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Uncovering the Gaps and Linkages: Exploring Postpartum Mood and Anxiety Disorders and Experiences for Clinicians and Parents within One Northern Community

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Abstract

The current research assessed gaps and barriers related to perinatal mental health service access by parents during COVID-19, as well as service providers' knowledge and provision of PMAD services, in one Northern community, where rural and remote healthcare is a daily reality, and recruitment and retention of qualified professionals is a significant issue.

Two mixed-methods surveys were designed, one to assess PMAD knowledge and service provision via a volunteer sample of service providers, and another to assess PMAD service need and access among a volunteer sample of new parents.

Results indicated that many parents waited too long for services, and some parents in need of PMAD services didn't receive them. Interestingly, higher-income parents were more likely than lower-income respondents to desire services and support for PMADs. Although most providers screened for, were trained in, and treated and/or referred patients with PMADs, they reported feeling as though they were working in silos, unaware of what other providers offered.

Introduction

Approximately 1 in 4 women experience a PMAD in Canada [1] and this statistic soared to 1 in 3 during COVID-19 [2]. * Research demonstrated higher rates of PMADs mid-pandemic compared to pre-pandemic [3], including exacerbated postpartum anxiety due to COVID-19 worries among mothers [4], and increased need for mental health services among postpartum patients in Ontario [5].

PMADs are a serious, underdiagnosed issue [6] characterized by distressing feelings perinatally and postpartum. Symptoms may last weeks, months, or even years, depending on their severity. The perinatal and postpartum periods are associated with increased risk for the onset and relapse of mental health conditions among women [7]. Risk factors for developing PMADs include a history of depression/anxiety, low marital satisfaction, intimate partner violence, lack of social support, and isolation [8]. Increased PMAD severity is often associated with impaired functioning, negatively impacting a woman's parenting ability and the baby's secure attachment, which is associated with poorer social, cognitive, and behavioural outcomes in the child [9].

Without routine standardized screening, 75% of women who meet DSM-5 [10] criteria for PMADs are not identified [11]. Even if diagnosed, only 15% of women receive evidence-based treatment [6]. Proper screening, diagnosis, and treatment of PMADs is essential, as suicide is a leading cause of death during the perinatal period and accounts for up to 20% of maternal deaths [12]. Unfortunately, according to a survey of Canadian health care providers, most had no training in PMADs, were not mandated to screen for PMADs perinatally, and often used only informal screening procedures [13]. Furthermore, although integrated interventions following comprehensive assessment are essential for holistic perinatal care, few exist [14].

Canada lags other countries in launching a national perinatal mental health strategy to address increasing PMAD rates [15]. Furthermore, provinces vary considerably in their approach to PMADs. For example, BC has practitioner guidelines, but Ontario does not. Resources are also disparate across Canada [15]. Particularly in the North, barriers to accessing PPMD service are significant, and include long wait times, language barriers, inadequate services for diverse groups, costs, and COVID-19 [16].

The environmental scan, "a process or tool used to assess the working environment around and within a particular health issue" [17], is a popular tool for conducting health care research [18]. Used for various topics, including mental health, it is useful for facilitating evidence-based decision making, policy implementation, and program planning. It is used to investigate organizations, and even communities and can gather data from various sources, including surveys [19].

Using surveys, this project examined the PMAD climate in the Nipissing and Parry Sound districts by investigating: 1) service provider knowledge and practices, and 2) parents' PMAD experiences.

Materials and Method

For this project, the Canadore College research team worked with the PMAD District Table (The Table) to identify important research questions regarding the need for and availability of PMAD services. The Table is comprised of approximately 24 community service providers from across the two districts in Northern Ontario, and includes social service workers, social workers, early childhood educators, midwives, doulas, lactation specialists, nurse practitioners, and others, as well as researchers from Canadore College; its goal is to examine issues and services in the community related to PMADs. Sustainable partnerships between academic institutions and community partners, such as the collaboration between Canadore College and the PMAD Table, are important because they can provide a practical means of addressing public health needs [20]. Research has shown that successful partnerships between academic institutions and community health service organizations can be effective at improving community health if they emphasize "community health development" (p. 430), and are based on the principles of leadership, which include trust building and risk taking [21].

