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Title: Characteristics and service needs of women and babies admitted to residential parenting units in New South Wales: a mixed methods study

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Abstract

Aims and Objectives: This study aims to examine the characteristics and service needs of women and babies admitted to Residential Parenting Services (RPS) in the first year following birth in New South Wales (NSW), Australia.

Background: In Australia there is a tiered system to support maternal, child and family health, which includes residential parenting services (RPS).

Design: Sequential explanatory mixed methods design.

Methods: Individual patient data were obtained from a random review of 10% of all medical records (n = 300 of 3011 admissions) of women with an infant of less than 12 months of age who were admitted to RPS in 2013. Following review of the medical records, qualitative data were collected via interviews with eight women who accessed RPS. Chi square analysis and student t-testing were used to analyse quantitative data. Qualitative data were analysed using a descriptive interpretive approach. An integrative approach was taken in reporting the findings

Results: Women admitted to the RPS were on average 32 years of age, were Australian born (72%), had a university qualification (40%) and most were employed. The majority of women were primiparous (60%), and had a vaginal birth (61%). Women with male infants were much more likely to be admitted to the RPS (58%) compared to the NSW male to female ratio (51.3% versus 48.7%). Over 50% of women reported mental health issues with 27% having an Edinburgh Postnatal Depression Scale score ≥ 13 on admission. The primary reason women sought parenting support were for sleep and settling (83%). During their stay, services used by women included social workers (44%), psychologists (52%) and psychiatrists (4.5%).

Conclusion: Women who access RPS report psychosocial and mental health issues. Services provided by RPS support women during this challenging early parenting period by providing multidisciplinary, holistic and peer support.

Relevance to clinical practice

A high prevalence of mental health issues identified in this study indicated a need for ongoing training and support for RPS staff. Ensuring clinicians have the appropriate skill sets to best support their clientele will maximise the outcomes for women and families who access RPS during the early parenting period.

Key words: early parenting; caesarean section, perinatal mental health, residential parenting services, sleep and settling.

Introduction

During the early parenting period over 30% of Australian women experience difficulties in caring for their newborn, in particular with breastfeeding, sleep and settling (Coyle, 2011; Matthey & Speyer, 2008; Taylor & Johnson, 2010). Ongoing sleep and settling issues with a newborn baby can lead to maternal exhaustion, and associated physical and psychological morbidities (Bayer, Hiscock, Hampton, & Wake, 2007; Taylor J &

Johnson M, 2012). In addition, women who experience physical and/or psychological morbidities as a result of their labour and birth, face additional complexities in the early parenting period (H. Priddis, Keedle, & Dahlen, 2017; H. Priddis, Schmied, & Dahlen, 2014). If women are not provided with support during this time, the physical and psychological morbidities, may impact on both the woman and the baby in the short and long term, with strong evidence these health issues also impact on maternal and infant bonding (Lupien, McEwen, Gunnar, & Heim, 2009).

Residential parenting services (RPS), which are unique to Australia, provide both public and private 3-5 day residential care programs for parents experiencing difficulties with their infants. Each Australian state and territory has at least one RPS, except for Tasmania and the Northern Territory, with approximately 5% of women during the early parenting period being admitted to a RPS for parenting support. The demand for RPS is high, with waiting lists reported to be approximately 4-to-6 weeks in most states. In NSW alone, around 3,400 women (3.5% of the birthing population) use the RPS of Tresillian (three sites) and Karitane (two sites) each year, with referrals to these organisations coming from all over NSW (Karitane, 2012, 2014; Tresillian, 2011, 2015).

Background

Residential parenting services are identified as a tertiary level service that offers a range of services, supports and interventions for parents experiencing infant sleep and settling difficulties, breastfeeding and infant feeding issues, and adjustment to parenthood in general (J. Fisher & Rowe, 2004; Rowe & Fisher, 2010). These services aim to provide parents with strategies to build confidence and develop parenting skills using different educational strategies such as individualised teaching, group learning, and supervised practice to support the transition of new parents to parenthood (Rowe & Fisher, 2010). The RPS follow a parent and infant centred approach to the provision of care, with close alignment to the universal child and family health services that exist (AAPCH, 2016). The RPS are staffed by multidisciplinary teams including registered nurses with qualifications in child and family health nursing, many of whom are also registered midwives, medical support is provided from paediatricians, general practitioners, and psychiatrists. Allied health care workers such as social workers and psychologists also provide care within the residential programs. The RPS cover diverse socio-economic locations, with each RPS able to admit families across NSW.

