

INTRODUCTION

Miscarriage, the spontaneous loss of pregnancy before 20 weeks gestation, affects about 26% of pregnancies and is associated with psychological distress [anxiety, depression, and post-traumatic stress disorder (PTSD)] and feelings of isolation that can last for years after the loss.^{1,2}

Patient experience refers to the interactions that patients have within the healthcare system, including their encounters with doctors, nurses, and other staff and how well the care provided respects and responds to individual preferences, needs, and values.³

Research shows a mismatch between the care provided by providers, who often focus on physical health, and the care preferences of women experiencing miscarriage, concerning emotional and mental well-being.^{4,5}

However, there is limited literature on this discrepancy and its impact on women's psychological distress particularly during the COVID-19 pandemic.

This study aimed to:

- 1) Understand the patient experiences of women who miscarried a desired pregnancy during the stay-at-home mandates of the COVID-19 pandemic in North Carolina (March 30, 2020 - February 24, 2021).
- 2) Examine the relationship between patient experiences and psychological distress (anxiety, perceived stress, depression, and PTSD).

MATERIALS & METHODS

We conducted a mixed-methods study, using a convergent-parallel design.⁶

Recruitment was through NC-based pregnancy loss, mom, or community Facebook groups, state health departments, and listservs at a large state university and hospital system.

A total of 71 women completed a survey including demographics, mental health and reproductive health history, COVID-19 stressors, anxiety (GAD-7), depression (PHQ-8), PTSD symptoms (PC-PTSD-5), perceived stress (PSS-4), and patient experience.

We interviewed a subsample of 18 women using a semi-structured interview guide to explore their miscarriage experiences, including how they received the news, how it was managed, and what aspects of their care they wished had been different during that time.

Descriptive statistics, two-step cluster analysis, independent sample t-tests, and chi-square analyses were performed using SPSS 28. A six-step thematic conventional content analysis was conducted using NVivo 12 Plus.

RESULTS

Demographic Characteristic	Total N= 71	Patient Experience Groups	
		Good n = 34	Poor n = 37
Age:	18-45	M = 32.4(±5.8)	33.8(±5.56) 31.6(±6.83)
Race:	White	N = 59(83.1%)	28(82.4%) 31(83.8%)
Relationship:	Married/Partnered	N = 64(90.1%)	32(94.1%) 32(86.5%)
Education:	≥ baccalaureate degree	N = 37(52.1%)	21(61.8%) 16(43.2%)
Employed:	Full-time	N = 39(54.9%)	23(67.6%) 16(43.2%)
Insurance:	Private	N = 52(73.2%)	26(76.5%) 26(70.3%)
Household Income:	≥ \$51,000	N = 49(69.0%)	28(82.4%) 21(56.8%)
Residence:	Suburban or Rural	N = 60(84.5%)	31(91.2%) 29(78.4%)

Frequencies & Chi-Square Results for Good & Poor Patient Experiences During Miscarriage:

Patient Experience Item	Total n(%)	Patient Experience		χ ²	p
		Good n(%)	Poor n(%)		
1. Explained easy to understand	31(43.7)	30(88.2)	1(2.7)	52.70	<.001
2. Listened carefully	28(39.4)	28(82.4)	0(0.0)	50.31	<.001
3. Showed respect	34(47.9)	32(94.1)	2(5.4)	55.88	<.001
4. Spent enough time	22(31.0)	22(64.7)	0(0.0)	34.69	<.001
5. Addressed emotional needs	10(14.1)	10(29.4)	0(0.0)	12.67	<.001
6. Provided information	8(11.3)	8(23.5)	0(0.0)	9.81	<.001
7. Scheduled follow-up	26(36.6)	22(64.7)	4(10.8)	22.17	<.001
8. Ordered other tests	44(62.0)	26(76.5)	18(48.6)	5.82	.016
9. If yes, office followed up	37(84.1)	23(88.5)	14(77.8)	0.91	.341

Note. For item 9, n = 44 provided office follow-up; n = 27 for good group and n = 17 for poor group.