To address the main objectives of this project, the research team worked with The Table to create two surveys, one for each different population. The first survey was administered to the service providers in both districts. Qualitative and quantitative questions were constructed to examine service providers' knowledge, screening, referral, and treatment related to PMADs. The research team and The Table also created a survey for parents in both districts. This survey was comprised of both quantitative and qualitative questions to capture the experiences and narratives of mothers and fathers related to PMAD service access and use during the pandemic.

Recruitment of both groups of participants was completed in several ways. Service providers were recruited directly by the research team through contact with local agencies and organizations representing professionals who sat at The Table. The Table also disseminated the survey to colleagues and potential participants in these professions. Members of the research team went door to door recruiting physicians and nurses from the two districts as well. Surveys for the professionals were made available online and/or through pen and paper, whichever participants preferred. Parents were recruited using social media, direct recruitment from potential programs, and by members of the research team visiting various programs and services to access potential participants.

Results

A variety of techniques were used to analyze the data from the two surveys. Quantitative analyses consisted of simple percentages and frequency counts for the nominal/categorical variables from both surveys; these analyses revealed, for example, the number of mental health service providers who screen for PMADs and the number of parents who sought out and received treatment for PMADs. Chi-square analyses were also employed to examine relationships between nominal/categorical variables. Chi-square analyses of the parent survey data may reveal, for example, that certain demographic variables are associated with different barriers to accessing PMAD services. Pearson correlations were used to examine relationships between variables measured on an interval or ratio scale. Qualitative analyses were completed on open-ended responses to identify themes in the parents' and providers' responses.

Service Provider Findings

A total of 11 service providers completed the survey. All claimed to provide services to parents pre- and postnatally; two provided both health care and social services, six provided just healthcare, and three provided just social services. Only one provider offered French services, though another provider mentioned the option of translation services to provide access to services in many languages.

Seven providers claimed to screen patients prenatally for perinatal mood and anxiety disorders (PMADs). Nine claimed to have training for PMADs. In terms of what is provided to patients who have been screened, two providers offered all of the following: pharmacological treatments, non-pharmacological treatments, and referral to other health care providers, three offered non-pharmacological treatments and referral to other health care providers, three provided referral to other health care providers, and two indicated none of the above. One did not answer the question.

When questioned: "What currently needs improvement with respect to PMAD services in the community?", responses were detailed and included aspects such as more comprehensive training on screening and referral pathways, as well as increased availability and options that are low-cost to families. One participant summarized practitioner sentiment as the following: "More training in screening and referral pathways, an increase in funding for therapy programs, government funding for doula services particularly, and an increase to training opportunities for care providers of all sectors who work with this population.

When questioned: "How has the pandemic and its related restrictions impacted your ability to provide services for PMADs?", responses also varied, ranging from difficulty in finding in-person services to staffing shortages due to increased demand. There was an "increased in fear and isolation for parents overall." The idea of parents feeling isolated and anxious was voiced on a few occasions by providers:

"People in general are more anxious and have less access to support in general (family/friends/peer) and providers."

Overall, service providers identified gaps in services and claimed that agencies and providers were operating in silos and often unaware of one another's service offerings, capabilities, or funding, etc. Additionally, there was a lack of clarity around the types of services and education offered in the community overall, making it challenging to determine what is needed.

Table 1 outlines the number and percent of service providers who responded affirmatively to categorical items on the PMAD service provider survey.

Due to the relatively small sample of service providers, inferential statistics were not feasible for the survey data from the service providers.

Parent Findings

A total of 45 participants responded to the parent-based survey; and all were birth parents. Thirty-two (71%) had a live birth between February 2020 and May 2022. Only four experienced multiple births in this period. For 41 (91%) out of 45, the partner was able to attend the birth. Seventeen (38%) out of 45 had pregnancies considered high risk. For eight (18%) of the participants, their babies required care in the NICU. For 26 (58%), it was their first pregnancy. Twenty-three (51%) pregnancies were not planned.

