



University of Utah

UNDERGRADUATE RESEARCH JOURNAL

**BARRIERS TO WOMEN'S ACCESS TO PERINATAL MENTAL HEALTH
CARE IN RURAL UTAH**

**Kristen Stucki (Dr. Gwen Latendresse, PhD, CNM, FACNM)
College of Nursing**

ABSTRACT

Medicaid insures the majority of childbearing women visiting public health departments in rural Utah. A majority of these women live below the state and federal poverty thresholds, and few have more than a high school education. It is important that health resources be tailored to meet the unique needs of this underserved population of women, especially throughout their childbearing years. A particular health concern that is often overlooked is maternal depression: Among women screening positive for perinatal depression and anxiety, as few as 24% reported having received mental health care at any point during or after pregnancy. Of those whose symptoms are known, previous statistics have shown that less than half receive treatment.

Perinatal depression is one of the most common complications experienced by childbearing women in the United States, affecting approximately 14% of pregnancies in the general population and as many as 20% in high-risk populations. Depression during and after pregnancy has been linked to a variety of negative outcomes for both mothers and children, including decreased breastfeeding, low birthweight, preterm birth, gestational diabetes mellitus, and increased need for neonatal intensive care.

Susceptibility to perinatal depression is increased in mothers with low income, poor

social support, high levels of stress, domestic abuse, and a history of depression and anxiety. Women residing in rural areas have been shown to experience these risk factors at an increased rate, thus placing them at high risk for developing perinatal depression. Additionally, factors intrinsic to rural life, including transportation barriers and insufficient health care resources, may further reduce a woman's ability to access necessary mental health services.

The purpose of this study is to identify barriers to accessing mental health care for women suffering from perinatal depression in rural Utah. Data were collected via a 30-item survey, the Perceived Access Inventory (PAI) for Maternal Mental Health Services, which was administered electronically. The questionnaire was exclusively offered to mothers up to one year postpartum who had previously screened positive for perinatal depression or anxiety during visits to public health clinics in four rural Utah health districts. Survey questions addressed barriers in five domains: logistics, culture, digital resources, systems of care, and experiences of care in relation to accessing mental health services. The total number of individuals surveyed was 17, nine of whom were covered by Medicaid and two of whom were uninsured. Of those surveyed, 94% had annual incomes under \$50,000 and 56% earned less than \$30,000. Despite the small sample size, this survey population is largely representative of the population of childbearing women in rural Utah who rely on care from public health clinics.

Results of the PAI indicate that only 24% of respondents were successful in acquiring necessary mental health care. Significant barriers identified include provider-to-patient communication and referral, insurance and financial constraints, and perceived stigma or fear of consequences. With the help of this analysis and additional research to

come, change can begin within the healthcare system to address the pressing issue of mental health care accessibility for mothers and rural inhabitants at large.

INTRODUCTION

According to the American College of Obstetricians and Gynecologists (ACOG), perinatal depression is defined as major and minor depressive episodes occurring during pregnancy or within the first year following delivery (ACOG, 2018). It is one of the most common complications experienced by childbearing women, affecting approximately 14% of mothers at any point within the pregnancy and postpartum period (Koniare & Fernandez, 2018). Even greater is the threat to high-risk populations, which have been found to experience rates of perinatal depression as high as 24%—over 1.7 times as often as the standard population (Koniare & Fernandez, 2018). Women at increased risk for perinatal depression include those with low income, poor social support, high levels of stress, domestic abuse, and a history of depression and anxiety. Women residing in rural areas commonly experience these risk factors at an above-average rate and are thus at high risk for developing perinatal depression (Latendresse, 2018).

In consideration of the ubiquity of maternal depression, ACOG has cautioned its providers, “It is important to identify pregnant and postpartum women with depression because untreated perinatal depression and other mood disorders can have devastating effects” (2018). Likewise, numerous independent studies have linked depression during and after pregnancy with a variety of negative outcomes for both mothers and children including decreased breastfeeding, low birthweight, preterm birth, gestational diabetes mellitus, and increased need for neonatal intensive care (Stark, Shim, Ross, & Miller, 2018; Latendresse et al., 2015).

According to ACOG’s most recent statement regarding maternal depression screenings, it is recommended that all obstetric care providers complete a full assessment,

including screening for postpartum depression and anxiety with a validated instrument, at least once during each of the prenatal and postpartum periods (2018). The organization believes there is evidence that screening alone can have clinical benefits, but that initiating mental health treatment leads to the best outcomes. “Therefore, clinical staff in obstetrics and gynecology practices should be prepared to initiate medical therapy, refer patients to appropriate behavioral health resources when indicated, or both...Systems should be in place to ensure follow-up for diagnosis and treatment” (ACOG, 2018).

To further illustrate the importance of provider involvement, one systematic review combined six randomized controlled trials in clinics with a universal screening process for pregnant and postpartum patients. The trials were both with and without subsequent referral or treatment, though most clinics did offer counseling and/or medical intervention. Results showed that even in trials with no referral or treatment in place, following up with positive-screened patients several weeks to months later led to an absolute reduction in depression prevalence by as much as 9%. In the same study, 82% of clinics with treatment interventions in place showed an overall reduction in depression rates at follow-up (O’Connor, Rossom, Henninger, Groom, & Burda, 2016).

Although one might argue that these benefits may be achieved through standard perinatal exams, it is important to note that an evidence-based universal screening method helps to ensure perinatal depression and anxiety do not go undetected. Maternal mental health issues often remain unnoticed by providers because many symptoms such as disturbances in sleep, appetite, and libido can be attributed to normal pregnancy and postpartum changes. Furthermore, few women voluntarily report their mood-related symptoms to their providers; one study found that within a sample of women at risk for

perinatal depression or anxiety, only 50% had reported their symptoms voluntarily (Henshaw, Sabourin, & Warning, 2013).

