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Reliability of the "Parma Scale" for forensic psychiatric treatment evaluation: preliminary findings in a sample of prisoners with mental disorder

Lorenzo Pelizza[1], Davide Maestri[1], Cecilia Paraggio[1], Ilaria De Amicis[1], Elena Mammone[2], Melania Scarci[2], Emanuela Leuci[1], Giuseppina Paulillo[1], Pietro Pellegrini[1]

[1] Department of Mental Health and Pathological Addiction, Azienda USL di Parma, Parma, Italy; [2] Department of Humanities, Social Science and Cultural Industries, Università di Parma, Parma, Italy

SUMMARY

Objectives

Routine monitoring of treatment outcomes has been poorly implemented in Italian forensic psychiatric practice. This is also for lacking of reliable tools. Thus, the "Parma Scale" (Pr-Scale) was developed. The specific aim of this study was to examine the reliability of the Pr-Scale as preliminary investigation on its psychometric properties.

Methods

Test-retest and interrater reliability was assessed in a sample of prisoners with mental disorder using Intra-Class Correlation (ICC) and stability coefficients. Internal consistency for the Pr-Scale total score was also calculated using the Cronbach alpha statistic.

Results

Thirty male adult inmates with mental illness were recruited within the Parma Penitentiary Institute (PPI). Our results showed good to excellent interrater and test-retest reliability for the Pr-Scale scores, as well as an acceptable internal consistency for the Pr-Scale total score.

Conclusions

The findings of this study seem to support the administration of the Pr-Scale in forensic psychiatric settings as reliable tool for routine monitoring of treatment outcomes. However, future studies to carefully investigate other crucial psychometric properties of the Pr-Scale (e.g. concurrent validity, sensitivity to measure scores' longitudinal changes, predictive validity for recidivism risk) are needed.

Key words: reliability, forensic psychiatry, treatment evaluation, routine outcome monitoring, prison, Italy

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Correspondence
Lorenzo Pelizza
Department of Mental Health and Pathological Addiction, Azienda USL di Parma, c/o Centro "Santi", via Vasari 13, 43100 Parma,Italy. Tel.: +39 0521 396502. Fax: +39 0521 293482.
E-mail: lorpelizza@ausl.pr.it

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Introduction

The Routine Outcome Monitoring (*ROM*) to longitudinally assess forensic psychiatric treatment and to help decision making for improving the quality of person-tailored interventions is still poorly implemented in Italy, despite the revolutionary 2015 reform that closed forensic psychiatric hospitals and simultaneously opened the "Residences for the Execution of Security Measures" (REMS) in the community [1]. Indeed, Italian forensic psychiatry had to deal with the persistence of practices and norms too centered on the "custodial culture", linked to places rather than to personalized mental healthcare pathways, trying hard to make the "social security" goal coexisting with the risk management (i.e. reoffending prevention) and the treatment goal (i.e. offender rehabilitation) [2]. Therefore, the question on

using specific evaluation tools to longitudinally monitor forensic treatment has continued to remain in the background [3], despite interesting experiences mediated by skills and approaches gained in the community psychiatry (e.g. individual empowerment, recovery-oriented treatments, personal health budget) [4-6] and supported by a growing attention to social issues and personal rights [7,8].

Assessment in Italian forensic psychiatry

Given the poor prediction ability and the limited scientific nature of evaluation instruments for "social dangerousness" [9], other interesting forensic conceptual frameworks (such as the *risk of recidivism* in crimes) have been recently introduced and increasingly used, with different assessment tools having developed over time (e.g. the "Psychopathy Checklist-Revised" [PCL-R] [10], the "Historical-Clinical-Risk Management-20, version 3" [HCR-20^{V3}] [11]). About this, an innovative theoretical construct in current forensic psychiatric rehabilitation is the *Risk Need Responsivity* (RNR) model [12], consisting of 3 basic therapeutic elements: (1) the "Risk" (hypothesizing that treatment frequency, intensity and duration should be adapted to the level of a patient's risk of recidivism), (2) the "Need" (supporting that intervention should focus on subject's "criminogenic needs" [especially on the reversible, dynamic ones]) and (3) the "Responsivity" (emphasizing the therapeutic alliance between patient and clinician. In accordance with this model, forensic psychiatric intervention and rehabilitation should be conceptualized as a phased process in which the risk of recidivism is first and foremost closely linked to the severity of specific dynamic risk factors that can be subject to treatment (e.g. impulsivity, hostility, psychopathological features, substance abuse, family, occupational and social support) [13].

Therefore, *treatment assessment* in forensic psychiatric practice should consider other crucial aspects in addition to psychopathology and public safety, such as humanitarian perspective (i.e. quality of life), life condition and rehabilitation techniques and concepts mediated by the community psychiatry (e.g. recovery active participation in treatment, individual empowerment) [14] both in the cognition phase of the trial and for the purpose of executing the sentence or security measures [15]. Furthermore, to be adequate, evaluation tools in forensic psychiatric practice should also have satisfactory psychometric properties (i.e. reliability and validity) and should be sufficiently sensitive and specific to longitudinally measure behavioral, clinical and functional changes [16]. However, very few assessment instruments have been developed to specifically examine the patient's treatment progress and the changeability of problematic and protective behaviors and skills [17]. In this respect, an interesting example of dynamic forensic psychiatric assessment tool is the "Instrument of Forensic Treatment Evaluation" (IFTE) [18], specifically developed to evaluate and longitudinally monitor skills and behaviors that, according to the RNR model, could be reduced or improved during treatment (e.g. protective factors [such as medication use and positive coping strategies], resocialization abilities). The approved Italian version of the IFTE is currently being translated by members of our research group and will be proposed as a ROM tool for measuring forensic treatment overtime.

Nevertheless, given the high specificity of the Italian forensic psychiatric framework and the fact that all the evaluation instruments currently used in Italian forensic practice were developed in different cultures and countries (often where forensic psychiatric hospitals are still active [such as the IFTE]), the aims of this study were: (1) to present an Italian assessment tool (i.e. the "Parma Scale" [*Pr-Scale*] [19]) for the treatment evaluation of forensic psychiatric patients, and (2) to examine its reliability in an Italian sample of prisoners with mental disorder. This scale was developed taking into account the specificity of Italian legal framework and for a quick and easy, but accurate application in different current forensic psychiatric settings, in which intervention and diagnosis should remain relationship-centered [2]. Furthermore, this instrument was designed focusing on patient's empowerment and for a dynamic assessment of treatment planning supported by hope and oriented towards a functional, personal and social recovery.

Methods

Participants

Participants were all male adult *prisoners with mental disorder* enrolled within the Parma Penitentiary Institute (PPI) between 1st June 2021 and 30th October 2021. All individuals were treated by PPI multidisciplinary mental healthcare team members of the Parma Department of Mental Health (DMH), in the Northern Italy. They gave their informed consent prior to their inclusion in the study. Local relevant ethical approval was obtained for the research (AVEN Ethics Committee protocol n. 67506/2020). Procedures and methods of this research also complied with the Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments including humans. The data that support the findings of this study are available on reasonable request from the corresponding author. The data are not publicly available due to privacy and/or ethical restrictions.

