

What happens after Lavender? Readmission Rates & Associated Characteristics

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Respects to the Traditional Owners of the Land

- Elders past, present and future of the Noongar people**
- Four principal groups: Mooro, Beeliar, Beeloo, Weeip**



Outline

- Background
 - Lavender Unit
 - Pilot study
- Methodology
- Results
 - HoNOS scores, Rate of readmission, Demographics
 - Key results– Discharge MHA Status, Prevalent readmitted Diagnoses, Overview of services referred on discharge
- Clinical Implications
- Questions

Background: The Lavender Unit

- 4-bed state-wide service for mothers and infants <12 months
- Management of severe maternal mental illness
 - Consideration of infant's mental health and emotional needs
 - Support parenting skills and confidence
- Referral criteria:
 - *Diagnosis of severe mental health problems that cannot be met by community care OR there are significant risks to safety of the woman or her infant.*
 - Including mothers under the QLD Mental Health Act 2016
 - If woman has a substance use disorder, *detox and completion of withdrawal treatment* must be undertaken prior to admission.
 - Sole purpose of admission is NOT to assess *parenting capacity*.
 - Resides in *Queensland*.
- <https://www.goldcoast.health.qld.gov.au/our-services/lavender-mother-and-baby-unit>



Holistic Assessments and Interventions

Assessments

- Diagnostic clarification
- Psychological assessment
- Infant mental health assessment
- Parenting assessment
- Occupational therapy functional assessment
- Social work & family assessment
- Physiotherapy assessment
- Dietitian assessment

Group, family & individual

- Pharmacotherapy & neuro-stimulation
- Psychoeducation
- Psychological therapies
- Mothercraft skills
- Baby play & massage
- Parent-infant therapy
- Family/partner support and interventions
- Sensory modulation therapy

Background: Pilot study

- MBU admission considered best practice to Mx maternal mental illness and protect attachment without separating the mother and baby– (COPE recommendation)
- After discharge, close collaboration with the perinatal health services, mental health (MH) and social services state-wide
- Limited evidence of outcomes post-discharge
- Research aims:
 - HoNOS scores, Readmission rates -> outcomes of efficacy
 - Factors associated with readmission
 - Perinatal MH reporting and service improvement -> New MBU
- Identify mothers at high-risk of readmission to improve further discharge support



Methodology

- Retrospective cohort study of clinical records
 - CIMHA
- Eligibility criteria: Mother-baby dyads admitted to the Lavender Unit between March 2017 – August 2018
- Mothers were categorised based on whether they were readmitted or not
 - Within 6 months post-discharge
- Power analysis (based on HoNOS), Independent *t*-test, chi-square test, Fishers exact test

Factors examined

- Health of the Nation Outcome Scale (HoNOS) (Index admission) scores
- Mental health diagnosis
- Mental Health Act (MHA) status on discharge
- Type of services referred
- Number of services
- Child Safety
- Demographics of mother and baby age
- Discharge destination, e.g. home with partner, with baby.
- Hospital and Health Service

