COERCION RATES IN DIFFERENT MENTAL HEALTH CARE MODELS: EXPERIENCES FROM RECOVER-E PROJECT SAMPLES IN MONTENEGRO

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Abstract

In 2018, RECOVER-E project activities were initiated in Montenegro, within the Horizon 2020 program. After conducting a thorough situation analysis of the setting and circumstances of treatment of patients with severe mental illnesses, the community mental health team (CMHT) within the Special Psychiatric Hospital Kotor was established. This team became responsible for the management of treatment of a group of users with severe mental health illnesses, based on the principles of “Flexible Assertive Community Treatment (FACT – A Dutch model). The main objective of this research was to establish whether there were substantial differences regarding the use of coercive measures during the hospital readmissions in the group of patients treated by the CMHT,
compared to usual mental health care in Montenegro.

**Materials and methods:** A sample of 202 users of mental health services from Kotor and surrounding municipalities were recruited. Patients were randomized into two similar-sized groups - the intervention group, whose treatment was managed by the multidisciplinary CMHT, and the control group where treatment, as usual, was continued. To estimate and follow up the frequency of application of coercive measures, hospital documentation was used. MacArthur Admission Experience Survey has been used after completion of the study to explore the individual levels of perceived coercion during hospital readmissions.

**Results:** Patients in the intervention group had statistically significant less coercive intervention (such are mechanical restraining and forced medication) during the study. There were no other significant differences between the two groups regarding the total number of readmissions, and the length of hospital treatment.

**Conclusion:** This study showed that CMHT care could reduce some of the coercive measures during the treatment of severe mental illnesses, which can lead to the increased perceived quality of care and better treatment adherence.

**Keywords:** FACT, CMHT, mental, illness, readmission.

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**CONFLICT OF INTEREST**
All authors declare that they have no conflict of interests related to this research.

**AUTHORS’ CONTRIBUTION**
Overall project coordination AT. Writing of the manuscript: JD and TDj. Critical appraisal of the manuscript BW et al. All authors have read and approved the manuscript.

**CONSENT TO PARTICIPATE**
All study participants signed Informed consent letter and were able to withdraw from the project at any time during the 18 months period.

**LIST OF ABBREVIATIONS**
CMHT
Community Mental Health Team
FACT
Flexible Assertive Community Treatment
CBT
Cognitive Behavior Therapy

**ACKNOWLEDGMENTS**
Authors would like to express their gratitude to all CMHT team members formed at Special Psychiatric hospital Kotor and particularly peer-workers, as well as to all users that participated in this project on their helpfulness and positive attitude during these activities.

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INTRODUCTION

Several decades of scientific research has shown that despite the fact that mental disorders can be treated, they are the cause of disability in a significant number of people\cite{1, 2}. For this reason, access to adequate treatment and support is necessary for patients to have better control over the recovery process.\cite{3}

Comprehensive mental health services that include medical treatment with psychological and social support increase treatment collaboration and reduce the incidence of psychotic relapses, leading to better treatment outcomes (e.g., better remission of psychopathology, better personal and social functioning, and improved quality of life) and more favorable social indicators such as housing stability, work rehabilitation, community life\cite{4-8}.

Research unequivocally shows that people with severe mental illness prefer services in their own environment, and that personal and social recovery is accelerated when support is provided within the community\cite{9,10}. Service users have been shown to have a higher degree of life satisfaction when the deinstitutionalization process is carried out with the support of a strong service network that supports the transition from institutional treatment to community living\cite{11-13}. These reasons, among other complex factors of human rights movements in 20th century, contributed to the reforms of mental health services worldwide, especially in the direction of shifting the focus of treatment of severe mental illness from institutional care to community services\cite{14-15}.

On the other hand, the fact that a significant number of treated severely mental ill patients suffers from the use of coercion is of particular concern.

This especially occurs during the hospital readmissions in which (according to some data) between 3 and 35% are performed on an involuntary basis\cite{16-17}. During these treatments, apart from initial procedures of voluntary or involuntary admissions (which in each country regulated by mental health laws) numerous forms of others informal and formal coercion (such as isolation, mechanical and physical restraining, and forced medication of the user) could be present\cite{18}. In addition to patients with neurocognitive disorders patients with schizophrenia and related disorders are often susceptible to the use of these coercion procedures\cite{19}.