The PPI is a male adult prison in which inmates are not selectively placed due to them having specific psychiatric needs. PPI incarceration is based on geographical location of offence or because prisoners committed "mafia" crimes (i.e. the PPI also has maximum security

jail sections) [20]. Since 2019, similarly to psychiatric interventions usually provided in Italian community mental health services, the Parma DMH implemented person-tailored, recovery-oriented treatments for offenders with mental disorder specifically aimed at planning individualized therapeutic-rehabilitation programs elaborated by intramural mental healthcare team in close collaboration with prisoners, family members (where possible) and social and health services included in their belonging community [5].

For the specific purpose of this research, *inclusion criteria* were: (a) age ≥ 18 years and (b) to be a prisoner with mental disorder (as defined in the Diagnostic and Statistical Manual of mental disorders, 5th Edition [DSM-5]) [21] treated within the Parma DMH. *Exclusion criteria* were neurological disorders (e.g. dementia, severe head injury), known moderate/severe intellectual disability (Intelligence Quotient < 50) or any other medical disease inducing inability to express a valid consent for participating in the study.

The Pr-Scale

The Pr-Scale [19] was developed to longitudinally assess and monitor forensic psychiatric treatment progress in offenders with mental disorder treated in different clinical settings (i.e. jail, REMS, community home detention). This progress has been thought to be related to multiple external and internal variables, partly stable (historical) and unchangeable, partly changeable and also associated with social, family and healthcare systems. The instrument is made up of 20 items divided into three main domains: "Historical", "Clinical" and "Treatment Planning" (Appendix I). Indeed, the Pr-Scale longitudinal assessment should consider not only patients' features, their disorders and treatments, but also their rights and opportunities [2]. Pr-Scale items should also be filled out by members of the team of clinicians specifically involved in the patient's forensic psychiatric intervention.

The *Historical* domain includes 5 items concerning past antisocial behavior, current crime, past traumatic experiences and attachment disorders in childhood, past substance misuse and previous treatment failure. These items are usually considered as negative prognostic factors predicting poor long-term outcomes [22].

The *Clinical* domain is made up of 10 items, 5 evaluating clinical characteristics (i.e. cognitive deficit, psychotic symptoms, aggressive/disturbing behavior, presence of a personality disorder/current substance misuse, cognitive deficits, suicide risk) and 5 assessing personal resources (i.e. social skills/abilities in occupational and everyday life activities, coping strategies/motivation to change, awareness of illness and legal status, adaptability/adherence to the treatment program, adherence to drug therapy/therapeutic alliance) in the past month. Indeed, as persistence and severity of symptoms and their treatability are not often linearly associated with patient's functioning, but personal resources are also relevant (e.g. motivation to change, coping strategies, therapeutic alliance) [23], a careful longitudinal evaluation of forensic psychiatric interventions should be not only observational, but also relational [15]. This becomes still more evident in the treatment planning phase.

Finally, the *Treatment Planning* domain includes 5 items examining personal, social and family resources (i.e. social and family support, income, recovery-oriented intervention programs by DMH [such as personal health budget], accommodation and housing opportunity).

Each Pr-Scale item may be rated on a 5-point Likert scale with higher scores corresponding to a greater potential of treatability for prisoners with mental disorder. A total score may be calculated by summing all Pr-Scale item subscores, as well as the scores of the three Pr-Scale domains ("Historical", "Clinical" and "Treatment Planning") may be computed by adding all item subscores included in each dimension. In a cross-sectional assessment, these scores may help to define profiles of severity/feasibility (Appendix I) and the specific items or domains on which it could be urgent and useful to intervene for reinforcing patients' areas of greatest fragility, also in order to predict long-term outcomes (especially after conclusion of the forensic psychiatric treatment). Indeed, the Pr-Scale application should not identify patients with low potential of treatment success, but understand how and with which interventions increasing this poor potential. In a longitudinal evaluation perspective, the Pr-Scale was also designed to be sensitive in measuring behavioral, clinical and treatment planning changes overtime.

Procedures and statistical analysis

For all prisoners, the axis-I diagnosis was formulated in accordance with the DSM-5 criteria using the Structured Clinical Interview for DSM-5 disorders [24]. In this research, we specifically investigated interrater and short-term test-retest *reliability* of the Pr-Scale as preliminary examinations within a broader scale validation process to test its psychometric properties in an Italian sample of offenders with mental disorder in different forensic psychiatric settings besides prison. As additional reliability measure, internal consistency of the Pr-Scale was also examined.

Data were analyzed using the Statistical Package for Social Science (SPSS), version 15.0 for Windows [25]. Categorical parameters were reported as frequencies and percentages, while continuous variables as median and interquartile range. All tests were two-tailed, with significance level (α) set at 0.05.

For testing *interrater reliability*, four mental health professionals (2 psychiatrists and 2 clinical psychologists) of

the Parma DMH were initially trained on the usage of the Pr-Scale through collective supervision sessions by the main author of the instrument. Preliminary administration of the Pr-Scale was conducted before the study. Two of the four raters were then paired for each baseline interview, both simultaneously in the room with the patient. The raters were all members of the PPI team of clinicians involved in the prisoner's treatment. The interrater reliability assesses the agreement among various data collectors measuring the extent to which these raters assign the same score to the same variable. To examine interrater reliability of the Pr-Scale, we used the two-way, mixed effect model with measures of absolute agreement of Intra-Class Correlation (ICC) coefficients, which is commonly performed for ordinal and interval parameters [26]. In the present study, ICC values between 0.50 and 0.75 were considered as moderate agreement, ICCs between 0.76 and 0.90 as substantial agreement, and ICCs higher than 0.90 as almost perfect agreement [27].

The *short-term test-retest reliability* of the Pr-Scale was examined over a 1-week period calculating the coefficient of stability (s) [28] on the PPI total sample. This short-time interval was specifically selected to limit the potential negative impact of both memory effects and symptom changes [29]. In this research, test-retest stability coefficients were interpreted as follows: ≤ 0.50 = unacceptable reliability, 0.51-0.60 = poor reliability, 0.61-0.70 = questionable reliability, 0.71-0.80 = acceptable reliability, 0.81-0.90 = good reliability and > 0.90 = excellent reliability [30].

As additional measure of reliability, the *internal consistency* of the Pr-Scale total score was also calculated using the Cronbach's α statistics within the PPI total sample. In this study, we interpreted alpha values as follows: < 0.5 = unacceptable internal consistency, 0.51-0.60 = poor internal consistency, 0.61-0.70 = questionable internal consistency, 0.71-0.80 = acceptable internal consistency, 0.81-0.90 = good internal consistency and > 0.91 = excellent internal consistency [31].