Thirty (67%) had a history of mental health diagnoses. Eight (18%) had previously been hospitalized for a mood disorder. Twenty-four (53%) considered self-harm at some point. The majority (n = 27, 60%) were between 25 to 34. The majority (n = 33, 73%) were in a relationship. A significant minority of respondents (n = 20, 44%) were unemployed.

Most respondents (n = 24, 53%) have completed a college or university diploma/degree. The modal annual household income was between 20 to 30 thousand dollars, with n = 11 (24%) falling into this

Table 1. Number and Percentage of Affirmative Parent Responses to PMAD Survey Questions

Item	n	%
Claimed to provide services to parents pre- and postnatally	11	100
Provided both health care and social services	2	18
Provided healthcare only	6	55
Provided social services only	3	27
Offered French language services	1	9
Offered translation services to provide service access in many languages	1	9
Claimed to screen patients prenatally for PMADs	7	64
Claimed to have training for PMADs	9	82
Offered pharmacological treatments, non-pharmacological treatments, and referrals	2	18
Offered non-pharmacological treatments and referrals to other health care providers	3	27
Offered referrals to other health care providers	3	27
Offered no treatments or referrals to other health care providers	2	18

category. The majority (n = 42, 93%) had a primary care provider; most commonly, the primary care provider was a doctor (n = 21, 47%).

Most participants (n = 34, 76%) reported being asked about their mental health by their primary care provider; 22 (49%) were asked both pre- and postnatally. While (n = 13, 29%) felt a need for services/support for PMADs prenatally, and (n = 29, 64%) perceived a need for them postnatally, only (n = 19, 42%) were offered services/support for their PMADs. Seventeen (38%) sought services/support themselves, attended services and received support.

Fifteen respondents (33%) did not feel they received adequate emotional support from their partner either during the pregnancy or the postpartum period. Most respondents (n = 29, 64%) reported that their partner was working full-time when they had their baby (during COVID). Twenty respondents (44%) reported being responsible for managing the household. Twenty-one respondents (47%) reported that the responsibility of caring for the baby was shared between the birth parent and their partner.

Caring for other children in the home was most commonly (n = 11, 24%) reported to be shared between the birth parent and their partner. However, (n = 21, 47%) of respondents didn't respond to this question, likely because they did not have other children in the home.

Of the 20 participants (44%) who received treatment for PMADs, (n = 6, 13%) received therapy and medication, another 13% received just therapy, and (n = 5, 11%) received medication. Of the participants (n = 21, 47%) who were offered or sought access to services/support, (n = 8, 38%) waited less than 1 month to receive it, but (n = 6, 29%) waited between one and six months, and (n = 7, 33%) waited longer than six months.

Table 2. Number and Percentage of Affirmative Parent Responses to PMAD Survey Questions

Item	n	%
Were between 25 to 34 years old	27	60
Were in a relationship	33	73
Had completed college or university diploma/degree	24	53
Were unemployed	20	44
Had annual household income between $20,000 to 30,000	11	24
Had live birth between February 2020 and May 2022	32	71
Had multiple births between February 2020 and May 2022	4	9
Partner able to attend the birth	41	91
Had high-risk pregnancies	17	38
Had babies requiring NICU care	8	18
Experienced first pregnancy	26	58
Had unplanned pregnancies	23	51
Had a history of mental health diagnoses	30	67
Had previously been hospitalized for a mood disorder	8	18
Considered self-harm at some point	24	53
Had a primary care provider	42	93
Had a doctor as primary care provider	21	47
Were asked about mental health by primary care provider at some point	34	76
Were asked about mental health both pre- and postnatally	22	49
Felt a need for services/support for PMADs prenatally	13	29

