

Assessing Developmental Trauma Disorder and PTSD in Secure Forensic Intellectual Disability Settings

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Abstract

Childhood adversity is common in the lives of individuals with intellectual disabilities (ID) within secure forensic placements, and is not currently well recognized are post-traumatic stress disorder (PTSD), complex PTSD (CPTSD), and Developmental Trauma Disorder (DTD). A two-stage assessment framework was employed in this study to evaluate the prevalence, clinical correlates and dysregulation profiles of adults detained in secure forensic ID services who had PTSD, CPTSD, and DTD-consistent symptomatology. A cross-sectional quantitative design was used across low, medium and high secure forensic ID services, (N=150). The Trauma Screener-ID was used to screen participants in Stage 1. Structured diagnostic evaluations were provided for Stage 2 with the Impact of Event Scale-Intellectual Disabilities (IES-IDs), International Trauma Questionnaire-Intellectual Disabilities (ITQ-IDs), and Diagnostic Interview Trauma and Stressors-Intellectual Disabilities (DITS-IDs). Overall point prevalence for probable ICD-11 trauma disorders was 32.0% (n=48, 95% CI [24.6%, 40.1%]), comprising 14.0% PTSD (n=21) and 18.0% CPTSD (n=27). Another 13.3% (n=20) had sub-threshold core symptoms of PTSD and a significant multi-domain dysregulation in accordance with the DTD. Two-stage trauma screening is viable in secure ID care and results in significant amount of undetected trauma. These results have clinical implications for the need to move away from reactive risk containment approaches to routine multi-stage trauma-informed forensic ID assessment pathways. It is imperative to systematically identify these hidden trauma profiles in order to minimize the length of stay in institutions, the use of restrictive behavioral management practices, and the use of psychological intervention that is formulated and targeted to address complex developmental needs.

Keywords Developmental Trauma Disorder, Post-Traumatic Stress Disorder, Complex PTSD, Intellectual Disability, Forensic; Secure Settings, Trauma-Informed Assessment.

Introduction

Operating forensic health services is increasingly difficult with regards to the capacity to recognise and treat complex psychiatric presentations in detained adults. Behavioral distress is often a long-term problem that extends the length of forensic admissions in these environments [13]. The role of broader demographic conditions and settings on the mental health of populations is evident [21], but there are specific pressures in institutionalized care settings around monitoring behaviors and delivering quality care [19]. Importantly, the systematic reviews have found a very high rate of post-traumatic stress symptoms in neurodevelopmental populations in criminal justice environments [3]. Although there are high risk levels, there is not sufficient consistency in routine trauma screening across secure services and many children with complex trauma histories are not identified. A comparison of clinical and demographic features of detained populations with intellectual disabilities demonstrates that there are significant vulnerabilities at baseline, such as placement disruption and institutional care histories [15]. If trauma goes untreated, secondary issues like emotional dysregulation, and extreme behavioral disturbance often lead to restrictive management practices. It is therefore crucial to implement structured evidence-based pathways to mental health assessment for continuing therapeutic progress and sustainable delivery of services [22]. This study examines a sequential two stage trauma assessment model with detained adults with intellectual disabilities (N = 150) who are faced with the challenges of traditional psychiatric assessment. This research will seek to define the point prevalence of the ICD-11 Post-Traumatic Stress Disorder (PTSD) profile, Complex PTSD (CPTSD) and Developmental Trauma Disorder (DTD) within a secure forensic service, using a preliminary case-finding screen and structured, adapted diagnostic evaluations. Using a two-stage, quantitative assessment process with validated instruments, the aims of this paper are to establish the prevalence and clinical correlates of PTSD, CPTSD and DTD-consistent symptomatology in adult secure forensic ID services. The research questions are as follows:

RQ1: What percentage of adults in secure forensic ID services have probable ICD-11 PTSD and/or CPTSD?

RQ2: What are the independent factors of trauma-exposure characteristics and clinical/offence variables that are associated with probable PTSD/CPTSD caseness?

RQ3: How is dysregulation related to PTSD/CPTSD symptoms in this population in terms of co-occurrence and/or beyond those symptoms?

