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First community mental health contact after youth justice supervision among adolescents in New South Wales, Australia: timing, setting, and association with reincarceration in a population-based data-linkage study

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Abstract

Background.

Mental disorders are highly prevalent among justice-involved adolescents, and continuity of mental health care is least well maintained when adolescents move between custody, community supervision, and release. We described the timing and setting of first community mental health contact after youth justice supervision, identified characteristics associated with time to first contact, and estimated the association between early contact after release and reincarceration.

Methods.

This population-based retrospective cohort study included 1,589 adolescents aged 10 to 17 years in custody or on community orders in New South Wales, Australia, drawn from four total-population youth justice health surveys linked to administrative health, justice, and mortality records. Mental health disorder was ascertained from health records and self-report. Time to first community mental health contact over 24 months of custody-free follow-up was modelled using flexible parametric survival models. Landmark analyses at 7, 14, 21, and 28 days after release estimated adjusted reincarceration risks using modified Poisson regression.

Results.

Mental health disorder was ascertained in 676 adolescents (42.5%). Among them, 17.8% made community mental health contact within 30 days and 48.4% had no contact within 24 months. Of 349 first contacts, 29.2% occurred through an emergency presentation, a same-day hospital episode, or a psychiatric admission. Contact was slower among Aboriginal and/or Torres Strait Islander adolescents (adjusted hazard ratio 0.74, 95% CI 0.58 to 0.94) and after release from custody (0.44, 0.27 to 0.66, at 24 months), and faster among adolescents with mood disorder and psychosis. Early contact was associated with lower reincarceration at every landmark (adjusted risk ratios 0.82 to 0.84).

Conclusions.

Community mental health contact after youth justice supervision was delayed or absent for many adolescents with a mental health disorder, and first contact frequently occurred through emergency or inpatient care. Early linkage to community mental health care after release should be a shared priority for youth justice and child and adolescent mental health services.

Background

Mental disorder is disproportionately prevalent among adolescents under youth justice supervision. Structured clinical assessments identify at least one mental disorder in 60% or more of this population [1, 2], compared with a pooled worldwide prevalence of approximately 13% in community samples of children and adolescents [3]. Responsibility for their mental health care is divided across custodial health services, community mental health teams, and primary care as young people move between custody, community supervision, and release, and continuity is least well maintained when responsibility passes between these services. Formal discharge planning is frequently absent [4], community mental health contact is low in the immediate post-release period, and psychiatric admission rates rise after justice supervision expires [5]. Whether care reaches these young people in the community, when it begins, and through which settings it first occurs remain uncharacterised, as does the relationship between the timeliness of contact and subsequent justice involvement.

Continuity of care comprises relational, informational, and management dimensions that connect successive episodes of treatment into a coherent pathway [6]. Each move between custody, community supervision, and release places all three at risk through change of treating team, incomplete transfer of clinical information, and weak linkage into community care. The cascade-of-care framework, developed in HIV medicine to locate the points at which patients disengage between diagnosis and sustained treatment response [7], operationalises these dimensions as an ordered sequence of measurable steps, and its extension to a continuum incorporates the timing of engagement [8]. Timing has prognostic significance in this population. Early mental health contact after an offence is associated with reduced reoffending among young people with psychosis [9], treatment during justice supervision with lower reoffending [10], and serious mental illness with higher reoffending and accelerated reincarceration [11, 12].

Research in this population has largely reported the prevalence of mental disorders or of service use aggregated across follow-up. Aggregation conceals whether care begins in the weeks after release or after supervision ends, the stage at which it stops, and the setting through which it first occurs. Identification through screening and referral in detention often proceeds without subsequent treatment [13], and post-release service contact is shaped by prior justice and health-system engagement [14] and by socially structured barriers to help-seeking [15, 16]. Whether such barriers produce systematically slower contact for Aboriginal and/or Torres Strait Islander adolescents, who are overrepresented in Australian youth detention, has not been quantified using designs that count only the time in which community contact was possible.

The present study linked four total-population youth justice health surveys in New South Wales, Australia, to administrative health, justice, and mortality records, and measured follow-up over custody-free community time. It had three aims. First, to describe the timing and setting of first community mental health contact after baseline, separately for adolescents with and without a mental health disorder. Second, among adolescents with a mental health disorder, to estimate which baseline characteristics were associated with time to first community mental health contact. Third, among adolescents released from custody, to estimate whether early contact was associated with subsequent reincarceration.

Methods

Study design and data sources

The present study was a population-based retrospective cohort study using existing de-identified records linked by the Centre for Health Record Linkage through probabilistic matching, with an estimated false-positive linkage rate below 0.5% [17]. New South Wales (NSW) is Australia's most populous state, with approximately 8 million residents [18], and young people aged 10 to 17 years can be charged with a criminal offence within its youth justice system [19]. The linked collections comprised the NSW Bureau of Crime Statistics and Research Reoffending Database for offence, court, custody, and community-order records, the NSW Admitted Patient Data Collection (APDC) for hospital mental health contacts, psychiatric admissions, and same-day hospital episodes, the NSW Mental Health Ambulatory Data Collection (MH-AMB) for community and outpatient mental health contacts, the NSW Emergency Department Data Collection (EDDC) for emergency presentations, the NSW Controlled Drugs Data Collection for opioid agonist treatment (OAT) records, and the NSW Registry of Births, Deaths and Marriages for deaths (Additional file 1: Supplementary Table 1). The study is reported in accordance with the STROBE and RECORD guidelines [20].

