

Culturally appropriate psychotherapy and its retention: An example from Far North Queensland (Australia)

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ABSTRACT

Background: Culturally appropriate mental health care is essential in remote Australia. However, while associated with the development of an effective therapeutic alliance, current literature insufficiently reports the retention and psychotherapy outcomes of Indigenous adults. We aimed to describe the characteristics and retention of clients attending the Far North Mental Health and Wellbeing Service (FNS).

Methods: We conducted a retrospective cross-sectional study on clients who received one or more psychotherapy consultations between 1st July 2019 and 31st December 2020. Population, entrance, and treatment characteristics were described, with retention compared between the major cultural groups. Entrance characteristics comprised referral pathway and reason for presentation and were investigated as alternative predictors of client retention.

Findings: There were 186 non-Indigenous (68.3 % female) and 174 Indigenous (62.6 % female) clients, with a median number of 3.0 consultations (IQR 2.0–5.3). Indigenous status did not significantly predict retention. Referral pathway significantly predicted the number of consultations (Wald $X^2(6) = 17.67$, $p = .0071$) and immediate discontinuation (Wald $X^2(6) = 12.94$, $p = .044$), with self-referred clients having the highest retention. Initial presentation reason significantly predicted the number of consultations (Wald $X^2(5) = 13.83$, $p = .017$), with clients with potential health hazards related to socioeconomic and psychosocial circumstances having the lowest retention. Significantly more Indigenous clients presented for this reason (20.1 % vs 4.3 %).

Interpretation: Comparable retention of Indigenous clients suggests cultural appropriateness of the psychotherapy being delivered by the FNS. Services might use the described therapeutic approach as a guide for culturally appropriate care.

Research in context

Evidence before this study

The mental health burden of Indigenous peoples is well-documented, as are the challenges of delivering psychotherapy in remote and culturally diverse settings. While the therapeutic alliance is essential in maintaining client attendance and outcomes, few publications contextually demonstrate this

relationship, with the retention of Indigenous clients often inferior yet widely underreported, and the alternative psychotherapy models (proposed for this population) currently lacking in adequate description and validation.

Added value of this study

The present study analyses adult client retention at the Royal Flying Doctor Service (RFDS) Far North Mental Health and Wellbeing Service (FNS) and provides an overview of its culturally

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informed therapeutic approach. Our findings of comparable Indigenous and non-Indigenous client retention support the appropriateness of this model of care and thereby address several gaps identified in the previous literature.

Implications of all the available evidence

Mental health services in rural and remote Australia require adaptation to meet the needs of culturally diverse clients. Our described therapeutic approach may serve as a guide for culturally appropriate care, helping services to improve the retention and thus outcomes of their clients. Improving rural and remote mental healthcare access to vulnerable Australians will reduce acute, hospital presentations and the length of chronic illness.

Data availability

Data will be made available on request.

1. Introduction

Aboriginal and Torres Strait Islander people (hereafter referred to as Indigenous peoples) experience a greater burden of illness than non-Indigenous Australians (Australian Institute of Health and Welfare, 2021a; Gardiner et al., 2022). Mental and substance use disorders are the leading contributor towards this (23 %) (Australian Institute of Health and Welfare, 2021a), with almost a third of Indigenous adults (31 %) experiencing high to very high levels of psychological distress, as compared to 13 % of non-Indigenous adults (Australian Bureau of Statistics, 2019). Such health disparities stem from a broader context of intergenerational trauma due to colonisation, dispossession of land, removal of children, and policies of discrimination, with health services still often perceived by Indigenous peoples as racially discriminatory and culturally inappropriate (Canuto et al., 2018; Gupta et al., 2020). Australia's recently unsuccessful referendum, which sought to recognise Indigenous peoples in its constitution by establishing a Voice to Parliament (National Indigenous Australians Agency, 2023), furthers the context of a country that we view as potentially struggling to reconcile its colonial past, address racial stigmatisation, and overcome understandably ingrained mistrust of government institutions. An unfortunate downstream consequence of mental ill-health and poor access to health services (including due to mistrust) is suicide, which is the 5th leading cause of death among Indigenous peoples (versus 15th for non-Indigenous) (Australian Bureau of Statistics, 2021a) and, across the whole population, occurs at greater rates with increased remoteness (major cities 10.0 per 100,000 population; remote 21.2; very remote 23.9) (Australian Institute of Health and Welfare, 2021b).

Mainstream Western healthcare models are often unsuitable for Indigenous peoples, failing to appreciate and appropriately address differences in communication, distrust, and relationality (Durey et al., 2016; Isaacs et al., 2012; Rheault et al., 2021). This contributes to Indigenous peoples' increased burden of mental illness by challenging effective clinician-client therapeutic relationships (Lin et al., 2016). Regardless of the type of psychotherapy delivered or outcome measure used, the therapeutic alliance (collaborative and affective bond between therapist and client) is among the most robust and important factors in determining psychotherapy success (Horvath & Symonds, 1991; Martin et al., 2000; Norcross & Lambert, 2018). It can be quantitatively measured using alliance scales (e.g., Working Alliance Inventory) and the outcome of psychotherapy is commonly measured using mood/symptom scales, specific outcome scales, and/or premature discontinuation of treatment (Martin et al., 2000). While methods for determining premature discontinuation vary (e.g., after the first consultation, before a specified number of consultations or treatment duration, unilateral

client-initiated), client retention is positively correlated with the strength of the therapeutic alliance (DeSorcy et al., 2016; Martin et al., 2000; Munro et al., 2017; Sharf et al., 2010) and clients who discontinue treatment prematurely experience worse mental health outcomes (Barrett et al., 2008; Fernández et al., 2021). The rates of premature discontinuation, while varying widely due to differences in models of service and how premature discontinuation is defined, are noted to be higher in clients of lower socioeconomic status (Warden et al., 2009), minority groups (e.g., 16.5 %–25.9 % for Aboriginal peoples of Canada vs 10.5 %–20.0 % for non-Aboriginal clients) (DeSorcy et al., 2016; Li et al., 2013), and those located rurally (e.g., 1.22 times increased risk of premature discontinuation) (Seidler et al., 2020). In particular, Indigenous peoples (especially youth) receiving mental health care have been found to be of greater risk (1.17 times) (Seidler et al., 2020) for premature treatment discontinuation, with rates of premature discontinuation as high as 48.6 % in one study (as compared to 32.2 % for non-Indigenous clients) (Cross et al., 2022).

Motivation to change, comprising intrinsic and extrinsic motivating factors, is an important moderator of the therapeutic alliance (Snyder & Anderson, 2009). Intrinsically driven clients are motivated to improve themselves and are characterised by a more autonomous presentation (Ryan & Deci, 2008), such as self-referral (Arndt et al., 2020; Snyder & Anderson, 2009; Wong et al., 2013). Conversely, extrinsically driven clients are often motivated by coercion (e.g., court referral) (Ryan & Deci, 2008) and typically more resistant to treatment, challenging the development of a therapeutic alliance (Snyder & Anderson, 2009; Sotero et al., 2016). Nonetheless, provided these clients have sufficient external forces maintaining their attendance, treatment outcomes are similar between voluntary and mandated referral groups (Snyder & Anderson, 2009; Wong et al., 2013). It is thus an interplay between internal motivation and external coercion that moderates client retention and psychotherapy success (Wong et al., 2013).