Despite some of these RPS operating for over 100 years, there are currently few studies examining the characteristics of the women and families who access these services (Barnett, Lockhart, Bernard, Manicavasagar, & Dudley, 1993; Hammarberg, Rowe, & Fisher, 2009; Matthey & Speyer, 2008). In addition, little is known about how the parents who use RPS differ from those who do not. For RPS to make decisions about future service design and delivery, and for implementation of similar services in other countries, a comprehensive understanding of the clinical, psychological, social and demographic characteristics of women who use RPS is required.

This study aims to examine the characteristics and service needs of women and babies admitted to RPS of Tresillian and Karitane in the first year following birth in NSW.

Methodology

A sequential explanatory mixed methods design was used for this research study. This involved a two-phase design where the quantitative data were collected and analysed first, and then in order to further explain and interpret the findings from the quantitative phase qualitative data were collected and analysed. When undertaking mixed methods research, the aim of collecting and integrating both the qualitative and quantitative data is to facilitate a greater understanding of the topic under investigation (Bazeley, 2009; Bazeley & Kemp, 2011; Tashakkori & Teddlie, 2003). During the two phases of this study, integration was achieved by using the findings from the first phase to inform the data collection and analysis of the second phase. In addition, the aim of integrating the findings from this study was to develop a greater understanding of the needs of women who access RPS; this information will assist in informing recommendations for future practice and service provision.

Participants

A total of 5191 women were admitted to the RPSs Tresillian and Karitane between 1st January 2013 and 31st December 2013. Of these women, 3011 were admitted with an infant less than 12 months of age and were therefore eligible for inclusion. Data were collected in a non-identifiable manner from medical records. Eight women who had or were about to attend RPS were also interviewed in-depth.

Sample

Of the 3011 women who met the inclusion criteria, a random computer-generated sample of ($\approx 10\%$) of medical record numbers was created ($n = 300$). The randomised admission data set was comprised of 200 files from Tresillian Family Care Centres and 100 files from Karitane. This division of files was determined by the relative size and contribution to the overall data set by each of the RPS. Admission data were provided to the research team by the RPSs involved in the study. The medical record is a rich source of data which reports on the reason for, and any other issues, contributing to the admission to a health facility. The medical record typically provides more detail than administrative datasets about interactions with health professionals managing the admission, delivery and discharge process.

Quantitative Data collection and analysis

The medical records were reviewed by two researchers with significant experience in the collection of data for research purposes. The data variable list was agreed upon by the research group prior to data collection and consisted of a combination of demographic, administrative and clinical fields including principle reason for admission, secondary reasons for admission, infant behaviour, pregnancy history, family supports, psychosocial assessment, and SEIFA profile. SEIFA stands for Socio-economic Indexes for Areas. The Australian Bureau of Statistics ranks geographic areas across Australia in terms of their socio-economic characteristics with the decile range from 1 (most socio-economically disadvantaged) to 10 (most socio-economically advantaged). All data collected were initially recorded on the data collection sheet, which identified the file only by the RPS unique identifier (required should clarification of data be needed). Items were collated to form a tool consistent with the flow of the medical record, to be used in data collection. The data collection tool was tested by the two researchers involved in the data collection (JT and MD) prior to commencement of data collection prior, to ensure that it allowed data to be effectively collated and analysed. All data were sourced from the paper based medical record, no data were extracted from the electronic health record. Each medical record included in the study was reviewed manually. A random 10% sample (out of the 300 medical records) was examined by

both researchers to ensure quality of data collection. Inter-rater agreement on a 10% data sample of 204 data items resulted in agreement >0.94 on all items. The final dataset was collated and analysed by a researcher independent to the data collection. SPSS™ v.23 was used for data analysis. Comparisons between the two settings were made utilising chi square analysis and student t-testing where appropriate.

At completion of the initial data collection it was determined there was a need to return to the files to collect additional qualitative data due to the finding that 10% of women reported trauma due to their birth. Those who reported the birth as traumatic had their files examined again to identify the source of the trauma, and this was further explored through the collection of qualitative data described below.

Quantitative Assessment Tools and Measures

During the admission process to RPS, a range of assessments are undertaken to identify women at risk during the early parenting period and who may require referral or additional support. At each site, the women completed the Edinburgh Depression Scale (EPDS). In addition, for women who attend Karitane they completed the Karitane Parenting Confidence Scale (KPCS), and for women who attended Tresillian they completed the Postnatal Risk Questionnaire (PNRQ) (Austin, Hadzi-Pavlovic, Saint, & Parker, 2005; Cox, Holden, & Sagovsky, 1987; Črnčec R, Barnett B, & Matthey S, 2008). The EPDS is a 10 item instrument, which can be used in both the antenatal and postnatal periods. This tool is used to screen for indicators of anxiety and depression, asking how women have felt over the past seven days and includes a question regarding any thoughts the woman may have had regarding self-harm. A score of ≥ 13 indicates an increased likelihood of depression (Cox et al., 1987).