Results

Thirty male adult PPI prisoners were enrolled in this study. Clinical and sociodemographic characteristics are shown in the Table I. The most frequent DSM-5 diagnoses in the total sample were major depressive disorder (n = 10 [33.3%]) and schizophrenia spectrum and other psychotic disorders (n = 8 [26.7%]).

The overall ICC coefficient for the Pr-scale was 0.963, indicating an excellent *interrater reliability*. Moreover, results of ICC coefficients for each item subscores and the three domain scores ranged from good to excellent, with the exception of item 8 ("Cognitive deficits") that showed an ICC value of 0.761, indicating an acceptable interrater reliability (Tab. II).

For calculating *test-retest reliability*, the Pr-Scale was re-administered in the PPI total sample after a 1-week follow-up period. The coefficient of stability for the Pr-Scale total score was 0.977, indicating an excellent short-term test-retest reliability. Moreover, s values for each item subscores and the three Pr-Scale domain scores were higher than 0.71, suggesting acceptable to excellent test-retest stability (Tab. III).

Finally, the Pr-Scale total score showed a Cronbach's α of 0.746, suggesting a sufficient *internal consistency*.

Discussion

The Pr-Scale was mainly developed to make Italian forensic psychiatric practice more accurate and as ROM tool to longitudinally evaluate treatment efficacy/appropriateness and to assist decision making for improving the quality of person-tailored interventions on

TABLE I. *Sociodemographic and clinical characteristics of the PPI total sample (n = 30).*

Variable	
Gender (male)	30 (100%)
Age at entry (in years)	41.00 (27.00-48.00)
Ethnic group (white Caucasian)	23 (76.7%)
Mother tongue (Italian)	21 (70%)
Education (in years)	12.00 (10.00-13.00)
Duration of illness (in months)	12.00 (6.00-24.00)
DSM-5 diagnosis	
Major depressive disorder	10(33.3%)
Schizophrenia spectrum and other psychotic disorders	8 (26.7%)
Severe borderline personality disorder	6 (20%)
Bipolar and related disorders	6 (20%)

PPI: Parma Penitentiary Institute; DSM-5: Diagnostic and statistical manual of mental disorders, 5th Ed. Frequencies (and percentages) and median (and interquartile range) are reported.

TABLE II. *Interrater reliability of the Pr-Scale in the PPI total sample (n = 30).*

Parma Scale items	ICC
Historical domain	0.979
Item 1 (Crime)	0.987
Item 2 (Previous antisocial behavior)	0.964
Item 3 (Previous substance misuse)	0.963
Item 4 (Previous traumatic experience/attachment disorder in childhood)	0.934
Item 5 (Previous treatment failure)	0.951
Clinical domain (last month)	0.976
Item 6 (Psychotic symptoms)	0.924
Item 7 (Personality disorder/current substance misuse)	0.883
Item 8 (Cognitive deficits)	0.762
Item 9 (Aggressive/disturbing behavior)	0.819
Item 10 (Suicide risk)	0.972
Item 11 (Coping strategies/motivation to change)	0.805
Item 12 (Social skills/ability in occupational and everyday life activities)	0.972
Item 13 (Adaptability/adherence to the treatment program)	0.899
Item 14 (Awareness of illness and legal status)	0.883
Item 15 (Adherence to drug therapy/therapeutic alliance)	0.952
Treatment planning domain	0.910
Item 16 (Family support)	0.965
Item 17 (Social support)	0.882
Item 18 (Economic resources)	0.951
Item 19 (Accommodation/housing opportunity)	0.851
Item 20 (Recovery-oriented intervention program by the DMH)	0.909

Pr-Scale: Parma Scale; PPI: Parma Penitentiary Institute; ICC: Intraclass Correlation Coefficient; DMH; Department of Mental Health

TABLE III. *Test-retest reliability of the Pr-Scale in the PPI total sample (n = 30).*

Parma Scale items	s
Historical domain	0.988
Item 1 (Crime)	0.980
Item 2 (Previous antisocial behavior)	0.972
Item 3 (Previous substance misuse)	0.983
Item 4 (Previous traumatic experience/attachment disorder in childhood)	0.941
Item 5 (Previous treatment failure)	0.912
Clinical domain (last month)	0.995
Item 6 (Psychotic symptoms)	0.893
Item 7 (Personality disorder/current substance misuse)	0.983
Item 8 (Cognitive deficits)	0.842
Item 9 (Aggressive/disturbing behavior)	0.997
Item 10 (Suicide risk)	0.957
Item 11 (Coping strategies/motivation to change)	0.756
Item 12 (Social skills/ability in occupational and everyday life activities)	0.987
Item 13 (Adaptability/adherence to the treatment program)	0.985
Item 14 (Awareness of illness and legal status)	0.961
Item 15 (Adherence to drug therapy/therapeutic alliance)	0.974
Treatment planning domain	0.981
Item 16 (Family support)	0.961
Item 17 (Social support)	0.932
Item 18 (Economic resources)	0.995
Item 19 (Accommodation/housing opportunity)	0.982
Item 20 (Recovery-oriented intervention program by the DMH)	0.988

Pr-Scale: Parma Scale; PPI: Parma Penitentiary Institute; s: coefficient of stability; DMH: Department of Mental Health

offenders with mental disorder. About this, the Pr-Scale was thought for a quick and easy application in different forensic psychiatric settings (i.e. REMS, jail and also for forensic psychiatric patients treated within person-tailored intervention programs in the community) [2]. The main aim of the present study was thus to investigate reliability of the Pr-Scale as preliminary examination of its psychometric properties.

Most of the findings of this research were very promising. The *interrater reliability* was good to excellent (with the exception of item 8 ["Cognitive deficits"]). This is in line with what was observed in the validation study of the IFTE in a clinical population of Dutch offenders with mental disorder treated in a maximum security forensic psychiatric hospital and admitted under a specific compulsory judicial measure [18]. These results suggest the potential, helpful application of the Pr-Scale in Italian forensic psychiatric settings as a ROM tool specifically designed on the Italian peculiar legal framework and within a community psychiatry culture still dominant in public mental healthcare services [15,33,34].

The short-term *test-retest reliability* values of the Pr-Scale were good to excellent, with the exception of item 11 ("Coping strategies/motivation to change"), showing a score of 0.756 (acceptable reliability). These results are also in line with those reported in the Dutch validation study of the IFTE [32]. Finally, the *internal consistency* of the Pr-Scale was overall good, with a Cronbach's α value higher than 0.70 for the total score.

Limitations

A first limitation of this study was associated with the sample composition, exclusively composed of male adult prisoners with mental disorder. Therefore, future research to replicate our promising results on female (or gender-mixed) populations and offenders recruited in different forensic psychiatric settings (such as REMS and community home detention) is needed.

A second weakness was the relative sample size. Therefore, further research on larger forensic psychiatric populations is needed.

Third, participants in this study were grouped together, although heterogeneity in DSM-5 diagnoses was high. Thus, future studies will be able to emphasize whether offenders with different mental disorder differ in psychometric properties of the Pr-Scale.