Currently, there is a paucity of publications quantifying the psychotherapy retention of Indigenous adults or contextually demonstrating the relationship between the therapeutic alliance and outcomes (Sabbioni et al., 2018). Further, while the use of several alternative psychotherapy models is increasing (such as clinical yarning) (Byrne et al., 2021), adequate descriptions and validation of these are lacking (Leske et al., 2016; Sabbioni et al., 2018). Where research has sought to close this gap (either descriptively (Lin et al., 2016; Towney, 2005), quantitatively (Reifels et al., 2015; Seidler et al., 2020), or both (Sabbioni et al., 2018)), there has largely been a focus on Indigenous youth. The present study will analyse adult client retention at the Royal Flying Doctor Service (RFDS) Far North Mental Health and Wellbeing Service (FNS) and provide an overview of its culturally informed therapeutic approach. It is hypothesised that the Indigenous status of clients at the FNS will not significantly predict client retention (as measured by the number of consultations completed and discontinuation after the first consultation). The referral pathway is expected to contribute a further effect, with mandated clients (e.g., by Queensland Probation and Parole) expected to have lower retention and self-referred clients expected to have greater retention.

2. Methods

2.1. Setting

Australia is the sixth-largest country by land area and has a population of over 25 million, primarily concentrated in its capital cities (Australian Bureau of Statistics, 2022; Australian Government, 2022). The majority of Australia's land mass has low population density, with remote areas having significantly lower access to healthcare services (Gardiner et al., 2022). Indigenous peoples, while comprising only 3.2 % of the total population, account for nearly half of the population in very remote areas (major cities 1.8 %; remote 15.3 %; very remote 40.6 %) (Australian Bureau of Statistics, 2021b). Located in Australia's North,

Queensland has the second-highest Indigenous population, with the leading non-Indigenous ancestry being English, Irish, Scottish, and Chinese (Gardiner et al., 2018).

2.2. Service overview

The RFDS is a national, charitable, health organisation delivering primary healthcare and 24-hour emergency services for those who live in rural and remote Australia. Long known as one of the largest aeromedical organisations in the world, the RFDS delivers health care where mainstream health services are not available, using the latest in aviation, medical, and communications technology, as well as a broad-reaching ground-service fleet. This includes mental health and well-being services embedded with culturally safe and informed healthcare (Laverty et al., 2017; Royal Flying Doctor Service, 2022). To improve cultural competence, each team regularly receives (and conducts) cultural awareness, sensitivity, and ongoing education as part of our RFDS Reconciliation Action Plan (RAP) (Royal Flying Doctor Service, 2022). The models of training are geographically dependent and ensure staff are on an ongoing path of cultural learning to deepen their understanding of Indigenous peoples' cultures and histories.

This study concentrates on the RFDS FNS, which seeks to support people living in remote Far North Queensland (FNQ) communities who are experiencing mild to moderate mental health challenges (Gardiner et al., 2022). It is comprised of mental health nurses, social workers, occupational therapists, psychologists, and a recognised mental health counsellor (Indigenous-identifying role). Given its location, a large proportion of the FNS's clients are Indigenous peoples.

2.3. Therapeutic approach of the service

With a strong foundation of trauma-informed and recovery-focused treatment, FNS clinicians draw from a wide range of culturally appropriate, evidence-based therapies to suit the needs of each client (e.g., acceptance commitment therapy, cognitive behavioural therapy, dialectical behavioural therapy, narrative therapy, family systems therapy, motivational interviewing). When working with Indigenous clients, there is a strong focus on clinical yarning, an emerging model of psychotherapy that improves the therapeutic alliance with and, thus, clinical treatment for Indigenous peoples (Byrne et al., 2021; Lin et al., 2016). Yarning is an established, narrative-supported method of communication used by Indigenous peoples to exchange knowledge/experiences, establish a shared understanding, and learn from one another (Atkinson et al., 2021). Further underpinning the treatment of Indigenous clients is the social and emotional wellbeing (SEWB) model, which appreciates an extended sense of self that includes specific and culturally-defined relationships with family and community (Gupta et al., 2020). This informs greater engagement and collaboration with these third parties. Finally, Indigenous FNS clients are more likely to engage outside of a clinical setting (e.g., home visit, drive, on Country), have a gender preference for their treating clinician, and require more time to build trust and rapport (Canuto et al., 2018; Isaacs et al., 2012). Wherever possible, the FNS accommodates these preferences.

In practice, the FNS team employ the following principles, as discussed in the wider literature (Gupta et al., 2020; Lin et al., 2016):

1. Establish a connection: The clinician shows genuine interest in the client and their culture and seeks to understand their kinship relationships and broader connections to their community.
2. Conduct a social yarn: The clinician develops a relationship with the client through two-way exchanges and sharing life experiences. These exchanges require self-disclosure (a fundamental way clinical yarning differs from Western healthcare models) (Atkinson et al., 2021; Geia et al., 2013; Munro et al., 2017) and are essential for finding common ground and connection with the client (i.e., therapeutic alliance).

3. Diagnostic yarn: The clinician listens actively to the client's "well-being story" and uses an open-ended questioning style. They allow for silences and interpret the client's story through a biomedical lens.
4. Management yarn: The clinician provides the client with direct and "straight-up" health information. They often use stories and metaphors to explain health conditions and build motivation. Partnering with the client is crucial for developing a shared or agreed plan for client-centred care.

Due to the high proportion of Indigenous peoples in the region (51.3 % of the total population) (Australian Bureau of Statistics, 2021c), the RFDS mental health clinicians do not have a separate Indigenous and non-Indigenous therapeutic approach per se. Instead, cultural appropriateness is embedded into the therapeutic approach by prioritising active listening, building a trusting relationship, accommodating client preferences, and, when appropriate (i.e., when seeing an Indigenous client), incorporating cultural practices and storytelling to enhance engagement and understanding.

2.4. Clients and data sources

Individual client mental health consultation data was recorded by the FNS and retrospectively collected for the study period (between 1st July 2019 and 31st December 2020). For each occasion of service (≥ 15 min in duration), this included the date, client reference number, geographical location, date of birth (DOB), gender, Indigenous status, referral pathway, and reason for presentation (coded to the International Statistical Classification of Diseases and Related Health Problems 10th Revision, ICD-10). From this, each client's demographic factors (including age at presentation), entrance characteristics (referral pathway and initial reason for presentation), date of first and last occasions of service, and the number of consultations completed were calculated/recorded. Further treatment characteristics were then calculated for each client, including treatment duration, consultation frequency, and time since their last consultation.

The present study's population included all FNS clients who passed the exclusion criteria, as detailed in Fig. 1. Initial exclusion criteria comprised a first occasion of service before July 2019 (pre-existing clients), <18 years old (or with missing DOBs) and no Indigenous/non-Indigenous status (i.e., missing Indigenous status, non-stated Indigenous status, internal data discrepancies). The consultation frequency (the mean number of days between a client's consultations, thereby necessitating >1 consultation for calculation) of the remaining clients who had completed >1 consultation was analysed, giving a 95th percentile of one consultation every 39.50 days. As such, clients who had consulted within the last 40 days (i.e., after 21st November 2020) were considered likely to consult again (i.e., ongoing) and thus excluded from the final study population. Both pre-existing and ongoing clients were excluded to preserve the reliability of the calculated treatment characteristics, including those used to measure retention.

2.5. Measures

Number of consultations completed will be used as a measure of client retention, indicating the effectiveness of culturally informed care delivered by the FNS. The number of consultations at FNS was limited to 10 consultations for non-Indigenous clients only. Importantly, this limit was used as a guideline only, with clinician judgement and ongoing 90-day case reviews ultimately determining whether treatment was continued beyond 10 consultations (regardless of Indigenous status). There were no structural barriers (e.g., a letter from a GP or loss of Medicare rebate) preventing clients from receiving >10 consultations.