Participants

The cohort comprised 1,589 adolescents in custody or serving community orders in NSW who participated in one of four health surveys conducted between 2003 and 2015: the 2003, 2009, and 2015 Young People in Custody Health Surveys and the 2003 to 2006 Young People on Community Orders Health Survey [21–24]. All four surveys used total population sampling. Cohort flow from the linked cohort to the complete-case analytic samples is shown in Additional file 1: Supplementary Fig. 1.

Measures

Mental health disorders were identified using International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) codes recorded in the APDC, MH-AMB, and EDDC, with equivalent ICD-9 codes applied to earlier records and SNOMED-CT emergency codes mapped to ICD-10-AM. Diagnoses were grouped non-hierarchically as mood, anxiety, psychotic, behavioural, alcohol and substance use, and trauma- and stress-related disorders, so a young person could contribute to more than one category, and self-harm history was ascertained separately (Additional file 1: Supplementary Table 3). Self-reported mental health disorder was a survey response indicating a prior diagnosis by a doctor or other health professional. A qualifying mental health service contact (hereafter, contact) was an outpatient mental health episode in MH-AMB, an admitted-patient episode with a mental health diagnosis in APDC, an emergency presentation with a mental health diagnosis in EDDC, or an OAT record, included because substance use disorders were among the disorder categories examined. Contact windows were measured in custody-free community time from baseline (date of survey for community participants, date of release for custody participants), and mental health records occurring during custody episodes after baseline were excluded (Additional file 1: Supplementary Table 2).

Outcomes and follow-up

The outcome for the second aim was the first mental health contact recorded while the young person was in the community, dated to the service contact, emergency presentation, hospital admission, or opioid agonist treatment record. Follow-up ended at the earliest of first community contact, death, or two years, and time spent in custody was excluded from time at risk. Public and private sector contacts in NSW were ascertained through the linked collections, and contacts occurring outside NSW were unobserved. The outcome for the third aim was the first custody episode recorded in the Reoffending Database, on remand or under sentence, beginning after the landmark day and within 24 months of baseline, dated to custody reception. Adolescents who returned to custody on or before the landmark day were excluded from that landmark comparison. Reincarceration was completely ascertained for NSW custody episodes, and interstate detention was unobserved.

Covariates

Covariates were selected before analysis using directed acyclic graphs and existing literature on justice involvement, mental health disorder, and service access (Additional file 1: Supplementary Figs. 2 and 3). The covariate set comprised age, sex, Aboriginal and/or Torres Strait Islander status, area-level socioeconomic disadvantage measured by the Socio-Economic Indexes for Areas (SEIFA), previous custody, prior offence count, prior violent offence, mental health disorder categories, self-harm history, and source of mental health disorder ascertainment.

Statistical analysis

Baseline characteristics and continuity-of-care indicators were summarised using counts and percentages or medians with interquartile ranges, for the full cohort and by mental health disorder status. Scaled Schoenfeld residual tests from Cox models showed evidence against proportional hazards for time to first community mental health contact (Additional file 1: Supplementary Table 6), so Royston-Parmar flexible parametric survival models were fitted on the log cumulative-hazard scale, with the final specification selected by comparing candidate baseline hazards and time-varying effects (Additional file 1: Supplementary Table 7). Time-varying effects were reported as adjusted hazard ratios at selected time points and fixed effects as single adjusted hazard ratios. Sensitivity analyses repeated the primary model after excluding source of disorder ascertainment and after modelling age and prior offence count with restricted cubic splines (Additional file 1: Supplementary Tables 8 and 9). A parallel model was fitted among adolescents without a mental health disorder, excluding

the disorder-category and source-of-ascertainment covariates, which were undefined in this subgroup (Additional file 1: Supplementary Tables 15 to 18).

Landmark analyses examined whether early mental health contact after release from custody was associated with later reincarceration among adolescents with a mental health disorder who entered follow-up from custody, the subgroup in which early contact was frequent enough to support estimation, since contact within the landmark windows was rare under community supervision and produced sparse exposure cells. Separate landmarks were set at 7, 14, 21, and 28 days after release (Additional file 1: Supplementary Table 12). Reincarceration after the landmark and within 24 months of baseline was modelled using modified Poisson regression with robust standard errors, and adjusted risks and risk differences were estimated by marginal standardisation over the complete-case analytic sample (Additional file 1: Supplementary Table 13).