However, the impact of the mental health care model and the use of assertive outreach\cite{20}, and in particularly flexible assertive community treatment - FACT\cite{21} on the degree of rehospitalization and the use of coercion during inpatient treatment of users, still seems to be insufficiently investigated.

Furthermore, despite clear evidence of the effectiveness of community mental health services, many citizens of Eu-
European countries still do not have access to the most efficient types of these services [22].

In order to consolidate the results of previous efforts to improve community mental health services, and to provide support to demanding processes of de-institutionalization in Central and South-Eastern Europe, the RECOVER-E project was started within the Horizon 2020 program. The RECOVER-E project consists of extensive implementation of local community mental health care for people with severe and persistent mental disorders in Europe aimed to implement effective, multidisciplinary community mental health teams (CMHT) in 5 countries of Central and South-Eastern Europe (Croatia, Montenegro, Northern Macedonia, Romania and Bulgaria). This project served as central node for coordinating and implementing the community treatment of mental disorders (based on principles of assertive outreach) for persons with severe mental illness [23], during the years 2019 and 2020.

Community treatment of mental health disorders is not yet fully implemented in these parts of Europe. Human capacity building, the mental health care formed according to the postulates of evidence-based medicine as well as the results of treatment provided in the community, adapted to local circumstances and aimed at patient recovery, can be a significant incentive for policy makers in Montenegro to continue and strengthen mental health services in the community.

To this extend, the objective of the current study was to establish whether there were substantial differences regarding the use of coercive measures (e.g. seclusions, mechanical restraining, forced medication, involuntary treatment) during the hospital readmissions in the group of patients treated by the CMHT, compared to usual mental health care in Montenegro.

**MATERIALS AND METHODS**

**RECOVER – E study design**

The initial step involved a thorough situation analysis of the setting and circumstances of treatment of patients with psychotic disorders, followed by the establishment of the community mental health team (CMHT) within the Special Psychiatric Hospital Kotor. After the formation of a multidisciplinary CMHT and obtaining ethical approval to conduct research from the competent institutions in Montenegro, registration of the trial within the domain ClinicalTrials.gov under the code NCT03837340; recruited sample of patients were randomized into two subgroups, the first (intervention group) whose treatment was coordinated within the multidisciplinary team and another (control group) that continued with the usual treatment
methodology that exists within the Montenegrin health system.

**RECOVER – E sample selection - criteria for involvement in the research**

Inclusion criteria for users included years of age above 18, with a diagnosed presence of a severe mental illness, who:

1. Meets diagnostic criteria for any of the following types of severe mental illnesses (bipolar disorder, major depression, schizophrenia, or other psychotic disorders), according to the ICD 10 classification system.
2. These disorder leads to significant limitations in personal and social functioning.

**Exclusion criteria were as follows:**

1. Age below 18 years of age
2. Patients with dementia or intellectual deficits
3. Patients in the terminal stages of severe somatic diseases
4. The presence of other mental health comorbidity (i.e. personality disorders or substance and alcohol abuse disorders WERE NOT exclusion criteria).

All data obtained during the project was collected and protected in agreement with the General Data Protection Regulation (EU (2016/679))

**Recruitment strategy**

In Montenegro, patient recruitment began on February 25th, 2019, and ended on December 8th, 2019, and was conducted in a cascade, with the expansion of selection criteria to achieve a satisfactory sample size. At the beginning, first episode users whose permanent residence was in the municipalities surrounding the hospital (Kotor, Herceg Novi, Budva, Tivat) were recruited. Since their number was not sufficient to fill the sample, all users with psychotic disorders regardless of the length of treatment, were included at a later stage, and the catchment area was increased with users from municipalities Bar, Ulcinj and Cetinje.