HoNOS – Health Professional-rated

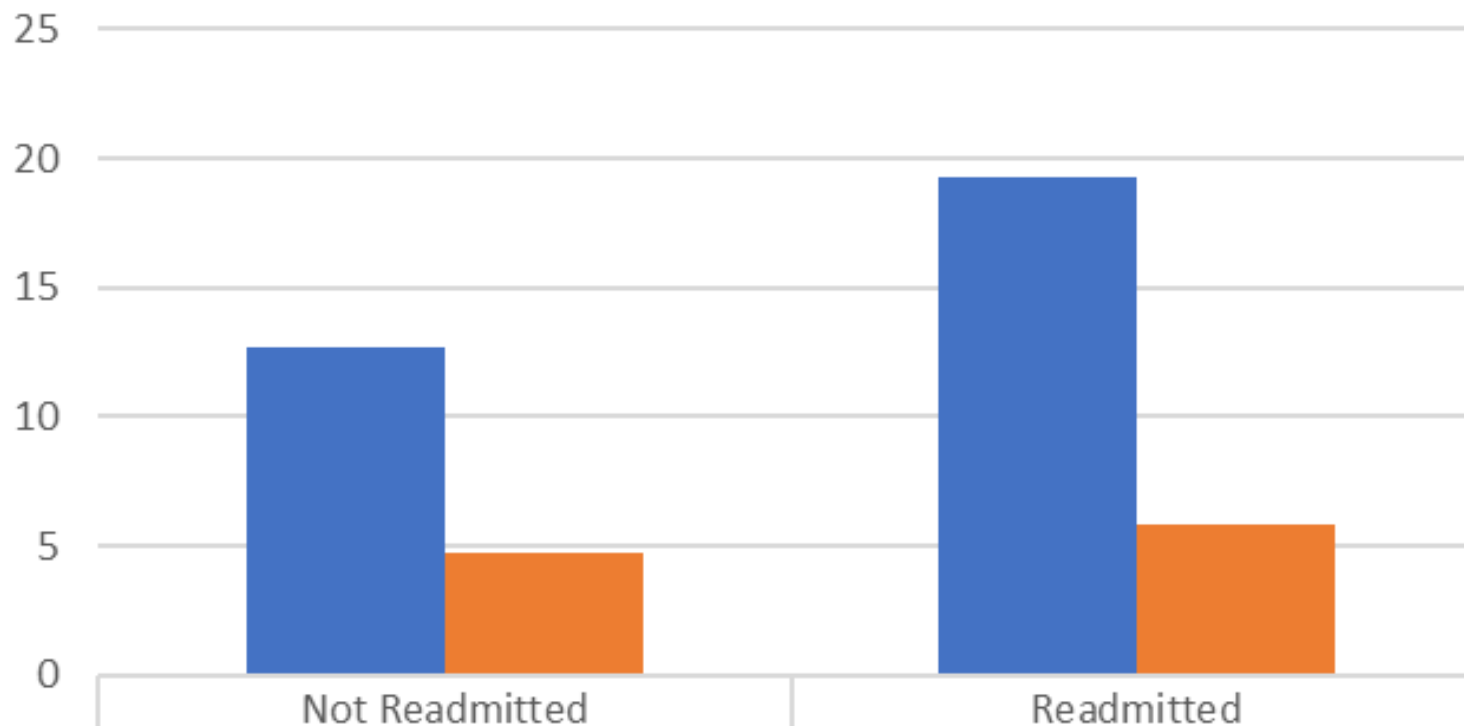
1. Overactive, aggressive, disruptive or agitated behaviour
2. Non-accidental self-injury
3. Problem drinking or drug-taking
4. Cognitive problems
5. Physical illness or disability problems
6. Problems associated with hallucinations and delusions
7. Problems with depressed mood
8. Other mental and behavioural problems
9. Problems with relationships
10. Problems with activities of daily living
11. Problems with living conditions
12. Problems with occupation and activities

Results – Readmission rate

- Powered sample >72 (a minimum clinically significant HoNOS difference of 4 points)
- 82 mother-baby dyads admitted to the Unit
- Statistically significant ($p < 0.01$) in Admission and Discharge HoNOS scores **within** total sample, readmitted and non-readmitted groups respectively
- No statistical difference **between** readmitted and non readmitted groups ($p = 0.68$).
- Twelve women (14.63%) were later readmitted within the six month period
- Six out of twelve within the first 28 days post-discharge
- Two documented reasons for readmission:
 - treatment resistance (9/12, 75%)
 - medication non-compliance (3/12, 25%).