Finally, the Pr-Scale was administered at a single site. Although single site studies offer the advantage of a more easily controlling by the researcher, multi-site research to replicate our findings is needed.

Overall, these limitations are actually quite relevant and make the results of this research difficult to generalize. Therefore, it is necessary to point out that the Pr-Scale should be currently applicable only in psychiatric prison populations. Moreover, we also want to reiterate that the instrument was developed to mainly focus on care issues and has no purpose with respect to the evaluation of the possible social dangerousness.

Conclusions

The findings of this study showed good to excellent reliability values for the Pr-Scale. This instrument therefore appears to be an easy, quick and reliable tool for forensic psychiatric treatment evaluation in Italy. However, future research to investigate other crucial psychometric properties of the Pr-Scale (e.g. concurrent validity, sensitivity to measure scores' longitudinal changes) is also needed.

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Conflict of interest statement

The Authors declare no conflict of interest.

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Authors contributions

LP, GP and PP contributed to the conception and design of the study. DM, CP, IDA, EM and MS contributed to the data collection. LP contributed to the analysis and interpretation of the results. LP, EL, GP and PP contributed to the draft manuscript preparation. All Authors reviewed the results and approved the final version of the manuscript.

Ethical consideration

Local relevant ethical approval was obtained for the research (AVEN Ethics Committee protocol n. 67506/2020). Procedures and methods of this research also complied with the Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments including humans.

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Appendix I. The "Parma Scale" for forensic psychiatric treatment evaluation

Punteggi

A - AREA ANAMNESTICA

1. **Reato per il quale il paziente è attualmente in struttura/domicilio (carcere, REMS, ecc.) – sia questi in attesa di giudizio o con sentenza provvisoria o definitiva:**
   0. Omicidio
   1. Lesioni personali gravissime, violenza sessuale, rapina armata
   2. Maltrattamenti in famiglia, traffico di stupefacenti (se ripetuti)
   3. Furto, detenzione sostanze
   4. Reati bagatellari (es. oltraggio in corso di TSO, ecc.)

2. **Precedenti condotte di comportamento antisociale** (le informazioni possono essere raccolte direttamente dal paziente, dai familiari, dagli avvocati, dalle cartelle cliniche e/o dagli atti giudiziari):
   0. Omicidio.
   1. Lesioni personali gravissime, violenza sessuale, rapina armata, reati prima dei 10 anni.
   2. Maltrattamenti in famiglia, traffico di stupefacenti.
   3. Furto, detenzione di sostanze, reati bagatellari, oltraggio in corso di TSO, ecc.
   4. Nessuno.

3. **Uso di sostanze**
   4. Nessun problema particolare legato all'assunzione di alcol e/o di droghe, e/o ad altre dipendenze.
   3. Conseguenze psicologiche o sintomi di astinenza e/o di altro tipo, dovute al consumo di alcol o di droghe, notabili solo dagli operatori che conoscono meglio il pz.
   2. Conseguenze psicologiche o sintomi di astinenza e/o di altro tipo, evidenti a tutti gli operatori.
   1. Conseguenze psicologiche (ad esempio compulsione per la sostanza) o sintomi di astinenza gravi o invalidanti o difficili da controllare, ma non così gravi come nel punteggio 0.
   0. Dipendenza grave: la vita del paziente è completamente dominata dalle conseguenze del consumo precedente di alcol o di droghe e/o dalla bramosia per la sostanza.

4. **Precedenti esperienze traumatiche/instabilità nelle relazioni/disturbo della condotta nell'infanzia:**
   4. Nessuna evidenza di eventi traumatici.
   3. Lutti improvvisi e abbandoni in età adulta.
   2. Lutti improvvisi, abbandoni, trascuratezza nell'età evolutiva.
   1. Trascuratezze gravi, violenze fisiche, allontanamento dalla famiglia in età evolutiva.
   0. Gravissime violenze fisiche e sessuali.

5. **Precedenti insuccessi di progetti terapeutico-riabilitativi** (con recidiva di reato/violazione delle misure di sicurezza):
   4. Nessun insuccesso.
   3. N = 1 insuccesso, e/o recidiva di reato/violazione lieve.
   2. N = 2 insuccessi, di cui 1 non attribuibile solo al paziente, e/o recidiva di reato/violazione lieve.
   1. N = 3 insuccessi di progetti ritenuti adeguati, e/o recidiva di reato grave.
   0. Più di 4 insuccessi, recidiva di reato gravissimo.

B - AREA OSSERVAZIONE (periodo ultimo mese)

6. **Presenza di sintomi psicotici positivi**
   4. Nessuna evidenza di deliri o allucinazioni nel periodo di tempo considerato.
   3. Credenze lievemente eccentriche o bizzarre, al di fuori delle comuni convinzioni; il paziente ha visioni, ma

con modesto distress; manifesta comportamenti bizzarri solo per brevi periodi, che non sono conformi alle norme culturali del gruppo etnico in cui il paziente si riconosce.
2. Deliri e allucinazioni sicuramente presenti (ad es. sente voci clamorose).
1. Deliri e allucinazioni accompagnati da severo distress o angoscia, ma non per la maggior parte del tempo, e/o comportamenti evidentemente bizzarri prolungati e vistosi, ma non dannosi.
0. Il paziente è assorbito per la maggior parte del tempo in deliri e allucinazioni e/o ha comportamenti ispirati da deliri e allucinazioni che sono sicuramente dannosi per il paziente e/o per gli altri.

7. Presenza di disturbo della personalità/compulsione all'uso di sostanze

4. Nessun disturbo della personalità. Nessun problema particolare legato all'assunzione di alcol e/o di droghe, o ad altre dipendenze. Riesce a mantenere gli impegni e ad adattarsi alle regole.
3. Tratti di personalità patologici, ma clinicamente secondari. Scarsa compulsione al consumo di alcol o di droghe. Riesce ad adattarsi, anche se a volte è incostante.
2. Disturbo della personalità. Presenza di impulsività, instabilità dell'umore, difficoltà di adattamento alle regole, ma senza gravi violazioni sociali.
1. Grave disturbo della personalità. Presenza di compulsione per le sostanze, instabilità dell'umore, impulsività. In situazioni di stress, peggiorano i comportamenti impulsivi e rischiosi con possibile violazione delle regole sociali (specie in corso di abuso).
0. Gravissimo disturbo della personalità (es. antisociale, borderline, ecc.). Gravissima compulsione, instabilità dell'umore, impulsività. La vita del paziente è dominata dalla compulsione verso il consumo di alcol o di droghe. Ha stabilmente comportamenti discontrollati che mettono a rischio la sicurezza e la salute. Violazione grave e ripetuta delle regole sociali (anche al di fuori degli episodi di abuso).