**Statistical power, randomization, translation of questionnaires**

It was planned to include at least 90 patients in each of the study arms, which according to our estimates will provide adequate statistical power of detection of clinically significant effect (mean standardized difference) of $d = 0.33$ (indicative as a medium effect), statistically significant ($\alpha \leq 0.05$, 2-tailed) with a power of $(1-\beta) = 0.80$, when the primary outcome (WHODAS 2.0) is evaluated using ANCOVA or a similar model.

Randomization was performed without any stratification of the samples, by an independent statistician, according to the following principle: With several
random numbers generators dispersion of a string of numbers from 1 to 210 was increased and afterwards divided in two groups. Research team from the hospital (who recruited the participants), didn't had any insight into the whole process, till the last of the patients was recruited. Every next participant, that was included into the study, got next following Study ID number (from 1 forward), and only after that the Team was informed in which category he belonged (FACT or control). This process was conducted till the recruitment of the last participant.

**Intervention**

Intervention group treatment was performed according to the Dutch model of flexible assertive treatment (FACT) by the multidisciplinary CMHT, that consisted of various groups of professionals including psychiatrists, psychologists, nurses and social workers. This team provided integrated medical and social care focused on (symptomatic, functional and personal) recovery.

According to the Dutch model of mental health care the team also included several members with previously diagnosed severe mental illness – the so-called peer expert, which was a novelty in Montenegro.

Depending on the patient's needs and clinical indications, the team could intensify and de-intensify the mode of operation through two basic models:
- Individual case management, where treatment was performed by one of the team members. This option was reserved for patients in stable remission.
- Intensive assertive outreach treatment in the community, in which users have contact with a several team members (so-called shared caseload). These users were visited on an almost daily basis and their cases were discussed at joint team meetings, which were initially organized 3 times a week.

It was planned that as many evidence-based interventions as possible in health and social care for severe mental illness would be used during the treatment of clients in their own home, such as Family interventions, cognitive-behavior therapy (CBT) and Motivational interviewing in combination with psychopharmacy.

**Control group:**
**treatment as usual**

There are several shortcomings in the treatment of users with psychotic disorders in Montenegro: Acute phases and psychotic relapses are predominantly treated in hospitals, while non-institutional outpatient treatment (on all levels of health care) relies mostly on the psychopharmacological approach. There is no fieldwork (assertive outreach), multidisciplinary work is insufficient and there is no extensive application of psychosocial rehabilitation methods (inclu-
It is important to notice that in both study arms there were significant number of users with dual diagnosis pattern (comorbidity with drugs and alcohol abuse disorders), respectively in intervention arm 18.5% and 33.3% in control arm. The influence of this condition on study results was separately analyzed.

**Research methodology**

The current study builds on data collected as part of the RECOVER-E project\[23, 24, 25\] as well as the data from medical records.

**Monitoring the degree of coercion in treatment**

Sociodemographic data and data on the frequency of coercive measures during the 18 months of the study were collected from the medical records of individual patients. For this purpose, data were collected on the number of involuntary and voluntary admissions, the length of hospital treatment and the application of isolation, mechanical restriction of movement and forced medication. In order to examine the subjective experience of coercion (perceived coercion)\[26\], a Mac Arthur Admission Experience Survey was used, although this scale has not been previously standardized for Montenegro population.

This scale is one of the most widely used tools for studying perceived coercion. More precisely, this four-item dichotomous (true-or-false) questionnaire was derived from a structured interview (the MacArthur Admission Experience Interview) so that patients’ perceptions of psychiatric hospital admission could be obtained rapidly. Among other scoring variants the Perceived Coercion score were proposed. It focuses on freedom, choice, initiative, control and influence over coming into hospital.

First of all the scale was expertly translated by bilingual medical professionals and a linguist and given to a sample of 10 bilingual participants from the general population who completed both the English and the Montenegrin version of the scale one week apart. This method, dubbed as 'forth-translation', could be used to translate psychometric scales measuring properties which have temporal stability over the period of at least several weeks\[27\]. After that, the scale was used on subsample of 10 study participants during June and August 2021 (5 from each study arm) that were last admitted to psychiatric hospital.