The PNRQ is a 12-item instrument, with each question designed to screen for known psychosocial risk factors. These factors include the woman's support network, prior history of emotional, physical or sexual abuse, and recent stressful life events. Each item is scored from zero to five, with the possible sum of the scores ranging from 8 - 82. A score of 24 or more suggests the presence of risk factors and further investigation/referral is suggested. (Austin et al., 2005). The KPCS is a 15-item self-administered assessment tool which explores perceived parental self-efficacy such as

understanding infant cues, feelings of support and confidence in relation to their parenting ability. Each item is scored from zero to three, with a possible range of scores from zero to 45. A score of 39 or less suggests that further investigation/referral is suggested (Črnčec R et al., 2008).

Qualitative data: In-depth Interviews

Individual semi-structured interviews were conducted with eight women who identified as experiencing birth related trauma and accessed early parenting support through a RPS. Based on the findings of the quantitative data, it was evident that it was important to further explore the impact of the birth experience, particularly birth trauma, on the ability of women to care for their newborn infant. Therefore, these interviews were undertaken with the aim of gaining insight into the reasons that the women sought out parenting support, how the birth experience may have impacted on the experience of mothering, and the pathways to accessing parenting support services. Each interview was approximately one hour in duration. The methods used for these interviews have been fully described in another paper (XXXX, 2017).

To be included in the study, women who had attended a RPS, or had a referral but were yet to use it, were suitable for inclusion. The medical record data obtained in Phase One of the study were a retrospective data set for which specific consent to participate in an interview to support this research was not obtained at time of admission to the RPS. This data set was de-identified as part of the approved research protocol and therefore the capacity to interview users of the service within a specific data set was not available to the researcher undertaking the in-depth interviews. Women were excluded if they had not received a referral to, or attended, a RPS. Participants contacted the first author in response to flyers which were distributed throughout two RPS services in NSW; in addition, the flyer was distributed via social media (Facebook) and word of mouth. Due to the specific requirements of the participants being recruited for the study, recruitment proved difficult as most women who were interested in participating in the study had experienced birth trauma but had not received a referral for or attended a RPS. Data collection continued until saturation was reached.

The interviews were conducted by experienced interviewers (authors HP & HD) to minimise distress to the participants given they were sharing their birth experience which they perceived as traumatic. To ensure informed consent, participation was self-determined in response to an information sheet which was distributed via email and provided full details of the research currently being undertaken, with an opportunity to ask any questions prior to giving consent. Participants were advised that all data would be de-identified during transcription of the recordings to ensure confidentiality, and pseudonyms would be given to the participants and any names they disclosed. The information sheet contained details on referral services for participants if they needed further help following the interview.

Qualitative data analysis

A descriptive interpretive approach was taken when analysing the qualitative data. Quotes were interwoven with the reported medical record data to provide a further insight into the experiences and characteristics of women who accessed RPS. The qualitative data were used to explicate and clarify the quantitative data and give voice to women who access these services. The analysis of the medical record data is complemented by the inclusion of qualitative data from interviews with mothers which highlight the complexity of the complex psychosocial situations that women who are admitted to a RPS may experience. To further highlight the experiences of women who were admitted to a RPS, a wordle was developed based on the common issues that were documented as traumatic in relation to their births in the medical records. A wordle is a tool for generating word “clouds” from text, these “clouds” give greater prominence, by using larger font size, to words that appear more frequently in the source text. Ethical approval was provided by the Sydney Local Health District (RPAH Zone) Ethics Committee, approval number HREC/13/RPAH/479.

Results

Demographics

Women who were admitted to the RPS were on average 32 years of age (NSW State average 30.5 years), with 71% born in Australia (NSW state average 64%) and 60% came from the highest SEIFA deciles (9 & 10) (Table 1). Forty percent had an occupational skill level of 1 (university degree or higher) and most were employed (68.4%). The percentage of women who currently smoked was 7.3% which is lower than the NSW average of 8.9% (Centre for Epidemiology and Evidence, 2016) (Table 1).

There were some variations in data between the cohorts examined at the two RPS involved in the study, although none were statistically significant.

Table 1. Demographic details of women admitted to residential parenting services

The demographics of the women who participated in the interviews were similar to those of the cohort presented in Table 1. Their mean age was 32 years, they were all born in Australia, all had diploma level qualifications and above, and all women were married/partnered (XXXXX). For some of the women, their educational background and prior career success before becoming a parent proved a challenging parenting transition:

“I probably wouldn’t ask for help unless someone told me because I think well I can do everything else. I can work full time and study part time and travel to and from work and not have any issues and get everything done and now this teeny tiny little person who I'm home all the time with and everything and get nothing done and get no sleep and smell like spew. “ (Layla)

Obstetric outcomes

There was no statistical difference between the women admitted into Karitane and Tresillian. We found 60% were primiparous (NSW rate 43.7%), over 90% of women had given birth at > 37 weeks, and 61.5% had a vaginal birth. Women with male infants

were more likely to be admitted to the RPS compared to the NSW male to female ratio (51.3% versus 48.7%). The rate of multiple birth was 16.3% in comparison to the NSW average of 1.4% (Table 2) (Centre for Epidemiology and Evidence, 2016).

