COERCIVE INTERVENTIONS
DURING INPATIENT PSYCHIATRIC CARE
PATIENT'S PREFERENCE, PREVENTION AND EFFECTS

- Lack of Evidence-Based Knowledge
- Patient & Staff Safety
- Patient Autonomy
- Coercive Interventions
Mean duration of a seclusion episode in hours per country

<table>
<thead>
<tr>
<th>Country</th>
<th>2003 ¹</th>
<th>2010²</th>
<th>2011³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>22.8</td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td>6.6</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
<td>41.6</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>98</td>
<td>294</td>
<td>192</td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
<td>2010²</td>
<td>94</td>
</tr>
<tr>
<td>Norway</td>
<td>14</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Switzerland</td>
<td></td>
<td>41.6</td>
<td></td>
</tr>
</tbody>
</table>

¹ Steinert et al. (2010) Incidence of seclusion and restraint in psychiatric hospitals: a literature review and survey of international trends. Social Psychiatry and psychiatric epidemiology


³ Noorthoorn et al. (submitted) Single year incidence and prevalence of coercion in the context of different legal boundaries: dutch findings in an international perspective
Type of Coercive Interventions during Inpatient Care

seclusion 10%

involuntary medication 2.5%

mechanical restraint 1%
Coercive Interventions during Inpatient Care

- PREVENTION
- IMPROVING CARE
- REDUCING SECLUSION
Coercive Interventions during Inpatient Care

PREVENTION

- Risk assessment

IMPROVING CARE

- Considering patients’ preferences
- Using the least restrictive and the most effective intervention

REDUCING SECLUSION

- By replacing seclusion with involuntary medication
- By Psychiatric Intensive Care Unit
Early detection of risk factors for seclusion and restraint: a prospective study by 520 patients
Original Article

Early detection of risk factors for seclusion and restraint: a prospective study

Irina Georgieva,¹ ³ Roumen Vesselinov⁴ and Cornelis L. Mulder¹ ²

Abstract

**Aim:** The study aims to examine the predictive power of static and dynamic risk factors assessed at admission to an acute psychiatric ward and to develop a prediction model evaluating the risk of seclusion and restraint.

**Methods:** Over 20 months, data on demographic and clinical characteristics, psychosocial functioning, level of insight, uncooperativeness, and use of coercive measures were collected prospectively on 520 patients at admission. Logistic regression analysis was used to develop a prediction model. The magnitude of the predictive power of this model was estimated using receiver operating characteristic analysis.

**Results:** The prediction model contained one static predictor (involuntary commitment) and two dynamic predictors (psychological impairment and uncooperativeness), with a high predictive power (receiver operating characteristic area under the curve = 0.83). The final risk model classified 72% of the patients correctly, with a higher sensitivity rate (80%) than specificity rate (71%).

**Conclusion:** Early assessment of patients’ psychological impairment and uncooperativeness can help clinicians to recognize patients at risk for coercive measures and approach them on time with preventive and less restrictive interventions. Although this simple, highly predictive model accurately predicts the risk of seclusion or restraint, further validation studies are needed before it can be adopted into routine clinical practice.

Key words: coercive measure, risk assessment, risk factor, risk prediction, seclusion and restraint.

¹Research Center O3, Department of Psychiatry, Erasmus MC, ²Bavo-Europoort, Rotterdam, and ³Western Noord-Brabant Mental Health Centre, Halsteren, The Netherlands and ⁴New Bulgarian University, Sofia, Bulgaria

Corresponding author: Ms Irina Georgieva, Department of Psychiatry, Erasmus MC, PO Box 2040, 3000 CA Rotterdam, The Netherlands. Email: i.georgieva@erasusmc.nl

Received 7 June 2011; accepted 6 November 2011
Patients’ Preference and Experiences of Forced Medication and Seclusion

Study 2

Patients without coercive experience

Secluded and medicated patients

Secluded only patients

57%

43%

5x
Patients’ Preference and Experiences of Forced Medication and Seclusion

Irina Georgieva · C. L. Mulder · A. Wierdsma

Published online: 24 April 2011
© The Author(s) 2011. This article is published with open access at Springerlink.com