The study tests the following hypotheses which are based on developmental trauma theory and on current literature on forensic ID:

H1: Estimates of the prevalence of PTSD/CPTSD in the secure forensic ID sample will be significantly higher than ID estimates found in the general population (~10%).

H2: Interpersonal and childhood-onset trauma exposure will result in much greater likelihood of probable PTSD/CPTSD than non-interpersonal or adulthood-onset trauma exposure.

H3: Participants in a distinguishable sub-group will have dysregulation that is consistent with DTD, but with sub-threshold PTSD symptoms.

This study makes a contribution by providing (i) empirical rates of prevalence of ICD-11 PTSD and CPTSD among secure ID care, (ii) multivariable risk-factor models yielding independent correlates of PTSD caseness and (iii) empirical evidence for a distinct sub-group of ID care that is DTD-consistent. The paper is organized as follows: Section 2 describes the method, Section 3 presents the empirical results, Section 4 discusses implications for clinical practice, strengths, and limitations, and Section 5 concludes the paper.

2. Literature Review

People with ID are at a higher risk of being a victim of interpersonal victimization, developmental adversity, and physical abuse than the general population [14]. The effects of adverse childhood experiences (ACEs) are often more severe among forensic inpatients and can pre-date their engagement with the justice system, with early placement instability and a history of trauma common [4]. Systematic evidence has found that trauma exposure in developmental periods within this population sets the stage for a life-long vulnerability to

psychological issues [4]. However, the inter-personal trauma can often be overlooked in traditional forensic assessment frameworks. Clinical records tend to reflect behaviours, but not the internalized trauma that can cause emotional distress [14]. Therefore, systematic assessment protocols are needed to detect historical trauma exposure in forensic inpatients, as there is an urgent need for such [15].

Diagnostic overshadowing in the field of intellectual disability services has been made worse by the longstanding use of standard diagnostic criteria, including the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). However, post-traumatic distress symptoms (hyperarousal, avoidance, intrusive memories) are often mistaken for cognitive impairment, organic brain dysfunction, and primary psychotic disorders [1][6]. This misclassification can result in the wrong pharmacological intervention instead of trauma-related care [6]. The formal introduction of the ICD-11 classification system involved, for the first time, separating Post-Traumatic Stress Disorder (PTSD) from Complex PTSD (CPTSD) [2]. In addition to re-experiencing, avoidance, and perseveration of threat, CPTSD includes a number of "disturbances in self-organization" (DSO): affective dysregulation, negative self-concept, and relational impairment [2]. This is particularly relevant for those with intellectual disabilities housed in secure facilities for whom the trauma is from a long-standing, repeated and interpersonal nature [14].

Furthermore, repeated interpersonal trauma can lead to significant self-regulatory difficulties [5] besides ICD-11 CPTSD constructs.

Developmental Trauma Disorder (DTD) is a conceptualization that includes multi-domain dysregulation, including affective, somatic, cognitive, and behavioral domains that go beyond the standard criteria for PTSD [5]. Empirical research has shown that, symptom-level person-centered approaches can differentiate DTD from standard PTSD symptoms. In a forensic context, it is important to distinguish the complex developmental trauma profiles from traditional PTSD, because the high levels of affective dysregulation and behavioural disturbances directly impact the ward's behaviour and the clinical treatment course [7].

Psychometrically validated instruments that have been developed and adapted for use with individuals with intellectual disabilities are required to accurately identify trauma. The baseline assessment of self-reported trauma symptoms was completed using a psychometric tool, the Impact of Event Scale – Intellectual Disabilities (IES-IDs) [9]. Later work resulted in an adapted version of the International Trauma Questionnaire (ITQ-ID), allowing for the direct assessment of ICD-11 PTSD and CPTSD criteria within a cognitive impairment population [10]. In order to include more self-regulatory trauma and/or stressor dimensions, a Diagnostic Interview Trauma and Stressors–Intellectual Disability (DITS-ID) was created to assess complex trauma and stressor-related profiles [16]. When used together, these detailed diagnostic instruments, together with a preliminary screening instrument like the Trauma Screener–Intellectual Disability, provide an effective and efficient two-stage pathway [17]. The sequential approach has the advantage of directing comprehensive diagnostic evaluations to persons who are screening positive, thereby using as few clinical resources and avoiding evaluation fatigue [17]. Moreover, as services investigate new technologies and digital applications that emphasize the immersive experience in the digital realm, it is imperative to establish clearly defined diagnostic baselines [20].