Table 2. Birth details for babies born to women admitted to residential parenting services

Reasons for admission

Women who were admitted to the RPS were mostly referred by child and family health nurses (CFHN), although this was significantly higher in Karitane units. Sleep and settling was identified as the main reason for referral to the RPS services (83%).

On intake, 51% of women reported mental health issues, and 27% scored 13 or greater on the EPDS on admission to the RPS (Table 3). Some variation between the RPS were seen with Tresillian admitting more women with an EPDS >13, and a higher percentage of women who identified mental health issues associated with the birth experience compared to Karitane.

The median score for women who completed the PNRQ assessment on admission to Tresillian was 30 (Table 3), placing the majority of women at risk due to psychosocial issues and requiring further investigation and support. For women attending Karitane, on admission the median KPCS score was 35 which indicates that the majority of women were lacking in confidence in their parenting skills and abilities. By discharge, the median KPCS score of 40 indicates that parenting confidence had increased during the length of the stay (Table 3). This data aligns with the sleep and settling concerns expressed by women on admission.

Table 3. Admission details for women admitted to residential parenting services

The medical record data aligns with the experiences of the women who participated in the interviews, with many of the women describing the complexities of parenting a newborn, and their experiences of challenging sleep and settling issues, prompting them to seek advice and support. They described seeking support from family members, peers and health professionals including CFH Nurses:

“My baby developed a sleep association with breastfeeding and being cuddled by me and me alone. So he wouldn't sleep at all. So heaps of people said you've got to go Tresillian, call Tresillian.” (Nora)

“I was visiting Child Health with my daughter. I had issues with sleep and settling and nearly went insane with an unsettled baby. Child Health suggested to me at about 12 weeks that maybe I should consider going to [RPS].” (Addison)

For some women the toll of caring for an unsettled newborn began to impact on both their physical and psychological wellbeing. Women described that they were extremely sleep deprived due to a baby who would not sleep or settle, and often received little practical support during this time meaning they were unable to rest:

“I took [the baby] for a check-up with the child health nurse and had a bit of a breakdown in her office. She did the mental health checklist and then called Tresillian straight away to get me in. Like she discussed Tresillian with me and if I thought it would help. I said possibly but I'm willing to try almost anything at this point. So she called and made the referral and I was in 24 hours later.” (Nora)

“[The GP] had done the Edinburgh test on me I was like 16 or 18 and she was like, whoa that's bad. But I was just kind of sent home and I told my psychologist and she was like well I think you should probably go to Karitane or Tresilian. So I actually had referrals to both and whichever one came up first I was going to take.” (Piper)

Clinical impressions and self-reported issues

Clinical impressions and self-reported issues for women were collected by the Tresillian RPS only and are reported in table 4. Fatigue and exhaustion were noted to be highly prevalent in the women by staff (71.5%) and by women (84%). Anxiety was reported to be high by staff (41%) along with postnatal depression (17%) and other depression (16%), while 43% of women identified as being a worrier. A high percentage of women (48.5%) self-reported a history of mental health issues upon admission and 26% of women admitted to Tresillian reported having significant stressors in their lives leading up to, or at time of admission. Lack of support (23.5%) also features as an issue

reported by women at time of admission. Tresillian admission staff (73%) and women (45.5%) recorded issues relating to adjusting to parenting at time of admission. The numbers of women reporting a history of abuse is notably high at 13.5%.

Table 4. Clinical staff impressions/self-reported issues for women admitted to Tresillian RPS

Birth trauma

Over 10% of women overall reported mental health effects related to the birth, 13% reported physical issues as a result of the birth (table 3), and 16.5% of women reported that they had experienced a traumatic birth (table 4). Figure 1. is the wordle that demonstrates the common issues documented in the medical records when women reported trauma from their birth. Caesarean section appeared to dominate, with women also expressing feelings of trauma following an emergency birth (caesarean or instrumental).

