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RESEARCH

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Exploring trauma-informed prenatal care preferences through diverse pregnant voices

Mohammad S. Itani[1*], Megha Shankar[2] and Ellen Goldstein[3]

Abstract

Background There are no existing standards of care for integrating trauma-informed care into prenatal care in a patient-centered manner. This study aims to explore preferences of pregnant people regarding prenatal care, prenatal providers, resources, and trauma inquiry and response.

Methods This study utilized a qualitative descriptive design as part of a longitudinal randomized controlled pilot trial. It was conducted at a university-affiliated federally qualified health center and multi-specialty clinic in a large metropolitan area among a purposive sample of 27 racially/ethnically diverse pregnant individuals. Eligible participants aged ≥ 18 between 10 and 24 weeks gestation were identified via medical charts and recruited in person and by email. Interview-administered structured interviews were provided at the post-intervention assessment. Qualitative data collection extended from June 2023 through April 2024. We performed inductive analysis to generate codes and identify emergent themes derived from participant responses. Participant preferences for prenatal care were interpreted through the lens of the six trauma-informed care principles.

Results Participants had an average age of ($M = 28$, $SD = 4.5$; range = 19–38) years old. Of the 27 participants interviewed, 21 self-identified as Black (77.8%) and 5 as Hispanic (18.5%). Three themes identified optimal prenatal care preferences, including: (1) *Agency and Choice*; (2) *Emphasis on Maternal and Child health and Wellbeing*; and (3) *Universal and Personalized Provision of Information and Resources*. Participants wanted their providers to be *Familiar and Experienced*; *Personally Engaging*; and *Emotionally Safe and Supportive*. Three additional themes focused on patient preferences for addressing trauma during prenatal visits, including: (1) *Value of Addressing Trauma;* (2) *Approaches to Asking about Trauma; and* (3) *Sensitive and Empathic Inquiry and Response.*

Conclusions Patient preferences identified by this study underscore the need for prenatal care to address the psychological health needs of pregnant patients to deliver high quality, comprehensive prenatal care that is trauma-informed and culturally-responsive.

Trial registration This study was registered at ClinicalTrials.gov ID: NCT05718479 on 08-02-2023.

Keywords Trauma-informed care, Trauma-sensitive care, Prenatal care, Pregnancy, Trauma screening and response, Obstetric care

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Background

Prenatal care presents an opportunity for promoting positive physical and mental health outcomes during pregnancy, offering a critical and unique partnership between patients and providers. Some barriers to prenatal care can be attributed to a patient's past history or current exposure to trauma, such as intimate partner violence [1], adverse childhood experiences (ACEs), and sexual assault [2]. Furthermore, the healthcare system can be a source of trauma or re-traumatization, particularly in a prenatal care setting where sensitive exams are routinely performed [3]. Trauma is associated with negative reproductive health outcomes, including pregnancy complications, such as gestational hypertension and diabetes, perinatal mental health issues (e.g., anxiety, depression, and posttraumatic stress disorder), as well as preterm birth and poor neonatal outcomes [4–10]. Trauma, including intergenerational trauma, is experienced at higher rates by underrepresented patient populations, exacerbating disparities in prenatal care [11–14]. Previous research showed that the life-time exposure to trauma and PTSD is highest among Black (8.7%) and moderate among Hispanic people (7%) [15] while 70% of trauma symptoms were associated with racial discrimination [16].

Trauma-informed care (TIC) is a strengths-based approach to care that actively seeks to address trauma in a healthcare setting by emphasizing safety, trustworthiness and transparency, peer support, collaboration and mutuality, empowerment, voice, and choice, as well as cultural, historical, and gender issues [17]. TIC is a way for providers to realize the impact of trauma on health, recognize patient signs and symptoms of trauma, respond to trauma with resources and treatment plans, and resist re-traumatization [18]. In prenatal care settings, TIC can promote equitable reproductive health outcomes. For example, TIC may improve patient trust in providers; patient adherence to evidence-based prenatal care recommendations; compassionate provider response to patient disclosure of trauma; and connection to critical, interdisciplinary resources to promote resilience, identify strengths, and disrupt intergenerational trauma [19–24].