Although there is progress in adapting the tools of trauma work to people with intellectual disabilities, there are significant gaps in secure forensic care. The first is that, to date, there has not been a study that has been testing an integrated two-stage screening pathway with a large forensic sample (N = 150), as the studies presented have been based on a single screening tool or small case studies. Second, the literature is largely concerned with the diagnosis of PTSD, and not much with more comprehensive and complex trauma profiles such as ICD-11 Complex PTSD and Developmental Trauma Disorder. Last, the process of evaluating services is not structured, and provides inaccurate diagnoses without overwhelming vulnerable patients. The current study directly addresses these gaps by examining the entire two-stage trauma assessment process.

3. Method

3.1 Design and Setting

The current study utilized a cross sectional, quantitative, two-stage evaluation model particularly designed for secure psychiatric settings. Data were collected in units of the

health services that ranged from low to high security in hospitals and specialist residential facilities for adults with intellectual disabilities.

3.2 Participants and Sample Size

The study subjects included adults who were detained in specialist inpatient or residential services in secure intellectual disability facilities.

Inclusion Criteria

Adults (18 years or older) with a clinical diagnosis of mild-to-moderate intellectual disability or borderline intellectual functioning were eligible. Participants had to have current or recent placement (within past 5 years) in a low, medium, or high secure forensic ID service, and a capacity to provide informed consent or an established consultee agreement when capacity was compromised.

Exclusion Criteria

People were excluded if they had acute unmanaged psychosis at the time of assessment. Patients with severe or profound intellectual disabilities who were not able to interact with self-reported instruments administered in the interview and those who did not identify a qualifying index trauma during screening were excluded.

Sample Size and Power Calculations

Participants were recruited from multi-site secure healthcare providers for a total sample of $N = 150$. An expected point prevalence of 30 % was assumed for the presence of PTSD/CPTSD in forensic neurodevelopmental populations, considering the literature midpoint of trauma estimates in this population (4.6 % to 80 %). This 30% prevalence rate would be estimated to within ± 7.3 % with the same precision of 95% confidence using a sample size of $N = 150$. The minimum target needed to achieve the standard of 3 to 5 candidate variables with 10 events per predictor variable (EPV) was 30 to 50 positive cases for multivariable binary logistic regression modeling. With the conservative projection that the prevalence rate would be 30% the target sample size was calculated as $N = 150$ for a total of 45 expected positive cases, meeting a priori statistical power requirements.

3.3 Measurement Battery

A quantitative measurement battery was chosen, including ID adapted, psychometrically valid measures of trauma history, symptom severity, diagnostic status, and covariates, to systematically assess these. Table 1 provides an overview of each measure, its stage of administration, the target construct, and evidence of source validation.

