Kontio 2012).

De-escalation techniques

De-escalation is an intervention that uses emotion regulation or self-management techniques to avert aggressive behaviour. Its aim is to abort the assault cycle in the ‘escalation phase’ by using verbal and non-verbal communication skills. Methods generally involve trying to establish a positive therapeutic alliance with the patient, along with their active collaboration in the treatment process (Du 2017).

Best practice guidelines from a US de-escalation workgroup for use in emergency psychiatry replace traditional methods of treating agitated patients with a much greater emphasis on a non-coercive response (Richmond 2012). This involves a three-step approach of verbal engagement, establishing a collaborative relationship and finally verbal de-escalation to calm the patient’s agitated state. These guidelines include recommendations on staff preparedness, environmental modification and training in the ten domains of de-escalation, which are based on Fishkind’s ‘Ten Commandments for Safety’ (Box 2).

There have been few randomised controlled trials on the efficacy of any particular de-escalation approach, particularly for those with psychotic disorders or intellectual disability, areas where restraint techniques are most frequently used (Du

2017). An alternative may be to use well-conducted prospective cohort studies, which may be more feasible (Chieze 2019).

Patients with predisposing factors for violence do not always respond positively to de-escalation attempts and the violence faced by mental health professionals, particularly in forensic psychiatry, is sometimes instantaneous, extreme and intense; it is therefore unrealistic to believe that coercive measures are totally unnecessary or uncalled for (Ewington 2016).

The patient’s perspective and different patient populations

When coercive measures such as restraint are used, greater attention should be paid to how patients perceive their use (before, during and after such incidents) in order to improve evidence-based clinical practice (Tingleff 2017). Increased sensitivity to patients’ views of the situation at each point in the process, with professionals articulating concern and empathy towards the patient, alongside improved communication skills before, during and after a coercive incident is desirable from the patient perspective.

Following the introduction of interventions such as de-escalation training and joint crisis plans, the use of coercive measures, including seclusion and restraint, with patients with organic disorders was reduced by 50% overall in routine care in 32 hospitals in Germany between 2004 and 2019 (Steinert 2020). However, no substantial reduction occurred in those with diagnoses outside the ICD-10 F0 (organic) disorders category (i.e. in routine clinical care in general adult psychiatry). It was unclear whether this was related to insufficient implementation of existing recommendations, an increase in the proportion of patients admitted with severe behavioural problems or whether coercion was already at such a low level in this population (7% at baseline, compared with 28.9% in patients with organic disorders) that further reduction was difficult to achieve.

It is worth noting that interventions in general adult psychiatry are more focused on respecting the patients’ autonomy, de-escalating communication and assessment of risk of violence, whereas in those with organic disorders such as delirium or dementia, interventions are more focused elsewhere. The use of technical devices to prevent falls or mitigate their consequences (such as low-low beds, hip protectors, bed or chair pressure sensors and gait-stabilising devices), along with raising awareness and specific training among physicians and nurses, has successfully changed clinical practice, with a reduction in the use of coercive measures in this patient population (Steinert 2020).

BOX 2 The ten domains of de-escalation

- Respect personal space
- Do not be provocative
- Establish verbal contact
- Be concise
- Identify wants and feelings
- Listen closely to what the patient is saying
- Agree to agree or disagree
- Set clear limits
- Offer choices and optimism
- Debrief the patient and staff

(Richmond 2012)

Staff training and organisational-level strategies

In 2017, the Mental Health Commission in Ireland set mandatory training for all healthcare professionals in in-patient psychiatric facilities ('approved centres') in the prevention, de-escalation and management of violence and aggression, with the expectation that increased training levels will contribute to the reduction in the use of restrictive measures in the coming years (Mental Health Commission of Ireland 2020).

At the organisational level, strategies to reduce coercion include adequate documentation of such measures, regular evaluation of coercive measures by hospital management, reducing ward sizes, improving staffing ratios, dovetailing out-patient and in-patient services, therapeutic and leisure-time activities and having an open-door policy, with patients having access to temporary leave (Hirsh 2019). Other strategies that have been proven to be effective include staff training in handling of aggression and violence, appropriate de-escalation techniques, risk assessment using the Brøset Violence Checklist and individual crisis plans.