Analyses used complete cases for the covariates in each model. Missingness was at most 2.5% for any covariate (Additional file 1: Supplementary Table 4), and the complete-case sample is compared with excluded participants in Additional file 1: Supplementary Table 5. Tests were two-sided with $p < 0.05$ as the significance threshold. Analyses were performed in R version 4.5.2, with Royston-Parmar models fitted in rstpm2 1.7.1, Cox diagnostics in survival 3.8.6, robust standard errors in sandwich 3.1.1, and coefficient tests in lmtest 0.9.40.

Results

Characteristics of the study population

The cohort included 1,589 justice-involved adolescents, of whom 1,393 (87.7%) were male and 799 (50.3%) identified as Aboriginal and/or Torres Strait Islander (Table 1, Additional file 1: Supplementary Fig. 1). Median age at baseline was 17.0 years (IQR 16.0 to 18.0). Mental health disorder was ascertained in 676 adolescents (42.5%). Adolescents with a mental health disorder were more often in custody at baseline (59.0% vs 45.0%), had previous custody more often (87.4% vs 80.1%), and had a higher median prior offence count (4 [IQR 2 to 7] vs 3 [1 to 5]).

Table 1
Baseline characteristics of the cohort, by mental health disorder status (N = 1,589)

Characteristic	Overall (N = 1,589)	Mental health disorder (N = 676)	No mental health disorder (N = 913)
Age at baseline, years			
Median (IQR)	17.0 (16.0, 18.0)	17.0 (16.0, 18.0)	17.0 (16.0, 18.0)
Mean (SD)	16.6 (1.4)	16.6 (1.5)	16.7 (1.4)
Sex, n (%)			
Female	196 (12.3)	96 (14.2)	100 (11.0)
Male	1,393 (87.7)	580 (85.8)	813 (89.0)
Aboriginal and/or Torres Strait Islander, n (%)			
Yes	799 (50.3)	311 (46.0)	488 (53.5)
No	760 (47.8)	358 (53.0)	402 (44.0)
Missing	30 (1.9)	7 (1.0)	23 (2.5)
SEIFA quartile, n (%)			
Q1 (most disadvantaged)	571 (35.9)	200 (29.6)	371 (40.6)
Q2	381 (24.0)	186 (27.5)	195 (21.4)
Q3	435 (27.4)	199 (29.4)	236 (25.8)
Q4 (least disadvantaged)	163 (10.3)	74 (10.9)	89 (9.7)
Missing	39 (2.5)	17 (2.5)	22 (2.4)
Supervision status, n (%)			
Community order	779 (49.0)	277 (41.0)	502 (55.0)
Custody	810 (51.0)	399 (59.0)	411 (45.0)
Justice history			
Previous custody, yes, n (%)	1,322 (83.2)	591 (87.4)	731 (80.1)
Prior violent offence, yes, n (%)	1,136 (71.5)	486 (71.9)	650 (71.2)
Prior offence count, median (IQR)	3.0 (2.0, 6.0)	4.0 (2.0, 7.0)	3.0 (1.0, 5.0)
Mental health indicators, n (%)			
Mood disorder	122 (7.7)	122 (18.0)	0 (0.0)
Anxiety disorder	116 (7.3)	116 (17.2)	0 (0.0)
Psychosis	87 (5.5)	87 (12.9)	0 (0.0)
Behavioural disorder	210 (13.2)	210 (31.1)	0 (0.0)

Data are n (%) unless otherwise indicated. Baseline is the date of survey for community participants and the date of release for custody participants. IQR, interquartile range; SD, standard deviation; SEIFA, Socio-Economic Indexes for Areas. Baseline mental health indicators are not mutually exclusive and are zero by definition in the group without a mental health disorder, except self-harm history, which did not contribute to the definition of mental health disorder.

Characteristic	Overall (N = 1,589)	Mental health disorder (N = 676)	No mental health disorder (N = 913)
Age at baseline, years			
Alcohol/substance disorder	251 (15.8)	251 (37.1)	0 (0.0)
Trauma/stress disorder	81 (5.1)	81 (12.0)	0 (0.0)
Self-harm history	68 (4.3)	62 (9.2)	6 (0.7)

Data are n (%) unless otherwise indicated. Baseline is the date of survey for community participants and the date of release for custody participants. IQR, interquartile range; SD, standard deviation; SEIFA, Socio-Economic Indexes for Areas. Baseline mental health indicators are not mutually exclusive and are zero by definition in the group without a mental health disorder, except self-harm history, which did not contribute to the definition of mental health disorder.

Timing and setting of first community mental health contact

Among adolescents with a mental health disorder, 84 (12.4%) made mental health contact within 7 days of baseline (Fig. 1), 101 (14.9%) within 14 days, 120 (17.8%) within 30 days, and 151 (22.3%) within 90 days. By 24 months, 349 (51.6%) had at least one recorded contact and 327 (48.4%) had none (Additional file 1: Supplementary Tables 14 and 19). First contact was most often outpatient mental health care. Of the 349 first contacts, 102 (29.2%) occurred through an emergency presentation, a same-day hospital episode, or a psychiatric admission, and 22 (6.3%) through opioid agonist treatment. Adolescents without a mental health disorder had less recorded contact, with 47 (5.1%) within 30 days, 86 (9.4%) within 90 days, and 238 (26.1%) by 24 months (Fig. 2).