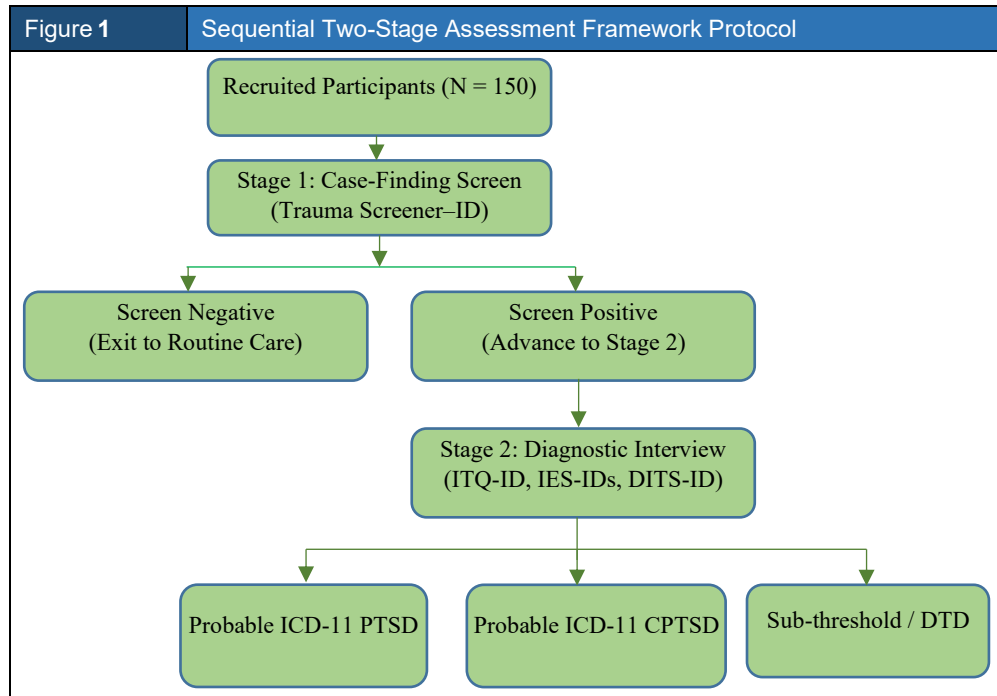
Table 1 ID-Adapted Quantitative Measurement Battery			
Construct / Domain	Instrument / Method	Protocol Stage	Source & Psychometric Validation
Trauma History	Trauma Information Form + Case-Note Review	Stage 1	Identifies index event, onset age, and exposure type.
Case-Finding Screen	Trauma Screener-ID	Stage 1	Validated brief screen for adults with MID-BIF.
PTSD Severity	Impact of Event Scale-IDs (IES-IDs)	Stage 2	Interview format; strong test-retest & inter-rater reliability.
ICD-11 PTSD / CPTSD	International Trauma Questionnaire-ID (ITQ-ID)	Stage 2	ID-adapted wording; good to excellent internal consistency.
DSM-5 PTSD	Diagnostic Interview Trauma & Stressors-ID (DITS-ID)	Stage 2	Structured clinical interview validated for MID-BIF.
DTD	DITS-ID Dysregulation Subscales + Case-Note Review	Stage 2	Operationalises affective, behavioural, and relational dysregulation.
Dysregulation Clinical Covariates	Institutional Clinical & Forensic Records	Baseline	Extracts security level, index offence, stay length, and care history.

Table 1 outlines stage 1, which involves the trauma exposure assessment using the Trauma Information Form and initial case-finding on the Trauma Screener-ID. The severity of core PTSD symptoms is assessed in Stage 2, as is the ICD-11 PTSD/CPTSD caseness and the DSM-5 diagnostic status, using the IES-IDs, the ITQ-ID and the DITS-ID, respectively. As there is no specific adult DTD tool, the developmental dysregulation is operationalised through the DITS-ID dysregulation domains and structured case-note reviews.

3.4 Procedure and Ethical Safeguards

3.4.1 Assessment Procedure and Protocol Workflow

The implementation of the assessment framework was carried out in a sequential two-stage process in the secure forensic facilities that took part in the project (Figure 1). A total of 150 participants were recruited and all of them participated in Stage 1 screening. The Trauma Screener-ID was administered by the care team who had received training on the study protocol in addition to completing clinical and forensic record extraction. Participants that screened negative in Stage 1 went on to routine care. Preliminary trauma concern advanced participants to Stage 2 structured diagnostic evaluation. Assessments (IES-IDs, ITQ-ID and DITS-ID) stage 2 were conducted by qualified clinical psychologists. Interviews were held in several brief sessions, with adaptations in plain language, simple rating scales, and visual prompt cards, to meet the cognitive needs and to reduce fatigue.



The assessment framework has a sequential two stage pathway as depicted in figure 1. Every individual recruited (N = 150) is screened in Stage 1 with the Trauma Screener-ID. Participants with negative screening leave the research protocol and proceed with routine care, and those with positive screen advance to Stage 2 (structured diagnostic evaluation) diagnostic caseness (ITQ-ID, IES-IDs, and DITS-ID) and determining dysregulation profiles.

3.4.2 Ethical Considerations and Participant Protection

The study protocol was submitted for ethical clearance to the appropriate Health Research Ethics Committee. Ethical safeguards were incorporated into both assessment stages, following the Declaration of Helsinki [18] and the ethics guidelines for research involving individuals with intellectual disabilities [12] and are relevant to the situation of a detained forensic patient.