An improvement in the therapeutic environment is also desirable, as the ward environment and architecture can have an effect on incidence of aggressive behaviour (Ulrich 2018). Stress-reducing design elements can include features to reduce crowding and environmental stress, offering stress-reducing positive distractions and making areas more suitable for observation (which makes it easier for staff to anticipate and prevent aggressive behaviour). Crowding stress can be reduced by designing the environment to achieve low social density (essentially, the number of persons per room, which can be affected by patients' ability to move between different rooms); this might be achieved by providing single bedrooms with private bathrooms and communal areas with movable seating and ample space allowing patients to regulate their interactions with others.

Environmental stress can be reduced through noise-reducing design and allowing patients a measure of control in their rooms (e.g. to personalise the room or open the window). Positive distractions can include an accessible garden, windows with views on to nature, paintings or posters of nature and exposure to daylight. Communal spaces and bedroom doors should be observable from a central area. Controllable lighting, a comfortable ward environment, sensory rooms, aromatherapy oils and music may also make an impact (Ulrich 2018).

Psychotherapeutic treatment programmes can also be efficacious in reducing the use of coercive measures in longer-term treatment settings. Complex treatment programmes such as the Six Core Strategies[®], the Safewards concept (Safewards 2021) and the Engagement Model (Box 3) have been shown to be

BOX 3 Programmes to reduce use of coercive measures in long-term psychiatric in-patient facilities

The Six Core Strategies[®]

A curriculum developed in the USA with funding from the National Association of State Mental Health Program Directors (NASMHPD). Its aim is to reduce the use of seclusion and restraint by:

- leadership towards organisational change
- the use of data to inform practices
- workforce development
- the use of seclusion and restraint prevention tools
- the full inclusion of patients, families and other stakeholders
- including a rigorous debriefing after coercive episodes

Safewards

A UK programme whose interventions include:

- clear mutual expectations
- soft, positive language
- de-escalation (talking down, calming methods)
- patients and staff getting to know each other
- fostering the social community with 'mutual help meetings'
- reassurance and mitigation of bad news
- discharge messages (patients' positive comments about their in-patient stay and advice for future patients)

The Engagement Model

A US programme involving:

- strengthening the therapeutic community
- improving ward atmosphere
- improving therapeutic and leisure time services

(Hirsh 2019; Safewards 2021)

effective in reducing the use of coercive measures and may be useful strategies to employ (Hirsh 2019).

Conclusions

The use of any form of coercive measure (seclusion, physical restraint, mechanical restraint or pharmacological restraint) is a controversial area in all fields, but is especially emotive and sensitive in psychiatry, where human rights issues in relation to use of force and ethical concerns regarding patient vulnerability are most profound. The use of mechanical restraint in psychiatric in-patient settings is particularly difficult for staff and patients alike. Mechanical restraint is still widespread in psychiatric in-patient settings in European countries, with exceptions such as non-specialised settings in the UK and reports of the abolishment of seclusion

MCQ answers

1 c 2 e 3 d 4 c 5 e

and restraint many years ago in Iceland.

There are no uniform laws or regulations regarding coercive practices across European states. Therefore it is difficult to develop guidelines for clinical practice that would standardise and regulate the use of these measures in in-patient mental health settings. It is also challenging to calculate the rate of these coercive measures across European settings owing to variability in reference sampling, non-uniform terminology, inconsistent reporting, the heterogeneity of service profiles, organisational reporting bias and lack of agreed definitions. Even within specific countries, there can be significant variation in the rates of coercive measures reported by the various psychiatric hospitals.

The risks of restraint include both physical and psychological consequences for patients and staff. This is an important consideration in a vulnerable patient population on an in-patient psychiatric unit. Interestingly, seclusion appears to be more accepted than restraint, perhaps owing to the perception of it being non-invasive.

While acknowledging that there are high-risk situations in which coercive measures such as restraint are necessary and appropriate, there is a need to reduce its use to the minimum necessary to ensure staff and patient safety from violence and aggression. Organisational-level changes, staff training and complex treatment programmes for in-patient units may reduce the use of coercive measures. When indicated, restraint should follow best practice guidelines for de-escalation before, during and after it is used.