Characteristics associated with time to first community mental health contact

Among the 676 adolescents with a mental health disorder, 349 had a first community mental health contact and 327 were censored, including 313 who reached 730 community-follow-up days without contact and 14 censored earlier, three of whom remained in custody throughout observable follow-up. Median community follow-up was 589 days (IQR 110 to 730) among those with a disorder history and 730 days (IQR 653 to 730) among those without. Baseline supervision status showed a time-varying association with first community contact (Table 2). Compared with community supervision, custody was associated with no clear difference at 6 months and progressively slower contact thereafter, with adjusted hazard ratios of 0.66 (95% CI 0.43 to 0.93) at 12 months, 0.51 (0.32 to 0.75) at 18 months, and 0.44 (0.27 to 0.66) at 24 months.

Table 2
Associations with time to first community mental health contact among adolescents with a mental health disorder

Variable	Level / contrast	n	Events / person-years	HR (95% CI)	p
Age	Per year	-	-	0.93 (0.85, 1.00)	0.060
Aboriginal and/or Torres Strait Islander	No	350	209/380.5	Reference	
	Yes	299	130/407.2	0.74 (0.58, 0.94)	0.016
SEIFA quartile	Q1 (most disadvantaged)	198	99/254.5	Reference	
	Q2	183	103/196.1	1.24 (0.93, 1.65)	0.140
	Q3	194	98/245.7	1.03 (0.78, 1.38)	0.822
	Q4 (least disadvantaged)	74	39/91.4	1.38 (0.94, 2.04)	0.099
Previous custody	No	80	25/125.4	Reference	
	Yes	569	314/662.4	1.48 (0.94, 2.33)	0.087
Prior violent offence	No	183	94/230.9	Reference	
	Yes	466	245/556.8	0.86 (0.66, 1.12)	0.273
Prior offence count	Per offence	-	-	1.00 (0.97, 1.03)	0.892
Mood disorder	No	535	254/704.1	Reference	
	Yes	114	85/83.6	1.64 (1.25, 2.15)	< 0.001
Anxiety disorder	No	539	260/703.3	Reference	
	Yes	110	79/84.4	1.14 (0.75, 1.72)	0.539
Psychosis	No	565	277/723.8	Reference	
	Yes	84	62/64.0	1.44 (1.06, 1.96)	0.020
Alcohol/substance disorder	No	412	184/556.6	Reference	
	Yes	237	155/231.2	1.21 (0.93, 1.57)	0.152
Trauma/stress disorder	No	573	284/731.5	Reference	
	Yes	76	55/56.3	1.12 (0.71, 1.78)	0.620
Self-harm history	No	589	298/734.8	Reference	

HR, adjusted hazard ratio; CI, confidence interval; SEIFA, Socio-Economic Indexes for Areas. Estimates are from the complete-case analytic sample (649 of the 676 adolescents with a mental health disorder, with 339 first-contact events); 27 were excluded for missing covariates (Additional file 1: Supplementary Table 5).

Variable	Level / contrast	n	Events / person-years	HR (95% CI)	p
	Yes	60	41/52.9	1.12 (0.78, 1.60)	0.530
Source of ascertainment	Self-report only	211	65/347.8	Reference	
	Health-record diagnosis only	354	225/336.7	1.80 (1.22, 2.66)	0.003
	Health-record diagnosis and self-report	84	49/103.2	1.65 (1.06, 2.58)	0.028
Supervision status	Custody vs community order at 6 months	-	-	0.91 (0.63, 1.25)	0.596
	Custody vs community order at 12 months	-	-	0.66 (0.43, 0.93)	0.033
	Custody vs community order at 18 months	-	-	0.51 (0.32, 0.75)	0.003
	Custody vs community order at 24 months	-	-	0.44 (0.27, 0.66)	< 0.001
Sex	Female vs male at 6 months	-	-	1.41 (1.00, 2.09)	0.074
	Female vs male at 12 months	-	-	1.11 (0.73, 1.93)	0.665
	Female vs male at 18 months	-	-	0.98 (0.51, 1.95)	0.951
	Female vs male at 24 months	-	-	0.94 (0.42, 1.96)	0.868
Behavioural disorder	Yes vs no at 6 months	-	-	1.02 (0.74, 1.48)	0.912
	Yes vs no at 12 months	-	-	0.92 (0.65, 1.44)	0.701
	Yes vs no at 18 months	-	-	0.85 (0.56, 1.48)	0.538
	Yes vs no at 24 months	-	-	0.81 (0.51, 1.49)	0.472

HR, adjusted hazard ratio; CI, confidence interval; SEIFA, Socio-Economic Indexes for Areas. Estimates are from the complete-case analytic sample (649 of the 676 adolescents with a mental health disorder, with 339 first-contact events); 27 were excluded for missing covariates (Additional file 1: Supplementary Table 5).