8. Presenza di deficit cognitivi

4. Nessun problema cognitivo durante il periodo di tempo considerato. Intelligenza nella norma o superiore.
3. Problemi lievi di memoria (ad esempio, dimentica più frequentemente della norma i nomi) o di comprensione. Intelligenza nella norma
2. Problemi di memoria e di comprensione evidenti, ma non gravi come nei punteggi 0 e 1 (ad esempio, si è perso in una località nota o non ha riconosciuto occasionalmente una persona a lui familiare; oppure qualche volta appare perplesso di fronte a decisioni semplici). Intelligenza nella norma o ai limiti della norma.
1. Disorientamento marcato nel tempo, nello spazio e nel riconoscimento di persone, ma non così gravi come nel punteggio 0; appare perplesso di fronte a eventi di tutti i giorni; il discorso è talora slegato e frammentario; rallentamento del pensiero (basta la presenza di una sola di queste caratteristiche). Ritardo mentale lieve-medio.
0. Disorientamento o disorganizzazione del pensiero gravi (ad esempio, sistematicamente è incapace di riconoscere i parenti più stretti, confonde i momenti della giornata, non si ricorda di aver mangiato, i discorsi sono incomprensibili, obnubilamento grave dello stato di coscienza) (basta la presenza di una sola di queste caratteristiche). Ritardo mentale grave. Le problematiche di questo tipo sono tali da mettere il paziente a rischio di incidenti.

9. Presenza di comportamenti disturbanti e aggressivi

4. Assenza di problemi particolari durante il periodo di tempo considerato.
3. Irritabilità esagerata, litigiosità e/o irrequietezza, ma meno gravi che nei punteggi successivi; espressioni di minaccia non ripetute (al massimo 2), che non è probabile che portino all'agito aggressivo.
2. Espressioni di minaccia ripetute (gestuali e/o verbali); atti di molestia fisica ripetuti, che è molto improbabile che possano dare luogo a lesioni (ad esempio "prese" fisiche o spintoni); danni di modesta entità alle cose (ad esempio, rottura di suppellettili o di vetri); iperattività e agitazione evidenti e prolungate, ma non particolarmente disturbanti per familiari, conviventi e amici, e che il paziente riesce, almeno in parte, a controllare.
1. Uno o più attacchi fisici a persone o animali, tali da avere causato o potere causare traumi non gravi (cioè compatibili con pochi giorni di prognosi [non più di 5]); danneggiamento di cose più grave che al punteggio 2, ma non tali da mettere in pericolo l'incolumità di persone o animali; atti osceni ripetuti, non presenti però nella maggior parte dei giorni; iperattività evidentemente disturbante, non controllabile.
0. Uno o più attacchi fisici gravi a persone o animali; comportamenti evidentemente minacciosi o osceni presenti nella maggior parte dei giorni; atti evidentemente distruttivi e potenzialmente pericolosi per l'incolumità di persone e animali.

10. Rischio suicidario

4. Nessun problema di questo tipo durante il periodo di tempo considerato.
3. Rischio lieve. Pensieri passeggeri di farla finita, ma senza reale convinzione; pensieri anche protratti di procurarsi una lesione, ma nessun gesto autolesivo.
2. Rischio di modesta entità. Ha pensato più volte e/o a lungo a uccidersi, ma senza progettare in dettaglio il suicidio; ha compiuto gesti autolesivi non pericolosi e non menomanti (ad esempio, si è spento le sigarette sulle mani, si è fatto tagli superficiali ai polsi).
1. Rischio evidente. Ha progettato il suicidio in dettaglio; ha compiuto degli atti preparatori (ad esempio, ha accumulato pillole e/o ha commesso un tentativo di suicidio più grave di quello del punteggio 2, ma ancora con scarsa lesività e possibilità di riuscita).
0. Tentativo di suicidio serio, con pericolo evidente di riuscita; gesto autolesivo intenzionale grave con esito in menomazione o con evidente pericolo di menomazione o morte.

11. Utilizzo di strategie di coping/motivazione al cambiamento

4. È molto motivato al cambiamento; investe fortemente negli impegni formativi, lavorativi, nelle attività. Piena tenuta comportamentale. Si sente in colpa per quanto è accaduto ed è empatico.
3. È motivato al cambiamento; investe negli impegni; si controlla, ma con qualche problema di tenuta. Il senso di colpa è modesto, ma riconosce di avere provocato un danno e di doverne rispondere.
2. La motivazione al cambiamento è presente, ma instabile, e la tenuta comportamentale è appena sufficiente. Non ha senso di colpa, ma riconosce di avere provocato danni.
1. Scarsa motivazione al cambiamento; progetti molto vaghi e tenuta comportamentale inadeguata. Tende a dare la colpa agli altri per quanto accaduto e non considera il danno provocato.
0. Gravi problemi di tenuta comportamentale; nessuna motivazione al cambiamento. Nessun senso di colpa e nessun riconoscimento del danno. Indifferenza verso il benessere degli altri.

12. Abilità nelle attività di vita quotidiana/lavorative/nelle relazioni sociali

4. È molto abile, attivo e adeguato nelle attività della vita quotidiana; collabora positivamente alle attività. Può studiare o lavorare all’esterno (se autorizzato). Ottimo comportamento con gli altri.
3. È abile, motivato e partecipa alla vita quotidiana. Può lavorare all’esterno. Si controlla, ma necessita di qualche sostegno.
2. Collabora alle attività quotidiane in modo sufficiente, ma è instabile. Può lavorare o studiare solo con sostegni.
1. Scarsa collaborazione alle attività di vita quotidiana. Va costantemente sollecitato.
0. Gravi problemi di tenuta comportamentale; scarsissima o nessuna collaborazione alle attività quotidiane.

13. Capacità di adattamento, rispetto delle regole/adesione al programma di cura

4. Il paziente collabora bene con gli operatori e ha definito degli obiettivi personali (compreso quali interventi effettuare in caso di crisi). Piena comprensione e rispetto delle regole e/o delle misure di sicurezza.
3. Il paziente è capace di adattarsi; è dotato di insight e non pone particolari problemi di adesione al programma di cura e al rispetto delle misure di sicurezza e/o delle regole.
2. Qualche problema di rapporto con gli operatori, ma segue il programma in modo “passivo”.
1. Paziente molto richiestivo; maggiori difficoltà a collaborare e ad accettare le indicazioni e i consigli, e ad aderire al programma di cura. Scarsa comprensione delle regole e/o delle misure di sicurezza, che gli vanno ricordate per evitare la sua tendenza alle violazioni.
0. Richieste eccessive, atteggiamenti oppositivi, incoerenza nei comportamenti, tali da determinare quasi costantemente maggiori sforzi da parte degli operatori (e loro conseguente frustrazione). Totale incomprensione delle regole e/o delle misure di sicurezza, e possibili violazioni attive.