There is reason to believe that women in high-risk populations, such as those residing in rural areas of Utah and utilizing public health clinics, may be even less likely to report their symptoms due to cultural stigmatization, minimal education, and financial constraints, among other potential issues. Therefore it is especially important that these women are routinely screened in order to improve their chances of receiving necessary treatment. However, despite efforts by Dr. Gwen Latendresse and others to implement a universal screening protocol for childbearing women at these clinics, rates of acquisition of mental health treatment continue to fall far below rates of identified need (Latendresse, 2018).

Current statistics show that less than half of women who experience symptoms of maternal depression actually receive treatment (Lau & Pardanani, 2018). It is likely that for women in small, rural communities, common challenges in accessing care are further exacerbated by transportation barriers and insufficient healthcare resources, as well as many other aspects of rural living. Furthermore, it is reasonable to assume that women who are either uninsured or insured by Medicaid might struggle most to access care as a result of financial and coverage limitations (Latendresse, 2018).

In an effort to better understand the cause for the deficiency of care in this vulnerable population, this study was created to identify specific barriers to accessing mental health resources for women suffering from perinatal depression in rural Utah.

METHODS

This study was conducted as part of a larger project evaluating universal screening for perinatal depression in four public health clinics in rural Utah. All women who have screened positive for perinatal depression or anxiety and are within one year after their most recent birth are invited to complete an adapted version of the Perceived Access Inventory, or PAI.

The PAI was originally developed for use in Veteran's Affairs hospitals to measure veterans' perceived access to mental health resources within the VA system (Pyne et al., 2018). This version, the PAI for Maternal Mental Health Care Services, was adapted for administration to postpartum women for the same purpose in the public health realm. The PAI for Maternal Mental Health Care Services is a 30-item survey that addresses five domains: logistics, culture, digital resources, systems of care, and experiences of care in relation to accessing mental health services.

A survey was created and administered via REDcap after IRB approval and all women who previously screened positive—approximately 32% of childbearing women screened—were invited to respond during subsequent visits to public health clinics. The survey, outlined in Figure one, was completed on a cell phone or iPad either within the clinic visit or at the subject's later convenience. Participation was entirely voluntary, and participants had the option to receive a ten-dollar gift card as compensation if they desired. The survey was open for completion from February to September 2019 and was completed by seventeen women. The resulting data were then analyzed using descriptive statistics to identify commonalities among survey participants and thus ascertain common barriers and outcomes among mothers with mental health concerns.

This study was approved by the University of Utah’s Institutional Review Board. The research presented no more than minimal risk of harm to subjects and involved no procedures for which written consent is normally required outside of the research context.

The REDCap survey included a cover letter consent form that stated that taking the survey amounted to consent to participate in the study. Participation in the survey was completely voluntary and refusal was indicated by a lack of participation. All surveys were anonymous, with the only potential identifier being the optional inclusion of an email address, which was kept separate from coded data.

This study was an exploratory analysis, intended to gather information about the experiences of mothers experiencing symptoms of perinatal depression and anxiety. The data analysis was completed through REDCap and Microsoft Excel. Graphs and charts using the data were compiled via REDCap and Microsoft Word.

Figure 1.

Perceived Access to Maternal Mental Health Care Services	
“In your recent pregnancy...” — (YES, NO or Not Applicable)	
1.	Did your doctor, midwife, or nurse ask you about symptoms of depression or anxiety during pregnancy?
2.	Did your doctor, midwife, or nurse ask you about symptoms of depression or anxiety after the birth of your baby?
3.	Did you feel that you were made aware of all the mental health services available to you?
4.	Did your doctor, midwife, or nurse recommend mental health services for depression or anxiety?
5.	Did you receive mental health services for depression or anxiety?
6.	Did you have to travel a long distance to get mental health services?
7.	Was getting transportation to mental health services a problem for you?
8.	Did you have to spend a lot of money on travel to receive mental health services?
9.	Did you have difficulty paying for mental health services due to your insurance or lack of insurance?
10.	Did you have to spend a lot of your own money to get mental health services?
11.	Did you lose income because of taking time off from work to get mental health services?
12.	Did the mental health facility have convenient appointment times?*
13.	Did you have to spend a lot of time in the waiting room before your mental health appointments?
14.	Did you have to find childcare so that you could get to a mental health appointment?
15.	Did you have to wait more than two weeks to get your first mental health appointment?
16.	Did you have to wait more than two weeks between your mental health appointments?
17.	Did you ever feel that your mental health providers did not genuinely care about you?
18.	Did any of your mental health providers fail to take your mental health concerns seriously?
19.	Did any of your mental health providers fail to ask for your opinion about treatment options?
20.	Did you ever lack trust in any of your mental health providers?
21.	Did you notice differences in cultural, religious or personal values between yourself and your mental healthcare providers?

Figure 1, cont.

Perceived Access to Maternal Mental Health Care Services, Continued

22. Were you able to see the same mental healthcare provider for all your visits?*

23. Did you ever feel that you should just “tough it out” and not seek mental health services?

24. Did you ever feel that you were weak because you might need the help of a mental health provider?

25. Did you feel afraid that your child/children might be taken away from you if you used mental health services?

26. Were you afraid to seek mental health services because you were an undocumented immigrant?

27. Were you concerned about seeking mental health services because someone you know might see you at the mental health facility?

6a-27a. IF YES (or NO for questions with ‘*’) after the first 5 questions, i.e. questions 6-26: How much did this interfere with getting the mental health services you needed?

1 Not at all

2 A little bit

3 Somewhat

4 A great deal

5 Completely

“In your recent pregnancy...” — (YES, NO or Not Applicable)

28. Did you receive mental health services by telephone?

IF YES: 28a. Was receiving mental health services by telephone helpful?