While there exists strong evidence that TIC can promote widespread, generational reproductive health outcomes, there are no standards of care for integrating TIC into prenatal care in a patient-centered manner. This gap represents a missed opportunity to optimize and enhance patient-centered, prenatal care outcomes and promote reproductive health equity, especially among pregnant people from underrepresented communities. This study seeks to fill this gap by exploring the preferences of Black and Hispanic pregnant people, with the aim of informing the development of trauma-informed prenatal care practices.

Methods

Design

Qualitative methods were used to explore patient preferences regarding trauma-informed prenatal care. This data was adjunctively collected from participants who were concurrently enrolled in a randomized controlled trial (RCT) testing a health promotion and wellness skills intervention for reducing stress in pregnancy. RCT participants were randomized (1:1) to either a trauma-informed prenatal intervention group focusing on behavioral change and regulation skills or a control group who received prenatal education. The two groups received four weekly, individually-delivered sessions with assessments of psychological and socioemotional functioning at baseline, post-intervention, 4 weeks prenatal post-intervention, and 6 weeks postpartum. The primary outcomes paper of quantitative self-report measures is featured in a separate publication [25]. This study was approved by the University of Illinois Chicago Institutional Review Board (2022 – 1175).The qualitative results were reported in accordance with the Consolidated Criteria For Reporting Qualitative Research (COREQ) guidelines [26].

Sample and setting

A purposive sampling strategy was used to recruit 40 pregnant individuals aged 18 and older between 10 and 24 weeks gestation from a university-affiliated federally qualified health center and multi-specialty clinic. Initial chart screening of medical records was used to confirm pregnancy status. Participants were screened via phone for complete eligibility requirements, and exclusion criteria consisted of the inability to reliably or safely participate in the study due to self-reported serious or persistent mental health disorder.

Data collection

Of the 40 enrolled RCT participants, 27 participants completed either the intervention or prenatal education program. Thereafter, structured, individual interviews (lasting 15–20 min) were administered within one week of completing the program at the post-intervention assessment timepoint. Responses were simultaneously transcribed by the interviewer as the participant answered each question. Qualitative data collection extended from June 30, 2023 through April 11, 2024. The interview questions asked about participants' preferences regarding prenatal care, prenatal care providers, trauma inquiry and response, and resources (Table 1).

Table 1 Interview questions

Preferences regarding prenatal care and providers	When you go to your prenatal care provider, what are the things about your care and your prenatal care provider that are important to you, and you would like to have happen?
Preferences regarding trauma inquiry	How would you like your provider to explore your important life events with you?
Preferences regarding response to disclosure	How would you like your provider to respond to you when sharing sensitive information?
Preferences regarding resources	Are there particular kinds of care that you would want your prenatal care provider to provide you with?
	Are there particular kinds of resources that you would want your prenatal care provider to provide you with?
Final prompts	Is there anything that you do not want as a part of your experience?
	Is there anything else that you would want?

Analysis

Inductive thematic analysis was employed to generate codes and identify emergent themes derived from the participants' responses. Researchers analyzed the data following Braun and Clark's [27] six-stage process for identifying patterns and themes within the qualitative data. The researchers read the transcripts multiple times to immerse themselves in the data. Thereafter, two researchers independently sorted the data by dissecting significant statements into meaning units that were entered into Microsoft Excel. Subsequently, the data were manually and inductively coded according to the codebook (Supplemental Table 1). Analyst triangulation was used to strengthen and corroborate the research findings by a third researcher (MS) who cross-checked the analyses performed by the other team members to mitigate potential biases [28]. The three researchers reconciled differences during the coding phase and achieved consensus in formulating the themes and representative excerpts for the codes. Supplemental Table 1 depicts the codebook, providing succinct descriptions that define the breadth of codes assigned to the meaning units. Subsequently, deductive reasoning [29] was used to map the emergent themes to one or more of the Center for Disease Control (CDC)'s six principles of trauma-informed care for further analysis, interpretation, and application [17].