HoNOS Scores

Average HoNOS Scores



■ Admission
■ Discharge

12.69

4.7

Readmitted

19.25

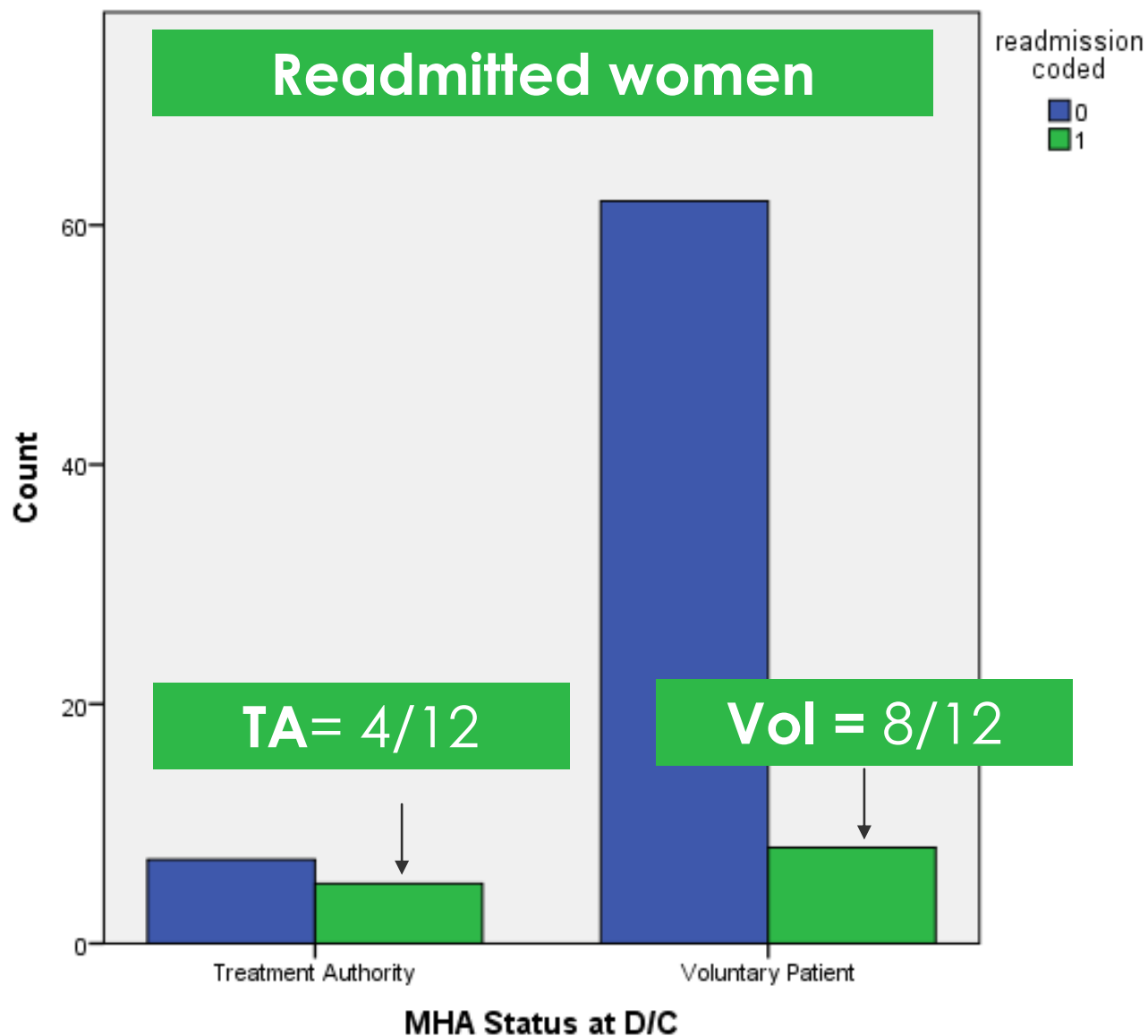
5.83

- Admission HoNOS score of women readmitted - poorer levels of psychosocial functioning and higher levels of problematic mental health symptoms compared to women who were not readmitted