Felt a need for services/support for PMADs postnatally	29	64
Were offered services/support for their PMADs at some point	19	42
Sought, attended, and received services/support themselves	17	38
Were offered or sought access to services/support	21	47
Waited less than 1 month to receive services/support	8	38
Waited between one and six months to receive services/support	6	29
Waited longer than six months to receive services/support	7	33
Received treatment for PMADs	20	44
Received medication only for PMADs	5	11
Received therapy only for PMADs	6	13
Received medication and therapy for PMADS	6	13
Didn't receive adequate emotional support from partner during pregnancy	15	33
Reported that partner was working full-time when baby was born	29	64
Reported being responsible for managing the household	20	44
Reported that responsibility of caring for baby was shared between them	21	47
Reported that caring for other children in home was shared between them	11	24
Didn't report other children in the home	21	47

Table 2 outlines the number and percent of parents who responded affirmatively to categorical items on the PMAD parent survey.

Chi-square for independence analyses were conducted to examine relationships between nominal variables from the parent surveys, whereas correlations were performed to examine associations between interval/ratio variables. None of the chi-square analyses were significant. For example, whether or not the pregnancy was planned was not associated with perceived need for PMAD services/support either prenatally or postnatally. However, Pearson correlations revealed significance; specifically, household income had a weak to moderate positive correlation with perceived need for PMAD services/support both prenatally, $r(45) = .347$, $p = .020$, and postnatally, $r(45) = .441$, $p = .002$, suggesting that birth parents with higher incomes were more likely to feel a need for services and support for PMADs.

When parents were asked about their overall experiences during COVID-19, responses varied, but most responses centered on a lack of social support, a high level of social isolation, and an inability to access programming when it was available. One participant called this period "Tough and isolating." She described her time in the pandemic with a new child: "For my first *(child)*, I went to many playgroups and classes. And these weren't offered through COVID. I wasn't allowed family over for help due to restrictions, and husband was working full-time shift work." Interestingly, she also described the inability to access care and how stigmatizing it was to do even the most mundane and routine aspects such as groceries: "I would get dirty looks because I had to brings kids."

Other parents discussed the loss of children during this time or miscarriages as traumatic overall. One participant's story was particularly detailed: "Unfortunately, I had two miscarriages prior to having my daughter. The experiences with these were what I would call horrific and resulted in significant anxiety while pregnant with my daughter. Locking a mother in a room in emerge after finding out she had a miscarriage and waiting a significant amount of time to see an OB without a support person is not okay. Might I add that I was very obviously upset and crying, and not one Nurse ever came to check on me. Further to this, I needed two d and c's and was not allowed to have a support person. These days spent in surgery were very hard and again, not once did a staff member check in on my well-being."

Another participant voiced a similar experience: "In November 2020, I had a late miscarriage and had to be in hospital for induction. I went for my 20-week scan, and the technologist couldn't tell me that something was wrong. It was a Saturday, and I didn't want to wait for Monday for my appointment at the pregnancy clinic. I got concerned and went to the hospital, where it was confirmed that I had a missed miscarriage at 17 weeks. I had to be admitted for induction, the doctor was rough during examinations and every time he had to insert another pill vaginally, which really hurt. The nurses were not very supportive whenever I was crying. Upon admission, a nurse only said sorry for your loss to me and not to my boyfriend as well. They didn't answer any of his questions or acknowledge his presence, which made him mad, and he ended up leaving, and his mom stayed with me. I was in a lot of pain after the fetus came out, and I felt empty mentally and physically. The doctor didn't really seem very supportive."

The lack of support was a major theme amongst all participants, citing the inability to have a support person during appointments and routine procedures, and partners often feeling neglected and left out of the process.

When asked "What would you want PMAD service providers to know about your prenatal/postpartum experience," several parents had suggestions and comments: "More holistic and well-rounded approaches to postpartum care are needed in the community, and more education around approaches like pelvic floor physiotherapy and other wrap-around supports.

More education around the severity and importance of perinatal check-ins and care was stated more than once by parents, citing a lack of recognition or check-ins from healthcare professionals overall. One participant stated: "it could have been so much better, and I didn't have to suffer for as long as I did if our community and care providers had up-to-date knowledge and services were available."

