

Experiences of Trauma After Delivery in Critically Ill Obstetric Patients

A Case-Control Qualitative Pilot Study

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Background & Aim

BACKGROUND

- Critically ill obstetric patients are at risk for traumatic birth experiences due to unexpected complications requiring critical care unit (CCOB) admission.
- Postpartum PTSD is underrecognized in this population.

GAP

- Patterns of childbirth-related trauma in CCOB patients vs. general postpartum controls are poorly characterized, and little is known about how trauma evolves over time.
- City BiTS/PCL-5 have not been used in CCOB patients, to date.

AIM

- Compare quantitative trauma scores and qualitative trauma themes between CCOB patients and controls at delivery and at 6-week follow-up.

City Birth Trauma Scale

The next 6 questions ask about potential traumatic events during (or immediately after) the delivery. Although these questions refer to the delivery, please answer for any events that happened before, during, or after labor and delivery.

Please tick the responses closest to your experience.

	Yes	No
Did you find any part of the birth distressing or traumatic?	☐	☐
If yes, what did you find distressing?	Additional Details Below	

The next questions ask about symptoms you may have experienced. Please indicate how often you have experienced the following symptoms in the last week:

	Not at All	Once	2 – 4 times	5 or more times
Getting upset when reminded of the birth?	☐	☐	☐	☐
Trying to avoid thinking about the birth?	☐	☐	☐	☐
Feeling strong negative emotions about the birth (e.g. fear, anger, shame)?	☐	☐	☐	☐
Feeling tense and on edge?	☐	☐	☐	☐

Additional Details

PCL-5: 6-Week Follow-up

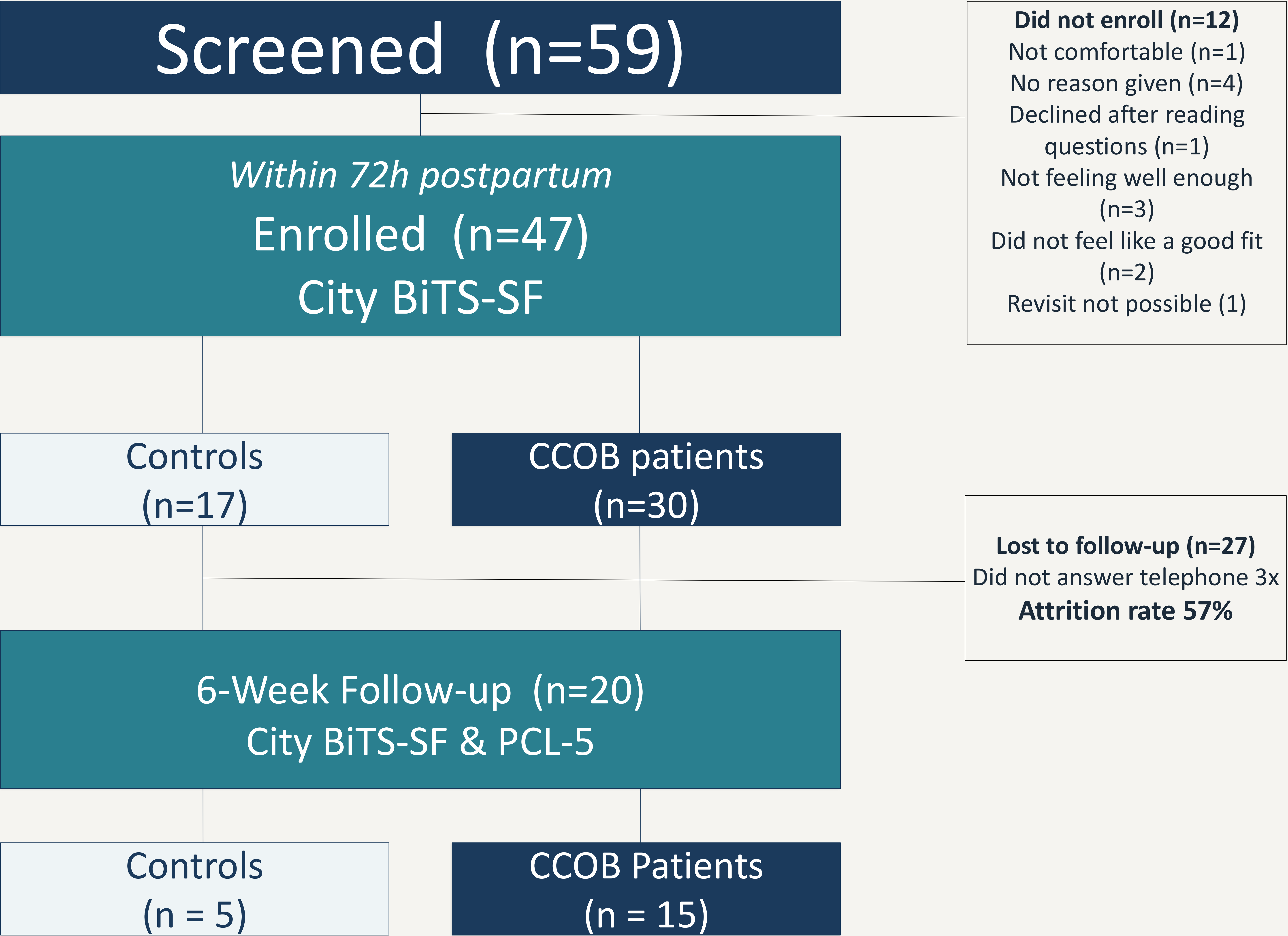
Below is a list of problems that people sometimes have in response to a very stressful experience. Please think of your childbirth experience and read each problem carefully. Then tick one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