Client discontinuation after the first consultation (immediate discontinuation) will be used as a second measure of retention, with a lower rate of discontinuation following the first consultation representing higher client retention.

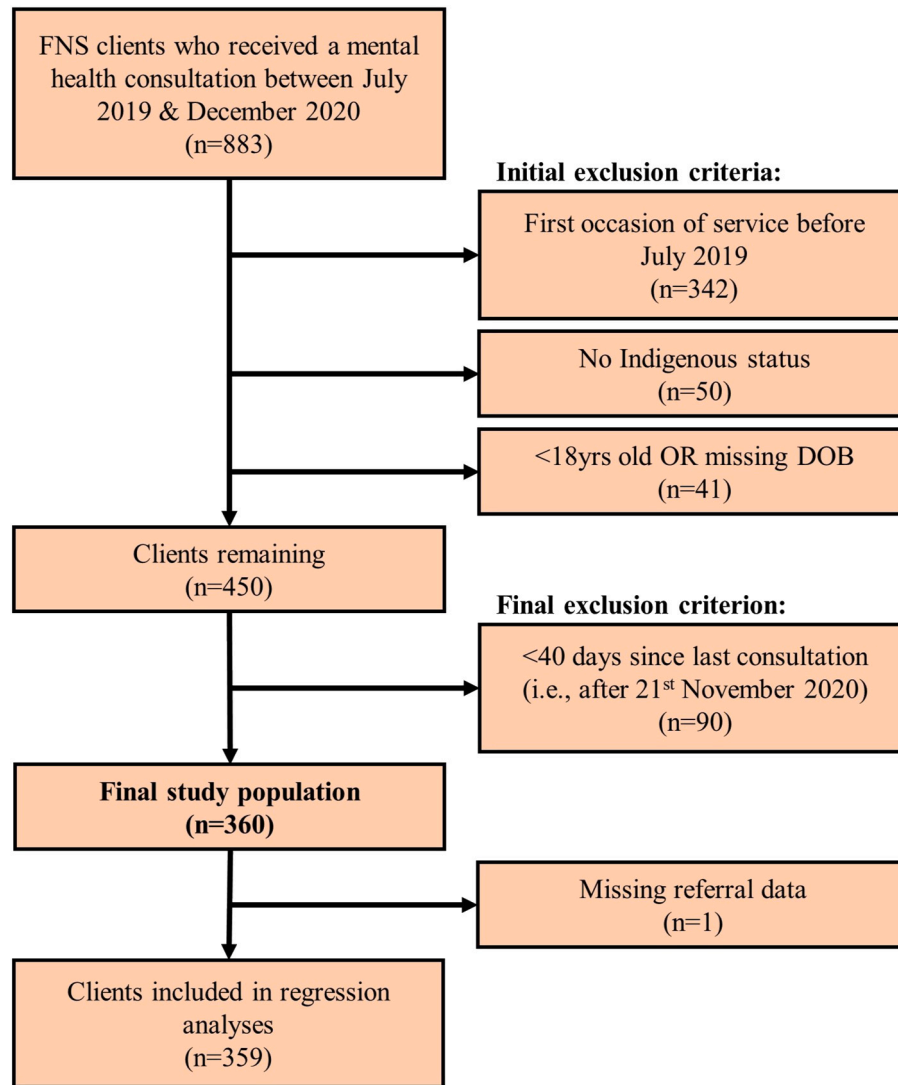


Fig. 1. Exclusion criteria and process.

Referral pathway was sorted into six groups (see Appendix). These were: self-referred, Queensland Health (i.e., the government health service), medical practitioner, non-government organisations (NGOs), Queensland Police, Corrective, Probation and Parole Services (mandated referrals), family member/friend, and all other. Viewing the service as voluntary, the FNS did not treat mandated referrals differently and reported mandated clients to vary in the extent to which their referral source motivated attendance, instead citing motivation to change as the primary variable driving retention. Nonetheless, mandated clients were occasionally followed up by their referrer where evidence of attendance (e.g., a letter from their treating clinician) was expected. This was only provided if the client had been motivated to engage.

2.6. Ethics and governance

This study was approved by the ACT Health Human Research Ethics Committee (HREC) (reference: 2022.LRE.00159) on 21 September 2022, with endorsement from the RFDS Public Health and Research Unit, and recognition by the Australian National University (ANU) HREC. The final study was reviewed by the RFDS Health Research Ethics Working Group (HRE WG).

During clinical governance, the RFDS aims to use the Culturally Adaptive Governance Framework (CAGF) through ongoing education.

For more information, refer to the RFDS RAP, which acknowledges our “collective sense of determination to do more, to do better, and a genuine desire to achieve equity and reconciliation.” (Royal Flying Doctor Service, 2022). The FNS embraces this desire by emphasising the importance of investing in community priorities and Indigenous leadership capacity, effecting purposeful collaboration between Indigenous knowledge systems and Western scientific traditions, and fostering goodwill and meaningful connections. Specifically, before and during clinic provision, the team conducts extensive community engagement (throughout our yearly service planning cycles), involving Indigenous clinicians and stakeholders in decision-making processes. It recognises the diversity and dynamic nature of Indigenous communities throughout Queensland, Australia.

In addition to clinical governance, the RFDS RAP Working Group were actively involved in the design of this research evaluation, with regular feedback provided to the research team at all stages of development.

2.7. Role of the funding source

The FNS was established in July 2018 and is funded by the Northern Queensland Primary Health Network (NQPHN).

3. Results

Statistical analyses were performed using IBM SPSS Statistics (Version 29.0), except for the Bayesian modelling which was performed using JASP (Version 0.17.2.1).

3.1. Descriptive statistics

Before hypothesis testing, the non-Indigenous and Indigenous groups were compared on population, entrance, and treatment characteristics to assess for any baseline differences. Skewed continuous variables were summarised as medians and interquartile ranges (IQR) and compared using Mann-Whitney *U* tests. Categorical variables were summarised as counts (*N*) and proportions (%) and compared using Chi-squared tests. Clinical significance was set at *p* < .05. Due to the multiple small groupings of presentation reason, ICD-10 categories with <5 clients in either group were combined into a single ‘other’ category for the Chi-squared test. Clients who completed <2 consultations were excluded from the consultation frequency calculation. These results are reported in Table 1.

The final study population included 360 FNS clients (186 non-Indigenous and 174 Indigenous). The majority of clients were female (*n* = 236; 65.6 %), and the median age was 38 (IQR 29.0–50.0). No significant differences were found between non-Indigenous and Indigenous clients on any population characteristics.

For all clients, the most common referral pathways were Queensland Health (*n* = 128; 35.6 %), self-referred (*n* = 73; 20.3 %), and Queensland Police, Corrective, Probation and Parole Services (54; 15.0 %). A Chi-square test of independence was performed to evaluate the relationship between Indigenous status and referral pathway. A significant relationship was found between these variables, $\chi^2(7, N = 360) = 56.833, p < .0001$. Compared to non-Indigenous clients, Indigenous clients were less likely to be referred by a medical practitioner (*n* = 7; 4.0 % vs *n* = 38; 20.4 %, *p* < .00001) and more likely to be referred by Queensland Police, Corrective, Probation and Parole Services (*n* = 44; 25.3 % vs *n* = 10; 5.4 %, *p* < .000001).