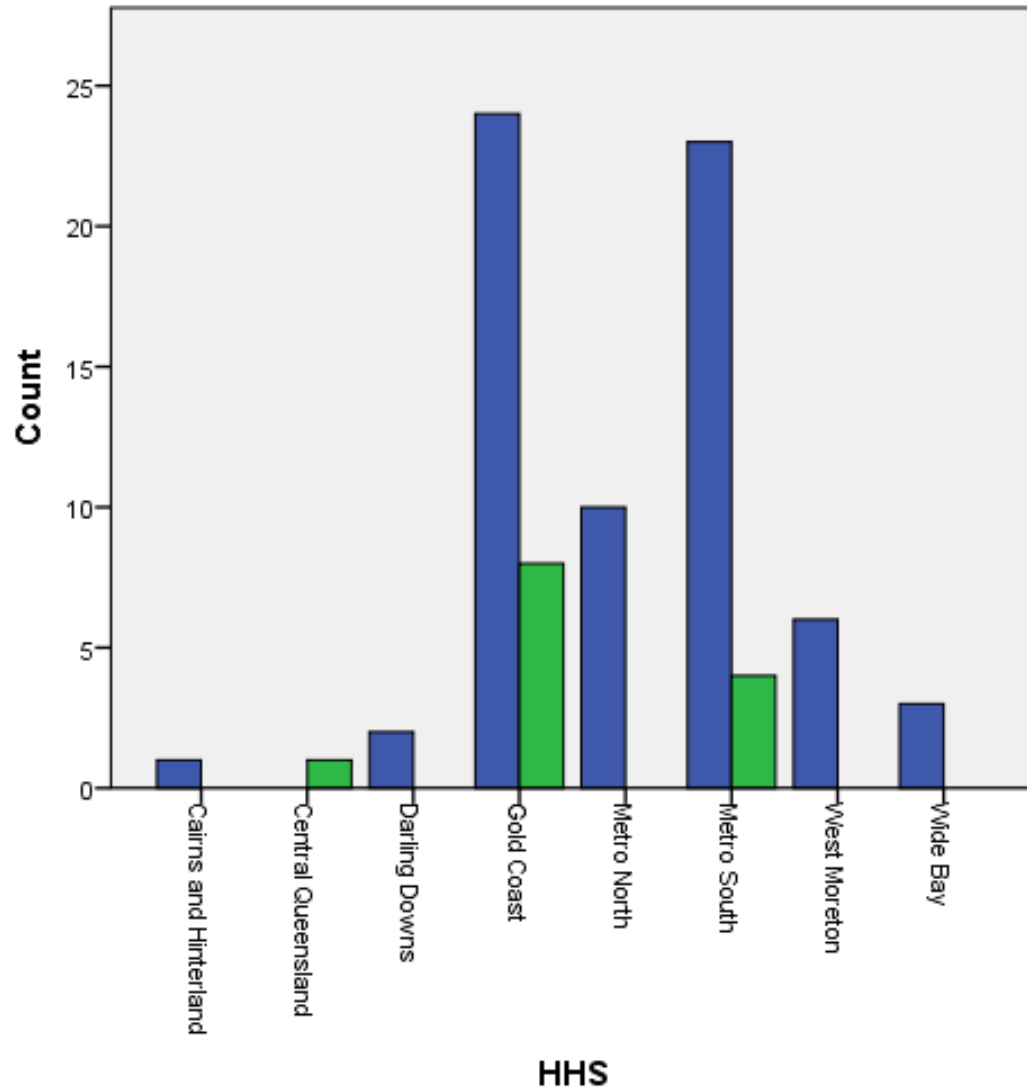
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Results – Mental Health Act Status



- MHA status at Discharged on **Index admission**
- 4 (33.3%) women on Treatment Authority (TA) were readmitted.
- Fishers exact $p = 0.069$
- Infers:
 - Lack of capacity
 - Lack of insight
 - More unwell
 - More complex
 - Poorer service engagement
 - Medication non-adherence

Hospital and Health Service (HHS)