	Not at all - 1	A little bit - 2	Moderately - 3	Quite a bit - 4	Extremely - 5
Repeated, disturbing, and unwanted memories of your childbirth experience?	☐	☐	☐	☐	☐
Repeated, disturbing dreams of your childbirth experience?	☐	☐	☐	☐	☐
Suddenly feeling or acting as if your childbirth experience were actually happening again (as if you were actually back there reliving it)?	☐	☐	☐	☐	☐
Feeling very upset when something reminded you of your childbirth experience?	☐	☐	☐	☐	☐
Having strong physical reactions when something reminded you of your childbirth experience (for example, heart pounding, trouble breathing, sweating)?	☐	☐	☐	☐	☐
Avoiding memories, thoughts, or feelings related to your childbirth experience?	☐	☐	☐	☐	☐
Avoiding external reminders of your childbirth experience (for example, people, places, conversations, activities, objects, or situations)?	☐	☐	☐	☐	☐
Trouble remembering important parts of your childbirth experience?	☐	☐	☐	☐	☐
Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	☐	☐	☐	☐	☐
Blaming yourself or someone else for your childbirth experience or what happened after it?	☐	☐	☐	☐	☐
Having strong negative feelings such as fear, horror, anger, guilt, or shame?	☐	☐	☐	☐	☐
Loss of interest in activities that you used to enjoy?	☐	☐	☐	☐	☐
Feeling distant or cut off from other people?	☐	☐	☐	☐	☐
Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	☐	☐	☐	☐	☐
Irritable behavior, angry outbursts, or acting aggressively?	☐	☐	☐	☐	☐
Taking too many risks or doing things that could cause you harm?	☐	☐	☐	☐	☐
Being "superalert" or watchful or on guard?	☐	☐	☐	☐	☐
Feeling jumpy or easily startled?	☐	☐	☐	☐	☐
Having difficulty concentrating?	☐	☐	☐	☐	☐
Trouble falling or staying asleep?	☐	☐	☐	☐	☐

Hypothesis: Greater PTSD symptom burden in CCOB patients, with attenuation of trauma salience over time in both groups

Methods & Participant Flow

Study design	Prospective case-control pilot study
Enrollment	Aug 2025 – Feb 2026 (within 72h postpartum)
Groups	CCOB patients (n=30) vs. controls (n=17)
Instruments	City BiTS-SF (0–13); modified PCL-5 (20–100)
Qualitative	Open-ended descriptions; NVivo thematic coding
Follow-up	6-week telephone survey (same instruments)
Analysis	Descriptive; pilot design