For all clients, the most common initial presentation reasons were anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders (*n* = 137; 38.1 %), mood [affective] disorders (*n* = 77; 21.4 %), and persons encountering health services in other circumstances (*n* = 54; 15.0 %). A Chi-square test of independence was performed to evaluate the relationship between Indigenous status and initial presentation reason (ICD-10 code). A significant relationship was found between these variables, $\chi^2(5, N = 360) = 37.568, p < .0001$. Compared to non-Indigenous clients, Indigenous clients were less likely to present due to anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders (*n* = 55; 31.6 % vs *n* = 82; 44.1 %, *p* = .0148), or mood [affective] disorders (*n* = 27; 15.5 % vs *n* = 50; 26.9 %, *p* = .0086) and more likely to present due to potential health hazards related to socioeconomic and psychosocial circumstances (*n* = 35; 20.1 % vs *n* = 8; 4.3 %, *p* < .00001), or mental and behavioural disorders due to psychoactive substance use (*n* = 14; 8.0 % vs *n* = 5; 2.7 %, *p* = .0231). Additionally, a significantly greater (*p* = .0358) number of Indigenous clients presented with other diagnoses (*n* = 20; 11.5 %) compared to non-Indigenous clients (*n* = 10; 5.4 %), suggesting a greater variety of initial presentation reasons.

For all clients, the median treatment duration was 35.5 days (IQR 5.5–99.8), displayed by Indigenous status in Fig. 2, with a median consultation interval of 1.9 weeks (IQR 1.1–3.1). Clients completed a median number of 3.0 consultations (IQR 2.0–5.3), displayed by Indigenous status in Fig. 3, with most clients completing 1 consultation (*n* = 83; 23.1 %) or 2–3 consultations (*n* = 125; 34.7 %), giving the distribution a positive skew (skewness = 2.38). While non-Indigenous and Indigenous clients did not differ significantly on any overall treatment characteristics, it was noted that significantly more Indigenous clients completed only 1 consultation as compared to non-Indigenous clients (*n*

Table 1				
Far North Mental Health and Wellbeing Service (FNS) client characteristics.				
Description	Non-Indigenous	Indigenous	Total	<i>U</i> / χ^2 statistic
Population characteristics				
Total number	186	174	360*	
Gender				$\chi^2(1) = 1.265$
Number male (%)	59 ^a (31.7)	65 ^a (37.4)	124 (34.4)	
Number female (%)	127 ^a (68.3)	109 ^a (62.6)	236 (65.6)	
Median age (interquartile range)	39.5 (29.3–52.8)	37 (28.0–47.0)	38 (29.0–50.0)	<i>U</i> = 14,451
Entrance characteristics				
Referral pathway				
Number by Queensland Health (%)	68 ^a (36.6)	60 ^a (34.5)	128 (35.6)	$\chi^2(7) = 56.833^{***}$
Number by self-referred (%)	45 ^a (24.2)	28 ^a (16.1)	73 (20.3)	
Number by Queensland Police, Corrective, Probation and Parole Services (%)	10 ^a (5.4)	44 ^b (25.3)	54 (15.0)	
Number by medical practitioner (%)	38 ^a (20.4)	7 ^b (4.0)	45 (12.5)	
Number by Non-Government Organisations (%)	11 ^a (5.9)	14 ^a (8.0)	25 (6.9)	
Number by family member or friend (%)	11 ^a (5.9)	6 ^a (3.4)	17 (4.7)	
Number with missing referral data (%)	0 ^a (0.0)	1 ^a (0.6)	1 (0.3)	
All other referral types (%)	3 ^a (1.6)	14 ^b (8.0)	17 (4.7)	
ICD-10 code: initial presentation reason by number				
F40–F48 Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders (%)	82 ^a (44.1)	55 ^b (31.6)	137 (38.1)	$\chi^2(5) = 37.568^{***}$
F30–F39 Mood [affective] disorders (%)	50 ^a (26.9)	27 ^b (15.5)	77 (21.4)	
Z69–Z76 Persons encountering health services in other circumstances (%)	31 ^a (16.7)	23 ^a (13.2)	54 (15.0)	
Z55–Z65 Persons with potential health hazards related to socioeconomic and psychosocial circumstances (%)	8 ^a (4.3)	35 ^b (20.1)	43 (11.9)	
F10–F19 Mental and behavioural disorders due to psychoactive substance use (%)	5 ^a (2.7)	14 ^b (8.0)	19 (5.3)	
All other diagnoses (%)	10 ^a (5.4)	20 ^b (11.5)	30 (8.3)	
Treatment characteristics				

(continued on next page)

Table 1 (continued)

Description	Non-Indigenous	Indigenous	Total	U/X^2 statistic
Median treatment duration in days (interquartile range)	40 (13.0–103.5)	31.5 (0.0–95.5)	35.5 (5.5–99.8)	$U = 14,822.5$
Median consultation frequency in weeks (interquartile range)	1.8 (1.1–3.0)	2.0 (1.1–3.1)	1.9 (1.1–3.1)	$U = 5287$
Median number of consultations (interquartile range)	3.0 (2.0–6.0)	3.0 (1.0–5.0)	3.0 (2.0–5.3)	$U = 14,934.5$
Completed consultations by number				$X^2(5) = 5.638$
Number who completed 1 consultation (%)	35 ^a (18.8)	48 ^b (27.6)	83 (23.1)	
Number who completed 2–3 consultations (%)	68 ^a (36.6)	57 ^a (32.8)	125 (34.7)	
Number who completed 4–5 consultations (%)	35 ^a (18.8)	27 ^a (15.5)	62 (17.2)	
Number who completed 6–7 consultations (%)	19 ^a (10.2)	18 ^a (10.3)	37 (10.3)	
Number who completed 8–10 consultations (%)	17 ^a (9.1)	10 ^a (5.7)	27 (7.5)	
Number who completed >10 consultations (%)	12 ^a (6.5)	14 ^a (8.0)	26 (7.2)	

^{a,b} Each superscript letter denotes a subset of Indigenous Status categories whose column proportions do not differ significantly from each other at the 0.05 level.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

= 35; 18.8 % vs $n = 48$; 27.6 %, $p = .0484$). This preliminary finding informed a more rigorous comparison of immediate discontinuation during hypothesis testing. Specifically, we fitted a binary logistic regression model to determine the contribution of Indigenous status to immediate discontinuation, independent of the effect of alternative predictors.

Given the significant differences in entrance characteristics between Indigenous and non-Indigenous clients and the expectation that these may influence the number of consultations clients complete, an exploration of the median number of consultations completed by referral pathway and ICD-10 code was completed. These results are reported in Table 2.

Before significance testing, the median number of consultations completed appeared to vary by entrance characteristics for all clients. Compared to all clients referred by Queensland Health (median = 3.0; IQR 2.0–6.0), clients who were self-referred (median = 4.0; IQR 2.0–7.0) or referred by a family member or friend (median = 4.0; IQR 2.0–5.0) completed more consultations, and clients who were referred by Queensland Police, Corrective, Probation and Parole Services (median = 2.5; IQR 1.0–4.0), medical practitioners (median = 2.0; IQR 1.0–5.0), and NGOs (median = 2.0; IQR = 1.0–3.0) completed fewer.

Compared to all clients presenting due to anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders (median = 3.0; IQR 2.0–6.0), clients presenting due to potential health hazards related to socioeconomic and psychosocial circumstances (median = 2.0; IQR 1.0–3.0), and mental and behavioural disorders due to psychoactive substance use (median = 2.0; IQR 1.0–4.5) completed fewer consultations.