- **Informed Consent and Capacity:** Participant information sheets were created based upon evidence-based frameworks for developing cognitive impairment accessible participant information sheets [8] and used to obtain informed consent. In cases where a participant was not able to give consent, an agreement framework for consultee was established based on protocols validated for proxy decision-making and legal capacity assessment [11].
- **Autonomy in decision-making** was promoted during the assessment sessions within the framework of supported decision-making. Non-verbal stop signals and standardised post-interview debriefing was implemented to reduce potential distress with immediate clinical escalation pathways provided with ward care teams [12].

- **Data Security:** All assessment records were pseudonymized when they were extracted by unique identification codes, and linking keys were kept in encrypted, password protected databases [12].

3.5 Data Analysis Plan

A pre-specified statistical analysis plan specifies the exact analysis, statistical thresholds and reporting structure that will be used to answer each research question. Probable ICD-11 PTSD and CPTSD will be calculated with exact 95% Clopper–Pearson confidence intervals, and compared to the general ID baseline estimate of 10.0% with a one-sample binomial test ($p < .05$). Bivariable comparisons across categorical variables (e.g., interpersonal vs. non-interpersonal trauma) will be assessed using Pearson's chi-square test (χ^2) or Fisher's exact test, depending on the results of the Shapiro–Wilk normality testing of outcome scores, which are continuous variables, across groups. To identify independent predictors of probable PTSD/CPTSD caseness, candidate predictors will be modeled using multivariable binary logistic regression, with reporting of Adjusted Odds Ratios (aOR) and 95% CIs, whilst limiting the Variance Inflation Factor (VIF) to < 5 . Latent Class Analysis (LCA) will be used to model the co-occurrence of DTD-consistent dysregulation and core symptoms of PTSD, with the Akaike Information Criterion (AIC), Bayesian Information Criterion (BIC) and Lo–Mendell–Rubin adjusted likelihood ratio test used to evaluate the model. Cronbach's alpha ($\alpha \geq .70$) will be used to check internal consistency of adapted measures in table 1, ICC will be used to check inter-rater reliability across subsample of 15% ($n = 23$) dual ratings, and Benjamini–Hochberg corrections will be applied to control for the false discovery rate ($p < .05$).

4. Results

The two-stage quantitative assessment framework was completed by 150 participants in the participating secure forensic intellectual disability facilities. All demographic measures, institutional forensic profiles, screening results, primary diagnostic prevalence statistics and secondary severity scores for the total sample are presented in table 2.

Table 2: Quantitative Sample Characteristics and Diagnostic Outcome Metrics

Table 2	Quantitative Sample Characteristics and Diagnostic Outcome Metrics	
Variable Category	Metric / Scale	Full Sample Value (N=150)
Demographics	Age in years, Mean (SD)	34.2 (9.8)
	Gender: Male / Female, n (%)	108 (72.0%) / 42 (28.0%)
	ID Level: Mild / Moderate / MID-BIF, n (%)	92 (61.3%) / 23 (15.3%) / 35 (23.3%)
Clinical Profile	Security Level: Low / Medium / High, n(%)	60 (40.0%) / 68 (45.3%) / 22 (14.7%)
Stage 1 Screening Primary Diagnoses	Length of Stay in months, Median (IQR)	26.5 (14.0–48.0)
	Trauma Screener–ID Positive, n (%)	68 (45.3%)
	Probable ICD-11 PTSD (ITQ-ID), n (%), 95% CI	21 (14.0%, [8.9%, 20.6%])
	Probable ICD-11 Complex PTSD (ITQ-ID), n (%), 95% CI	27 (18.0%, [12.2%, 25.1%])
	Combined PTSD / CPTSD Total, n (%), 95% CI	48 (32.0%, [24.6%, 40.1%])
Secondary Severity	Sub-threshold DTD-consistent Dysregulation, n (%), 95% CI	20 (13.3%, [8.3%, 19.8%])
	IES-IDs Total Score, Mean (SD)	28.4 (12.6)

As presented in table 2, the sample was predominantly male (72.0%, $n = 108$) with a mean age of 34.2 years ($SD = 9.8$). More than half of participants lived in medium or high secure hospital placements (60.0% combined) with a median LOS of 26.5 months across all placements.