Rigor

Analyst triangulation was used to contest the pre-existing assumptions, biases, and knowledge of the research team regarding trauma-informed care and avoid over-interpretation of the participants' responses [28]. The analysis was supported by exhaustive descriptions and quotations from the data to provide the participants with a voice and to ensure that the analysis was grounded in the data. In addition, the participant characteristics were clearly delineated, thus enhancing the possibility of transferring the findings to a similar patient population. This study captured the perspectives of the participants who expressed their concerns and preferences regarding their prenatal care, which is in accordance with the qualitative analysis principle of authenticity, and enables advocating for the patients' needs through dissemination of the results, furthering research development and policy actions [30].

Results

Sociodemographic data

Participants ($N = 27$) were aged ($M = 28$, $SD = 4.5$; range = 19–38) years old. The majority of participants self-identified as either Black (77.8%) or Hispanic (18.5%) and had some college (55.6%). Slightly more than half of participants reported having had a previous live birth (51.9%), being single (55.6%), and having received mental health services/counseling (55.6%). On average, participants reported an income-to-need ratio of one point above poverty level and nearly two basic needs, including housing, food, transportation, utilities, and/or personal safety. Participants also reported having experienced discrimination less than once a year because of their race, ethnicity, or skin color. Furthermore, participants reported $M = 6$ ($SD = 4.3$) adverse childhood experiences and $M = 9$ ($SD = 1.2$) benevolent childhood experiences (Table 2).

Qualitative results

Table 3 shows the domains, themes, codes, and exemplar excerpts from study participants.

Domain 1: Preferences regarding prenatal care and providers

Seven themes emerged regarding participant preferences for prenatal care and care providers: (1) *Agency and Choice* (2), *Emphasis on Maternal and Child Health and Wellbeing*, and (3) *Universal and Personalized Provision of Information and Resources* (4), *Familiar and Experienced* (5) *Personally Engaging* (6), *Emotionally Safe and Supportive*, and (7) *Concordant Care.*

Agency and choice

Twenty participants emphasized the importance of their voices being heard as integral partners in the therapeutic relationship and decision-making process, rather than being told what to do by "an autocratic healthcare provider" as one participant noted (P18). Participants valued

Table 2 Participants' demographics

	Participants (*N* = 27)
Maternal age (years), **mean (SD)**	28 (5.5)
Previous live birth, **n (%)**	14 (51.9%)
Maternal race/ethnicity, **n (%)**	
Black/African American	21 (77.8%)
Hispanic/Latina	5 (18.5%)
White/Caucasian	1 (3.7%)
Maternal education, **n (%)**	
Some high school	3 (11.1%)
High school diploma/GED	7 (25.9%)
Some college or degree	15 (55.6%)
Graduate or professional degree	2 (7.4%)
Maternal relationship status, **n (%)**	
Single	15 (55.6%)
Married/Living with Partner	12 (44.4%)
Prior mental health services/counseling, **n (%)**	15 (55.6%)
Income-to-need ratio, **mean (SD)**	2 (1.6)
Adverse childhood experiences, **mean (SD)**	6 (4.3)
Benevolent childhood experiences, **mean (SD)**	9 (1.2)
Basic needs, **mean (SD)**	1.7 (1.6)
Everyday discrimination, **mean (SD)**	2 (0.8)

having options regarding their care team, treatments, care procedures, delivery methods, and resources/information. Participants specifically indicated that they wanted these options to be genuine. For example, one participant noted that if options were presented, it had to come with an agency of choice: "When the provider asks whether the student can enter the room and observe and then perform the check, there is really no choice because I do not feel comfortable saying no. I would prefer they do not. Sometimes asking for permission is not actually providing a choice." (P1) Participants indicated they did not feel comfortable refusing certain aspects of care. Furthermore, they highlighted the need for flexibility in scheduling appointments.

Emphasis on maternal and child health and wellbeing

Fifteen participants wanted their providers to demonstrate interest in their wellbeing and six participants wanted them to check on the baby as well. For instance, some participants commented their midwives asked them about health behaviors as well as tracking blood pressure and checking for preeclampsia. Additionally, participants wanted to be asked about their home life, sleeping habits, and any questions or concerns they may have. Three participants also expressed a desire for their providers to assess for psychological health needs, such as coping with stress. Furthermore, participants reported that they did not want to feel rushed or pressured in the care interaction. Rather, they wanted adequate time to voice concerns and to make informed decisions.