1 Not at all

2 A little bit

3 Somewhat

4 A great deal

5 Completely

29. Did you receive mental health services by text message, email, or video chat?

IF YES: 29a. Was accessing mental health services by text message, email, or video chat helpful?

1 Not at all

2 A little bit

3 Somewhat

4 A great deal

5 Completely

30. Were you ever concerned about your privacy when accessing mental healthcare by telephone call, text message, email, or video chat?

IF NO: 30a. Did you have access to a cellphone or computer with the ability to send and receive texts, emails, c. None (self-pay)

RESULTS

Seventeen women were surveyed during their postpartum or newborn visits, ranging in age from 18 to 42 years of age. Each had given birth within the previous 12-months and had, at some point during pregnancy or the postpartum period, screened positive for perinatal depression and/or anxiety via Dr. Latendresse’s universal screening

process. Respondents were determined to be largely representative of mothers in rural Utah, as compared with known data for the health districts included in the study.

Demographic data for the survey participants are summarized in table 1.

Table 1.

Demographic Data: PAI	
What is your marital status?	
a. Single.....	17.65%
b. Married.....	64.71%
c. Living with partner.....	17.65%
d. Divorced.....	0.00%
e. Widowed.....	0.00%
f. Other/decline to answer.....	0.00%
What is your age?	
a. 18-21.....	23.53%
b. 22-25.....	23.53%
c. 26-30.....	23.53%
d. 31-34.....	23.53%
e. 35-39.....	0.00%
f. ≥ 40.....	5.88%
g. Other/decline to answer.....	0.00%
What is your racial background?	
a. American Indian/Alaska Native.....	5.88%
b. Asian.....	0.00%
c. Latino.....	5.88%
d. Native Hawaiian or Other Pacific Islander.....	0.00%
e. Black or African American.....	0.00%
f. White.....	88.24%
g. Other/decline to answer.....	0.00%
What is your ethnic background?	
a. Hispanic or Latino.....	5.88%
b. Not Hispanic or Latino.....	88.24%
c. Other/decline to answer.....	5.88%
What is your current annual family income?	
a. ≤10,000.....	29.41%
b. 10,001-20,000.....	11.76%
c. 20,001-30,000.....	11.76%
d. 30,001-40,000.....	17.65%
e. 40,001-50,000.....	17.65%
f. 50,001-60,000.....	0.00%
g. 60,001- 70,000.....	5.88%
h. 70,001-80,000.....	0.00%
i. 80,001-90,000.....	0.00%
j. 90,001-100,000.....	0.00%
k. >100,000).....	0.00%
l. Other/decline to answer.....	0.00%

Table 1, cont.

Demographic Data: PAI, Continued	
What is your education level?	
a. Less than high school.....	0.00%
b. High school diploma/GED.....	35.29%
c. Some college, no degree.....	29.41%
d. College with technical/certificate degree.....	17.65%
e. College graduate/Bachelor's degree.....	17.65%
f. Post graduate degree/Master's degree.....	0.00%
g. Doctorate degree.....	0.00%
h. Other/decline to answer.....	0.00%
What is your insurance coverage?	
a. Private insurance.....	35.29%
b. Medicaid.....	52.94%
c. None (self-pay).....	11.76%
g. Other/decline to answer.....	0.00%

In terms of demographic information, it is important to note that 94% of respondents reported annual incomes under \$50,000, with nearly one-third making \$10,000 or less per year. It is also pertinent that of the women surveyed, 53% were insured by Medicaid, 35% had private insurance, and 12% were without coverage.

Of the seventeen women surveyed, only four reported having received mental health care. Per survey responses from both those who did and did not receive care, some of the most frequently reported barriers were related to provider-to-patient communication and referral, insurance and financial constraints, and perceived stigma or fear of consequences. Some items which showed to impact fewer individuals than expected were distance, transportation difficulties, and lack of technology necessary to access telehealth resources. A breakdown of the most pertinent issues is outlined in figures 2-7. A complete summary of the data collected in the PAI can be found in the appendix.

Figure 2.

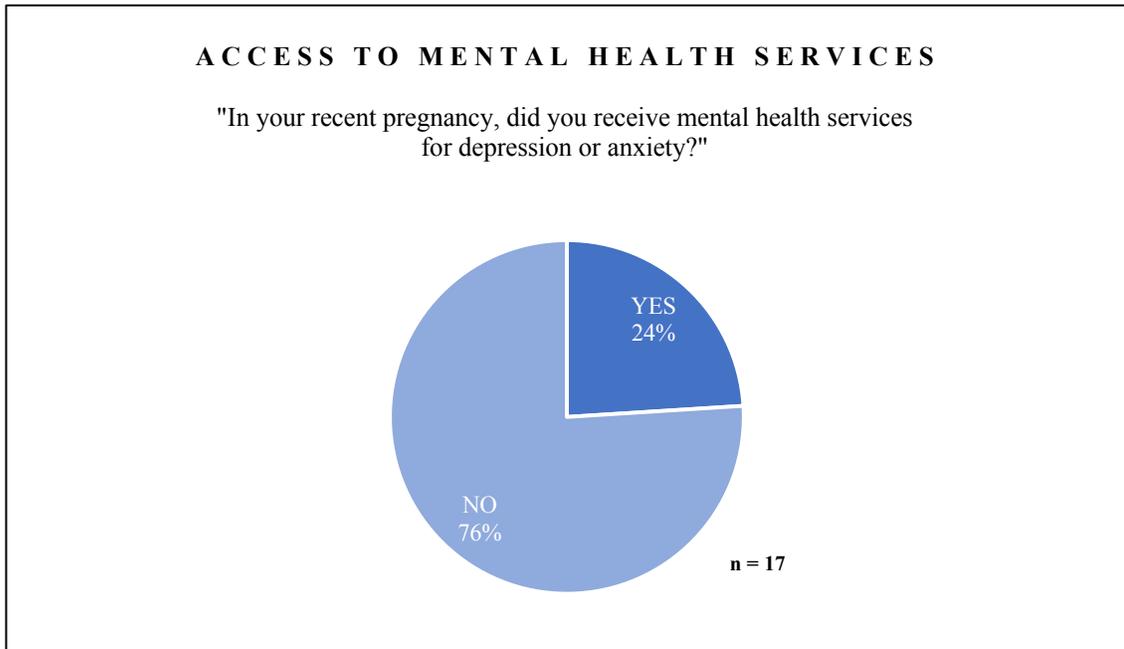


Figure 3.