**The influence of COVID 19**

Since March 13th, 2020, when the COVID pandemic was officially announced in Montenegro and lockdown measures were introduced, work and service delivery methods had to be significantly changed. Home visits had to be discontinued for a while and then continued but less frequently and with fewer team members – almost exclusi-
vely by the psychiatrists from the team, who are, by rule, in Montenegro con-
dered the responsible professional du-
ring crises and emergencies. With short
disruptions due to the pandemics, regu-
lar consultations with patients from the
intervention group were continued in
the hospital with appropriate measures
for the pandemic in place, together with
a rather intensive follow-up of patients
by their case managers via telephone ca-
lls or text messenger chats.

Since March 2020, questionnaires
have been collected through the phone. Team meetings were held through group
video calls or as physical meetings when
possible, but less frequently.

Analysis
In this study data were analyzed
using SPSS software. We tested differen-
ces between intervention and control
group with regards to three outcomes -
readmission to the hospital occurred or
not (Pearson Chi-square test), number
of readmissions and number of hospital
days when re-admitted (t-test for inde-
pendent samples). We used Pearson’s
Chi-square test of independence to de-
terminate if there is a significant rela-
tionhip between two nominal (categori-
al) variables – occurrence of a hospital
re-admission (re-admitted to the hospi-
tal or not) and the type of care (interven-
tion or control). The null hypotheses
were that the type of care (FACT or TAU
study arms) has no influence on the
re-admissions rates of service users, and
also that it is unrelated to the frequency
of coercion procedures.

We used T-test for independent
samples to test if there is a significant
difference in the length of hospital stay
between the patients diagnosed with ad-
diction comorbidity and those without
such mental health problem.

Finally, we tested difference between
experimental and control group with re-
gards to application of coercive measures
using Pearson’s Chi-square test of inde-
pendence, while we tested difference in
their perceived coercion score measured
by Mc Arthur Admission Survey Scale
using t-test for independent samples.

RESULTS

Characteristics
of the sample
A total of 202 respondents were in-
cluded in the study – 103 in the interven-
tion group and 99 in the control group.
Patients in the control group ranged
from 20 to 73 years (M=48.1, SD=12.7),
while patients in the intervention gro-
up ranged between 18 and 72 years
(M=47.3, SD=11.7). Essential socio-de-
mographic characteristics in both sam-
ple are presented in Table 1.

History and length (number of years)
of psychiatric treatment and characte-
ristics of mental disorders – diagnostic
categories, as well as the data on co-
morbidty with addiction disorders (the
Table 1: Socio-demographic characteristics of the sample