Overall, parents also felt that silos existed in the healthcare sector, and that services were poorly connected. One stated that "Connection with others is important and providers need to be more informed/ aware of available services."

Discussion

Overall, service gaps and poorly connected services were identified by parents and providers as problems related to PMAD service provision. Notably, only 11 service providers completed the survey, which suggests that providers may be too busy to participate in research and similarly, too distracted by their health care responsibilities. Or this could indicate that amongst all priorities, PMAD is not high on this list. On a positive note, all respondents claimed to offer some type of services to parents pre- and/ or postnatally. However, those who replied expressed a need for more service provider training and government funding. Looking to the general responses from this population, health care policies require further review and prioritization to support the ever-growing need for efficiency in healthcare services but also quality of care provisions from healthcare providers overall. Future studies should examine how physicians and those who work with parents in the perinatal period can support the needs of families moving forward and explore collaborative and innovative approaches that can enhance an-ever tightening system.

Parents responded to their survey in greater numbers. Most alarmingly perhaps, the majority had a history of mental health issues. Although the majority had completed college or university, they commonly reported a low household income. Furthermore, many participants who perceived a need for mental health services reported not being offered to them. For those who received treatment, long wait times were often a problem. Anecdotally, parents complained about isolation, a lack of social support, and a lack of emotional sensitivity demonstrated by health care professionals. This correlates to the possibility that PMAD may not be high on the priority list and that healthcare workers are experiencing an overload of responsibilities, particularly in northern Ontario.

Surprisingly, whether parent participants felt they had received adequate emotional support from their partner was not associated with perceived need for PMAD services/support either prenatally or postnatally- meaning that having a supportive partner was not associated with the need for PMAD services. This is surprising, since previous research has found a strong link between the availability of support following pregnancy and the development of postpartum depression symptoms among Canadian women [22].

Correlational findings from this study indicated that birth parents with higher household incomes were more likely to perceive a need for PMAD support and services compared to those with lower incomes. This finding is surprising, since a previous cross-sectional study of 875 postpartum women from five diverse Ontario hospitals found that a household income of less than $20,000 was predictive of an Edinburgh Postnatal Depression Survey (EPDS) score of greater than or equal to 12, which is suggestive of a postpartum depression diagnosis (PPD) [23]. This might suggest that further exploration is needed on the experience of COVID-19 for all income levels.

Some general weaknesses of this study that warrant further exploration include the lack of response from providers. The overall response rate for this group indicates that providers do not have time to respond to the survey or were not accessed in the correct manner. Further studies need to explore what providers experienced during the pandemic and the impact on their service overall. Additionally, responses from the parental group could have been strengthened overall by another round of recruitment or perhaps a different approach, such as focus groups and responses from male caregivers in general.

Conclusion

Overall, this study painted a small picture of how the pandemic affected two main groups: healthcare and social service providers, and parents who had given birth during this period. Overall, the data showed that more resources were needed, and the approach to isolation and care was not well-received by either group. Many areas were identified for future collaborations, increased education and awareness, and general support creation for the communities involved. Given the data and the comments made from both providers and parents, the following were recommendations made to the committee members to move forward with a more proactive and inclusive approach to perinatal mood and anxiety disorders:

1. Increased training opportunities for all service and healthcare providers on PMAD symptoms, screenings, approaches, diagnostic tools, and treatment options.
2. Carousel evenings, which feature providers from around the districts showcasing their services and referral mechanisms.
3. A clear perinatal referral pathway for services, no matter the background or resources of the client, which includes the development of a no wrong-door approach to parents seeking support, regardless of gender.

4. Targeted education for specific fields on more empathetic and caring approaches that are client centered.
5. Continued efforts to break down silos between organizations and agencies to ensure a more inclusive, seamless flow of service.

Overall, this study supports the need for future review of policies and guidelines and the need for future education and awareness in both service providers/healthcare workers and parents.

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