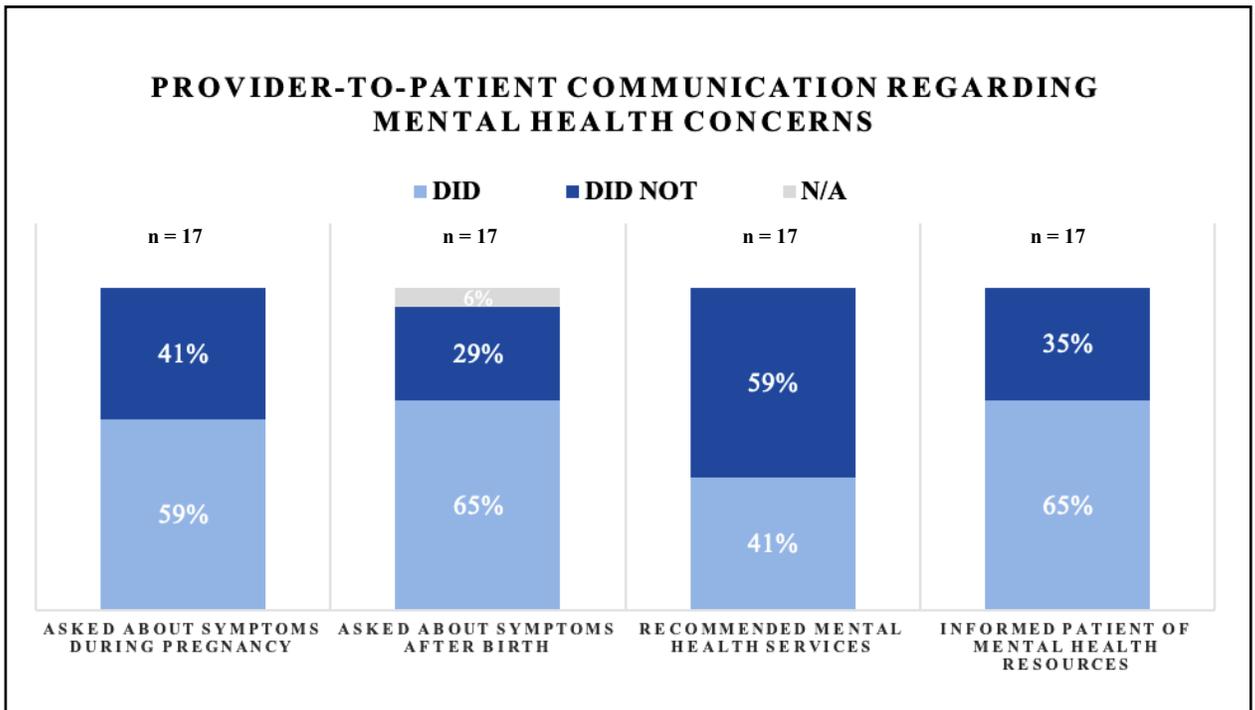


Figure 4.