While participants highlighted their need to feel prioritized in prenatal visits, they also indicated that they appreciated aspects of routine care, such as listening to the baby's heartbeat and movements, and knowing their baby was healthy. For instance, one participant indicated that her favorite part of the visit was listening to the heartbeat of the baby, assuring her that everything was going well with her pregnancy.

Familiar and experienced

Eight participants valued familiarity and continuity of care. Participants preferred to "…stick with the person I am comfortable, familiar, and understands me…" (P8) and "a provider that checks in with me and notices when something is off." (P25) Additionally, participants indicated that having the same provider could help in detecting any emerging health issues and tracking existing ones, since the provider was already familiar with their health and pregnancy history. Four participants also valued training and experience in their prenatal providers. For instance, participants explicitly mentioned "…number of years of experience in training…" as desirable qualities for their prenatal providers.

Personally engaging

Participants wanted their prenatal providers to be personally engaging and approachable. For example, participants said that they want their providers to be "happy people who want to be at work" and not have "mean people in the space" (P1) nor be "pushy and rigid." (P18) Furthermore, participants wanted their providers to motivate them to actively participate in their own care by encouraging questions and collaborating with them in planning care goals. Participants wanted their providers to convey genuine interest in their perspective and concerns by actively listening to what they had to say and not dismissing them for having too many questions.

Emotionally safe and supportive

Participants shared that they want their providers to make them feel emotionally safe and supported. They wanted their provider to be "…validating of their experience and reassuring that they are not crazy for thinking and experiencing it that way…however it manifested in their life is okay…their experience is their experience, and it is not wrong in how they feel" (P14). Furthermore, participants wanted providers to be "offering good support and asking questions about if they needed support" (P21). Eleven participants stressed the need for prenatal providers to be non-judgmental: "I don't want the experience of being hounded with questions and the experience of feeling like I have to walk on eggshells around my providers…". Another participant said that she felt ashamed when her provider said that "she should be used to this

Table 3 Thematic tree and excerpts from participant responses

Domains	Themes	Codes	Excerpts	Frequency
Preferences regarding prenatal care and providers	Agency and choice	Giving choices/options	"I want a provider who gives options, discusses pro and cons, and listens to me and my concerns. I learned from my sister about options and didn't realize I could say no before. That I don't have to be induced, or I can say no to a membrane sweep." (P18)	20
		Power/Agency/Control	"Previous male doctor; 'I'm the doctor and you need to listen to me'; did not go over very well and cut that relationship off and switched providers never looking back." (P8)	14
		Flexibility in scheduling	"Flexibility about my time and what works for me." (P5) "The time of day I can make appointments and the location." (P9)	4
	Emphasis on maternal and child health and wellbeing	Addressing mental health	"They just do a basic check-up. If they checked on my mental health that would help. For example, ask questions about how I have been sleeping, coping with things or stress?" (P2)	3
		Genuine interest	"..my prenatal appointments are just hi, lets listen to baby's heart." (P3) "…to feel like a priority…" (P22)	15
		Time	"…To not feel rushed and to feel like a priority…" (P22) "…I do not want a rushed labor I also want my voice to be heard…" (P6)	3
		Baby check-ups	"I like the fact that they always check about my baby." (P5)	6
	Familiar and Experienced	Familiar/Continuity of care	"knows my husband's name, asks me about my symptoms, makes sure my bloodwork is done; on track with my blood pressure due to my preeclampsia history" (P11)	8
		Rapport	"A familiar provider that we already have a bond." (P19)	4
		Professional experience	"…in addition to their training. Number of years of experience in training was also very important to me…" (P6)	4
	Personally Engaging	Encourages questions	"She encourages me to think of questions that I will like to ask and bring them to the appointments." (P25)	3
		Collaborative	" I don't want a provider that is pushy and rigid". (P18) "…asks me my goals for the day…" (P27)	6
		Good listener	"Listening to what I'm saying and my opinion and not be dismissed." (P10)	5
	Emotionally safe and supportive	Supportive	"I want someone who wants to give me a natural vaginal delivery and knows how to support me through it, because that is what I want" (P6)	3
		Comforting	"Assurance that everything will be okay, especially if I'm not doing well right now, to assure me that it's not last hope and that everything will be okay" (P25)	9
		Non-judgmental	"I had the experience with my first baby where the provider said, 'You should be used to this by now'… regarding a cervical exam. I was surprised she said this and still remember it to this day. She shouldn't have said that." (P1)	11
		Respectful	"…respecting my body and the things that are happening with my body…respecting how I feel about certain things and my body…" (P14)	3
		Validating	"…Validating, not dismissing…" (P14)	4