3.2. Hypothesis testing

Due to the significant differences in entrance characteristics between Indigenous and non-Indigenous clients and the apparent effect of these characteristics on the number of consultations completed, both the referral pathway and ICD-10 code (along with Indigenous status) were selected as predictors for hypothesis testing. To measure the significance of these predictors while accounting for the skewed distribution of the number of consultations completed, a negative binomial regression model was chosen. Clients ($n = 1$) with missing referral data were excluded from the analysis. A Poisson regression model was rejected due to overdispersion, as determined by the Lagrange multiplier test ($p < .001$). The negative binomial ancillary parameter was estimated to be 0.383 (SE = 0.044), which provided an improved model fit as compared to an ancillary parameter of 1 (AIC = 1771.28 vs AIC = 1848.38). The final negative binomial regression model was significant, $G^2(12, N = 359) = 30.017, p = .0028$, the results of which are reported in Table 3.

The negative binomial regression found that controlling for entrance characteristics, Indigenous clients completed an estimated marginal mean (EMM) of 3.75 consultations (95 % CI = 3.23–4.36), and non-Indigenous clients completed an EMM of 3.65 consultations (95 % CI = 3.18–4.43). While the number of consultations completed by Indigenous clients was 1.03 times greater than that of non-Indigenous clients, this was not significant (95 % CI = 0.86–1.23; $p = .78$).

The referral pathway was a significant predictor of the number of consultations completed, Wald $X^2(6) = 17.67, p = .0071$. Self-referred clients completed the highest number of consultations, with an EMM of 5.27 (95 % CI = 4.36–6.37). This was 1.40 times greater than those referred by Queensland Health (95 % CI = 1.12–1.76; $p = .0030$). Clients referred by NGOs completed the fewest consultations, with an EMM of 2.76 (95 % CI = 1.95–3.90). As compared to those referred by Queensland Health, compulsory referred clients completed 0.96 times as many consultations. However, this was not significant (95 % CI = 0.72–1.28; $p = .78$).

Initial presentation reason (ICD-10 code) was likewise a significant predictor of the number of consultations completed, Wald $X^2(5) = 13.83, p = .017$. Clients presenting for anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders (F40–F48) completed the most consultations, with an EMM of 4.71 (95 % CI = 4.08–5.44). As compared to this reference group, clients encountering health services in other circumstances (Z69–Z76) completed 0.75 times as many consultations (95 % CI = 0.58–0.97; $p = .028$) and those with potential health hazards related to socioeconomic and psychosocial circumstances (Z55–Z65) completed 0.63 times as many consultations (95 % CI = 0.47–0.85; $p = .0024$).

To provide an additional measure of client retention, a binary logistic regression model was fitted. This analysed the effects of Indigenous status, referral pathway, and ICD-10 code on immediate client discontinuation. The binary logistic regression model was significant, $X^2(12, N = 359) = 28.945, p = .0040$, the results of which are reported in Table 4.

The binary logistic regression model explained 11.7 % (Nagelkerke R^2) of the variance in immediate client discontinuation and correctly identified 77.4 % of cases. While Indigenous clients were 1.35 times more likely than non-Indigenous clients to discontinue treatment after the first consultation, Indigenous status was not a significant predictor of immediate client discontinuation (95 % CI = 0.75–2.43; $p = .31$).

The referral pathway was a significant predictor of immediate client discontinuation, Wald $X^2(6) = 12.94, p = .044$. Clients referred by NGOs were the most likely to discontinue treatment after their first consultation, with 2.78 times higher odds of premature discontinuation than those referred by Queensland Health (95 % CI = 1.08–7.19; $p = .035$). While self-referred clients were 0.57 times less likely (95 % CI = 0.24–1.34; $p = .20$), and compulsory referred clients were 1.44 times more likely to discontinue treatment after their first consultation (95 % CI = 0.63–3.31; $p = .39$), neither of these findings was significant.

Despite being close to the statistical threshold, the initial

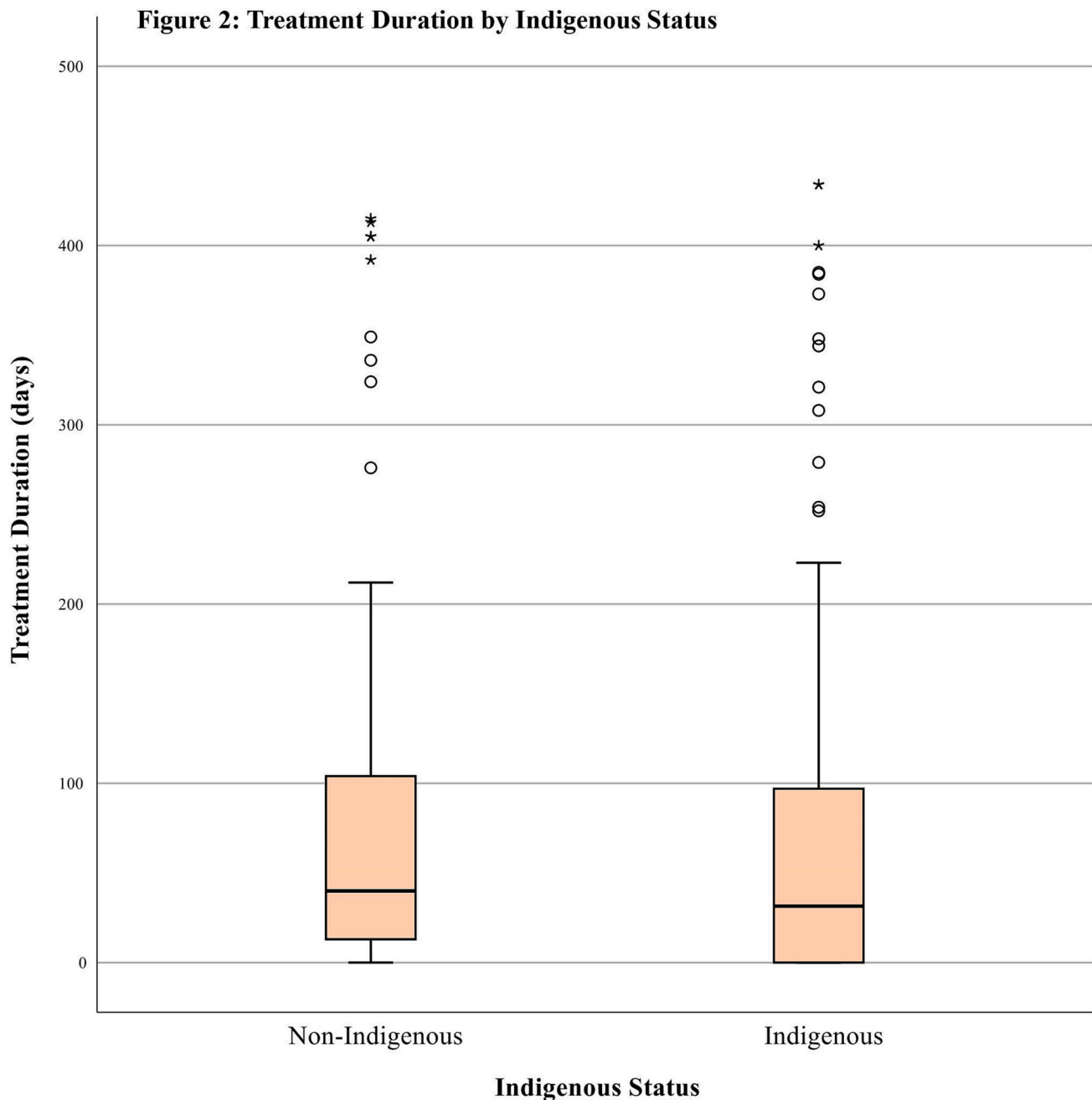


Fig. 2. Treatment duration by Indigenous status.

presentation reason (ICD-10 code) was not a significant predictor of immediate client discontinuation, Wald $X^2(5) = 10.69$, $p = .058$. As compared to the reference group (F40–F48), clients encountering health services in other circumstances (Z69–Z76) had 2.04 times greater odds of discontinuing treatment after their first consultation (95 % CI = 0.96–4.35; $p = .065$) and those with potential health hazards related to socioeconomic and psychosocial circumstances (Z55–Z65) had 2.63 times greater odds (95 % CI = 1.13–6.15; $p = .025$).