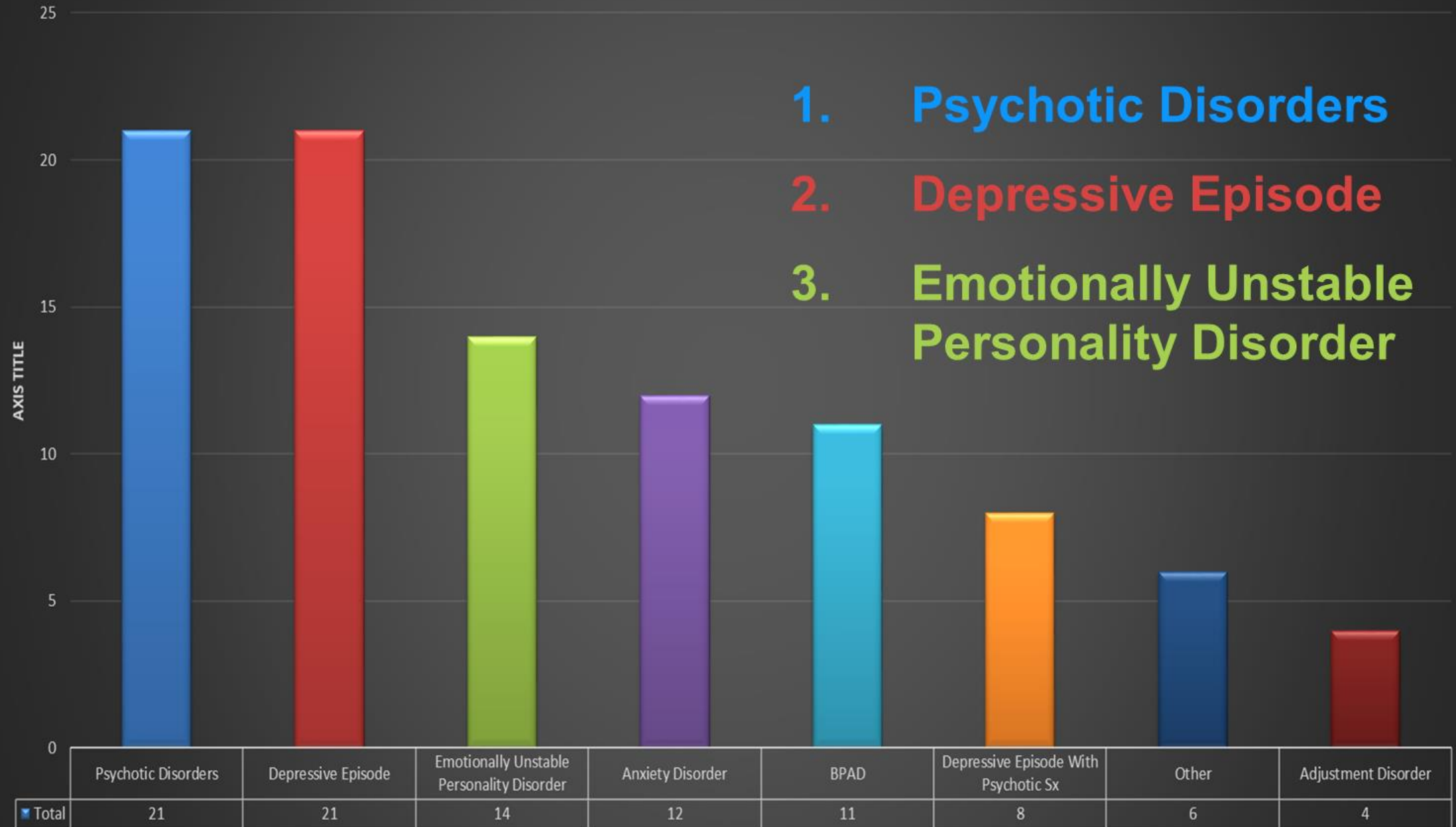
readmission
coded

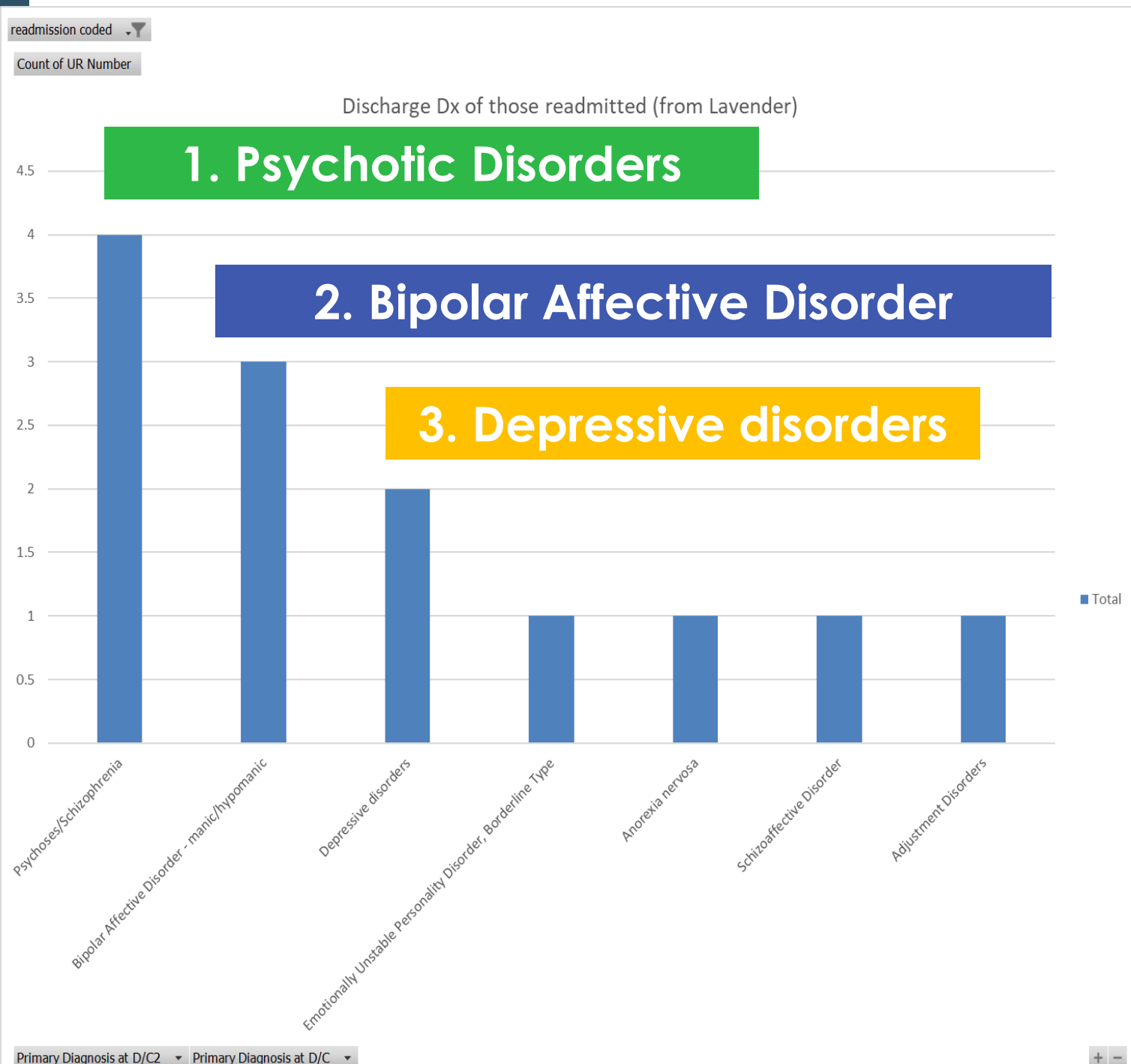
Readmitted women

Non-readmitted women



Primary diagnosis at discharge





Readmitted women

➡ Top diagnoses for readmission:

1. Psychotic Disorders (n = 4)
2. Bipolar Affective Disorders (n = 3)
3. Depressive disorders (n = 2)



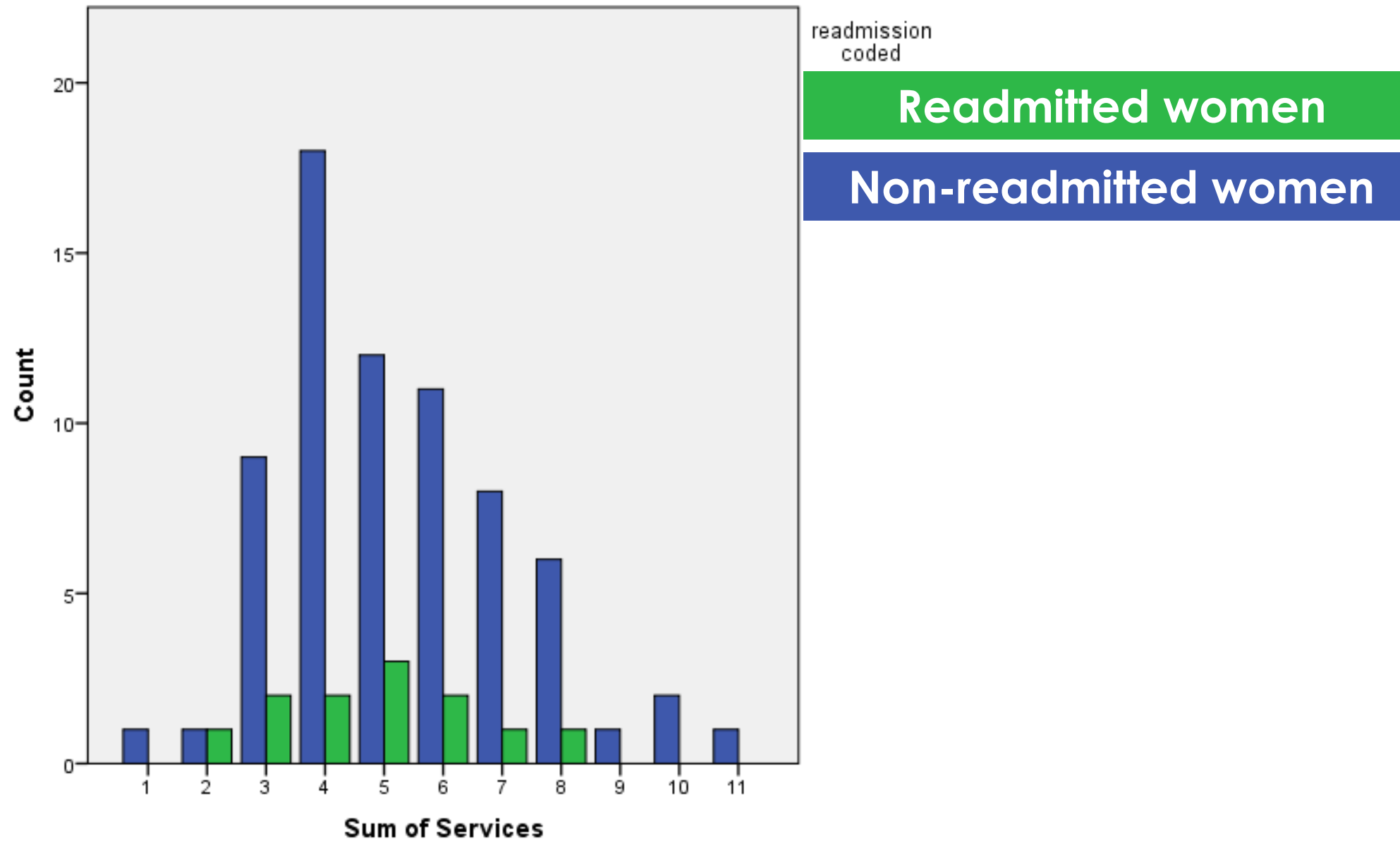
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Services referred

- Both women readmitted and not readmitted were referred to between 4-5 services.
- Table 1: Total number of services referred**

	Women not readmitted		Women readmitted		t-test	p-value
	Mean	SD	Mean	SD		
Total number of services	5.31	1.98	4.83	1.75	0.79	0.43

Sum of services



Services referred to post discharge

Maternal Mental Health

- Acute Care Team
- Community Mental Health
- NGO Mental Health Support
- Perinatal Mental Health Outpatient
- Private Psychiatrist
- Psychology

Infant needs

- Child mental health NGO
- Infant Mental Health
- Parenting Support
- QLD Centre for Perinatal and Infant Mental Health

Psychosocial

- Child protective services
- Domestic Violence Services
- Couple support
- Cultural services
- Drug and Alcohol

Practical

- Child-Care
- Department of Social Services
- Legal Aid

Results – Most Referred Services

1. Community Mental Health and Psychology
2. Parenting Support (e.g. Benevolent Society)
3. NGO Mental Health Support (e.g. Partners in Recovery)
4. Infant Mental Health

- Overall, despite a range and number of public, NGO and private services referred, no service was found to be associated with readmission (all services $p > 0.05$)

Clinical implications

- Identification of treatment resistance to promote effective treatment strategies
- Medication psychoeducation and measures to improve adherence
- Consider greater linkage or 'wrap around' into follow-up services – potentially longer or more intensive follow-up by local community team or a perinatal MH day program
- Clarification of existing services prior to discharge and what mothers find useful
- Identify and address barriers to service engagement (e.g. stigma, finance, transport, cultural considerations); in collaboration with community stakeholders
- Consider a revised, service specific, hand-over to improve engagement
- Involve family and carers in regards to recommendations of and link in with referred services to support engagement e.g. community/cultural groups

Conclusion

- Women who were readmitted were more likely to have been initially discharged under the MHA, have higher admission HoNOS scores, and have Psychotic or Bipolar Affective Disorders.
- These women need for more intensive support from networks and services.
- The findings further inform discharge planning and hand-over guidelines to mitigate the risk of readmission.
- Future studies may be able to use the study's findings to better understand longitudinal-effectiveness of specialist perinatal mental health service provision and referral, especially when data from multiple MBUs can be pooled in a multisite study.

Questions



Courtesy of Meme Generator