Results: Participant Characteristics, Survey Scores & Exemplar Quotes

	Controls (n=17)	CCOB (n=30)
Age, mean (years)	32.5 ± 4.9	34.9 ± 4.9
BMI, mean (kg/m²)	31.3 ± 5.9	34.8 ± 9.1
Race — White, n (%)	3 (17.6%)	5 (16.7%)
Race — Black, n (%)	5 (29.4%)	10 (33.3%)
Cesarean delivery, n (%)	9 (52.9%)	19 (63.3%)

Values: mean ± SD or n (%)

Survey Scores	Controls	CCOB	P
City BiTS at enrollment (n=47)	1 [0.25–3]	2 [0–3]	0.928
City BiTS at 6-week f/u (n=20)	0 [0–0]	0 [0–1]	0.293
PCL-5 at 6-week f/u (n=20)	20 [20–23]	25 [20–26]	0.365
Score trend: enrollment → 6 wks	Declined	Declined	—

Values: median [IQR]

72.3% reported birth-related trauma at enrollment (n=47)
Controls: 12/17 = **70.6%**; CCOB: 22/30 = **73.3%**

4/4 4 (n=20) had persistent trauma at follow-up, and all were CCOB

Exemplar Patient Quotes (coded via NVivo)

Controls — At enrollment
"When going into OR had a panic attack. I didn't want a C-section." Emotional distress · Undesired cesarean delivery
"Receiving spinal injection was stressful, I was scared and shivering, very cold." Anesthesia complications · Temperature control

CCOB — At enrollment
"Receiving my A-line...I was feeling unheard about my pain... I felt pressured to keep it in for staff convenience." Frustration with care team · Pain
"Things happened; ruptured uterus; blood pressure dropped; blacked out a few times." Bodily injury/illness · Blood loss/hemorrhage

CCOB — At 6-week follow-up
"My uterus ruptured, I had an emergency C-section, my biggest problem was that pain was minimized by care team." Pain · Frustration with care team
"The fact I had a C-section. My blood pressure dropped, I blacked out a few times; I had a placental abruption." Undesired cesarean · Bodily injury/illness

Results: Qualitative Trauma Themes

At enrollment (n=47)

Controls (n=17)		CCOB patients (n=30)	
Undesired cesarean delivery	52.9%	Infection or fever	20.0%
Emotional distress (panic, overwhelm)	23.5%	Undesired cesarean delivery	16.7%
Length/physical effort of labor	23.5%	Pain	13.3%
Temperature control	17.6%	Fear for infant wellbeing	13.3%
Pain	17.6%	Blood loss / hemorrhage	13.3%
Frustration with care team	11.7%	Frustration with care team	10.0%
Epidural/anesthesia complications	11.7%	Epidural/anesthesia complications	10.0%

At 6-week follow-up (n=20)

Controls (n=5)		CCOB patients (n=15)	
No patient reported persistent distress		Bodily injury or illness	20.0%
		Blood loss / hemorrhage	20.0%
		Undesired cesarean delivery	13.3%
		Frustration with care team	6.7%

Percentages reflect proportion of participants within each group reporting each theme; values may exceed 100% as multiple themes could be endorsed.

Conclusions & Future Directions

Conclusions

- Childbirth-related trauma scores declined in both groups from enrollment to 6-week follow-up, though differences were not statistically significant
- Controls described exhaustion, overwhelm, and undesired cesarean delivery
- CCOB patients described specific medical events — hemorrhage, severe pain, perceived risk of death, and concerns for infant safety
- Persistent trauma at 6 weeks only in CCOB patients (4 of 4 cases) and linked to identifiable clinical events and perceived failures in pain control or team communication
- Quantitative scores (City BiTS, PCL-5) did not fully capture the severity evident in qualitative accounts

Limitations

- Pilot study — small sample size
- Enrolled postpartum
- 57% attrition (loss to follow-up)
- Descriptive analyses only

Future Directions

- Larger cohort to further characterize trauma patterns and evaluating **trust**
- Enroll before delivery — more longitudinal evaluation (and **strategies to reduce loss of follow-up**)
- Identify prevention and intervention targets for at-risk patients
- Develop targeted peripartum support protocols for CCOB patients