Abstract This study examined patients’ preferences for coercive methods and the extent to which patients’ choices were determined by previous experience, demographic, clinical and intervention-setting variables. Before discharge from closed psychiatric units, 161 adult patients completed a questionnaire. The association between patients’ preferences and the underlying variables was analyzed using logistic regression. We found that patients’ preferences were mainly defined by earlier experiences: patients without coercive experiences or who had had experienced seclusion and forced medication, favoured forced medication. Those who had been secluded preferred seclusion in future emergencies, but only if they approved its duration. This suggests that seclusion, if it does not last too long, does not have to be abandoned from psychiatric practices. In an emergency, however, most patients prefer to be medicated. Our findings show that patients’ preferences cannot guide the establishment of international uniform methods for managing violent behaviour. Therefore patients’ individual choices should be considered.
Study 3

Evaluation of behavioral changes and subjective distress after exposure to coercive inpatient interventions

MEDICATION ONLY

SECLUSION ONLY

SECLUSION & MEDICATION

SECLUSION & MECHANICAL RESTRAINT

+ + +
<table>
<thead>
<tr>
<th>Question</th>
<th>Not at All</th>
<th>A Little</th>
<th>Moderate</th>
<th>Severe</th>
<th>Extreme</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. ...adverse effects on your human dignity?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. ...restrictions of your ability to have contact with staff?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. ...restrictions of your ability to move?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. ...coercion?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. ...restrictions of your freedom to decide things?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INVOLUNTARY MEDICATION

Purpose → to manage acute violent behaviour

Oral medication → 10 mg Haldol + 100 mg Promethazine / 5 mg Lorazepam

IM medication → 5 mg Haldol + 50 mg Promethazine / 2.5 mg Lorazepam

(Raveendran, N. et al, 2007; Gisele Huf et al., 2007)
Evaluation of behavioral changes and subjective distress after exposure to coercive inpatient interventions
Evaluation of behavioral changes and subjective distress after exposure to coercive inpatient interventions

Study 3

SUBJECTIVE
DISTRESS
COERCION
FEAR

AGE
Evaluation of behavioral changes and subjective distress after exposure to coercive inpatient interventions

Irina Georgieva1,2*, Cornelis L Mulder3,4† and Richard Whittington5†

Abstract

Background: There is a lack of evidence to underpin decisions on what constitutes the most effective and least restrictive form of coercive intervention when responding to violent behavior. Therefore we compared ratings of effectiveness and subjective distress by 125 inpatients across four types of coercive interventions.

Methods: Effectiveness was assessed through ratings of patient behavior immediately after exposure to a coercive measure and 24 h later. Subjective distress was examined using the Coercion Experience Scale at debriefing. Regression analyses were performed to compare these outcome variables across the four types of coercive interventions.

Results: Using univariate statistics, no significant differences in effectiveness and subjective distress were found between the groups, except that patients who were involuntarily medicated experienced significantly less isolation during the measure than patients who underwent combined measures. However, when controlling for the effect of demographic and clinical characteristics, significant differences on subjective distress between the groups emerged: involuntary medication was experienced as the least distressing overall and least humiliating, caused less physical adverse effects and less sense of isolation. Combined coercive interventions, regardless of the type, caused significantly more physical adverse effects and feelings of isolation than individual interventions.

Conclusions: In the absence of information on individual patient preferences, involuntary medication may be more justified than seclusion and mechanical restraint as a coercive intervention. Use of multiple interventions requires significant justification given their association with significant distress.

Keywords: Coercive measures, Seclusion, Mechanical restraint, Involuntary medication, Coercion
Reducing seclusion through involuntary medication: a randomized clinical trial

Study 4

RCT

Groep 1
Involuntary medication

Risk of being secluded

Groep 2
Seclusion

Risk of receiving medication

No sign. differences in duration of seclusion episodes or number of coercive incidents
Reducing seclusion through involuntary medication: A randomized clinical trial

Irina Georgieva\textsuperscript{a,b,*}, Cornelis L. Mulder\textsuperscript{a,d}, Eric Noorthoorn\textsuperscript{c}

\textsuperscript{a} Research Center O3, Department of Psychiatry, Erasmus MC, Rotterdam, The Netherlands
\textsuperscript{b} Maastricht University, Maastricht, The Netherlands
\textsuperscript{c} GGNet Dutch Case Register on Containment Measures, Warnsveeld, The Netherlands
\textsuperscript{d} BavoEuropoort, Rotterdam, The Netherlands

ARTICLE INFO

Article history:
Received 24 August 2011
Received in revised form
16 February 2012
Accepted 4 August 2012

Keywords:
Involuntary medication
Rapid tranquillization
Aggression
Seclusion and restraint
Coercive measures

ABSTRACT

Purpose: To evaluate whether seclusion and coercive incidents would be reduced in extent and number if involuntary medication was the first choice of intervention.