<table>
<thead>
<tr>
<th>SEX</th>
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<th>Control group</th>
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</tr>
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<td></td>
<td>N</td>
<td>%</td>
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</tr>
<tr>
<td>Female</td>
<td>50</td>
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<td>25</td>
<td>24.3</td>
<td>17</td>
<td>17.2</td>
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<td>20.8</td>
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<tr>
<td>High school</td>
<td>64</td>
<td>62.1</td>
<td>73</td>
<td>73.7</td>
<td>137</td>
<td>67.8</td>
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<tr>
<td>College or higher</td>
<td>13</td>
<td>12.6</td>
<td>9</td>
<td>9.1</td>
<td>22</td>
<td>10.9</td>
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<td>1.0</td>
<td>/</td>
<td>/</td>
<td>1</td>
<td>0.5</td>
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<td>99</td>
<td>100.0</td>
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<td>Single</td>
<td>50</td>
<td>48.5</td>
<td>41</td>
<td>41.4</td>
<td>91</td>
<td>44.8</td>
</tr>
<tr>
<td>Separated/divorced/widowed</td>
<td>20</td>
<td>19.4</td>
<td>22</td>
<td>22.2</td>
<td>42</td>
<td>20.9</td>
</tr>
<tr>
<td>Married/with partner</td>
<td>33</td>
<td>32.1</td>
<td>35</td>
<td>35.4</td>
<td>68</td>
<td>33.8</td>
</tr>
<tr>
<td>I prefer not to say</td>
<td>/</td>
<td>/</td>
<td>1</td>
<td>1.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>TOTAL</td>
<td>103</td>
<td>100.0</td>
<td>99</td>
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<td>Employed</td>
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<td>21.4</td>
<td>16</td>
<td>16.2</td>
<td>38</td>
<td>18.8</td>
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<tr>
<td>Unemployed</td>
<td>40</td>
<td>38.8</td>
<td>44</td>
<td>44.4</td>
<td>84</td>
<td>41.6</td>
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<tr>
<td>Retired</td>
<td>26</td>
<td>25.2</td>
<td>31</td>
<td>31.3</td>
<td>57</td>
<td>28.2</td>
</tr>
<tr>
<td>Disabled</td>
<td>12</td>
<td>11.7</td>
<td>7</td>
<td>7.1</td>
<td>19</td>
<td>9.4</td>
</tr>
<tr>
<td>Student</td>
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<td>1.0</td>
<td>1</td>
<td>1.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Other</td>
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<td>1.9</td>
<td>/</td>
<td>/</td>
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<tr>
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<td>103</td>
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<td>99</td>
<td>100.0</td>
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<table>
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<td>Not employed</td>
<td>37</td>
<td>35.9</td>
<td>38</td>
<td>38.4</td>
<td>75</td>
<td>37.1</td>
</tr>
<tr>
<td>Below average</td>
<td>45</td>
<td>43.7</td>
<td>37</td>
<td>37.4</td>
<td>82</td>
<td>40.6</td>
</tr>
<tr>
<td>Average</td>
<td>18</td>
<td>17.5</td>
<td>16</td>
<td>16.1</td>
<td>34</td>
<td>16.8</td>
</tr>
<tr>
<td>Above average</td>
<td>2</td>
<td>1.9</td>
<td>7</td>
<td>7.1</td>
<td>9</td>
<td>4.5</td>
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<tr>
<td>I prefer not to say</td>
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<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>103</td>
<td>100.0</td>
<td>99</td>
<td>100.0</td>
<td>202</td>
<td>100.0</td>
</tr>
</tbody>
</table>
so-called dual diagnosis pattern) are presented in Table 2. Since there was no stratification of initial sample, the degree dual diagnosis pattern was higher in control arm. Since there was no stratification of initial sample, the degree dual diagnosis pattern was higher in control arm.

Table 2 History of psychiatric treatment and characteristics of mental health disorders – diagnostic categories

<table>
<thead>
<tr>
<th>HISTORY OF PSYCHIATRIC TREATMENT</th>
<th>Intervention group</th>
<th>Control group</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Less than one year</td>
<td>8</td>
<td>7.8</td>
<td>5</td>
</tr>
<tr>
<td>Between one and five years</td>
<td>22</td>
<td>21.3</td>
<td>22</td>
</tr>
<tr>
<td>More than five years</td>
<td>73</td>
<td>70.9</td>
<td>71</td>
</tr>
<tr>
<td>I prefer not to say</td>
<td>/</td>
<td>/</td>
<td>1</td>
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<table>
<thead>
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<th>MAIN DIAGNOSIS</th>
<th>Intervention group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>F20-F29 *</td>
<td>77</td>
<td>74.8</td>
<td>56</td>
</tr>
<tr>
<td>F30-F39 **</td>
<td>26</td>
<td>25.2</td>
<td>43</td>
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</table>

<table>
<thead>
<tr>
<th>COMORBIDITY</th>
<th>Intervention group</th>
<th>Control group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>F10 ***</td>
<td>12</td>
<td>11.7</td>
<td>23</td>
</tr>
<tr>
<td>F11-F19 ****</td>
<td>7</td>
<td>6.8</td>
<td>10</td>
</tr>
</tbody>
</table>

* Schizophrenia and other psychotic disorders
** Bipolar affective disorder and unipolar depression
*** Alcohol addiction
**** Other addiction disorders such are opioid addiction or use of multiples substances

Hospital readmissions
The treatment of all patients readmitted to the hospital during the study were started exclusively on voluntary basis pursuant to the Mental health law in Montenegro and all of them signed informed consent letter. Results show no significant relationship at p < 0.05 between the study arm and whether or not service users were re-admitted to the hospital in the observed period [X2 (1, N=202) = 0.26, p= 0.60]. (Table 3)
As regards the total number of re-admissions, although intervention group had fewer re-admissions (Total 23 $\bar{x}=0.22$, SD=0.71) than the control group (Total 34 $\bar{x}=0.34$, SD=0.91), the mean difference between the two groups (0.12) is not statistically significant [$t = 1.037 (185); p=0.30$]. The 95% confidence interval showed that the population mean difference is likely to fall within -0.34 and 0.10. Cohen’s $d=0.146$, so the effect size is small. This indicates that even if there were a statistically significant difference found between the two groups, it would be negligible.