Of the 68 participants who were identified for Stage 1 case-finding, 45.3% (30) went on to Stage 2 diagnostic evaluation as they were identified as having preliminary trauma concern. The upper limit for this empirical screening came out higher than the a priori target of 45 positive cases that was stated in the Power calculation. After structured evaluation in stage 2, 48 participants (32.0%) had a diagnosis of probable ICD-11 PTSD ($n = 21$, 14.0 %) or CPTSD ($n = 27$, 18.0 %).

A one-sample binomial test compared the point prevalence of combined ICD-11 PTSD/CPTSD (observed point prevalence = 32.0%, $n = 48$, 95% CI [24.6%, 40.1%]) with the general ID point prevalence established in the literature (10.0%). This observed rate was significantly higher than the baseline benchmark ($p < .001$), supporting H1 completely.

4.1 Predictors of Trauma Caseness

A multivariable binary logistic regression was performed on the full sample (N = 150) to investigate the independent nature of the predictors of probable ICD-11 PTSD/CPTSD caseness. Predictor variables that were considered included trauma exposure type, age at trauma onset, instability of care placement, category of index offense, and institutional security level. The overall multivariable logistic regression model containing all four predictors was statistically significant, $\chi^2(4, N = 150) = 24.18, p < .001$, indicating that the model was reliably able to distinguish between participants with and without probable PTSD/CPTSD caseness. Table 3 presents the regression coefficients, standard errors, adjusted odds ratios (aOR), 95% confidence intervals, and significance levels for each predictor variable.

Table 3: Multivariable Binary Logistic Regression Predicting PTSD/CPTSD Caseness

Table 3	Multivariable Binary Logistic Regression Predicting PTSD/CPTSD Caseness				
Predictor Variable	β	SE	Adjusted Odds Ratio (aOR)	95% CI	p-value
Interpersonal Trauma (vs. non-interpersonal)	1.340	0.432	3.82	[1.64, 8.89]	.002
Childhood-Onset Adversity (vs. Adulthood)	1.082	0.425	2.95	[1.28, 6.78]	.011
Care Placement Instability (\ge 3 placements)	0.451	0.310	1.57	[0.85, 2.88]	.146
Security Level (Medium/High vs. Low)	0.223	0.305	1.25	[0.69, 2.27]	.465

Interpersonal trauma was the strongest independent predictor of probable PTSD/CPTSD caseness, as indicated in table 3. Participants with a history of interpersonal trauma had almost four times the odds of meeting diagnostic criteria than those with a primary index trauma of non-interpersonal trauma, and age of onset of trauma exposure had a significant independent effect: those with childhood onset trauma had nearly three times higher odds of being diagnosed as a case than those with adulthood onset trauma. Care placement instability and increased level of security in institutions were positively correlated with caseness but were not significant when the trauma exposure characteristics were controlled for. The overall results from the empirical studies support H2 completely.

4.2 Latent Class Analysis of DTD Dysregulation

A Latent Class Analysis (LCA) was conducted with DITS-ID dysregulation domain scores to explore co-occurrence of DTD consistent dysregulation with core PTSD symptomatology (RQ3). A 3-class solution provided the best fit to the data based on fit indexes (AIC = 1240.5, BIC = 1272.1, LMR-LRT $p = .014$). Class 1 was defined as a 'Low Trauma/Low Dysregulation' group, Class 2 was a 'Severe PTSD/CPTSD' group and Class 3 identified a distinct 'Sub-threshold PTSD with Severe DTD Dysregulation' group [13.3%, $n = 20$] supporting H3.

5. Discussion

5.1 Interpretation of Findings

The current study tested a two-stage, quantitative process of trauma assessment used with detained adults with intellectual disability in secure forensic settings (N = 150). The empirical results show a high level of trauma-related pathology (ICD-11 diagnostic caseness 32.0 %). The rates are much higher than overall population rates and are consistent with published literature reporting an increased risk for trauma among people with neurodevelopmental disorders in criminal justice and forensic healthcare settings. Perhaps more importantly however, the elevated rate of CPTSD compared to classic PTSD points to the pervasive, interpersonal and chronic nature of adverse childhood experiences (ACEs) and institutional institutionalization found in forensic intellectual disability cohorts.