14. Consapevolezza di malattia e della propria condizione giuridica

4. Consapevolezza piena e ottima collaborazione.
3. Fornisce una spiegazione adeguata e ragionevole; mostra discreta collaborazione.
2. Fornisce spiegazioni instabili, a volte coerenti e a volte incoerenti; mostra sufficiente collaborazione.
1. Fornisce spiegazioni molto confuse, molto vaghe (es. “non so”).
0. Fornisce spiegazioni deliranti; nessuna consapevolezza di malattia e/o delle propria condizione giuridica.

15. Adesione alla terapia farmacologica/alleanza terapeutica

4. Ottima adesione alla terapia farmacologica, che assume spontaneamente e con consapevolezza del bisogno. È certa l'assunzione alla dimissione/termine del progetto terapeutico.
3. Assume regolarmente la terapia farmacologica con una buona collaborazione; è altamente probabile l'assunzione alla dimissione/termine del progetto terapeutico.
2. Accetta passivamente la terapia, senza particolari opposizioni, ma con modesta convinzione. È incerta l'assunzione alla dimissione/termine del progetto terapeutico.
1. Rifiuta passivamente la terapia farmacologica. La accetta solo in presenza di operatori e/o acconsente di praticare esclusivamente il farmaco long-acting. Una volta dimesso/terminato il progetto terapeutico, è altamente probabile la non assunzione delle cure.
0. Rifiuta attivamente la terapia farmacologica. Anche la somministrazione del farmaco long-acting risulta molto difficoltosa. Una volta dimesso/terminato il progetto terapeutico, non assumerà la cura.

C - AREA PROGETTUALITÀ

16. Presenza di una rete familiare adeguata (accertata anche attraverso colloqui con i familiari)

4. Tutti i familiari, di cui si è potuto accertare l'atteggiamento, guardano con favore alle dimissioni/termine del progetto terapeutico del paziente, anche nel lungo periodo. Possono essere presenti piccole preoccupazioni.
3. Tutti i familiari guardano con favore alle dimissioni/termine del progetto terapeutico, ma preferirebbero che avvenissero dopo diversi mesi.
2. Alcuni familiari sono ambivalenti o disinteressati.
1. Familiari molto preoccupati, allarmati dalla dimissione/termine del progetto terapeutico del paziente.
0. Familiari ostili e rifiutanti.

17. Presenza di una positiva rete sociale di supporto

4. La rete sociale è presente, ricca e guarda con favore alle dimissioni/termine del progetto terapeutico del paziente.
3. La rete sociale è presente, accetta le dimissioni/termine del progetto terapeutico, ma esprime timori comprensibili.
2. La rete sociale è appena sufficiente, ma debole e poco supportiva.
1. Rete sociale ambivalente o disinteressata o sfuggente, poco coinvolgibile; rete sociale scarsa o molto preoccupata, allarmata dalla dimissione/termine del progetto terapeutico del paziente.
0. Rete sociale assente, ostile, rifiutante, rivendicativa.

18. Presenza di risorse economiche (reddito, lavoro, ecc.)

4. Risorse economiche molto elevate e disponibili per i progetti del paziente.
3. Risorse economiche buone e disponibili.
2. Risorse economiche appena sufficienti; necessità di supporti pubblici.
1. Risorse economiche minime o sotto il minimo vitale, necessità di supporti pubblici straordinari e più continuativi.
0. Risorse economiche assenti.

19. Presenza di opportunità abitative (strutture socio-sanitarie, abitazione autonoma, rientro in famiglia)

4. Tutte le opportunità abitative sono presenti: alloggio proprio, in famiglia, strutture socio-sanitarie; la persona può scegliere.
3. Sono presenti almeno due diverse possibilità abitative.
2. È presente solo una possibilità abitativa.
1. È disponibile solo la possibilità abitativa in strutture socio-sanitarie.
0. Nessuna disponibilità abitativa.

20. Atteggiamento del Dipartimento di Salute mentale-Dipendenze Patologiche (DSM-DP). Possibilità di attivazione di un progetto personalizzato con Budget di Salute orientato alla recovery.

Punteggi

4. IL DSM-DP è presente e molto attivo. Tutte le componenti del Budget di Salute sono presenti (paziente, famiglia, rete sociale, volontariato, cooperazione, ente locale, ausl) ed è possibile un intervento su tutti gli assi funzionali (abitare, formazione/lavoro, socialità).
3. Il DSM-DP è collaborativo. Per il Budget di Salute sono presenti solo paziente, famiglia, ente locale e Ausl.
2. Il DSM-DP è presente, ma i progetti sono scarsamente realizzabili. I servizi sociali sono assenti. Sono presenti solo paziente, famiglia e Ausl.
1. Il DSM-DP è passivo e formula proposte poco realizzabili. Al momento il Budget di Salute non è disponibile, ma potrà esserlo in futuro.
0. Nessuna reale disponibilità del DSM-DP.

Scala di Parma per la valutazione evolutiva del paziente psichiatrico autore di reato.				
A - Area anamnestica				
1. Reato				
4	3	2	1	0
Molto lieve	Lieve	Moderato	Grave	Gravissimo
2. Precedenti condotte antisociali				
4	3	2	2	0
Assente	Lieve	Moderato	Grave	Gravissimo
3. Uso di sostanze				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo
4. Precedenti esperienze traumatiche/instabilità nelle relazioni e/o disturbo della condotta nell’infanzia				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo
5. Precedenti insuccessi di progetti terapeutico riabilitativi				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo
B - Area osservazione				
6. Presenza di sintomi psicotici positivi				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo
7. Presenza di disturbi gravi della personalità /compulsione all’uso di sostanze				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo
8. Presenza di deficit cognitivi				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo

9. Presenza di comportamenti disturbanti ed aggressivi				
4	3	2	1	0
Assente	Lieve	Moderato	Grave	Gravissimo
10. Rischio suicidario				
4	3	2	1	0
Assente	Lieve	Moderato	Elevato	Molto elevato
11. Utilizzo di strategie di coping/motivazione al cambiamento				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
12. Abilità nelle attività di vita quotidiana/lavorative/nelle relazioni sociali				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
13. capacità di adattamento, rispetto delle regole/adesione al programma di cura				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
14. Consapevolezza di malattia e della propria situazione giuridica				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
15. Adesione alla terapia farmacologica				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
C - Area progettualità				
16. Presenza di una rete familiare adeguata				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
17. Presenza di una rete sociale di supporto				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
18. Presenza di risorse economiche/reddito/lavoro				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
19. Presenza di opportunità abitative (strutture socio-sanitarie, abitazione autonoma, rientro in famiglia)				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato
20. Atteggiamento del DSMDP. Possibilità di attivazione di un progetto Personalizzato con Budget di Salute				
0	1	2	3	4
Assente	Lieve	Moderato	Elevato	Molto elevato

Area anamnestica (severità)	Area osservazione (severità)	Area progettualità (attuabilità)
0-5 molto grave	0-10 molto grave	0-5 molto bassa
6-10 grave	11-20 grave	6-10 bassa
11-15 moderata	21-30 moderata	11-15 buona
16-20 lieve	31-40 lieve	16-20 alta

Scores

A – Historical domain

1. **Crime** (for which the patient is currently in prison, psychiatric facility, judicial psychiatric hospital, at home, etc.); this includes people awaiting trial or provisionally or definitively sentenced:
   0. Murder.
   1. Very serious personal injury, sexual assault, armed robbery.
   2. Abuse in the family, drug trafficking (if repeated).
   3. Theft, possession of drugs.
   4. Minor crimes (e.g. insulting to a public official during a compulsory medical treatment, etc.).