Compared with self-report only, contact was faster among adolescents with a health-record diagnosis only (adjusted hazard ratio 1.80, 95% CI 1.22 to 2.66) and among those ascertained through both health records and self-report (1.65, 1.06 to 2.58). Contact was also faster among adolescents with mood disorder (1.64, 1.25 to 2.15) and psychosis (1.44, 1.06 to 1.96), and slower among Aboriginal and/or Torres Strait Islander adolescents (0.74, 0.58 to 0.94). Sensitivity analyses supported the main results. Excluding source of disorder ascertainment strengthened some disorder-category associations, and spline terms for age and prior offence count did not improve model fit (Additional file 1: Supplementary Tables 8 and 9). Among adolescents without a mental health disorder (Additional file 1: Supplementary Tables 15 to 18), contact was faster among those whose follow-up began at release from custody (adjusted hazard ratio 1.74, 95% CI 1.27 to 2.38), increased with prior offence count (1.12 per offence, 1.08 to 1.16), and, relative to the most disadvantaged SEIFA quartile, was faster in quartile 2 (1.50, 1.07 to 2.09) and quartile 4 (1.63, 1.05 to 2.54).

Early mental health contact and reincarceration

Within 24 months, 954 adolescents (60.0%) returned to custody (Additional file 1: Supplementary Table 10), including 448 (66.3%) with a mental health disorder and 506 (55.4%) without. Among adolescents with a disorder history, 24-month reincarceration rose from 29.4% among those on community orders with no previous custody to 66.7% among those on community orders with previous custody and 73.9% among those in custody at baseline (Additional file 1: Supplementary Table 11). Among adolescents released from custody, early mental health contact was associated with lower adjusted reincarceration risk through 24 months (Table 3, Additional file 1: Supplementary Tables 12 and 13). Adjusted risk differences were − 12.5 percentage points (95% CI -24.8 to -0.6) at the 7-day landmark, -14.1 (-25.3 to -2.6) at 14 days, -14.0 (-24.6 to -2.9) at 21 days, and − 12.7 (-23.2 to -1.2) at 28 days, with adjusted risk ratios of 0.84 (0.68 to 0.99), 0.82 (0.68 to 0.96), 0.82 (0.68 to 0.96), and 0.83 (0.70 to 0.98), respectively.

Table 3
Early mental health contact and reincarceration through 24 months among adolescents released from custody with a mental health disorder

Landmark	Excluded	N	Complete-case N	Contact by landmark	No contact by landmark	Adjusted risk: contact	Adjusted risk: no contact	Adjusted RD	Adjusted RR
7 days	9	390	373	87	303	65.0 (53.5, 74.2)	77.5 (72.0, 81.0)	-12.5 (-24.8, -0.6)	0.84 (0.68, 0.99)
14 days	29	370	353	94	276	62.7 (52.3, 71.5)	76.9 (71.5, 80.6)	-14.1 (-25.3, -2.6)	0.82 (0.68, 0.96)
21 days	41	358	341	99	259	62.2 (52.1, 70.6)	76.3 (70.6, 80.2)	-14.0 (-24.6, -2.9)	0.82 (0.68, 0.96)
28 days	48	351	335	104	247	63.0 (53.7, 71.3)	75.7 (69.4, 79.8)	-12.7 (-23.2, -1.2)	0.83 (0.70, 0.98)

RD, risk difference in percentage points; RR, relative risk; CI, confidence interval. Contact by landmark is any mental health contact before the stated landmark among adolescents released from custody. The outcome is reincarceration after the landmark and within 24 months. Counts of contact and no contact by landmark are among adolescents remaining at risk after excluding those reincarcerated on or before the landmark and therefore differ from the counts for the full cohort of 399 released-from-custody adolescents shown in Additional file 1: Supplementary Table 12.

Discussion

In this population-based cohort of 1,589 justice-involved adolescents, community mental health contact after youth justice supervision was delayed or absent for many of those with a mental health disorder. Fewer than one in five made contact within 30 days, and close to half made none within 24 months of custody-free follow-up. Almost one in three first contacts occurred through emergency or inpatient care. Contact was slower among Aboriginal and/or Torres Strait Islander adolescents and among adolescents whose disorder history was identified only by self-report, and faster among those with mood disorder or psychosis. Adolescents released from custody made contact at a rate similar to those under community supervision through the first six months and progressively more slowly thereafter, and early contact after release was associated with lower reincarceration at every landmark examined. Resolving care into the timing and setting of first contact locates the point at which continuity breaks down, and linking early contact to reincarceration extends the relevance of continuity from clinical outcomes to later justice involvement.