As regards the length of hospital stay between patients diagnosed with addiction and those without such diagnosis, group with addiction had more hospital days ($\bar{x}=38.9$, SD=88.6) than the non-addiction group ($\bar{x}=13.71$, SD=62.5). However, since Levene’s test of equality of variances proved significant (p=0.001), the mean difference between the two groups (25.24), proved not significant at $p<0.05$ [$t = 1.89 (69); p=0.07$].

The 95% confidence interval showed that the population mean difference is likely to fall within 13.14 and 37.34. Cohen's $d=0.38$, so the effect size is moderate. This indicates that even if there were a statistically significant difference found between the two groups, it would be negligible.

### Table 3 Hospital readmissions characteristics
(average data are related to the whole group)

<table>
<thead>
<tr>
<th></th>
<th>Intervention group</th>
<th>Control group</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients re-admitted to the hospital</td>
<td>14</td>
<td>16</td>
<td>P=0.60</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$X=0.26$</td>
</tr>
<tr>
<td>Number of re-admissions to the hospital</td>
<td><strong>Total 23</strong>&lt;br&gt;(Min 1, Max 5)&lt;br&gt;$\bar{x}=0.22$, SD=0.71</td>
<td><strong>Total 24</strong>&lt;br&gt;(Max 5, Min 1)&lt;br&gt;$\bar{x}=0.34$, SD=0.91</td>
<td>$t (185) = 1.037$, $p=0.30$; Cohen's $d =0.146$</td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td>Hospital days</td>
<td><strong>Total 1757</strong>&lt;br&gt;(Min 5, Max 475)&lt;br&gt;$\bar{x}=17.0$, SD=68.27</td>
<td><strong>Total 2326</strong>&lt;br&gt;(Max 13, Min 493)&lt;br&gt;$\bar{x}=23.5$, SD=73.52</td>
<td>$t (197) = 0.64$, $p=0.52$; Cohen's $d =0.09$</td>
</tr>
</tbody>
</table>

As regards the length of hospital stay, measured in days, analysis show that although intervention group had less hospital days ($\bar{x}=17.0$, SD=68.27) than the control group ($\bar{x}=23.5$, SD=73.52), the mean difference between the two groups (-6.43) is not statistically significant [$t = -0.64 (197); p=0.52$].
This difference could partially be attributed to significant difference in sample sizes and demands further investigation.

The 95% confidence interval showed that the population mean difference is likely to fall within -1.29 and 51.8.

**Coercion procedures**

In spite of the fact that the hospital treatments of all users were initiated on voluntary basis (pursuant to mental health low in Montenegro) results show significant relationship at p < 0.05 between the application of other specific type of coercive measures (such are physical and chemical restraining) and the study arm in the observed period. Patients whose treatment was coordinated by the FACT team were subjected to significantly fewer coercive measures during hospital stays than those who received conventional care \(X^2(1, N = 202) = 7.04, p = 0.007\)

However, no significant difference was observed in the mean difference of scores of perceived coercions between intervention and control group, measured by the Mc Arthur Admission Survey Scale \(t = 0.49 (8); p=0.96\). (Table 5).