Methods: Patients admitted to an acute psychiatric ward were randomly allocated to two groups. In Group 1, involuntary medication was the intervention of first choice for dealing with agitation and risk of violence. In Group 2, seclusion was the intervention of first choice. Patients' characteristics between the groups were compared by Pearson $r^2$ and two-sample $t$-tests; the incidence rates and risk ratios (RRs) were calculated to examine differences in number and duration of coercive incidents.

Results: In Group 1, the relative risk of being secluded was lower than in Group 2, whereas the risk of receiving involuntary medication was higher. However, the mean duration of the seclusion incidents did not differ significantly between the two groups; neither did the total number of coercive incidents. Conclusions: Although the use of involuntary medication could successfully replace and reduce the number of seclusions, alternative interventions are needed to reduce the overall number and duration of coercive incidents. A new policy for managing acute aggression, such as involuntary medication, can be implemented effectively only if certain conditions are met.
Successful reduction of seclusion in a newly developed Psychiatric Intensive Care Unit (PICU) for patients with long unsuccessful hospitalizations at other units, who are at higher risk either toward themselves or others.

- Unit for 4 patients with a single room for each patient
- High staff to patient ratio (1:2); staff’s therapeutic and de-escalation skills
- More intensive treatment
- Focus on preventing coercive incidents by using personalized treatment and crisis-management plans
- Therapeutic relationship as an instrument to restore patients’ health
- Skilled leadership
- Cultural change from control to negotiation
Successful reduction of seclusion in a newly developed Psychiatric Intensive Care Unit

<table>
<thead>
<tr>
<th></th>
<th>Before PICU</th>
<th>After PICU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days in Seclusion</td>
<td>156</td>
<td>0.5</td>
</tr>
<tr>
<td>Days in Mechanical restraint</td>
<td>61</td>
<td>0</td>
</tr>
<tr>
<td>Hospitalization days</td>
<td>386</td>
<td>349</td>
</tr>
</tbody>
</table>

40% - 0,1%
Original Article

Successful reduction of seclusion in a newly developed psychiatric intensive care unit

Irina Georgieva¹,², Geert de Haan², Wil Smith², Cornelis L Mulder¹,³

¹ Research Center O3, Erasmus MC, Rotterdam, The Netherlands; ² Mental Health Center West North Brabant, Halsteren, The Netherlands; ³ Bavo Europoort, Rotterdam, The Netherlands

Abstract

Introduction: Psychiatric intensive care units (PICU) are small wards, designed for the most difficult-to-manage patients. They have higher levels of nursing and other staff, are often locked, and sometimes have facilities for seclusion. Although PICU staff are often confronted with aggressive behavior, resulting in higher usage of coercive measures, there is need to increase understanding of the necessary infrastructure and treatment policy for successfully reducing seclusion and restraint.

Aim: To investigate whether patients transferred to a newly developed PICU, focused on the effective and non-coercive management of disruptive behavior, are secluded and restrained less than during earlier stays in a psychiatric unit.

Method: The effect of the newly developed PICU on reducing seclusion was evaluated in eight patients, six of whom had been diagnosed with a severe form of borderline personality disorder. The number of days in seclusion during the period before admission to the PICU was compared to the number of days in seclusion after admission to the PICU.

Results: After patients' admission to PICU, the use of seclusion was almost completely eliminated, falling from 40% of admission days spent in seclusion before transfer to the PICU to 0.1% during their stay at the PICU.

Conclusion: When a special non-coercive infrastructure and treatment policy is applied at a PICU, seriously disturbed patients can be treated without coercive measures.
CONCLUSIONS

PREVENTION
- Early assessment of patients’ psychological impairment and uncooperativeness can help clinicians to recognize patients at risk for coercive measures and approach them on time with preventive and less restrictive interventions.

IMPROVING CARE
- Patients’ preferences can not guide the establishment of international uniform methods for managing violent behavior. Therefore patients’ individual choices should be considered.
- In the absence of information on individual patient preferences, involuntary medication may be more justified than seclusion and mechanical restraint as a coercive intervention. Use of multiple interventions requires significant justification given their association with significant distress.
CONCLUSIONS

REDUCING SECLUSION

- Involuntary medication could successfully replace and reduce the number of seclusions, however alternative interventions are needed to reduce the overall number and duration of coercive measures.

- When a special non-coercive infrastructure and treatment policy is applied at a PICU, seriously disturbed patients can be treated without coercive measures.
Psychiatrie patiënten in Nederland te veel in isoceel

Rotterdam - Psychiatrische patiënten worden te vaak en te lang in de isoceel gezet.