Importantly, the finding of a distinct sub-threshold dysregulation cohort (13.3 %) with the diagnosis of Developmental Trauma Disorder (DTD) highlights a significant diagnostic question in forensic services. Routine tests are seldom able to detect complex affective, somatic, and behavioral dysregulation, and traumatic distress is often misdiagnosed as difficult behaviours or psychosis. These profiles identified through DITS-ID illustrate the need to examine developmental trauma beyond the traditional diagnostic criteria.

5.3 Hypothesis testing

A two-stage approach is an effective clinical pathway for providing secure forensic services. The use of the Trauma Screener-ID was very efficient for triage, as 45.3 % of the sample was referred for full stage 2 evaluation and none of the screen-negative cases were overburdened with evaluation. In Stage 2, the use of specially adapted and adapted instruments helped to make possible the reliable differential diagnosis via communication pathways that were easily accessible.

Embedded trauma screening is also vital from a policy and service delivery perspective to move away from forensic intellectual disability service provision which is risk containment oriented towards trauma-informed services. Unidentified trauma pathology is associated with length of stay, increased risk for inpatient aggression, and high use of restrictive inpatient practices [13]. Targeted psychological interventions and changes to ward-level behavioral support plans can be planned based on the systematic identification of profiles of PTSD or CPTSD and DTD.

5.3 Strengths and Limitations

One key strength of this investigation was the multi-site design and the relatively large sample size (N = 150) in an under-researched, high-security clinical population. It employed standardised diagnostic tools for the population, as well as extensive ethical protection to ensure maximum participant autonomy and minimise re-traumatization.

There are several caveats, however, that should be noted. First, the cross-sectional design makes it very difficult to make any causal inferences about the directionality between trauma exposure, diagnostic outcomes, and forensic offending behavior. Second, historical trauma exposure was partially based on the record extraction of institutions, which could underestimate covert experiences of trauma or childhood neglect. Thirdly, the sample size was adequate for the purposes of epidemiological modelling but the results obtained in secure forensic environments may not be directly applicable to community-based services for persons with intellectual disability.

5.4 Future Research Directions

Prospective longitudinal designs should be emphasized in future research to monitor the course of CPTSD and DTD symptoms over time in a patient's forensic trajectory from secure admission to community re-entry. Additionally, there is a pressing need for empirical studies to assess the effectiveness and clinical utility of trauma-informed CBT and adapted trauma-focused therapies, specifically for people with intellectual disabilities in secure settings.

This study aims to set out to make the two-stage trauma assessment framework a viable and essential process within the secure forensic intellectual disability service. Using a two-stage process of evaluation, two-thirds of adults in a detained sample (14.0 % ICD-11 PTSD and 18.0 % CPTSD) plus an additional 13.3 % had complex developmental trauma dysregulation. These results support the growing recognition that trauma-related conditions are extremely common but often overlooked in forensic intellectual disability populations, where trauma symptoms are likely to be masked by behaviors and/or cognition.

The positive experiences with the Trauma Screener-ID and adapted diagnostic tools (ITQ-ID, IES-IDs, DITS-ID) illustrate that intensive, ethical and participant-centered trauma assessment can be conducted despite cognitive impairment and secure detention. Accessible communication tools, structured supported decision-making and explicit distress protocols can be embedded in services to reliably detect complex trauma profiles without harming the child. In conclusion, moving from a reactive to a systematic, trauma-informed approach to risk assessment is essential for lowering the length of stay in institutions, the use of restrictive practices, and the provision of personalized therapeutic interventions. Pathways for routine multi-stage trauma care need to be integrated into the standard admission processes within forensic services to respond to the significant trauma histories of this vulnerable inpatient group.

Declarations

Ethics Approval and Consent to Participate: Ethical approval was obtained from the relevant Health Research Ethics Committee. Informed consent or consultee agreement was formally documented for all participants prior to study involvement in accordance with national legal capacity standards.

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Data Availability Statement: Anonymized quantitative datasets generated and analyzed during the study are available from the corresponding author upon reasonable academic request, subject to institutional governance approvals

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