Preventing Mechanical Restraints in Danish Psychiatry

**Title:** Do Politicians Have the Power and Ability to Order a Halving of Psychiatric Patients Experiencing Mechanical Restraints?

**Paper/Oral presentation**

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**Key words:** mental health, psychiatry, coercion, mechanical restraint, prevention.

**Background**

Mechanical restraint (MR) is a major infringement on the psychiatric patient’s autonomy. Although MR is legal in Denmark, the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment concluded, in three reports from 2002, 2008, and 2014 that no medical justification exists for applying instruments of physical restraint to psychiatric patients for days and that doing so amounts to ill treatment (1-3). The Danish parliament changed, during these years, the legislation several times, with no real effect on the numbers of MR episodes.

In 2012, The Ethical Council in Denmark made a statement on the use of coercion in psychiatry (4). The council stated that the use of coercion always constitutes a violation, and large potential for prevention still exists, regarding:

- Focus on prevention
- A culture of equality
- Relatives as a resource
- Coordinated and smooth transfers between departments and sectors
- Adequate capacity
- Upgrading the Mental Health Sector resources
- Respectful dialog between all parties in Mental Health systems
- Research in preventive initiatives

In 2013, the governmental committee on psychiatry (5), described missing reduction in coercive episodes, as a major challenge. The committee suggested five preventive initiatives for the primary mental health sector:

- Specific focus on competence-development regarding prevention of coercion
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- Continuous management focus on reduction
- Ambitious national goals on large and lasting reductions
- Revision of the Mental Health legislation
- Projects targeting MR free units

Additionally in 2013, a project dealing with safety in psychiatry was launched (Sikker psykiatri). The project initiated initiatives to reduce: medication errors, suicide incidents, coercive episodes, and physical diseases. The initiatives to reduce coercive episodes was mainly based on two literature reviews (6;7), the “Six Core Strategy” (8-10), two Danish studies (11;12), and experiences from the earlier “Breakthrough Series”. The package of initiatives comprised of:

- Prediction of MR use: in every shift a short safety debriefing is carried out, identifying potential risk factors for MR use.
- Prevention of MR use: At admission the patients experience from earlier admissions is involved in a risk assessment for the use of MR, including individual coping strategies, and personal preferences. Staffs use pre-defined de-escalations techniques.
- Prevention of repeated MR use: Post incident review (staff), patient debriefing, and secondary examination of all MR episodes by an interdisciplinary team from another unit.

Late in 2013, the Budget for 2014 was in place. Here a large majority of political parties in Denmark agreed upon a goal that coercion in mental health should be reduced by 50% before 2020. Specifically the number of mechanical restrained patients should be reduced by 50% because MR is regarded the most intrusive physical coercive measure, but the total amount of all coercive episodes should also be reduced. To support the change EUR 6.7 million per year was given to the Regions and further EUR 13.4 million in 2014, to improve the physical environment in the psychiatric wards. Also, the Regions should draw up a plan on how to reduce the numbers of MR, and this would be followed by a taskforce, involving representatives from the Ministry of Health, the Health Authorities, and the Regions.

August 2014, the five Regions delivered the plans. The plans included many preventive initiatives that mainly could be placed in the following groups:

- Management focus, top priority and organization
- Development of employer competences
- Participation, involvement and dialogue with patients and relatives
• Physical environment and patient activities

Ultimo 2014, a project regarding MR free units was launched, as part of the Governmental initiative, with participation from all Regions. The framework for the project followed six focus areas (very much inspired by the Six Core Strategy (8-10)):

• Establishing organisational framework and visions, supporting the new initiatives, and continuously, and clear management attention, and support

• Use data-registration-practise as a management tool to facilitate performance, quality improvement, positive learning, cultural development, etc.