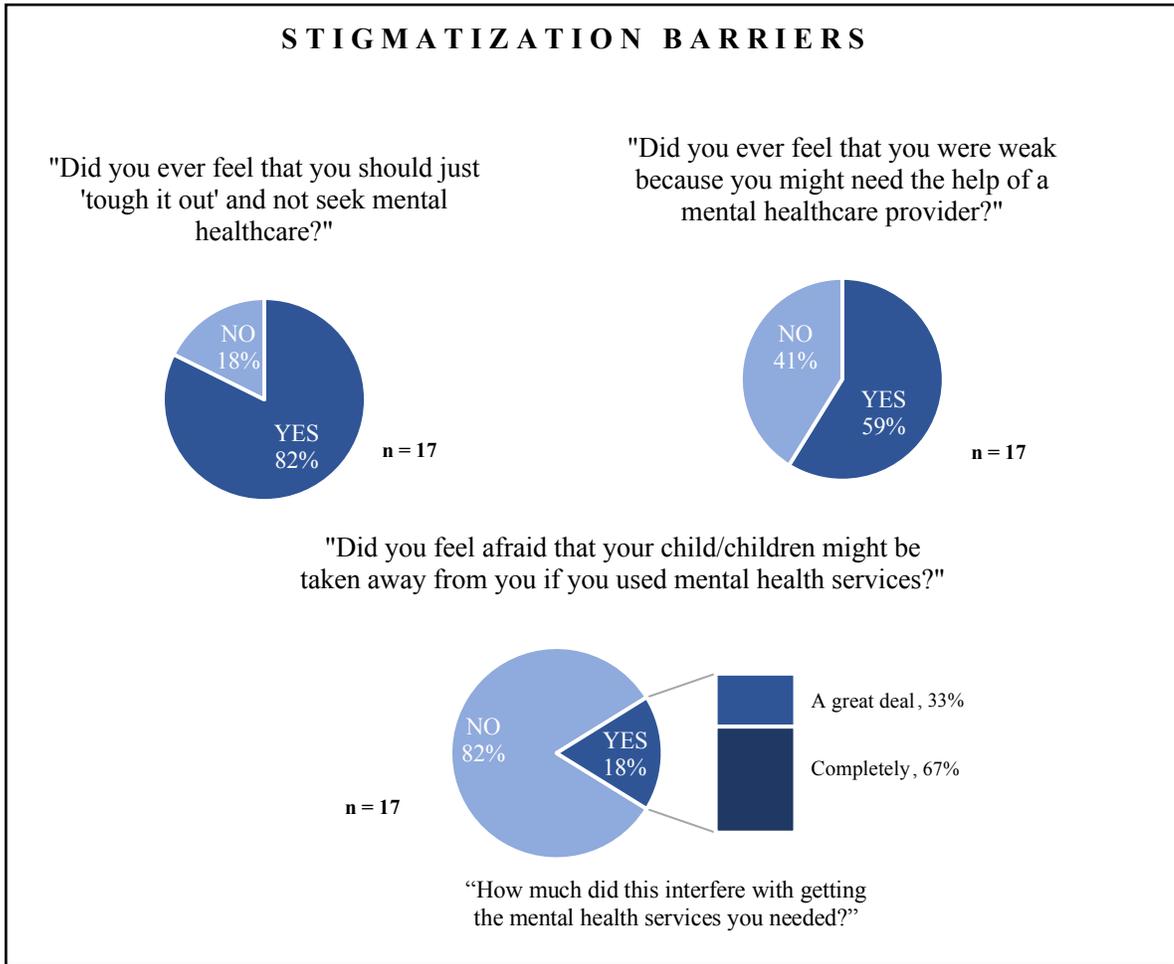


Figure 5.

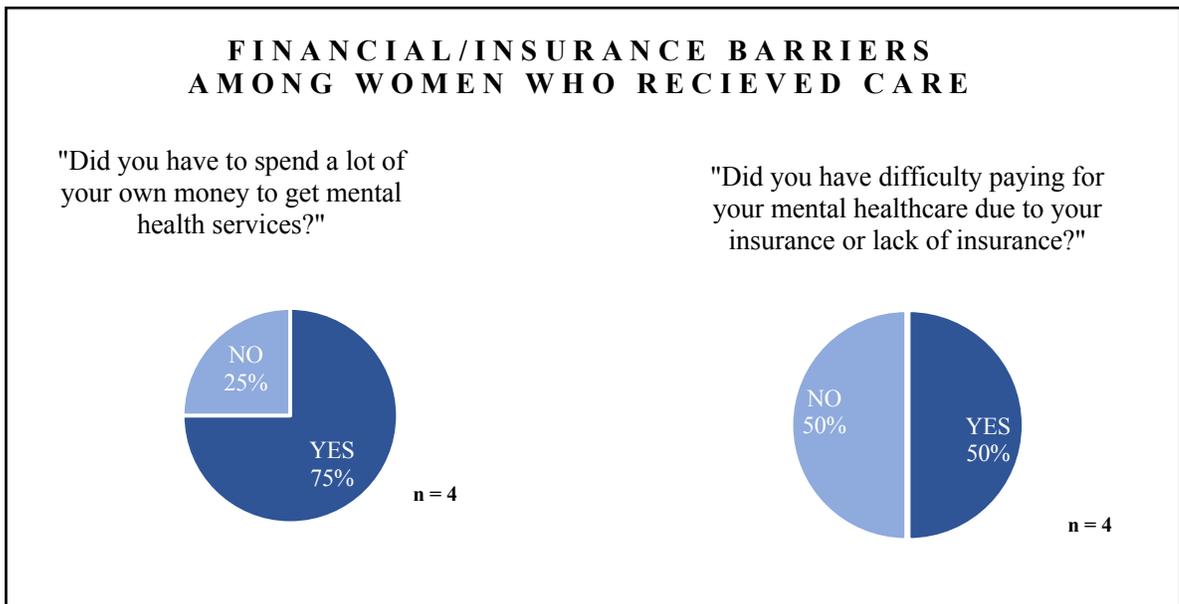


Figure 6.