Figure 1. Wordle of clinical notes made about traumatic birth events

All of the women who participated in the interview process reported experiencing birth related trauma; however this trauma manifested in different ways for each woman (physical/psychological). One woman described the traumatic moment when her baby required resuscitation during a breastfeed shortly after birth:

“I was actually doing the first breastfeed during that time. I had probably been so pumped full of pain relief and had no sleep for the two days prior that I fell asleep while I was doing that feed. [The baby] went all limp and got pulled off my chest and taken to the other side of the recovery room to get worked on... Probably the worst memory I have of that is they were working on him at the other side of the room and I was there just helpless wondering what was going on.” (Lucy)

For some women, the trauma which was experienced manifested both physically and psychologically in the early postnatal period

“...the following week [after the birth] I didn't sleep well - I was having flashbacks from the birth...all this ridiculous negative thinking started - to be honest, they haven't really stopped since... this birth has impacted on my mental health since as well.” (Piper)

Table 5. Services used and referrals made on discharge for women admitted to residential parenting services

Services used

The care provided by RPS is predominately provided by child and family health nurses (CFHN). The CFHN provide care for the parents and infant during their admission, conducting initial health and psychosocial assessments and assisting the parent to identify achievable goals for themselves and their infant that they work towards during their stay. The CFHN provides guidance and support to the parent as they work toward achieving their goals and, where the opportunity arises, the CFHN also provides key information and advice on child development, nutrition and key child health messages to the parent. Should the parent identify any health or psychosocial concerns, the CFHN will provide advice and support, or make a referral to an appropriate health professional or service who can provide ongoing support to the parent. These referrals can be made internally within the RPS to the social workers or psychologists working onsite, or to community based providers providing specialist services on discharge. All infants admitted to the service under the care of a treating doctor who reviews the infant close to the time of admission for wellbeing and suitability to participate in the RPS program. Referrals are made for any medical issue identified by the medical officer if they are unable to be managed during the admission.

Services used by women during their stay at the RPS were most commonly a social worker (44%) followed by a psychologist (52%), with 4.5% of women seeing a psychiatrist during their stay (Table 5). These health professionals engage with parents who are referred by the CFHN when a psychosocial concern is identified or disclosed by the parent. The psychosocial concern may be identified during the admission assessment process, e.g. on the PNRW or EPDS, or during discussions with the CFHN during care provision. The referral to these services may be for individual or group

counselling sessions, assistance with accessing or linkage to community services, or specialist psychological support. An additional referral to a psychiatrist is made where an identified need emerges. On discharge referrals were made to other health providers (26.5%) and a psychiatrist (8.5%). Over 18.5% of women were deemed at risk on discharge. This risk on discharge included issues such as self-harm, relationship issues, domestic violence, child protection. Physical disability, parental developmental delay, current mental health issues and lack of support.

The women who participated in the interviews described the emotions that they experienced once they were admitted to the RPS for parenting support, including distress, sadness, and relief. During their stay many of the women were provided with counselling support by the onsite psychologist or psychiatrist, which helped facilitate an insight into the psychological trauma they experienced as a result of the birth:

“...my baby was six months old when I got there - and when I was admitted, they go through all your stuff. I remember both my husband and I broke down when we had to talk about what had happened and that's when they said to me, we need to get some counselling for you. So that's when I got the diagnosis of postnatal depression.” (Addison)

“I saw the psychiatrist and it made me realise that I need to fix myself. It's not just me fixing the boys and their sleep... I realised when I was in there a lot of it was me - it was going into Karitane actually I realised - it just kind of consolidated - I realised that the problem wasn't the boys... it's become really obvious to me that the boys aren't the problem really. It's probably 75 per cent me and 25 per cent them.” (Piper)

During the interviews, women reported that the length of time they stayed in RPS varied depending on the model of care provided by the individual service, the individual needs of the women and babies, and the experience during their stay. For the majority of women the experience was positive and had increased their confidence as a parent:

“Well, it was amazing. The first 24 hours were really horrific. Just learning that it was okay for him to have a cry...realising I suppose that it was me pushing my issues onto [the baby]. They helped me to realise that and also helped me to see his cues better and things like that. Yeah, the first day or two were really hard. I

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didn't think we were ever going to get it. We ended up with a six night stay. By about the fourth day I thought you know what? This could be possible. I was so afraid that we'd get home and it would all turn to rubbish. But by the sixth day I was pretty confident that we could make it." (Nora)

"Reassurance that I was on the right track with settling, reassurance that I was identifying his tired signs well, and probably specific information about him at that time with regards to feeding him, his weight, and sleep needs. I guess that it was so personalised and they were able to spend some time with you so it was really - I found that very, very helpful." (Layla)

Two of the women found the experience of staying in a RPS challenging and self-discharged prior to the completion of their stay:

"Their program was amazing and the service that they offer is fantastic, but I couldn't sleep. All the other babies that were screaming all night and the music that they play at very high volume was keeping me awake, and I was freaking out that [my baby] was going to wake up. He slept the whole night, and I didn't. I felt as awful as I did the couple of months beforehand that we were having the difficulty with him sleeping and didn't want to go back to how I felt when I was sleep deprived. I self-discharged, which I felt very mixed about because their service was great and I still felt like I probably could have benefitted from the different talks and different things they were doing in the program." (Lucy)

However, overwhelmingly the women who participated in this study felt that their experience at the RPS was helpful and that the service provided them with strategies and solutions for their discharge home. In particular, women spoke of the benefits of the peer support available during the information and group sessions, and how this helped to normalize and validate their experience:

"They encourage you to talk to the other parents as well, which was really beneficial for me, because I felt like a failure. I felt like I should have known better because of my background [paediatric nurse]... there was people across the hall from me and it was their fifth baby and they're like... if you're going to be that hard on yourself, well this is our fifth baby and we're here this time. You would think by now we'd know what we're doing, and we're here, so hey, we're

all in the same boat. Let's just do this together. It was really, really good.”
(Addison)

Following discharge from the service, the majority of women described that there was little follow up or support from either the RPS or the health professionals who provided the original referral and with 20% of women being discharged and deemed “at risk” on discharge this is not surprising. While some women felt confident in transitioning home and felt that they could access the service for support if required, other women felt unsupported by the lack of follow up:

“...there wasn't any follow-up really. Yeah, I would say that lack of follow-up and just checking everything's okay. Where does that responsibility lie? Is that your GP, is that [the RPS], is that child health nurses? Because you're involved with so many different people, but I didn't get it from anyone.” (Olive)

“...they said you know - (A) you can always come back - we do have mums that come back and (B) you know you can always call the help line, I have called the help line since because I just wanted some tips when he wouldn't sleep and I got some help.” (Piper)

Discussion

This study set out to examine the characteristics and service needs of women and babies admitted to the RPS of Tresillian and Karitane in the first year following birth in NSW. Three hundred medical records were randomly sampled for review and eight women who had accessed the service were interviewed.

The characteristics of the women and their infants, and reasons for admission to RPS, reveal complex issues contribute to women and their families seeking assistance with their parenting. While the infants' behaviours are initially identified as the reason for admission, it is clear from the data presented here that parent distress, particularly maternal distress, is a common factor. This distress is often compounded by maternal fatigue and exhaustion, with 84% of the women raising this as an issue. These maternal characteristics contribute to the foundational work of the RPS as noted in research from

other Australian RPS (Berry, Jeon, Foster, & Fraser, 2015; J. R. W. Fisher, Rowe, & Hammarberg, 2011).

Importantly, all of the women and their infants had been seen by primary health services (CFH, GP) prior to the RPS admission, and in some instances, secondary day services or home visiting by CFHN had been accessed. Referrals to RPS came primarily through CFH services but also from GPs. It is not clear how frequently parents utilised primary care services prior to admission or whether these services offered appropriate levels of support and early intervention. General Practitioners (GPs) care for individuals across the life span and therefore not all GPs are attune to the social and emotional needs of mothers and may miss important signs of parenting distress (Brodrribb, Mitchell, & Van Driel, 2016; Jeyendra et al., 2013). Alternatively, the primary role of the CFH services is to undertake assessments of child and parent needs, provide health promotion, for example, breastfeeding information and guidance and support services for families and children from birth to school entry. These highly qualified health care professionals are trained to recognise parenting distress and intervene appropriately.

Yet access to CFH services across Australia varies greatly, with many families receiving or attending one or two scheduled visits and then choosing to access other, or no further primary health services (Brinkman et al., 2012; Schmied, Burns, & Dahlen, 2015). This is perhaps exacerbated by reports of inconsistent and contradictory information across providers as well as difficulties in accessing services (Hesson, 2017; H. S. Priddis, Schmied, Kettle, Sneddon, & Dahlen, 2014). Some women and consumer representatives report that women fear judgement from primary service providers and this may prevent them from accessing services (Hesson, 2017).

Psychosocial wellbeing

In this study the majority (51%) of women who attended the RPS admitted to experiencing mental health issues, with 18% of the women scoring ≥ 13 , and 9% scoring ≥ 17 on the EPDS, and women scoring high on both the PNRQ and KPCS for significant psychosocial issues and low confidence with parenting. These figures demonstrate a significant level of distress being experienced by 27% of the women admitted to the RPS. The impact of the birth experience further compounded the psychological (10.5%)