Delayed and incomplete mental health care after juvenile justice contact has been reported in other service systems. In the Northwestern Juvenile Project, a minority of detained young people with major psychiatric disorders received treatment during detention or in the community following disposition [25], and screening in juvenile detention often proceeds without subsequent diagnostic assessment or treatment [13]. The present study locates the breakdown more precisely, separating two failures that aggregated measures conceal, namely delayed first contact and first contact through emergency or inpatient care. Delay carries particular weight during adolescence, when most mental disorders have their onset [26], and in psychosis, where a longer duration of untreated illness is associated with poorer outcomes [27, 28]. The slowest contact occurred among adolescents whose disorder history was ascertained only through self-report, a group with no prior diagnosis visible in hospital, emergency, or community mental health records before baseline. Their disorder was therefore unrecorded in the services through which subsequent contact was captured.

The present study found slower first community mental health contact among Aboriginal and/or Torres Strait Islander adolescents, who made up 63% of young people aged 10 to 17 in detention on an average day in 2022-23 while representing 5.7% of that age group in the population [29]. Two design features strengthen this estimate. Follow-up accrued only over custody-free community time, which places the group most likely to be incarcerated on the same footing as the rest of the cohort, and contacts occurring during custody were excluded from the outcome, which prevents care received in custody from being misclassified as community linkage. The finding aligns with evidence of uneven community treatment engagement after release from custody [10, 30–32] and with literature on structural barriers to mental health service access for Aboriginal and/or Torres Strait Islander young people, including service availability and geographic distribution, cultural safety of mainstream services, referral pathways, and the effect of justice-system contact on engagement [33–37]. Care delivered outside the study collections, including through Aboriginal Community Controlled Health Services, was unobserved, and whether such care is more common among Aboriginal and/or Torres Strait Islander adolescents remains a question for future research.

Slower contact after release from custody aligns with post-release literature demonstrating poor continuity of care [4, 38] and with NSW evidence that health and justice trajectories deteriorate as supervision and transition supports lapse [5, 39]. Plausible explanations include the loss of custody-initiated treatment plans, weak handover to community services, unstable accommodation, and uncertainty about clinical responsibility after release. Across the four landmarks, early contact was associated with a 12.5 to 14.1 percentage point lower adjusted risk of reincarceration. This is consistent with early care reducing the clinical instability that contributes to further justice involvement, and it is equally compatible with residual differences in family support, supervision intensity, clinical severity, and motivation.

These findings support treating the move from custody or community supervision into ongoing care as a clinical handover point. Adolescents with self-reported disorder and no prior service record warrant particular attention because they were least likely to make timely contact, and screening at justice contact needs to be followed by assessment, referral, and active linkage to community care. Proactive service navigation, in which a designated worker links young people to community mental health services after release, may improve treatment engagement [40]. Transitional models that maintain care across the early months after release, adapted for adolescents through family involvement, education support, accommodation stability, and developmentally appropriate care coordination, may be better suited to this population. The association between early contact and lower reincarceration gives health and justice agencies a shared reason to sustain continuity of care after youth justice contact. Routine linked-data reporting of mental health contact and reincarceration after youth justice contact would let health and justice agencies monitor continuity of care and evaluate service reforms.

The present study has several strengths. Total-population sampling across four surveys improves generalisability to justice-involved adolescents, and combining health-record and self-report ascertainment captured adolescents whose need was never recorded while allowing prior service visibility to be estimated directly. Linkage across admitted-patient, ambulatory mental health, emergency, opioid agonist treatment, justice, and mortality collections gave complete

ascertainment of public-sector mental health contact and reincarceration in NSW. Measuring time to contact over custody-free follow-up counted only time in which contact was possible, and flexible parametric models with time-varying effects accommodated the non-proportional hazards identified in diagnostics. The landmark design fixed contact status before reincarceration follow-up, avoiding immortal time bias, and the estimates were consistent across four landmark definitions.

Several limitations apply. Mental health contact was ascertained from public-sector collections linked within NSW. Care through Aboriginal Community Controlled Health Services, private providers, general practice, school-based services, and interstate providers was unobserved, which undercounts true contact and overstates the absolute care gap, and whether this misclassification is differential by Aboriginal and/or Torres Strait Islander status cannot be determined. The outcome captured the occurrence, timing, and setting of first contact, leaving treatment content, adequacy, duration, and continuation unmeasured. The data record contacts made, so service-side failure to engage is indistinguishable from individual decisions to defer care. Disorder history lacked measures of severity, acuity, and service preference. Adolescents making early contact plausibly differed in severity in a direction the data cannot establish, leaving residual confounding in both the time-to-contact and landmark estimates, and self-reported prior diagnosis is subject to recall and disclosure error. Recruitment spanned 2003 to 2015, over which service configuration and data coverage changed, and emergency records were unavailable for the earliest years, understating recorded contact for adolescents recruited in 2003 and constituting differential misclassification by survey cohort. Custody and reincarceration were ascertained from NSW records, so interstate custodial time may be misclassified as community time at risk and out-of-state reincarceration missed. The landmark analyses condition on remaining in the community, and the exclusion of 9 to 48 adolescents reincarcerated before each landmark selects successive cohorts toward slower-returning adolescents. Finally, early contact was self-selected, the findings may generalise imperfectly beyond NSW, and residual linkage error may have introduced selection bias or misclassification.