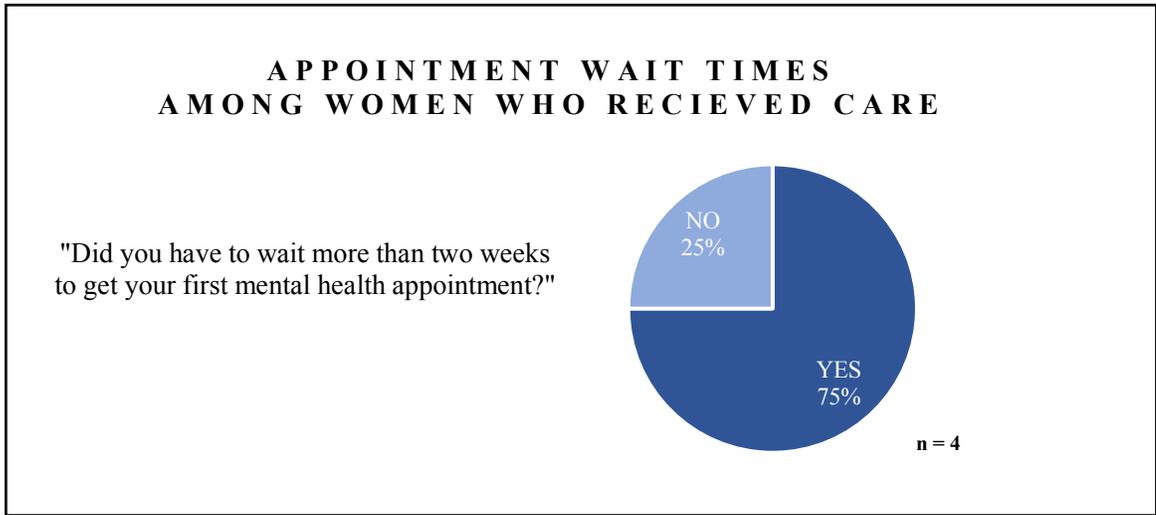
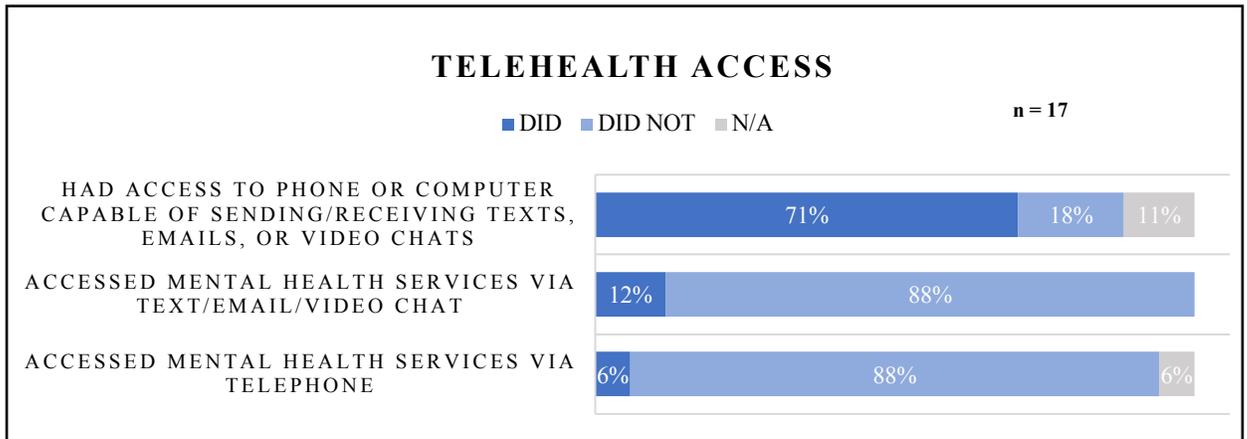


Figure 7.



DISCUSSION

Through this study, the known disparity in mental health care for rural mothers was emphasized, and certain barriers were identified. Given the data collected, it is immediately apparent that astonishingly few mothers in rural Utah have managed to easily acquire the necessary help to appropriately manage their perinatal depression and anxiety. There are a host of factors contributing to this complex issue—perhaps even outside the scope of this study—but a few prevalent factors have become evident. Financial constraints, limited insurance coverage, stigmatization, and ineffective provider

involvement have all contributed significantly to the inability of rural women to access care, and the healthcare system as a whole must begin taking steps to bridge these gaps.

For the small proportion of women who succeeded in finding treatment (n=4), treatment brought considerable financial burden. Three of these women reported spending a significant amount of their own money in the process, and half found that they did not have insurance coverage sufficient to meet their needs. Affordable care is a necessity for this population: of participating respondents, over half report surviving on less than \$30,000 per year—consistent with Utah state poverty guidelines for a family of three or more—and nearly a third reported a total household income of under \$10,000 annually.

For the many who are uninsured or unable to find a provider within the Medicaid network, their only choice may be to pay out-of-pocket. Self-pay medical services can be financially debilitating, even for those with greater disposable income. Thus, women in this situation may be likely to forego necessary mental health services in favor of providing for the needs of their families.

Because the cost of care is a significant factor for this population, it is important to create access to free or tiered-payment clinics for those without health insurance, as well as to ensure sufficient provider availability and appointment capacity for patients with Medicaid. Although creating these opportunities for care can be expensive, the overall costs of preventative and maintenance mental health services fall far below those associated with necessary interventions after symptoms have gone unchecked.

One proposed method for addressing both problems of availability and cost is the implementation of telehealth clinics. This method of care decreases overhead costs and

has been shown to be quite effective in treating mental health issues, among other ailments. Concerning telehealth, an interesting aspect of this study was that few individuals report having accessed mental health resources in this way—only two of seventeen women surveyed had utilized telehealth for their mental health needs, despite the majority having access to the necessary technology and affirming their belief that the platform is safe and private.

Generally speaking, telehealth offers convenient access for all populations and seems to be especially ideal for patients in rural areas. Utilizing technology to speak with a mental health provider eliminates the need for travel and negates any problems caused by limited resources in rural communities. It also allows for patients to see a provider who does not also live within their small community, which can be uncomfortable at best and prohibitive at worst. Furthermore, these women have all had telehealth services offered to them, free of charge, as part of Dr. Latendresse's universal screening initiative. With all this in mind, it was predicted that many women in this study would have utilized telehealth services—or that if they had not, it would be due to limited access to the internet or technology. However, that theory is not supported by the results of this survey.

Based on responses received, it seems that many of the same factors preventing mothers from accessing in-person mental health resources are likewise preventing them from taking advantage of virtual options for care. Therefore, it can be concluded that offering telehealth options alone is not a sufficient solution.

It seems that stigmatization is one of the most prominent issues preventing women from seeking the help of mental health professionals. Individuals in rural areas have been found to exhibit negative attitudes toward mental health issues and a need for

mental health care, with stoicism, perceived judgment, self-stigma, and misinformation cited among the most common barriers to help-seeking (Cheesmond, Davies, & Inder, 2019). Rural culture tends to instill a sense of independence, strength, and self-responsibility in its inhabitants. These ideals can be highly detrimental when applied to the management of mental illness and have been shown to severely inhibit help-seeking behavior (Cheesmond, Davies, & Inder, 2019).