To further understand the insignificant effect of Indigenous status on immediate client discontinuation, a Bayesian binary logistic regression with conjugate priors was performed. A model adding the Indigenous status (M_1) was compared to the null model (M_0), which contained all other factors (i.e., referral source and ICD-10 code). We found weak evidence for the null hypothesis, with M_0 1.08 times more likely to accurately predict the data, as compared to M_1 (Bayes factor for M_1 over M_0 [BF_{10}] = 0.924).

4. Discussion

Indigenous peoples experience a burden of mental illness far greater than Australia's non-Indigenous population (Australian Bureau of Statistics, 2019; Australian Bureau of Statistics, 2021a; Australian Institute of Health and Welfare, 2021a; Gardiner et al., 2022). The provision of Indigenous mental healthcare is challenged by distrust (stemming from intergenerational trauma due to colonisation, dispossession of land, removal of children, and policies of discrimination) (Gupta et al., 2020), as well as differences in communication (Durey et al., 2016; Isaacs et al., 2012; Rheault et al., 2021). As such, Australia's predominantly Western healthcare models are ill-equipped to sufficiently establish a therapeutic alliance between Indigenous clients and their often non-Indigenous clinicians (Kilcullen et al., 2016; Lin et al., 2016; Munro et al., 2017), this being linked to reduced client retention and worse mental health outcomes (Barrett et al., 2008; DeSorcy et al., 2016; Fernández et al.,

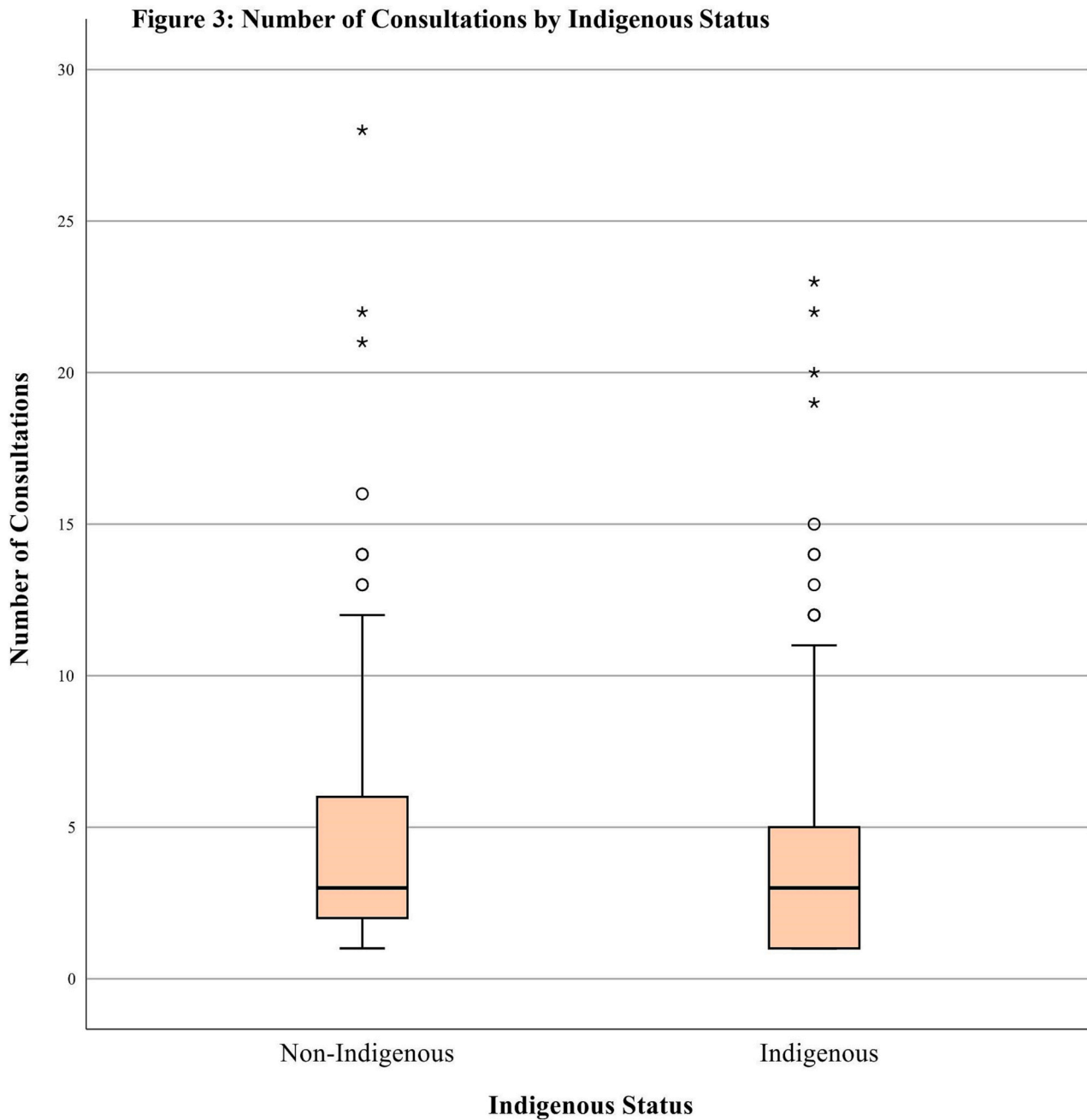


Fig. 3. Number of consultations by Indigenous status.

2021; Horvath & Symonds, 1991; Martin et al., 2000; Sharf et al., 2010). The present study reports the characteristics of Indigenous and non-Indigenous adults utilising the FNS, analysing client retention to make inferences about the cultural appropriateness of the care delivered.

In support of our primary hypothesis, we found no significant differences between Indigenous and non-Indigenous client retention across two retention measures. Additionally, we found weak evidence in a Bayesian framework for no effect of Indigenous status on immediate discontinuation. Although premature withdrawal from treatment is among the most frequently mentioned consequences of culturally inadequate mental healthcare (Barrett et al., 2008; Durey et al., 2016; Lin et al., 2016), few articles quantitatively reported on Indigenous retention or compared this to well-matched non-Indigenous clients. Among the limited examples identified, Indigenous clients were found to complete fewer consultations and, significantly more often, prematurely discontinue treatment (Cross et al., 2022; Seidler et al., 2020). It is

possible that publication bias has discouraged other services from reporting their retention due to comparable negative results. Our findings of no significant effect of Indigenous status on client retention, with weak Bayesian evidence of equivalence, provide a preliminary yet positive indication for the cultural appropriateness of the psychotherapy delivered by the FNS. Taken in the context of the higher rates of premature discontinuation previously reported for Indigenous clients (Cross et al., 2022; Seidler et al., 2020), the FNS's therapeutic approach might potentially offer an improvement in cultural appropriateness over the standard Western model of care. The FNS's median number of 3.0 completed consultations, irrespective of Indigenous status, is comparable to that of similar services in Australia (Gardiner et al., 2022; Seidler et al., 2020).

In line with previously demonstrated associations between the therapeutic alliance and client retention (DeSorcy et al., 2016; Martin et al., 2000; Munro et al., 2017; Sharf et al., 2010), we infer that the

Table 2

Entrance characteristics by the median number of consultations (interquartile range).