Conclusions

Among justice-involved adolescents in New South Wales, community mental health contact after custody or community supervision was delayed or absent for many of those with a mental health disorder, delays were greatest after release from custody and among young people whose disorder was identified only by self-report, and first contact frequently occurred through emergency or inpatient care. Early contact after release was associated with lower reincarceration. These findings support treating the weeks after youth justice supervision as a clinical handover point, requiring active linkage from youth justice to community mental health care, attention to young people with no prior service record, and routine linked-data reporting of contact and reincarceration as shared responsibilities of health and justice agencies.

Declarations

Ethics approval and consent to participate.

Ethical approval was obtained from the NSW Population & Health Services Research Ethics Committee (2019/ETH13028), the Justice Health and Forensic Mental Health Network Human Research Ethics Committee (G692/15), and the Aboriginal Health & Medical Research Council Ethics Committee (1394/18). The study was conducted in accordance with the Declaration of Helsinki. Participants consented to data linkage at the original surveys, and the NSW Population & Health Services Research Ethics Committee granted a waiver of further consent.

Consent for publication.

Not applicable.

Competing interests.

The authors declare that they have no competing interests.

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Author Contribution

EIA: conceptualization, data curation, formal analysis, investigation, methodology, project administration, resources, software, validation, visualization, writing – original draft, writing – review and editing. DG: writing – review and editing. SR: writing – review and editing. AE: writing – review and editing. AK: writing – review and editing. LK: writing – review and editing. JJ: writing – review and editing. ET: writing – review and editing. NZC: writing – review and editing. YIJH: writing – review and editing. AKH: writing – review and editing. TB: writing – review and editing, supervision. All authors read and approved the final manuscript.

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Data Availability

The linked administrative data analysed in this study are not publicly available, because access is governed by the NSW data custodians under the ethics approvals listed above. Analysis code is available from the corresponding author on reasonable request.