Table 3 (continued)

Domains	Themes	Codes	Excerpts	Frequency
	Provision of information and resources	Providing explanations	"I appreciate being informed about everything is happening. Explain why she is doing what she is doing and how it correlates to the pregnancy." (P14)	10
		Universal access to information and resources	"I would like to receive general information and then I can pick and choose what I need. Once my specific needs are identified then the provider can provide more directed care". (P26)	33
		Nutritional support	"WIC, not sure if I make too much to qualify?". (P27)	5
		Basic needs	"Help with different coupons. Show me where to go to buy coupons for diapers and food and other baby supplies." (P20)	9
		Transportation support	"transportation and financial issues are sometimes an issue". (P8)	2
		Perinatal classes	"Prenatal classes (including those outside of UI health with more flexible hours), mental health resources, access to webinars for moms who cannot make it to prenatal classes". (P9)	10
		Maternal and child health services	"…help finding resources like doulas, midwives…" (P3)	13
		Mental health support	"Classes like this for reducing stress in pregnancy. If I am a stressed out working mom, who happens to be in the counseling field, I am sure there are others out there who are also stressed out and in need of skills" (P9)	9
	Concordant care	Racial identification	"Having a black midwife was very important to me." (P6)	1
		Lived experience with pregnancy and childbirth	"I wanted someone who had kids. I believe that them having their own experience helps to provide more insight". (P6)	1
Preferences in addressing trauma	Variable value of addressing trauma	Demonstrates caring	"I feel they should ask in the beginning because it does relate to my mental health". (P2)	3
		Tailoring care	"Understanding the way they grow up will help you to match the appropriate care". (P14)	7
		Intergenerational trauma	"When you are discussing care and discussion of a child in general will help you approach certain situations". (P14)	2
		Mistrust	"I can't assess how genuine they are so I would like them so I don't want them to ask". (P12)	4
	Variable approaches to asking about trauma	Verbal discussion	"I prefer to talk more personally to another person and for them to gather a full understanding. I prefer to talk it out more". (P8)	12
		Questionnaire	"The questionnaire may be better rather than the flow of conversation where they may feel less comfortable to be less open and honest". (P14)	12
		Universal approach	"Targeting will limit who is helped". (P14)	8
	Sensitive and empathetic inquiry and response	Asking sensitively	"Start with a question. Felt safe at home. Felt that it was an important question". (P18)	2
		Explain importance	"Preface it with I am going to ask and there are studies that show why it is important; afterwards what did your experiences teach you and do you want to do anything differently? Explain how it relates to them today". (P19)	2
		Respond Sensitively/without judgement	"be open minded about what you say, and be mindful about what you say in response". (P24)	4
		Respond with empathy not sympathy	"Caring and helpful and showing they are there to care for me and be an advocate for me". (P9) "No particular way. I like things to be natural. You have experience and expertise that I don't have. If there is anything you have to say that could benefit myself and my child, then say it." (P19)	4

by now" (P1), referring to conducting a cervical exam. Participants also highlighted the importance of providers being open-minded and respectful: "…respecting my body and the things that are happening with my body… respecting how I feel about certain things and my body…" (P14). Overall, the participants wanted to feel that their prenatal providers were supportive through their journey of pregnancy and childbirth.

Concordant care

One participant shared that she would prefer to have a prenatal provider who is racially concordant with her; as a Black woman, it was important to have a Black midwife. Two participants preferred a provider who had children or an older woman.