For mothers experiencing depression or anxiety in these communities, a need for mental health care is likely to be met by misunderstanding and judgment from friends, neighbors, and even themselves. Consequently, most women opt to just “tough it out,” as was evidenced in this study. The perception that depression or anxiety can be controlled through willpower alone is extremely toxic to a patient’s wellbeing, and even more alarming is the fear these women harbor surrounding the security of their families should they choose to seek help.

Stigma is a difficult issue to address, as there is no concrete way to institute a cultural shift in attitudes. The importance of mental health has come to light in recent years in society at large, and many people have become more accepting of those with mental illness. Likewise, many have fostered a willingness to examine their own mental health far more than before and to understand the benefits of mental health care. This change has been most prominent in urban areas and in younger generations, with more traditional individuals and communities still lagging behind. A possible reason for this—aside from the tendency for urban residents to be more progressive overall—is the presence of mental health clinics, therapy offices, universities, and other entities with resources for mental health, in populated areas. Having these nearby encourages people

to take advantage of them, which serves to normalize the concept. It also helps to start the conversation addressing mental illness and the pressing need for care, as these facilities and organizations spread knowledge through advertisement and word of mouth.

Assuming it is true that ubiquity leads to indifference, bringing more mental health services to rural communities may help to decrease the stigma surrounding those who utilize them.

In addition to the need for further resources, women in this study identified a need for their existing health care providers to better address their mental health concerns. Based on the mothers' reports, practitioners in the public health clinics they visited have failed to adequately support their psychological and emotional health throughout pregnancy and postpartum. Considering that all women in this study had screened positive for perinatal depression or anxiety, the proportion who did not perceive their providers as having acknowledged their symptoms is alarming. The majority reported that their providers failed to inquire about symptoms of depression before or after delivery, and in turn, did not suggest mental health services.

It is crucial that providers receive better education regarding perinatal mental health concerns, and that they understand the importance of utilizing a predetermined screening process—even when they are not cued by outward signs of depression or anxiety in their patients. This is especially necessary for providers serving rural communities; first, because their patients are less likely to report symptoms of depression, and second because they may be a woman's only point of access to healthcare. In this environment, neglected mental health concerns could have serious,

long-term consequences for mother and child. In order to best care for patients, it is imperative that providers understand the need for adequate evaluation.

This study has begun addressing this issue; however, there are some pertinent limitations to note. First being the small sample size—although objectively representative of the population, a sample of seventeen participants did not allow for the statistical analysis necessary to draw stronger conclusions. Secondly, the tool utilized in the study, the PAI for Maternal Mental Health Services, has not yet been validated since its adaptation from the original PAI. It is possible that asking questions differently would have yielded different results. Additionally, the administration of this survey electronically for participants to complete independently poses a risk for misinterpretation. Finally, the number of potential respondents is difficult to determine. It was not possible to accurately track the total number of eligible women who returned to the clinics within the one-year postpartum period, and there is no way to confirm whether they all were invited by clinic staff to complete the PAI.

In summary, there is much work to be done: addressing the many challenges rural mothers face is not a simple process. This data begins to outline some barriers as a starting point, though there is much left to learn. A continuation of this project will go on to survey more women in order to more accurately pinpoint the most significant issues, as well as to eventually examine more concrete ways to solve them. With a realistic perspective of the challenges these mothers face and the kinds of resources conducive to their needs, healthcare professionals can begin working to create a system in which mothers and children are no longer deprived of the support they need.

REFERENCES

- American College of Obstetricians and Gynecologists (2018). Screening for perinatal depression: ACOG Committee Opinion No. 757. *Obstetrics and Gynecology*, *132*, 208-212.
- Cheesmond, N., Davies, K., & Inder, K. (2019). Exploring the role of rurality and rural identity in mental health help-seeking behavior: A systematic qualitative review. *Journal of Rural Mental Health*, *43*(1), 45-59. doi:10.1037/rmh0000109
- Henshaw, E., Sabourin, B., & Warning, M. (2013). Treatment-seeking behaviors and attitudes survey among women at risk for perinatal depression or anxiety. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*. *42*(2), 168-177. doi:10.1111/1552-6909.12014
- Koniaries, K. & Fernandez, M. (2018). Perinatal depression screening and treatment in an obstetrics clinic with a high risk patient population. *Obstetrics and Gynecology*, *131*(S1), 175s. doi:10.1097/01.AOG.0000533182.08306.15
- Latendresse, G., Wong, B., Dyer, J., Wilson, B., Baksh, L, & Hogue, C. (2015). Duration of maternal stress and depression: Predictors of newborn admission to neonatal intensive care unit and postpartum depression. *Nursing Research*, *64*(5), 331-341. doi:10.1097/NNR.0000000000000117
- Latendresse, G. (2018). *A study of early screening and distance-delivered intervention for the prevention and treatment of maternal depression: Protocol summary*. Unpublished manuscript. University of Utah, Salt Lake City, UT.

- Lau, K. & Pardanani, S. (2018). Implementing a universal perinatal depression screening and treatment program in a community setting. *Obstetrics and Gynecology*, 131(S1), 157s. doi:10.1097/01.AOG.0000533117.49171.55
- O'Connor, E., Rossom R., Henninger, M., Groom, H., & Burda, B. (2016). Primary care screening for and treatment of depression in pregnant and postpartum women: Evidence report and systematic review for the US Preventive Services Task Force. *Journal of the American Medical Association*, 2016(315), 388–406. doi:10.1001/jama.2015.18948
- Pyne, J., Kelly, P., Fischer, E., Miller, C., Wright, P., Zamora, K., ... Fortney, J. (2018). Development of the Perceived Access Inventory: A patient-centered measure of access to mental health care. *Psychological Services*. Advanced online publication. doi:10.1037/ser0000235
- Stark, E., Shim, J., Ross, C., & Miller, E. (2018). The impact of perinatal depression on breastfeeding rates. *Obstetrics and Gynecology*, 131(S1), 122-123s. doi:10.1097/01.AOG.0000533182.08306.155.