2. **Previous antisocial behavior** (information can be collected from the patient, family members, lawyers, clinical charts and/or judicial acts)
   0. Murder.
   1. Very serious personal injury, sexual violence, armed robbery, crimes before the age of 10.
   2. Family abuse, drug trafficking
   3. Theft, possession of illegal drugs and/or minor crimes (e.g. insulting to a public official during a compulsory medical treatment, etc).
   4. None.

3. **Previous substance misuse**
   4. No relevant problems related to substance use or other pathological addiction.
   3. Psychological (e.g. craving) or withdrawal symptoms and/or other psychiatric symptoms due to the consumption of alcohol or illegal drugs, but exclusively reported by mental health professionals who knew the patient best.
   2. Psychological (e.g. craving) or withdrawal symptoms and/or other psychiatric symptoms reported by all mental health professionals.
   1. Psychological (e.g. craving) or withdrawal symptoms that were severe, disabling, or difficult to control, but not as serious as in the score 0.
   0. Severe addiction: the patient's life was completely dominated by previous alcohol or drug misuse, and/or craving.

4. **Previous traumatic experiences/attachment disorder in childhood**
   4. No evidence of traumatic experiences.
   3. Sudden bereavement and abandonment in adulthood.
   2. Sudden bereavement, abandonment, neglect in the developmental age.
   1. Serious neglect, physical violence, estrangement from the family in the developmental age.
   0. Very serious physical and sexual violence.

5. **Previous therapeutic-rehabilitation intervention failure** (with crime recidivism or violation of security measures)
   4. No failure.
   3. One failure and/or crime recidivism/slight violation of security measures.
   2. Two failures (of which one not exclusively attributable to the patient) and/or minor crime recidivism/slight violation of security measures.
   1. Three failures, of which one with a serious crime/repeated violation of security measures.
   0. More than three failures with a very serious crime/repeated violation of security measures.

B – Clinical domain (last month)

6. **Psychotic symptoms**
   4. No delusions or hallucinations.
   3. Slightly eccentric or bizarre beliefs (outside the common sense); the patient may experience visual halluci-

nations, but with a modest level of distress; the patient has bizarre behavior only for short time periods (this behavior does not conform to the cultural norms of the ethnic group to which the patient belongs).
2. Full-blown delusions and hallucinations, but experienced with mild distress.
1. Delusions and hallucinations with severe distress, but not for most of the time, and/or prolonged, striking, but not harmful bizarre behavior
0. The patient is absorbed most of the time in delusions and hallucinations and/or shows behaviors inspired by delusions and hallucinations that are potentially harmful for herself/himself and/or for other people.

7. Personality disorders/current substance misuse

4. No personality disorder. No problems related to current substance (alcohol and/or illegal drugs) misuse or other current pathological addiction. The patient is able to keep her/his commitments and obey the rules.
3. Pathological, but clinically secondary personality traits; low compulsion to alcohol or illegal drugs. The patient is able to obey, but sometimes she/he is hit and misses.
2. Moderate symptoms of personality disorder (e.g. impulsiveness, mood instability, difficulty in obeying the rules, but without serious social violations).
1. Severe symptoms of personality disorder: substance compulsion, severe impulsivity and mood instability. In stressful situations, impulsive and risky behaviors worsen with potential violation of social rules (especially during substance abuse).
0. Very serious symptoms of personality disorder: very severe compulsion, very severe mood instability, impulsiveness and/or aggressiveness. The patient's life is dominated by the substance compulsion. The patient often has unchecked behaviors that put her/his safety and health at risk. Serious and repeated violation of social rules (even outside the substance abuse).

8. Cognitive deficits

4. No cognitive deficits. Normal or higher intelligence.
3. Slight cognitive deficits, such as mild understanding or memory problems (e.g. the patient more frequently forgets the names). Intelligence within the normal range.
2. Obvious memory and understanding deficits, but not as severe as in the scores 0 and 1 (e.g. the patient is lost in a known location, or occasionally failed to recognize a family member, or sometimes is perplexed by simple decisions). Intelligence on the edge of the normal range.
1. Marked spatial-temporal disorientation and in the recognition of common people, but not as serious as in the score 0; the patient is perplexed by everyday events; her/his speech is sometimes unrelated and fragmentary; her/his thought is slow. Mild to medium mental retardation.
0. Serious spatial-temporal disorientation or thought disorganization (e.g. the patient is systematically unable to recognize family members and/or the times of the day; the patient does not remember having eaten; her/his speech is not clear, severe clouding of the stream of consciousness). These clinical characteristics potentially put the patient at risk of accidents.

9. Aggressive/disturbing behavior

4. No aggressive/disturbing behavior.
3. Higher irritability, litigiousness, and/or restlessness, but less severe than in the other scores; at least two expressions of threat that are not repeated and are not likely to lead to verbal or physical aggression.
2. Repeated (gestural and/or verbal) threatening expressions; repeated physical aggression without injury (e.g. physical “grabbing” or pushing); minor damage to property (e.g. breakage of furnishings or glass); prolonged hyperactivity and agitation, but not particularly disturbing for family members and friends, and which the patient is partially able to control.
1. One or more physical attacks on people and/or animals, such as to have caused or potentially cause minor trauma (e.g. with a mild prognosis [no more than 5 days]); damage to property more serious than at the score 2, but not such as to endanger the safety of people and/or animals; repeated obscene acts, but not present on most days; obviously disturbing and uncontrollable hyperactivity.
0. One or more severe physical attacks on people and/or animals; obviously threatening or obscene behavior present on most days; obviously destructive and potentially dangerous acts for the safety of people and/or animals.

10. Suicide risk

4. No suicide risk.
3. Minor risk. Passive thoughts of ending it all, but without real conviction; (even protracted) thoughts of injuring oneself, but no self-inflicted behavior.
2. Small risk. The patient thought several times and/or for a long time about killing herself/himself, but without a suicide planning; the patient made non-dangerous self-injurious behaviors (e.g. she/he put out cigarettes on her/his hands, she/he made superficial cuts to her/his wrists).
1. High risk. The patient planned the suicide in detail; she/he performed preparatory acts (e.g. she/he stored pills and/or committed a suicide attempt more serious than in the score 2, but still with little harm and chance of success).
0. Serious suicide attempt, with high chance of success; serious intentional self-harm with impairment or with high chance of impairment or death.