Author contributions

All three authors contributed to the preparation and writing of this manuscript. A.C. was the supervisor for the project.

Funding

This research received no specific grant from any funding agency, commercial or not-for-profit sectors

Declarations of interest

None.

References

Allen MH, Currier GW (2004) Use of restraints and pharmacotherapy in academic psychiatric emergency services. *General Hospital Psychiatry*, **26**: 42–49.

Allikmets S, Marshall C, Murad O, et al (2020) Seclusion: a patient perspective. *Issues in Mental Health Nursing*, **41**: 723–735.

American Medical Association (2016) *Opinions on Patient–Physician Relationships: AMA Code of Medical Ethics*. American Medical Association.

Bak J, Brandt-Christensen M, Sestoft DM, et al (2012a) Mechanical restraint – which interventions prevent episodes of mechanical restraint? A systematic review. *Perspectives in Psychiatric Care*, **48**: 83–94.

Bak J, Aggernaes H (2012b) Coercion within Danish psychiatry compared with 10 other European countries. *Nordic Journal of Psychiatry*, **66**: 297–302.

Bak M, Weltens I, Bervoets C, et al (2019) The pharmacological management of agitated and aggressive behaviour: a systematic review and meta-analysis. *European Psychiatry*, **57**: 78–100.

Beghi M, Peroni F, Gabola P, et al (2013) Prevalence and risk factors for the use of restraint in psychiatry: a systematic review. *Rivista di Psichiatria*, **48**: 10–22.

Chieze M, Hurst S, Kaiser S, et al (2019) Effects of seclusion and restraint in adult psychiatry: a systematic review. *Frontiers in Psychiatry*, **10**: 491.

Cochrane EMC, O’Kane D (2018) Fear and blame in mental health nurses’ accounts of restrictive practices: implications for the elimination of seclusion and restraint. *International Journal of Mental Health Nursing*, **27**: 1511–21.

Curcio M (2010) The European Convention on Human Rights: an update on Article 3 case law. *Advances in Psychiatric Treatment*, **16**: 199–206.

Department of Health (2015) *Mental Health Act 1983: Code of Practice*. TSO (The Stationery Office) (<https://www.gov.uk/government/publications/code-of-practice-mental-health-act-1983>).

Di Lorenzo R, Miani F, Formicola V, et al (2014) Clinical and organizational factors related to the reduction of mechanical restraint application in an acute ward: an 8-year retrospective analysis. *Clinical Practice and Epidemiology in Mental Health*, **10**: 94–102.

Donat DC (2005) Encouraging alternatives to seclusion, restraint, and reliance on PRN drugs in a public psychiatric hospital. *Psychiatric Services*, **56**: 1105–8.

Du M, Wang X, Yin S, et al (2017) De-escalation techniques for psychosis-induced aggression or agitation. *Cochrane Database of Systematic Reviews*, **4**: CD009922.

Ewington J (2016) Best practices for reducing the use of coercive measures. In *The Use of Coercive Measures in Forensic Psychiatric Care* (eds B Völlm, N Nedopil): 285–314. Springer.

Fernández-Costa D, Gómez-Salgado J, Fagundo-Rivera J, et al (2020) Alternatives to the use of mechanical restraints in the management of agitation or aggressions of psychiatric patients: a scoping review. *Journal of Clinical Medicine*, **9**: 2791.

Flammer E, Frank U, Steinert T (2020) Freedom restrictive coercive measures in forensic psychiatry. *Frontiers in Psychiatry*, **11**: 146.

Gleerup CS, Østergaard SD, Hjuler RS (2019) Seclusion versus mechanical restraint in psychiatry – a systematic review. *Acta Neuropsychiatrica*, **31**: 237–45.

Gowda G, Lepping P, Noorthoorn E, et al (2018) Restraint prevalence and perceived coercion among psychiatric inpatients from South India: a prospective study. *Asian Journal of Psychiatry*, **36**: 10–6.

Hirsh S, Steinert T (2019) Measures to avoid coercion in psychiatry and their efficacy. *Deutsches Ärzteblatt International*, **116**: 336–43.

Hoyer G (2012) *The Use of Restraints in Psychiatric Institutions* (CPT (2012) 28). European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (<https://rm.coe.int/09000016806982eb>).