Entrance characteristics	Non-Indigenous	Indigenous	Total
Referral pathway			
Queensland Health	3.0 (2.0–5.3)	3.0 (2.0–6.0)	3.0 (2.0–6.0)
Self-referred	4.0 (2.0–8.0)	3.0 (2.0–7.0)	4.0 (2.0–7.0)
Queensland Police, Corrective, Probation and Parole Services	2.5 (1.0–5.8)	2.5 (1.0–4.0)	2.5 (1.0–4.0)
Medical practitioner	2.5 (1.3–4.8)	2.0 (1.0–7.5)	2.0 (1.0–5.0)
Non-Government Organisation	3.0 (2.0–4.0)	1.0 (1.0–2.8)	2.0 (1.0–3.0)
Family member or friend	4.0 (2.3–5.8)	3.5 (1.5–5.5)	4.0 (2.0–5.0)
Referral data missing		4.0 (4.0–4.0)	4.0 (4.0–4.0)
<i>All other referral types</i>	2.0 (1.5–3.5)	2.5 (1.0–4.0)	2.0 (1.0–4.0)
ICD-10 code: initial presentation reason			
F40–F48 Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders	3.0 (2.0–5.0)	4.0 (2.0–8.0)	3.0 (2.0–6.0)
F30–F39 Mood [affective] disorders	3.0 (2.0–6.0)	3.0 (2.0–5.5)	3.0 (2.0–6.0)
Z69–Z76 Persons encountering health services in other circumstances	4.0 (1.0–5.5)	3.0 (1.0–4.5)	3.0 (1.0–5.0)
Z55–Z65 Persons with potential health hazards related to socioeconomic and psychosocial circumstances	1.5 (1.0–3.3)	3.0 (1.0–3.0)	2.0 (1.0–3.0)
F10–F19 Mental and behavioural disorders due to psychoactive substance use	4.0 (3.0–5.0)	1.5 (1.0–3.8)	2.0 (1.0–4.5)
<i>All other diagnoses</i>	4.0 (3.0–9.0)	2.0 (2.0–5.0)	3.0 (2.0–5.0)

FNS's therapeutic approach offers improved cultural appropriateness by better enabling the therapeutic alliance. This inference supports the emerging evidence base for Indigenous-orientated psychotherapy frameworks employed by the FNS, such as clinical yarning (Lin et al., 2016), narrative therapy, and a focus on SEWB (Gupta et al., 2020). These frameworks take a holistic approach to health, appreciating each

client's broader family and social context to better inform their care. This aids in the development of meaningful clinician-client therapeutic relationships. In particular, clinical yarning improves communication by allowing time for socialisation, which builds trust through self-disclosure and a genuine interest in the client's worldview (Lin et al., 2016). The FNS's flexible provision of services outside of a clinical setting (e.g., home visit, drive, on Country) further supports trust-building and cultural understanding, thus improving the therapeutic alliance (Isaacs et al., 2012; Towney, 2005).

In partial support of our secondary hypothesis, the referral pathway was found to significantly contribute to the effect of Indigenous status on retention across both retention measures. As expected, self-referred clients completed significantly more consultations and were the least likely to immediately discontinue treatment. While mandated clients had a retention that was significantly inferior to self-referred clients and were more likely to immediately discontinue treatment, their retention was not significantly inferior to that of clients referred by Queensland Health (our baseline). This suggests that mandated clients at the FNS had sufficient external forces (e.g., court follow-ups requiring evidence of psychotherapy participation) to satisfactorily maintain their attendance (Snyder & Anderson, 2009). However, contrary to studies in which mandated clients had greater retention than self-referred clients (Wong et al., 2013), external forces appeared insufficient to contend with the presumably far more intrinsically motivated self-referred clients (Arndt et al., 2020; Ryan & Deci, 2008). It is possible that the indiscriminate approach taken by the FNS between referral sources, seeking to encourage voluntary participation, partially relieves the pressure to engage experienced by mandated clients.

Interestingly, clients referred by NGOs had the worst retention across both measures, particularly immediate discontinuation. As this referral group primarily comprises community and charitable organisations, clients coming from these services may be experiencing greater socioeconomic disadvantage, decreasing retention (Seidler et al., 2020; Warden et al., 2009).

Incidentally, the initial reason for presentation (ICD-10 code) was found to significantly predict client retention, as measured by the number of consultations completed. Although close to the threshold, the ICD-10 code did not significantly predict client discontinuation after the first consultation. Across both retention measures, no significant differences were found in retention between clients presenting with anxiety, dissociative, stress-related, somatoform and other nonpsychotic

Table 3

Negative binomial regression of the number of consultations completed by Indigenous status, referral pathway, & ICD-10.

Predictor	IRR ^a	Wald χ^2	<i>p</i>	95 % CI	EMMs ^b	95 % CI
Indigenous status^c	1.03	0.08	0.78	0.86–1.23	3.75	3.23–4.36
Non-Indigenous	Reference				3.65	3.11–4.28
Referral pathway		17.67	0.0071**			
Queensland Health	Reference				3.75	3.18–4.43
Self-referred	1.40	8.78	0.0030**	1.12–1.76	5.27	4.36–6.37
Queensland Police, Corrective, Probation and Parole Services	0.96	0.08	0.78***	0.72–1.28	3.60	2.87–4.52
Medical practitioner	0.92	0.38	0.56	0.70–1.22	3.46	2.67–4.47
Non-Government Organisation	0.73	2.80	0.094	0.51–1.06	2.76	1.95–3.90
Family member or friend	1.05	0.07	0.80	0.70–1.58	3.96	2.68–5.84
<i>All other referral types</i>	0.94	0.08	0.78	0.62–1.43	3.54	2.38–5.26
ICD-10 code: initial presentation reason		13.83	0.017*			
F40–F48 Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders	Reference				4.71	4.08–5.44
F30–F39 Mood [affective] disorders	0.82	3.11	0.078	0.65–1.02	3.85	3.13–4.73
Z69–Z76 Persons encountering health services in other circumstances	0.75	4.85	0.028*	0.58–0.97	3.53	2.81–4.43
Z55–Z65 Persons with potential health hazards related to socioeconomic and psychosocial circumstances	0.63	9.21	0.0024**	0.47–0.85	2.97	2.27–3.89
F10–F19 Mental and behavioural disorders due to psychoactive substance use	0.66	3.65	0.056	0.44–1.01	3.13	2.11–4.65
<i>All other diagnoses</i>	0.92	0.27	0.60	0.66–1.27	4.31	3.18–5.86

* *p* < .05.

** *p* < .01.

*** *p* < .001.

^a IRR is the incident rate ratio, which is the exponentiated coefficient in the negative binomial regression model.

^b EMMs are the estimated marginal means of the number of consultations completed by clients.

^c Indigenous status predictor compares Indigenous clients to non-Indigenous clients (reference).

Table 4

Binary logistic regression of client discontinuation after 1st consultation (immediate discontinuation) by Indigenous status, referral pathway, & ICD-10.