Bij veel patiënten zou opsluiting kunnen worden verminderd, bijvoorbeeld door noodmedicatie te geven. Dat blijkt uit onderzoek van het Erasmus MC, waarop Irina Georgieva is gepromoveerd.

Psychiatrie patiënten gaan in Nederland veel meer tijd door de isoceel dan in andere landen. Gemiddeld duurt een isoceel 63 uur.

In Duitsland is het gemiddelde bijvoorbeeld op 6,6 uur en in Noorwegen op 3 uur. "Het lijkt een soort van gewoonte dat behandelaars een patiënt in geval van crisis erg lang in de isoceel opsluiten", zegt Georgieva.

Eigen voorkeur

De promotieplein evert voor dat patiënten meer te zeggen krijgen over hun behandeling in geval van crisis. Aan het begin van de opname kan bijvoorbeeld worden gevaagd of de patiënt een voorkeur heeft voor aparte of noodmedicatie.

Behandelaars moeten dan rekening houden met al of niet in een aparte crisismedicatie te krijgen, als het is van willekeurige of gevaarlijke gedragingen. "Een voorkeur voor aparte crisismedicatie moet oplossingen bieden die niet leiden tot hun isoceel, vooral als dezelfde isoceel een gemiddelde van 63 uur duurt."

Als de voorkeur van de patiënt niet bekend is, zouden de behandelaars de voorkeur moeten geven aan noodmedicatie omdat de patiënt duidelijk een voorkeur heeft.
Datum 18 september 2012
Betref: Kamervragen

Geachte voorzitter,

Hierbij zend ik u de antwoorden op de vragen van het Kamerlid Straus (VVD) over hoge frequentie en duur separeren van psychiatrische patiënten (2012Z13783).

Hoogachtend,

de Minister van Volksgezondheid, Welzijn en Sport,

mw. drs. E.I. Schippers

Ik kan mij vinden in de conclusie van het onderzoek dat meer bewustzijn en een cultuurverandering kan leiden tot een vermindering van de duur van het separeren. De teruggang van 40% opnameduur separatie naar 0,1 %, zoals

Ik vind het van belang om de patiënt nadrukkelijk bij zijn behandeling te betrekken, voor zover de patiënt daartoe in staat is. In de huidige Wet bijzondere opnames in psychiatrische ziekenhuizen bestaat al de mogelijkheid om een zelfbindingsverklaring op te stellen. De zelfbindingsverklaring is bedoeld voor patiënten die lijden aan chronische psychiatrische stoornissen, waarbij per perioden waarin deze patiënten nagenoeg vrij zijn van symptomen zich afwisselen met periodes van ziekte. In een periode waarin de patiënt vrij is van symptomen kan hij met zijn behandelaar een zelfbindingsverklaring opstellen. De zelfbindingsverklaring kan de patiënt zelf van tevoren aangeven wat hij vindt dat er moet gebeuren wanneer het weer minder goed met hem gaat en naar aanleiding van welke omstandigheden de patiënt wil worden opgenomen en behandeld, ook als hij dat dan niet meer wil. Een zelfbindingsverklaring kan alleen leiden tot gedwongen opneming en behandeling als de rechter een zelfbindingsmachtiging heeft verleend op basis van de zelfbindingsverklaring.

Tevens wordt in de praktijk gewerkt met een crisskaart, al dan niet voorzien van een daarbij behorend crisisplan. Op de crisskaart geeft de patiënt aan hoe een crisis er bij hem uit ziet en welke hulp hij in geval van een crisis wil en welke hulp hij niet wil ontvangen. Verder geeft hij op de kaart aan met welke mensen hij welke afspraken heeft gemaakt over opvang tijdens de crisis. Alle bij de crisskaart betrokken personen ondertekenen de kaart. Een dergelijke kaart is gebaseerd op de Wet op de geneeskundige behandelingsovereenkomst (WGO). Weigert iemand met een crisiskaart op het laatste moment mee te werken aan de uitvoering van de afspraken, dan houdt het daarmee op. Met de hierboven genoemde zelfbindingsmachtiging kunnen de afspraken wel tegen iemands wil worden uitgevoerd.
Patient & Staff Safety

Patient Autonomy
IRINA GEORGIEVA

COERCIVE INTERVENTIONS
DURING INPATIENT PSYCHIATRIC CARE
PATIENT'S PREFERENCE, PREVENTION AND EFFECTS

Lack of Evidence-Based Knowledge

Patient & Staff Safety

Coercive Interventions

Patient Autonomy

18th Annual NAPICU Conference  12-13 September 2013