Hui A, Middleton H, Vollm B (2016) The uses of coercive measures in forensic psychiatry: a literature review. In *The Use of Coercive Measures in Forensic Psychiatric Care* (eds B Völlm, N Nedopil): 151–84. Springer.

Kalishova L, Raboch J, Nawka A, et al (2014) Do patient and ward-related characteristics influence the use of coercive measures? Results from the EUNOMIA international study. *Social Psychiatry and Psychiatric Epidemiology*, **49**: 1619–29.

Kersting XAK, Hirsch S, Steinert T (2019) Physical harm and death in the context of coercive measures in psychiatric patients: a systematic review. *Frontiers in Psychiatry*, **10**: 400.

Kontio R, Joffe G, Putkonen H, et al (2012) Seclusion and restraint in psychiatry: patients’ experiences and practical suggestions on how to improve practices and use alternatives. *Perspectives in Psychiatric Care*, **48**, 16–24.

Lozzino L, Ferrari C, Large M, et al (2015) Prevalence and risk factors of violence by psychiatric acute inpatients: a systematic review and meta-analysis. *PLoS One*, **10**: e0128536.

Lykke J, Hjorthøj C, Thomsen C, et al (2019) Prevalence, predictors, and patterns of mechanical restraint use for inpatients with dual diagnosis. *Perspectives in Psychiatric Care*, **56**: 20–7.