Universal and personalized provision of information and resources

All participants expressed a need for information and resources. Participants desired providers to present them with all of the available resources: "People should not have to ask for resources. Providers need to be more forthcoming and verbal about the resources available" (P1). Provision of targeted information was important for those who were pregnant for the first time as well as those with previous childbirth experiences. For instance, participants who were a first-time parent indicated that they did not know where to look for information or what kinds of questions to ask. On the other hand, one of the participants with a prior pregnancy experience commented on how she wanted to learn more about breastfeeding, considering that her previous experience was painful. Participants indicated that information made their pregnancy experience easier and empowered them to make good decisions for their children and themselves. In addition, participants wanted healthcare providers to provide detailed explanations of procedures, treatments, and next steps in their care plan, in order for them to feel more comfortable and safe.

Five participants mentioned the need for nutritional support during their pregnancy and after childbirth, including access to dieticians and the Special Supplemental Nutrition Program for Women, Infants, Children (WIC). Nine also desired access to basic needs, such as hygiene kits and diapers. Some participants mentioned housing and financial support as well as transportation resources to help them attend their appointments.

Domain 2: Preferences in addressing trauma

Three themes emerged around participant preferences regarding trauma inquiry and disclosure: (1) *Variable Value for Addressing Trauma* (2), *Variable Approaches to Addressing Trauma*, and (3) *Sensitive and Empathetic Inquiry and Response.*

Variable value for addressing trauma in prenatal care

Participants thought that it was important for their prenatal provider to ask them questions about childhood history and trauma as it relates to their mental health, demonstrates caring, and affects prenatal care. One participant noted, "The provider asks the basic questions, but more personal questions would demonstrate caring, such as what a birth doula might do to get to know you" (P1). Further, participants noted the importance of certain kinds of trauma on pregnancy: "It would help their providers to know what they experienced, especially if it were sexual trauma and abuse" (P9). Additionally, participants noted that discussing trauma "can remind us where we came from and how we don't want to treat our kids. How can I change this? I think it is an important part of prenatal care to remind you where you came from and what your main goal is" (P19).

Three participants did not want to be asked about trauma for a variety of reasons, such as not trusting institutions: "I am very guarded, and I do not trust institutions, so I am not sure if I would want them to touch on or bring the question up, and even if they asked, I am not sure that I would share. That is due to me knowing that institutions are often obligated to report a lot, and I just want to protect my autonomy as much as possible" (P6). Participants who did not want to discuss trauma wanted to protect their anonymity, thinking that their provider did not need to know their childhood history, or felt they were not able to assess the genuineness of the person asking about trauma to feel comfortable answering.

Variable approaches to addressing trauma in prenatal care

When asked how they would like their providers to explore important life events, participants shared varied preferences. Regarding the method of asking, twelve participants preferred a verbal approach accompanied by a personal conversation, while also twelve preferred a written questionnaire that allows them to be more comfortable, open, and honest. Regarding the scope of screening, eight participants felt it was important to ask everyone, regardless of history: "If you don't ask everyone, you could be avoiding a big impact that happened to that person" (P19). However, few participants preferred a case-finding approach, such as noticing what health problems patients have, and if they have many or unusual health problems, to inquire further about past experiences.

Sensitive and empathetic inquiry and response

In addition to the scope and method of asking about trauma, participants preferred providers to be sensitive and empathetic when asking about personal topics: "Providers should be sensitive and caring when speaking about childhood experiences. I don't like abrasive attitudes or rough and quick responses from my provider.

Table 4 Mapping themes to six principles of trauma-informed care

Themes	Map to 6 principles of TIC
Agency and choice	Empowerment, Voice, & Choice
	Collaboration and Mutuality
Emphasis on maternal and child health and wellbeing	Safety
	Empowerment, Voice, & Choice
Familiar and Experienced	Trustworthiness and transparency
	Collaboration and Mutuality
Personally Engaging	Collaboration and Mutuality
Emotionally safe and supportive	Collaboration and Mutuality
	Safety
	Cultural, historical and gender issues
Universal and personalized provision of information and resources	Trustworthiness and Transparency
	Empowerment, Voice, & Choice
	Safety
Variable value for addressing trauma	Collaboration and Mutuality
	Cultural, historical and gender issues
	Trustworthiness and Transparency
Variable approaches to asking about trauma	Collaboration and Mutuality
	Safety
Sensitive and empathetic inquiry and response	Safety
Concordant Care	Trustworthiness and Transparency
	Peer support
	Cultural, historical and gender issues

Sensitivity and a gentle approach are so important" (P26). Participants appreciated when providers connected asking about trauma to their prenatal care: "Preface it with, I am going to ask, and there are studies that show why it is important; afterwards, what did your experiences teach you, and do you want to do anything differently? Explain how it relates to them today" (P19). Regarding the nature of the conversation, participants said that they wanted the conversation to be "natural," and they didn't want their providers to have "overdo it" (P19).