Appendix

Complete PAI Results

Participant	1	2	3	4	5	6	6a	7	7a	8	8a	9	9a	10
1	No	No	Yes	No	No	N/A		N/A		No		N/A		No
2	No	Yes	No	No	Yes	No		No		No		No		Yes
3	Yes	Yes	Yes	Yes	No	N/A		N/A		N/A		N/A		N/A
4	No	N/A	No	No	No	N/A		N/A		N/A		N/A		N/A
5	Yes	Yes	Yes	No	No	Yes	A great deal	No		No		No		No
6	No	Yes	Yes	No	No	N/A		No		No		No		No
7	Yes	Yes	Yes	No	No	N/A		No		N/A		No		No
8	Yes	Yes	Yes	Yes	No	N/A		N/A		N/A		N/A		N/A
9	No	No	No	No	No	No		N/A		N/A		Yes	A great deal	No
10	Yes	Yes	No	Yes	No	No		No		No		No		No
11	No	No	Yes	No	No	No		No		No		No		No
12	Yes	Yes	Yes	Yes	No	No		No		No		Yes	Completely	No
13	Yes	Yes	Yes	No	No	N/A		N/A		N/A		N/A		N/A
14	Yes	Yes	Yes	Yes	Yes	Yes	Somewhat	Yes	Somewhat	Yes	Somewhat	No		No
15	Yes	Yes	No	No	No	N/A		N/A		N/A		N/A		N/A
16	No	No	Yes	Yes	Yes	No		No		No		Yes	Completely	Yes
17	Yes	No	No	Yes	Yes	No		No		No		Yes	Somewhat	Yes

Complete PAI Results Continued

10a	11	11a	12	12a	13	13a	14	14a	15	15a	16	16a	17
	No		N/A		N/A		N/A		N/A		N/A		N/A
Somewhat	No		No	A great deal	No		Yes	Somewhat	Yes	Completely	Yes	A great deal	No
	N/A		N/A		N/A		N/A		N/A		N/A		No
	N/A		N/A		N/A		No		N/A		N/A		N/A
	No		No	A little bit	N/A		N/A		N/A		N/A		No
	No		N/A		N/A		N/A		N/A		N/A		N/A
	No		N/A		N/A		No		No		No		No
	N/A		N/A		N/A		N/A		N/A		N/A		N/A
	N/A		N/A		N/A		N/A		N/A		N/A		N/A
	N/A		Yes		No		No		No		No		No
	No		N/A		N/A		N/A		N/A		N/A		N/A
	No		Yes		No		No		Yes		No		No
	N/A		N/A		N/A		N/A		N/A		N/A		N/A
	No		Yes		No		No		Yes	Somewhat	No		No
	N/A		N/A		N/A		N/A		N/A		N/A		N/A
Completely	No		Yes		Yes	Somewhat	Yes	Somewhat	Yes	Somewhat	No		Yes
Somewhat	No		Yes		No		No		No		No		No

Complete PAI Results Continued

17a	18	18a	19	19a	20	20a	21	21a	22	22a	23	23a	24	24a
	N/A		N/A		N/A		N/A		N/A		Yes	Not at all	No	
	No		No		No		No		Yes		Yes	A great deal	Yes	A great deal
	No		Yes	Somewhat	No		No		Yes		Yes	Completely	Yes	Completely
	No		N/A		N/A		No		N/A		Yes	Not at all	No	
	No		No		No		No		Yes		Yes	Not at all	No	
	N/A		N/A		N/A		N/A		N/A		Yes	A little bit	Yes	Somewhat
	No		No		No		No		N/A		N/A		Yes	Not at all
	N/A		N/A		N/A		N/A		N/A		Yes	Somewhat	Yes	A little bit
	No		Yes	Completely	No		No	Not at all	N/A		Yes	Completely	No	
	N/A		N/A		N/A		Yes		N/A		Yes	Somewhat	Yes	A great deal
A great deal	Yes	A great deal	N/A		Yes	Somewhat	No		No	Somewhat	Yes	Completely	Yes	Completely
	N/A		No		No		No		N/A		Yes	Somewhat	Yes	Somewhat
	N/A		N/A		N/A		Yes		N/A		Yes	Completely	Yes	A great deal
	No		Yes		No		No		N/A		No	Completely	No	
	N/A		N/A		N/A		N/A		N/A		Yes	A little bit	No	
	No		No		No		No		Yes		No		Yes	Not at all
	N/A		N/A		N/A		N/A		N/A		Yes	Somewhat	Yes	A little bit
Completely	Yes	Completely	Yes	A great deal	Yes	A great deal	No		Yes		Yes	A little bit	Yes	Completely
	No		No		Yes	A little bit	No		Yes		Yes	A little bit	Yes	A little bit

Complete PAI Results Continued

25	25a	26	26a	27	27a	28	28a	29	29a	30
No		No		No		No		No		No
No		No		Yes	Completely	No		Yes	Yes	No
Yes	Completely	N/A		No		No		No		No
No		No		No		No		No		No
No		No		No		Yes	Yes	No		No
No		No		No		No		No		N/A
No		No		No		No		No		No
Yes	A great deal	No		Yes	Somewhat	No		No		Yes
No		N/A		No		No		No		No
Yes	Completely	No		No		N/A		Yes	Yes	No
No		No		No		No		No		No
No		No		No		No		No		No
No		No		No		No		No		No
No		No		No		No		No		No
No		No		No		No		No		No
No		No		Yes	Completely	No		No		No
No		No		Yes	A little bit	No		No		N/A

*Full question text for the PAI found in figure 1.