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Figures

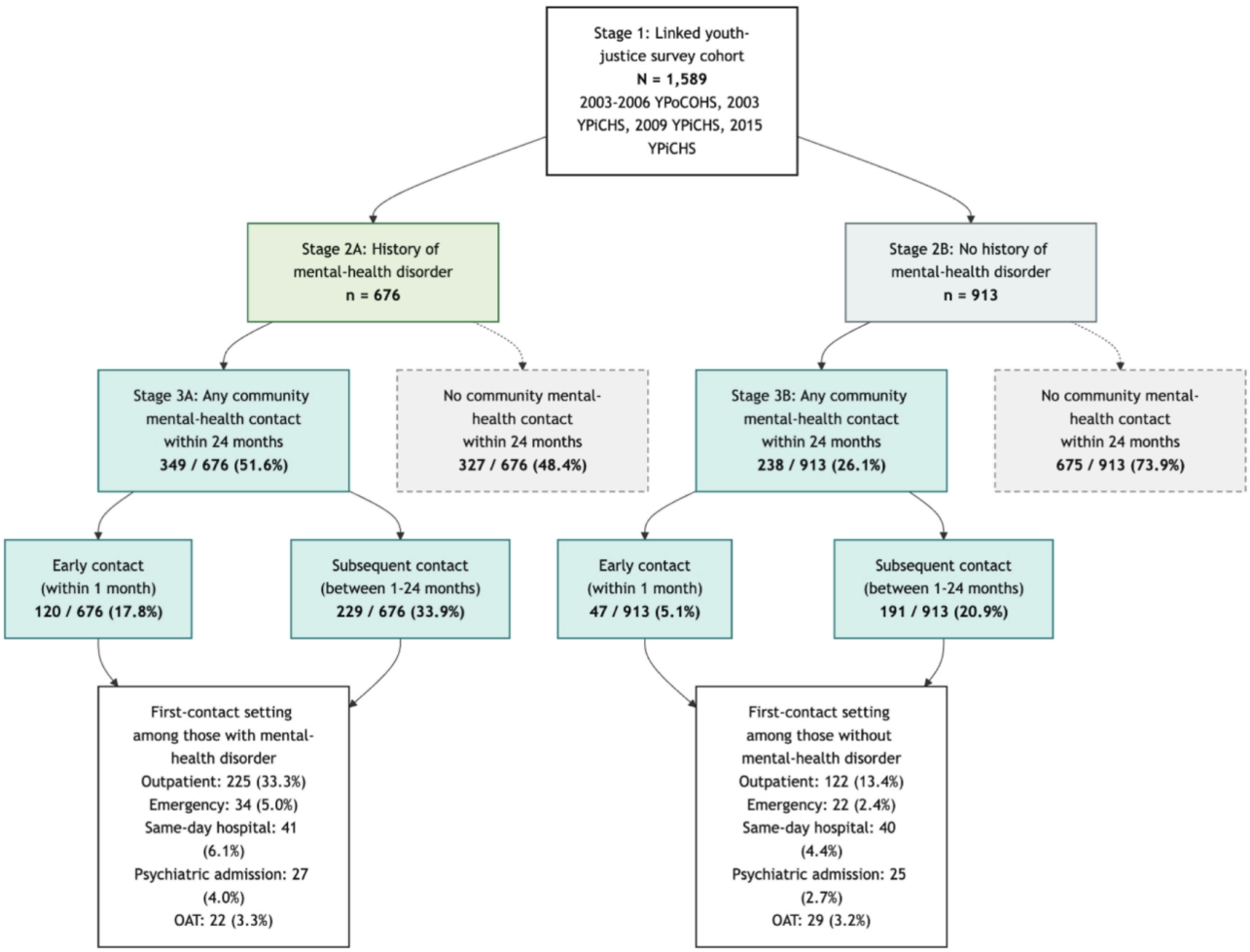


Figure 1

Continuity-of-care cascade of mental health contact during community follow-up.

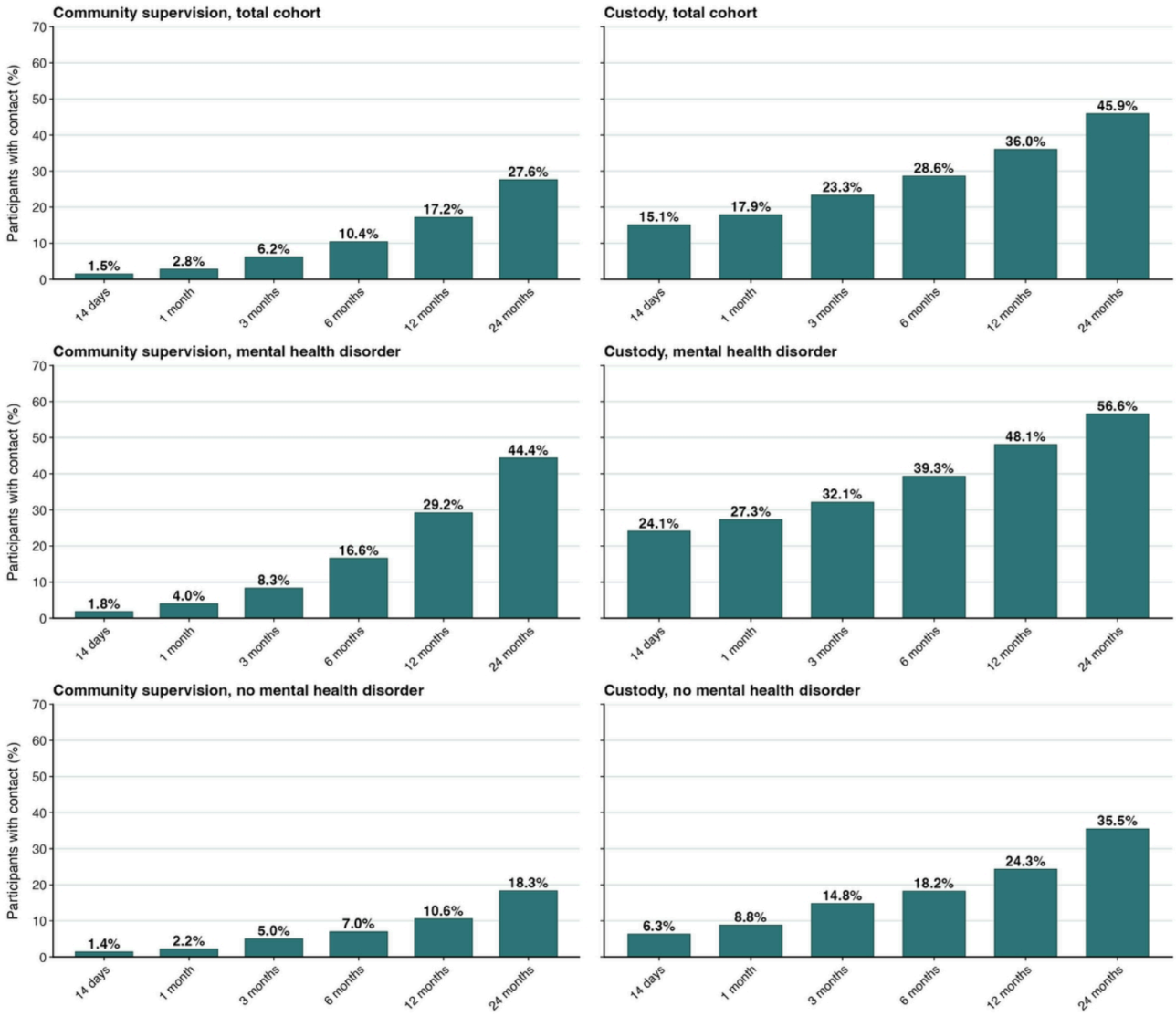


Figure 2

Continuity-of-care cascade by mental health disorder status.

Supplementary Files

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