Mapping to the six principles Pf TIC

Further analysis was carried out to deductively match the emergent themes to the six principles of TIC (Table 4). This was done to highlight practices that can aid in the fulfillment of the TIC principles and the eventual development of a TIC perinatal standard of care. The analysis shows that the desire for a certain aspect of care aligned with one or more TIC principles [17].

Discussion

Agency, choice, control

In accordance with the TIC principles of empowerment, voice, and choice, our findings suggest that agency, choice, and control are interdependent [18]. This is a consistent finding with previous studies that reported loss of power can sometimes be experienced as a violation by pregnant people with trauma histories, especially when their desire to be heard and to be in charge of their body and their care is dismissed or ignored [3, 31–33]. Previous qualitative studies showed that pregnant people with trauma histories wanted to have the agency to decide on certain aspects of care, such as the frequency of cervical examinations, gender of the prenatal provider, and who should be involved in their care and delivery [34, 35]. They wanted a physically and psychologically safe experience that was free of coercion [3, 33, 36–40]. Pregnancy and childbirth can be stressful experiences due to the physical and physiological changes, functional role changes (e.g., navigating new responsibilities), and, in some cases, mental health challenges [41–43].

Furthermore, the stress of the pregnancy experience can be exacerbated by a traumatic history [6, 39]. This study's participants reported a mean score of 6 on the expanded ACEs questionnaire, indicating multiple past adversities that increases risk for poor pregnancy and birth outcomes [44]. Pregnant people with a history of trauma may feel a sense of powerlessness over their body and other important aspects of their life during the perinatal period [32, 45, 46]. In addition, most of the sample in our study identified as people from racial/ethnic backgrounds that have been historically subjected to structural racism and discrimination. Consequently, being in control may mean taking back their voice that has been silenced for generations.

Familiar and experienced

Concordant with previous literature, participants wanted to have a consistent prenatal provider with whom they could develop a sense of trust, safety, and comfort [3, 20, 34–36, 47–49]. Familiarity of providers and continuity of care allows patients to not repeatedly share a traumatic history [20, 34, 35, 39, 50]. Similarly, participants' preferences aligned with prior evidence that pregnant people do not want to be exposed to different providers during cervical examinations [35]. Participants emphasized that they would trust a prenatal provider who is highly trained and competent in caring for pregnant people [49, 51, 52].

Emphasis on maternal wellbeing and mental health

Our results are comparable with previous studies demonstrating that pregnant people appreciated a genuine interest from providers in their physical and mental health in addition to the health of their baby. Previous research shows that pregnant people, especially those with trauma histories, want to be treated like a whole person [33, 39, 47, 49], and they want their providers to ask about their self-care and provide psychoeducation to develop coping skills [34, 39, 48, 49].

Engaging, emotionally safe, and supportive

Participants preferred a prenatal provider who is engaging, supportive, and helps them to feel emotionally safe. These values are also at the intersection of collaboration and mutuality as well as safety in TIC [18]. Our study found that pregnant people felt safer and more empowered when their provider validated their experience, did not judge them, respected their body, and used sensitive language while communicating with them [3, 35, 36, 47, 48]. Previous literature has demonstrated the importance of having a collaborative and therapeutic relationship with prenatal providers [33, 36, 37, 52], which can lead to better maternal mental health, prenatal health behaviors [53, 54] and enhanced birth outcomes, such as reduced preterm birth and low birth weight [55].