and physical (13%) issues experienced by these women that require some form of intervention, with 16.5% (Tresillian records only) of women reporting that they had experienced a traumatic birth. The women who were interviewed for this study described the impact of the perinatal period on their transition to parenthood. The trauma associated with their births resulted in women lacking confidence in their role as a mother, and an inability to manage both their own wellbeing and that of their newborn. Women described in the interviews the significant sleep, settling and/or feeding issues they faced prior to admission to the RPS. They described gaining awareness during and following the RPS stay that the challenges were not all due to the baby but also due to their psychological trauma and exhaustion. This finding aligns with research showing that women who experience trauma during their birth, resulting in physical and/or psychological trauma, face greater challenges in their transition to parenthood than women who do not experience trauma (H. Priddis et al., 2017; H. S. Priddis et al., 2014; Taghizadeh, Irajpour, Nedjat, Arbabi, & Lopez, 2014). The unknown in many instances is whether the infant's behavioural concerns are associated with an exacerbation of the mother's mental distress.

The long-term impact of maternal mental health on the infant is now well known (McGeorge, Milne, Cotton, & Whelan, 2015; Stein et al., 2014). Early intervention is seen as a crucial component of ensuring that the infant and maternal (parental) relationship is provided for the infant's optimal development (Stein et al., 2014). By focusing on both the maternal and infant issues through the use of a multidisciplinary model of care the women's and infant's physical and mental issues are assessed and early intervention can be provided.

Supporting women with complex needs

The use of a collaborative approach that includes the mother in the decision-making process about interventions or support services creates opportunities for learning and for interventions to be sustained after discharge from the RPS (Hopwood N, 2013). This collaborative approach is now the accepted norm within early parenting services (EPS) and CFH services (Clerke et al., 2017); however the women interviewed identified some gaps still exist.

The complexity of issues experienced by the women admitted to the two RPS has been clearly demonstrated. This complexity requires a high level of skill and ongoing mental health education (Fowler, Schmied, Dahlen, & Dickinson, 2017). While nursing is the predominate discipline within RPS, inter-professional collaboration is essential with clear internal and external referral pathways to enable timely and appropriate support (Bennett, Hauck, Radford, & Bindahneem, 2016). Using screening tools such as the EPDS, PNRQ and KPCS supports clinical judgement by using an objective measure of parenting distress and parenting confidence and the need for intervention. Critically, the universal CFH system requires health professionals that are adequately skilled to assess and intervene as early as possible.

Residential parenting services provide an opportunity for women (parents) to rebuild their parenting confidence and sense of competence (Berry et al., 2015; Črnčec R et al., 2008). Women described the value of the holistic service, particularly the opportunity to speak with other families for peer support. Whilst there is no currently recognised evidence based treatment for women who have experienced birth trauma, some studies have found that women find postnatal debriefing and peer support beneficial (Gamble et al., 2005; Sheen & Slade, 2015). For many women, this is an opportunity to acknowledge their emotional distress and the impact this is having on their ability to parent within a supportive environment.

Limitations

As with any study there are limitations. While 300 medical records were randomly reviewed the participants are not necessarily representative of all parents and there is an under-representation of women and families from culturally and linguistically diverse backgrounds as well as lower socioeconomic groups. The qualitative data were limited to eight women's experiences and cannot be generalised to the population of women who attend the services let alone all women who have given birth. The women in this study self-selected to participate in the interviews and so may not be representative of all women experiencing birth and seeking out residential services and may have felt they more motivated to tell their story due to negative experiences.

Conclusion

Women who access RPS in the first year after birth have significant psychosocial and mental health issues presenting challenges in the early parenting period. Sleep, settling and maternal fatigue are prevalent reasons behind admission to RPS. Residential parenting services support women with complex needs through this early parenting period by providing holistic and peer support.

Authorship

HP undertook interviews, analysed qualitative data and contributed to writing the paper; CT analysed the data and contributed to writing the paper; CF helped design the study and contributed to writing the paper; VS helped design the study and contributed to writing the paper; JT collected the medical records data and contributed to the writing of the paper; MD helped collect the medical records data and contributed to writing the paper; HD designed and led the study, undertook some of the interviews and helped analyse the qualitative data as well as leading the writing of the paper.

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What does this paper contribute to the wider global clinical community?

- The leading reason for women seeking parenting support is related to sleep and settling issues of the newborn which in turn contributes to high levels of maternal fatigue and exhaustion.
- A high number of women who require RPS support identify as having mental health issues (anxiety, depression) either pre-existing or as a result of a traumatic birth.
- More male infants are admitted to RPS than female infants making this an interesting area for future research

Table 1. Demographic details of women admitted to residential parenting services

	Both units (n=300)	Tresillian (n=200)	Karitane (n=100)	p
Maternal age (mean and SD)#	31.9 (5.30)	32.3 (5.21)	31.0 (5.39)	0.05
Australian born	71.3%	72.5%	70.0%	0.53
SEIFA* deciles 9 and 10	60.0%	64.0%	53.0%	0.08
Married/de facto	92.0%	93%	91%	0.65
Occupation skill level 1 or 2 **	42.0%	44.5%	38.0%	0.60
Housewife/student	18.6%	17.5%	20.0%	0.92
Current smoker	7.3%	7.5%	7.0%	0.80

Note: chi-square analysis has been undertaken except where noted otherwise

Student's t-test

* SEIFA stands for Socio-economic Indexes for Areas. The Australian Bureau of Statistics ranks geographic areas across Australia in terms of their socio-economic characteristics with the decile range from 1 (most socio-economically disadvantaged) to 10 (most socio-economically advantaged).