### Table 4 Dual diagnosis pattern statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Hospital days</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual diagnosis</td>
<td>52</td>
<td>(\bar{x}=38.9, SD=88.6)</td>
<td>2026 (\bar{x}=13.71, SD=62.5)</td>
</tr>
<tr>
<td>Users without comorbidity with addiction</td>
<td>150</td>
<td>2057</td>
<td></td>
</tr>
</tbody>
</table>

### Table 5 Coercion measures frequency

<table>
<thead>
<tr>
<th></th>
<th>Interventional group</th>
<th>Control group</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involuntary admissions</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Seclusions</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Chemical restraining</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Mechanical restraining</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total restraining</td>
<td>2</td>
<td>11</td>
<td>0.013</td>
</tr>
<tr>
<td>Perceived coercion score</td>
<td>(\bar{x}=4.40, SD=15.4)</td>
<td>(\bar{x}=4, SD=10.1)</td>
<td>0.960</td>
</tr>
</tbody>
</table>
DISCUSSION

This study did not find significant relationship between introduction of an assertive community treatment by the Dutch model, which involved a flexible approach with upscaling and descaling treatment options and peer experts as parts of the FACT team, in Special Psychiatric Clinic in Kotor Montenegro, and the proportion of hospital re-admissions and the total hospital days.

On the other hand, such model of care seems to be effective in reduction in the use of coercive measures during hospital re-admission. These measures are often very stressful to the user of services and could lead to the negative assessment of psychiatric treatment[28]. In addition, subjective experience of coercion can make trusting therapeutic alliance difficult and problematic[29]. However, although application of coercive measure is significantly lower in the intervention group, subjective feeling of coercion during hospital re-admission was not. This could be explained by low size of the samples in which perceived coercion scale were used and should be further investigated.

It is without a doubt that circumstances of COVID-19 pandemics influenced the quality of care by decreasing possibility and the scope of contacts with service users, which reduced the efficiency of the whole intervention in the interventional group to a certain extent.

Another limitation of the study would be that it only included patients from one specific hospital – Special Psychiatric Hospital Kotor. It may be that results, especially in the area of application of coercive measures and perceived coercion would be different in another setting, like General Hospitals with psychiatric wards, or Psychiatric clinic, due to their different physical and organizational setting. It would be interesting to replicate the study once the assertive community mental health team becomes more usual type of care in the country.

Given the limitations caused by the epidemics, specific research in less "extraordinary" circumstances would provide a better picture of the overall efficiency and potential influence of interventions from the assertive domain to the possibility of decreasing coercive measures in the treatment of severe mental health illnesses. It is likely that larger samples are needed in order to explore differences in subjective perception of coercion during hospital admission.

Finally, it would be interesting to further examine the potential differences in the readmission rates and the length of hospital stay between patients with addiction comorbidity and those without it, as this might provide strong evidence on the most appropriate composition of the community mental health teams in the country and evidence-based practices used in the treatment of service users with severe mental health illnesses who also suffer substance addiction.
UČESTALOST PRIMENE PRISILE U RAZLIČITIM MODELIMA ZAŠTITE MENTALNOG ZDRAVLJA: ISKUSTVA IZ RECOVER-E PROJEKTA U CRNOJ GORI

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Sažetak

**Materijali i metode:** Formiran je uzorak od 202 korisnika usluga mentalnog zdravlja iz Kotora i okolnih opština. Pacijenti su randomizovani u dvije grupe slične veličine – interventnu, čiji tretman je vodio multidisciplinarni CMHT, i kontrolnu grupu u kojoj je nastavljeno uobičajeno liječenje. Za procesnu i praćenje učestalosti primjene mera prisile korišćena je bolnička dokumentacija. Nakon završetka studije korišćen je Upitnik o iskustvu prijema Mekartura (McArthur) da se istraži individualni nivo percipirane prisile tokom ponovnih prijema u bolnicu.

**Rezultati:** Pacijenti u interventnoj grupi imali su statistički značajno manje prisilnih intervencija (kao što su mehaničko sputavanje i prisilni lekovi) tokom studije. Nije bilo drugih značajnih razlika između dvije grupe u pogledu ukupnog broja readmisija i dužine bolničkog liječenja.

**Zaključak:** Ova studija je pokazala da CMHT tretman može da smanji neke od prisilnih mjera tokom liječenja teških mentalnih bolesti, što dovodi do doživljaja kvalitetnije nege i veće terapijske adherencije.

**Ključne reči:** FACT, CMHT, mentalno, bolest, ponovni prijem

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