- Matthiasson P (2017) Less care under constraint: the Icelandic experience. *L'information Psychiatrique*, **93**: 558–62.
- Mayoral F, Torres F (2005) Use of coercive measures in psychiatry. *Actas Espanolas de Psiquiatria*, **33**, 331–8.
- Mental Health Commission of Ireland (2009) *Rules Governing the Use of Seclusion and Mechanical Means of Bodily Restraint: Issued Pursuant to Section 69(2) of the Mental Health Act, 2001*. Mental Health Commission/Coimisiún Meabhair-Shláinte.
- Mental Health Commission of Ireland (2020) *The Use of Restrictive Practices in Approved Centres: Seclusion, Mechanical Restraint and Physical Restraint*. Mental Health Commission/Coimisiún Meabhair-Shláinte (<https://www.mhcirl.ie/publications/use-restrictive-practices-approved-centres-activity-report-2019>).
- National Health Service Sussex Partnership (2020) *PMVA. Prevention and Management of Violence and Aggression*. NHS (<https://policies.sussex-partnership.nhs.uk/clinical-3/423-violence-and-aggression-pmva-the-prevention-and-management-of-policy>).
- National Institute for Health and Care Excellence (2015) *Violence and Aggression: Short-Term Management in Mental Health, Health and Community Settings (NICE Guideline NG10)*. NICE.
- Negrini A (2017) On the concept of restraint in psychiatry. *European Journal of Psychiatry*, **31**: 99–104.
- Raboch J, Kališová L, Nawka A, et al (2010) Use of coercive measures during involuntary hospitalization: findings from ten European countries. *Psychiatric Services*, **61**: 1012–7.
- Rakhmatullina M, Taub A, Jacob T (2013) Morbidity and mortality associated with the utilization of restraints. *Psychiatric Quarterly*, **84**: 499–512.
- Regione Piemonte (2007) *Commissione Parlamentare per la tutela e la Promozione dei diritti umani - Audizione nell'ambito dell'indagine Conoscitiva sui livelli e i meccanismi di tutela dei diritti umani, vigenti in Italia e nella realtà Internazionale, sulla Contenzione Meccanica*. Regione Piemonte (<http://www.quotidianosanita.it/allegati/allegato2867110.pdf>).
- Reinwald JR, Horten B, Dressin H, et al (2022) Structural features and use of coercive measures in forensic psychiatry throughout Germany. *Psychiatrische Praxis*, **49**: 22–8.
- Richmond JS, Berlin JS, Fishkind AB, et al (2012) 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*, **13**: 17–25.
- Rocca P, Villari V, Bogetto F (2006) Managing the aggressive and violent patient in the psychiatric emergency. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, **30**: 586–98.
- Safewards (2021) *Resources for Safewards Implementation*. Safewards (www.safewards.net).
- Sailas E, Fenton M (2000) Seclusion and restraint for people with serious mental illness. *Cochrane Database of Systematic Reviews*, **2**: CD001163.
- Sashidharan SP, Mezzina R, Puras D (2019) Reducing coercion in mental healthcare. *Epidemiology and Psychiatric Sciences*, **28**: 605–12.
- Sethi F, Parkes J, Baskind E, et al (2018) Restraint in mental health settings: is it time to declare a position? *British Journal of Psychiatry*, **212**: 137–41.
- Snorrason J (2007) Observations in acute psychiatric units in Landspítali University Hospital in Reykjavik. In *Proceedings of the 5th European Congress on Violence in Clinical Psychiatry* (eds P Callaghan, H Nijman H, T Palmstierna, et al): 277. Kavanah.
- Steinert T, Lepping P, Bernhardschrüter R, et al (2009) Incidence of seclusion and restraint in psychiatric hospitals: a literature review and survey of international trends. *Social Psychiatry and Psychiatric Epidemiology*, **45**: 889–97.
- Steinert T, Hirsch S, Goebel R, et al (2020) Reduction of coercive measures under routine conditions in psychiatric hospitals 2004–2019: strong effects in old age psychiatry, much less in general psychiatry. *European Psychiatry*, **63**(1): e102.
- Stewart D, Bowers L, Simpson A, et al (2009) Manual restraint of adult psychiatric inpatients: a literature review. *Journal of Psychiatric and Mental Health Nursing*, **16**: 749–57.
- Strout TD (2010) Perspectives on the experience of being physically restrained: an integrative review of the qualitative literature. *International Journal of Mental Health Nursing*, **19**: 416–27.
- Stubbs, B, Leadbetter, D, Paterson, B, et al (2009) Physical intervention: a review of the literature on its use, staff and patient views, and the impact of training. *Journal of Psychiatric and Mental Health Nursing*, **16**: 99–105.
- Thome, J, Coogan, AN, Simon, F, et al (2020) The impact of the COVID-19 outbreak on the medico-legal and human rights of psychiatric patients. *European Psychiatry*, **63**: e50.
- Tingleff EB, Bradley SK, Gildberg FA, et al (2017) “Treat me with respect”: a systematic review and thematic analysis of psychiatric patients’ reported perceptions of the situations associated with the process of coercion. *Journal of Psychiatric and Mental Health Nursing*, **24**: 681–98.
- Ulrich RS, Bogren L, Gardiner SK, et al (2018) Psychiatric ward design can reduce aggressive behaviour. *Journal of Environmental Psychology*, **57**: 53–66.
- United Nations General Assembly (1991) The protection of persons with mental illness and the improvement of mental health care. In *General Assembly Distr. General 75th Plenary Meeting, para 46/119*. UN (<https://digitallibrary.un.org/record/135851>).
- Zaami S, Rinaldi R, Bersani G, et al (2020) Restraints and seclusion in psychiatry: striking a balance between protection and coercion. critical overview of international regulations and rulings. *Rivista di Psichiatria*, **55**: 16–23.

MCQs

Select the single best option for each question stem.

1 It has been reported that restraint and seclusion in psychiatric in-patient settings ceased 30 years ago in:

- a France
- b Italy
- c Iceland
- d Sweden
- e Germany.

2 Risk factors shown in studies to increase the risk of mechanical restraint in psychiatric in-patient settings include:

- a male gender
- b a diagnosis of schizophrenia

- c being detained under mental health legislation
- d substance use
- e all of the above.

3 Which of the following is not a commonly recognised physical consequence of coercive measures such as seclusion and restraint:

- a cardiac arrest
- b pulmonary embolism
- c venous thromboembolism
- d renal injury
- e patient death.

4 In a 2010 study of coercive practices during involuntary hospital admissions in ten European countries, the most common method of coercion was:

- a mechanical restraint
- b physical restraint
- c forced medication
- d seclusion
- e none of the above.

5 Strategies to reduce patient coercion at an organisational level include:

- a regular evaluation of coercive measures by hospital management
- b improving staffing ratios
- c reducing ward sizes
- d therapeutic and leisure time services
- e all of the above.