** Australian and New Zealand Standard Classification of Occupations – Skill level 1 and 2 include those who hold a diploma, bachelor's degree or higher

Table 2. Birth details for babies born to women admitted to residential parenting services

	Both units (n=300)	Tresillian (n=200)	Karitane (n=100)	p
Primiparous	60.0%	59.5%	61.0%	0.80
Birthed at term (≥ 37 weeks)	91.3%	94.5%	86.0%	0.12
Vaginal birth	61.5%	60.5%	64.0%	0.56
Male sex	58.5%	59.5%	57.0%	0.80
Birth weight in grams (mean and SD)#	3238.1 (643.8)	3254.3 (534.6)	3231.9 (681.7)	0.78
Multiple birth	16.3%	18.5%	12.0%	0.15

Note: chi-square analysis has been undertaken except where noted otherwise

#Student's T-test

Table 3. Admission details for women admitted to residential parenting services

	Both units	Tresillian (n=200)	Karitane (n=100)	p
Child & Family Health direct	68.0%	60.5%	83.0%	<0.001
GP or paediatrician direct referral	27.0%	35.5%	10.0%	<0.001
Family and Community Services involvement*	3.0%	2.0%	5.0%	0.15
PNRQ **		30 (20-40) †		
KPCS **			35 (30-40) ††	
Admission			40 (36.5-43.5)	
Discharge				
Edinburgh Postnatal Depression ≥10	46.6%	51.3%	37.4%	0.02
Missing data	1.0%	0.0%	2.0%	
Edinburgh Postnatal Depression “Yes” to question 10 †††	5.4%	5.0%	6.1%	0.70
Sleep/settling as primary reason for referral	83.0%	84.0%	81.0%	0.51
Other services utilised prior to admission to RPS	98.0%	97.5%	99.0%	0.38

* Family and Community Services are also known as Child protection services

** (Represents the median and interquartile range)

† PNRQ (Postnatal Risk Questionnaire) score ≥ 24 suggests presence of risk factors and further investigation/referral is recommended

†† A KPCS (Karitane Parenting Confidence Scale) score of ≤ 39 suggests that further investigation/referral is suggested

††† A score of 10 or above indicates that further investigation referral is required. If the woman answers yes to Question 10 “The thought of harming myself has occurred to me” immediate action must be taken.

Note: chi-square analysis has been undertaken

Table 4. Clinical staff impressions/self-reported issues for women admitted to Tresillian RPS

	Tresillian (n=200)
Clinical staff impression*s:	
Adjustment to parenting	73.0%
Postnatal depression	17.0%
Depression-mild	16.0%
Fatigue/exhaustion	71.5%
Anxiety	41.0%
Self-reported issues identified*:	
Lack of support	23.5%
History of depression	28.5%
History of mental illness	15.5%
Traumatic birth	16.5%
Adjustment to parenting	45.5%
Fatigue exhaustion	84.0%
History of abuse	13.5%
Significant stressors	26.0%
Considers herself a worrier	43.0%
Family issues	4.0%
Mental health issues	4.5%
Physical issues	1.0%

*only recorded in Tresillian medical records

Table 5. Services used and referrals made on discharge for women admitted to residential parenting services

	Both units (n=300)	Tresillian (n=200)	Karitane (n=100)	P
Services utilised during stay:				
Social worker	44.0%	47.5%	37.0%	0.08
Psychologist/individual counselling	52.0%	48.5%	60.0%	0.007
Group counselling	19.0%	4.0%	49.0%	<0.001
Psychiatrist	4.5%	4.0%	5.0%	0.69
Therapeutic (massage)	0.5%	0.5%	1.0%	0.62
Referral made to other health provider on discharge	26.5%	29.0%	22.0%	0.20
Referral made to psychiatrist	8.5%	9.5%	7.0%	0.47
Deemed "at risk" on discharge*	20.0%	13.0%	34.0%	0.26
Length of stay (mean) #	5 days	5 days	4 days	0.78

Note: chi-square analysis has been undertaken except where noted otherwise

#Student's T-test

* 3 additional "at risk" categories noted at Karitane