11. Coping strategies/motivation to change

4. The patient is very motivated to change; she/he invests heavily in training/work opportunities and activities. Adequate behavior. She/he feels guilty about what happened and is empathetic.
3. The patient is motivated to change and invests in her/his training/work commitments; she/he controls her/his behavior, but with some problems. Guilt is modest, but the patient is aware that she/he caused harm and that she/he must take responsibility for it.
2. Motivation is present, but unstable; behavior is poorly adequate. The patient has no guilt, but is aware that she/he caused a damage.
1. Low motivation to change; very vague life plans and inadequate behavior. The patient tends to blame others for what happened and does not consider the damage she/he caused.
0. Serious behavioral problems; no motivation to change. No sense of guilt and no awareness of crime responsability. Indifference towards others.

12. Social skills/ability in occupational and everyday life activities

4. The patient is very skilled, active and adequate in daily life activities; she/he can study or work (if authorized). Good behavior with others.
3. The patient is skilled, motivated and participates in daily life activities. She/he can work. She/he controls herself/himself, but with some external support.
2. The patient sufficiently cooperates in daily life activities, but is unstable. She/he can work or study only with supports.
1. Poor cooperation in daily life activities. She/he must be constantly supported.
0. Serious behavioral problems; very little or no collaboration.

13. Adaptability/adherence to the treatment program

4. The patient collaborates in the treatment program and defines personal goals (including crisis intervention). Full understanding and compliance with the rules and security measures.
3. The patient is able to adapt; she/he shows illness insight; no problems with adherence to treatment program and with compliance with the rules and security measures.
2. Some problems with adherence to the treatment plan; she/he passively follows the program.
1. Greater problems in collaborating and accepting clinical indications, as well as in adhering to the treatment program. Poor understanding of the rules and security measures, which must be often remembered to avoid her/his tendency to violate.
0. Oppositional attitudes; problematic behavior in adaptability and adhering to the treatment program, such as to almost constantly require greater efforts by mental health professionals. Total misunderstanding of the rules and security measures, and possible active violation.

14. Awareness of illness and legal status

4. Full awareness of illness and legal status, and optimal cooperation.
3. The patient provides an adequate and reasonable explanation of illness; she/he shows good cooperation.
2. The patient provides unstable (sometimes coherent and sometimes inconsistent) explanations of illness; she/he shows sufficient cooperation.

1. The patient gives very confusing, very vague explanations of illness (e.g. “I don't know”).
0. The patient provides delusional explanations of illness; no awareness of illness and legal status.

15. Adherence to drug therapy/therapeutic alliance

4. Optimal adherence with the drug therapy (the patient takes spontaneously the psychopharmacological therapy and with awareness of need). The treatment continuation after the discharge from the current forensic program is certain.
3. The patient regularly takes the drug therapy with good cooperation; the treatment continuation after the discharge is highly probable.
2. The patient passively accepts the therapy, without opposition, but with modest conviction. The treatment continuation after the discharge is uncertain.
1. The patient passively refuses the drug therapy. She/he takes therapy only in the presence of mental health professionals, and/or agrees to only practice the long-acting formulation. The treatment continuation after the discharged is poorly probable.
0. The patient actively refuses the drug therapy. The administration of the long-acting formulation is also very difficult. The treatment continuation after the discharge is not highly probable.

C – Treatment planning domain

16. Family support (also assessed through interviews with family members):

4. All family members look favorably on the patient's discharge/termination of her/his treatment program, even in the long term. Small concerns may be present.
3. All family members look favorably upon discharge/termination of the treatment program, but they would prefer it to take place after several months.
2. Some family members are ambivalent or disinterested.
1. The family members are very worried, alarmed by the patient's discharge/termination of the treatment program.
0. The family members are hostile and rejecting treatment discontinuation.

17. Social support

4. The social support is present, adequate and looks favorably on the discharge/termination of the patient's treatment program.
3. The social support is present, accepts the termination of the patient’s treatment program, but has understandable fears.
2. The social support is barely sufficient, but weak and not very supportive.
1. The social support is ambivalent or disinterested or elusive; it is very worried or alarmed by the patient's discharge/termination of the treatment program.
0. The social support is absent and hostile.

18. Economic resources

Score:

4. High economic resources available for the patient’s treatment program.
3. Good and available economic resources.
2. Barely sufficient economic resources; need for public economic support.
1. Minimal economic resources (also under the vital minimum), need for extraordinary public support.
0. Economic resources are absent.

19. Accomodation/housing opportunity

Score:

4. All housing opportunities are present: own accommodation, accomodation with family members, social and health facilities (the patient can choose).
3. There are at least two different housing opportunities.
2. There is only one accommodation opportunity.

1. Only the possibility of social or health facilities is available.
0. No housing opportunity.

20. Possibility of planning person-centered, recovery-oriented intervention programs by the Department of Mental Health (DMH) (e.g. Personal Health Budget).

Score:

4. The DMH is present and active. All components of the personal health budget are present (i.e. patient, family members, social support, volunteers, social service, local authority, local health services). It is possible to intervene on all axes of functioning (housing, training/work, sociality).
3. The DMH is collaborative. Only the patient, family members, social and health services are present for the personal health budget.
2. The DMH is present, but the treatment programs are scarcely feasible. Social services are absent. Only patient, family members and health services are present.
1. The DMH is passive and makes scarcely feasible treatment proposals. The personal health budget is not available at the moment, but may be in the future.
0. No real availability by the DMH.

The Parma Scale (Pr-Scale) – English version				
A - Historical domain				
1. Crime				
4	3	2	1	0
Very mild	Mild	Moderate	Severe	Extreme
2. Previous antisocial behavior				
4	3	2	2	0
Absent	Mild	Moderate	Severe	Extreme
3. Previous substance misuse				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
4. Previous traumatic experience/attachment disorder in childhood				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
5. Previous therapeutic-rehabilitation intervention failure				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
B - Clinical domain				
6. Psychotic symptoms				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
7. Personality disorder/current substance misuse				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
8. Cognitive deficits				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme

9. Aggressive/disturbing behavior				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
10. Suicide risk				
4	3	2	1	0
Absent	Mild	Moderate	Severe	Extreme
11. Coping strategies/motivation to change				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
12. Social skills/ability in occupational and everyday life activities				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
13. Adaptability/adherence to the treatment program				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
14. Awareness of illness and legal status				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
15. Adherence to drug therapy/therapeutic alliance				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
C - Treatment planning domain				
16. Family support				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
17. Social support				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
18. Economic resources				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
19. Accomodation/housing opportunity				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high
20. Possibility of planning person-centered, recovery-oriented intervention programs by the Department of Mental Health (DMH) (e.g. Personal Health Budget)				
0	1	2	3	4
Absent	Mild	Moderate	High	Very high

Historical domain (severity)	Clinical domain (severity)	Treatment planning domain (feasibility)
0-5 very severe	0-10 very severe	0-5 very low
6-10 severe	11-20 severe	6-10 low
11-15 moderate	21-30 moderate	11-15 good
16-20 mild	31-40 mild	16-20 high