• Qualifying staff competences on specific treatment and nursing topics on e.g. recovery, cognitive environmental therapy, trauma informed care, risk assessment, warning signs, de-escalation and conflict

• Use of many different preventive tools, e.g. trauma screening, the use of de-escalation surveys or safety plans, environmental changes to include comfort and sensory rooms, sensory modulation interventions, and other meaningful treatment activities designed to teach people emotional self-management skills.

• Increased patient involvement, clear role formulation, focus on qualified patient supervision towards “noting about us – without us”, and margin for errors

• Systematic use of preventive debriefing to optimise procedures, practice, and treatment plans, and to reduce psychological stress, etc.

September 2015, Safewards was published in Danish (13;14). Some units in the country began already, at the end of 2015, to implement the 10 intervention.

**Aim**

To explore, if politicians have the power, and ability to order a halving of psychiatric patients experiencing mechanical restraint.

**Methods**

Descriptive longitudinal data will be presented and trends will be analysed using linear regression on physical coercive episodes adjusted for population size.
Results

Figure 1. Number of MR Episodes per year (2001-2015)

In 2015 was registered the third lowest number of MR episodes since 2001. Taking the increase in population into account, 2015 represented the lowest number of MR episodes the last 15 years.

Figure 2. Number of MR Persons per year (2001-2015)

In 2015 was registered the lowest number of persons being mechanical restrained since 2001.


<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>95% CIs of (B)</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>MR episodes, per year, per 100,000 inhabitants(^1)</td>
<td>-1.96</td>
<td>[-3.14, -.77]</td>
<td>.00(^*)</td>
</tr>
<tr>
<td>MR persons, per year, per 100,000 inhabitants(^1)</td>
<td>-.10</td>
<td>[-.40, .20]</td>
<td>.49</td>
</tr>
<tr>
<td>Physical restraint episodes, per year, per 100,000 inhabitants(^2)</td>
<td>.28</td>
<td>[-1.28, 1.85]</td>
<td>.71</td>
</tr>
<tr>
<td>Physical restraint persons, per year, per 100,000 inhabitants(^2)</td>
<td>-.41</td>
<td>[-.63, -.19]</td>
<td>.00(^*)</td>
</tr>
<tr>
<td>Tranquilizing medication episodes, per year, per 100,000 inhabitants(^3)</td>
<td>5.29</td>
<td>[4.28, 6.30]</td>
<td>.00(^*)</td>
</tr>
<tr>
<td>Tranquilizing medication persons, per year, per 100,000 inhabitants(^3)</td>
<td>.77</td>
<td>[.54, .99]</td>
<td>.00(^*)</td>
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</table>

Note. The parameters (B) were estimated using a linear regression. \(^1\) MR: A device used on a person to restrict free movement e.g., leather belt, leather cuffs. \(^2\) Physical restraint: Holding a person to restrict movement. \(^3\) Tranquilizing medication: Tranquilizing medication given without consent. \(* p < .05\).
Table 1, indicates a significant downtrend in the number of MR episodes ([B] = -1.96, \( p < .05 \)), and physically restrained persons ([B] = -.41, \( p < .05 \)), and an upward significant trend in the number of episodes using tranquilizing medication ([B] = 5.29, \( p < .05 \)) and persons being medicated with tranquilizing medicine ([B] = .77, \( p < .05 \)).

**Discussion**

It seems like it is possible to reduce MR, even though the downward trend on number of persons experiencing MR was not significant. The most important reason could be the powerful leadership from the top of the administrative hierarchy downwards. The overall figures on coercive measures is static, so it looks like, less intrusive interventions could be used instead of MR. This is probably only a temporarily problem because many preventive interventions often has an effect on several types of coercion, but the main effect of many preventive interventions, need to be inculcated in the culture of the units (cultural change) before major effects are shown. Also new and evident preventive interventions (e.g. Safewards) are being implemented, at the moment, which have not showed their effect in the national figures, yet.

**Conclusions**

It seems to be possible for politicians to make positive changes to the use of coercive measures in mental health if, they draw on available evidence, leadership, and allocate specified resources.

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