Predictor	OR ^a	Wald X ²	p	95 % CI
Indigenous status^b	1.35	1.02	0.31	0.75–2.43
Non-Indigenous	Reference			
Referral pathway		12.94	0.044*	
Queensland Health	Reference			
Self-referred	0.57	1.68	0.20***	0.24–1.34
Queensland Police, Corrective and Probation and Parole Services	1.44	0.75	0.39	0.63–3.31
Medical practitioner	2.25	3.65	0.056	0.98–5.18
Non-Government Organisation	2.78	4.45	0.035*	1.08–7.19
Family member or friend	1.12	0.03	0.86	0.32–3.91
All other referral types	1.92	1.23	0.27	0.61–6.06
ICD-10 code: initial presentation reason		10.69	0.058	
F40–F48 Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders	Reference			
F30–F39 Mood [affective] disorders	0.92	0.04	0.84	0.42–2.00
Z69–Z76 Persons encountering health services in other circumstances	2.04	3.40	0.065	0.96–4.35
Z55–Z65 Persons with potential health hazards related to socioeconomic and psychosocial circumstances	2.63	4.99	0.025*	1.13–6.15
F10–F19 Mental and behavioural disorders due to psychoactive substance use	2.77	3.35	0.067	0.93–8.25
All other diagnoses	0.83	0.10	0.75	0.27–2.56

* $p < .05$.

** $p < .01$.

*** $p < .001$.

^a OR is the odds ratio, which is the exponentiated B value.

^b Indigenous status predictor compares Indigenous clients to non-Indigenous clients (reference).

mental disorders (F40–F48) and mood [affective] disorders (F30–F39) or substance use disorders (F10–F19). These results align with previous findings of no consistent associations between client retention and disorder type, especially for client discontinuation after the first or second consultation, but with an increasing effect of disorder type on the number of consultations completed (Fernández et al., 2021). In all cases, clients with potential health hazards related to socioeconomic and psychosocial circumstances (Z55–Z65) had significantly poorer retention. While the effect of sociodemographic/socioeconomic circumstances on retention has been inconsistently demonstrated (Fernández et al., 2021), it is generally accepted that poorer circumstances are associated with poorer health outcomes (Gardiner et al., 2022) and can lead to decreased psychotherapy retention (Seidler et al., 2020; Warden et al., 2009). Practically, this highlights the importance for clinicians to identify and support clients (independent of Indigenous status) presenting with health hazards related to socioeconomic and psychosocial circumstances. Ensuring these clients have access to transportation to/from consultations (or visiting them at home) and providing them with the flexibility to attend around work and family obligations could help to improve the retention and, thus, outcomes for this group.

Our results also demonstrated no significant differences between the proportion of Indigenous (37.4 %) and non-Indigenous (31.7 %) men utilising the FNS, with Indigenous men marginally more likely to engage with the service. The typical underutilisation of health services by Indigenous men is well-documented (Isaacs et al., 2012), with services often perceived to be racially discriminatory and culturally inappropriate (e.g., the stigma of being lazy, drunk and violent, lack of gender-specific staff) (Canuto et al., 2018). The resulting poor engagement by Indigenous men perpetuates their profound disadvantage and

downstream health consequences (e.g., increased mental health aeromedical retrievals, suicide as the second leading cause of death) (Australian Bureau of Statistics, 2021a; Gardiner et al., 2019; Gardiner et al., 2022). As such, the engagement of Indigenous men with the FNS is extremely promising and again indicates the service's cultural appropriateness. The FNS's accommodation of gender preferences for treating clinicians likely contributes to this. Nonetheless, the service remains underutilised by men independent of Indigenous status. Due to masculine socialisation portraying help-seeking as a weakness, men are often reluctant to access mental healthcare when needed (Seidler et al., 2021). Reducing this stigma represents an ongoing challenge for public health policy and psychotherapy services.

4.1. Limitations

The primary limitation was an inability to determine causation between the therapeutic approach and client outcomes. Additionally, retention is an indirect measure of client outcome, and while the FNS's overall retention is akin to that of similar services (Gardiner et al., 2022; Seidler et al., 2020), comparable Indigenous and non-Indigenous retention is not in and of itself indicative of overall psychotherapy success. These limitations were due to the repurposing of data collected for a previous study (Gardiner et al., 2022). There is a need for future studies that more comprehensively describe the FNS's therapeutic approach and, by measuring the therapeutic alliance and client outcomes, demonstrate causation. Future research should incorporate qualitative participant feedback and component studies to identify the fundamental mechanisms underlying culturally appropriate care. Randomised control trials would further benefit the rigorous comparison of therapeutic approaches. However, these may be challenging to implement due to limited health resources (relative to demand) and the implications of assigning treatment protocols to Indigenous peoples in an environment of understandable yet well-established mistrust of government services. Concerns about the cultural appropriateness of conventional mood (and alliance) scales similarly contend with the implementation of future studies. The FNS emphasised the need for adapted, region-specific tools to measure psychological distress (e.g., The Kimberley Mum's Mood Scale) (Carlin et al., 2019). Notably, a Western Australian study similar to that proposed has shown success with simplified (four-question) mood and alliance scales (Sabbioni et al., 2018).

Additionally, as the FNS is a charitable (and thus free) service, this likely reduced the effect of socioeconomic barriers that commonly compromise psychotherapy attendance. This is especially relevant due to the higher levels of disadvantage experienced by Indigenous peoples, including the study population (Gardiner et al., 2022). A possible (yet poorly supported) (Clark & Kimberly, 2014) alternative effect of the FNS's charitable nature is that clients may experience less commitment to therapy than if they were paying for consultations.

Our analysis and interpretation of mandated client retention, as compared to other referral types, was limited by the variation between clients in this group. As seen in the Appendix, the Queensland Police, Corrective, Probation and Parole Services referral pathway comprised several smaller referral categories, with the type and magnitude of external forces (maintaining psychotherapy attendance) likely to have varied between these. Such idiosyncrasies were not captured and our capacity to observe any of their effects was limited by grouping all of the mandated referral pathways.

Finally, although equal to that of comparable services (Gardiner et al., 2022; Seidler et al., 2020), we observed a relatively low median number of consultations. This reduced the variance and, thus, the sensitivity of our negative binomial model. Our second retention model, analysing immediate discontinuation, was used in conjunction to increase the overall reliability of our measured retention.

5. Conclusion

The present study analyses adult client retention at the FNS and provides an overview of its therapeutic approach. The FNS draws upon a wide range of culturally appropriate and evidence-based therapies, focusing on active listening, building a trusting relationship, accommodating client preferences, and, when appropriate, incorporating cultural practices and storytelling to enhance engagement and understanding. Among other tools, clinical yarning forms a fundamental component of the FNS's therapeutic approach. In support of our primary hypothesis, we found no significant differences between the retention of Indigenous and non-Indigenous clients, providing a preliminary yet positive indication for the cultural appropriateness of the psychotherapy delivered by the FNS. In the context of prior research, we infer that the FNS's therapeutic approach might potentially offer an improvement in cultural appropriateness over the standard Western model of care by better enabling the therapeutic alliance. Indigenous men's promising engagement with the FNS was interpreted as further support for the FNS's cultural appropriateness. Our results also highlight how entrance characteristics can predict client retention, with self-referred clients having the highest retention and clients with potential health hazards related to socioeconomic and psychosocial circumstances having the lowest retention. We welcome future research on the FNS or similar services that, in the context of culturally diverse clients living in rural and remote Australia, demonstrate causation between a described therapeutic approach, the therapeutic alliance, and client outcomes.

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CRediT authorship contribution statement

George Everson: Writing – original draft, Project administration, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Breeanna Spring:** Writing – review & editing, Supervision, Methodology, Investigation. **Jocelyn Middleton:** Supervision, Methodology, Data curation, Conceptualization. **Alice Richardson:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis. **Fergus W. Gardiner:** Writing – review & editing, Supervision, Resources, Project administration, Methodology, Data curation, Conceptualization.

Declaration of competing interest

None to declare.

Data availability

Data will be made available on request.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.actpsy.2023.104122>.

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