Means & Standard Deviations of Psychological Distress for Total Sample and Good & Poor Patient Experience Groups:

Scale	Total (N = 71)	Patient Experience		t	p	η ²
		Good (n = 34)	Poor (n = 37)			
	M(SD)	M(SD)	M(SD)			
PSS4	9.00 (3.41)	8.12 (2.48)	9.81 (3.95)	2.14	.036	.06
GAD7	9.32 (5.84)	7.41 (5.09)	11.08 (6.01)	2.76	.007	.10
PHQ8	8.76 (6.93)	6.71 (5.57)	10.65 (7.58)	2.48	.016	.08
PC-PTSD-5	3.07 (1.58)	2.82 (1.71)	3.30 (1.43)	1.27	.209	.02

Note. PSS4 = Perceived Stress Scale 4-item version; GAD7 = Generalized Anxiety Disorder Scale 7; PHQ8 = Patient Health Questionnaire 8; PC-PTSD-5= Primary Care PTSD Screen for DSM-5

Most women (73.2%) couldn't bring a support person, and 14.1% had limited medical care access during the pandemic. These COVID-19 stressors showed no significant difference between groups.

"...he told me, I was having a spontaneous abortion, umm, that I could try again like it, it wasn't a big deal because I was young, so it's not a big deal, I'm young, I can have more kids..."

"...she talked to us for a good 15 or 20 minutes about management, and how it wasn't my fault and offered support, different things we could do, who we could talk to, provided us with resources, if you need time off work please let me know, I'm giving you this note, and even talked with my husband, just encouraged him as well."

"Honestly, the greatest thing with the pandemic was just a complete lack of personalization, when I went in, it was immediate, he had to leave, and then, you're in mask, and doctors were in full gowns, which is understandable, but it really felt so detached, it didn't feel like I was with other people,"

"It's really typical up here on the mountain because there's not enough doctors for the number of patients they have, like, there's literally one clinic to serve like three counties, like you can't even reach them on the phone, sometimes you have to go down there to make your appointment..."

RESULTS CONT'

The qualitative categories identified fell under **four** broad themes:

Themes	Categories
Access to Care	<ul style="list-style-type: none"> • Access to care in rural settings • Access to & quality of care during COVID-19 pandemic
Provider Interactions	<ul style="list-style-type: none"> • Positive vs Negative Interactions • Management Decision-Making • Delivery of News • Medical & Nursing Students • Effects of COVID-19 pandemic
Staff Interactions	<ul style="list-style-type: none"> • Environmental Services • Pregnancy Crisis Center Staff • Phlebotomist • Receptionist • Ultrasound Technician • Chaplain
Healthcare System	<ul style="list-style-type: none"> • Healthcare System

DISCUSSION

- Women in North Carolina faced healthcare challenges during COVID-19 miscarriages.
- Limited access to quality OBGYN and mental health care was commonly reported during interviews.
- COVID restrictions increased distress by preventing support persons from attending visits.
- Improving telehealth services and mental health resources is essential.
- Positive experiences included empathetic communication, careful listening, and thorough discussions about miscarriage management.
- Negative experiences involved inconsistent care, insensitive comments, and inadequate education and follow-up.
- Poor patient experiences were linked to higher levels of anxiety, depression, and perceived stress 14-31 months post-miscarriage, highlighting the interconnection between patient experience and mental health outcomes.
- Training in empathy and communication is crucial for all healthcare staff (clinical and non-clinical).
- At the healthcare system level, there is a need for efficient communication processes, sensitive terminology on discharge forms, transparency about ED wait times, and improved patient triage.
- Trauma-informed practices can address many of these challenges and create a supportive environment that promotes healing and resilience for all.

REFERENCES

Available upon request.

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