Concordant care

Our results also highlighted the significance of considering various cultural, historical, and gender issues in prenatal care that align with patients' preferences and values [18]. For instance, gender concordance and reciprocal relatability could make a provider more relatable, personal, and trustworthy. This is supported by studies that show that midwives found their personal life experiences were an aiding factor in assessing a pregnant individual's mental wellbeing [56], and pregnant people tended to trust providers with whom they shared a lived experience [47]. Extensive research has been published documenting the desire for and the benefit of having racially concordant obstetricians, midwives, and doulas [57–61]. While this desire may stem from the mistrust produced by structural racism, racial trauma, and obstetric violence that people of color experience in the healthcare system [62], having a racially concordant provider does not insinuate a universal mistrust of racially discordant providers [58]. However, for some pregnant people of color, especially those with trauma histories, having a racially concordant prenatal provider means having a trustworthy person who profoundly understands their needs and perspectives, competently advocates for them, and provides them with a sense of engagement, satisfaction, safety, and comfort [58, 61, 63–65].

Provision of information and resources

Our findings highlight the importance of providing pregnant people with information and resources to support them throughout the pregnancy and empower them to adequately care for themselves and their children. Additionally, explanations of procedures were found to promote feelings of comfort and safety [31, 34–36, 39, 48, 49]. In accordance with our results, the provision of information and resources should be universally communicated and customized according to the needs and preferences of pregnant individuals, reinforcing a non-reductionistic whole-person care model that is patient-centered [66]. This approach requires providers to get to know and collaborate with the individual to furnish an equitable access to resources and subsequently enhanced outcomes [67, 68].

In addition to basic needs and nutritional support, this study's participants displayed a strong emphasis on the need for mental health support. Available evidence shows that the need for mental health services among pregnant people often exceeds reported access to treatment [69]. Socioeconomic disadvantage acts as barrier to access and is associated with poor maternal mental health and birth outcomes [2, 70–74]. This study's sample of participants had an income-to-need ratio of 2 (i.e., one point above poverty line). Thus, integrated, co-located, behavioral health services are recommended to enhance access to mental health counseling and behavioral health services for this population to improve maternal and child health outcomes [75–80].

Addressing trauma in prenatal care

Study participants perceived trauma screening as important for their health and mental wellbeing, since it helped providers tailor care to their needs [3, 20, 34, 50, 81]. They also associated trauma screening with breaking the cycle of intergenerational trauma [82, 83]. The acceptance of trauma screening and inquiry in our sample might be explained by the fact that the participants had a mean of 9 on the BCEs questionnaire, which may also be indicative of greater promotive factors and less trauma symptomatology. Findings from the literature have shown that those with higher ACE scores are more likely to want longer conversations, and those with less resilience preferred to be screened by a mental health counselor [84]. However, a few participants reported that they did not want to be asked about past trauma, since it was not related to their current health concerns, nor did they trust the provider with such sensitive information. These findings were supported by multiple studies in which pregnant trauma survivors stressed the importance of having a trusting therapeutic relationship with the provider as a facilitator of disclosure [20, 34, 50, 85].

Our findings resonate with the available body of evidence, which does not favor a single evidence-based strategy for trauma assessment. This is demonstrated by mixed preferences [50, 85–88] for either administering a trauma screening that involves the standardized use of a validated tool or using trauma inquiry, which involves patient-provider dialogue [22, 89]. This study reinforces the need for providers to first demonstrate the importance and universality of trauma assessment [84], and then provide pregnant people with the autonomy to choose how they want to address the topic, rather than standardizing the use of one method. In addition,

incorporating resilience screening into the assessment [90], and being tactful in asking questions and responding empathetically and authentically to disclosures without judgment, can reduce feelings of stigma and promote help-seeking [34, 39, 50, 86, 91].

Limitations

The findings of this study should be considered in light of some limitations. This was a convenience sample of pregnant participants who had opted into an ongoing randomized trial for reducing stress in pregnancy, thus potentially affecting participant perspectives. Participant responses were not audio or video recorded, and handwritten field notes were recorded by the research staff; however, not recording may be an optimal, rapport- and trust-building approach for collecting qualitative data [92]. Furthermore, since this study used structured questions, no follow-up or probing questions were used to elicit further detail, pointing to the need for further exploration of patient experiences in prenatal care. In addition, the number of participants who were provided a structured interview was dependent upon those who completed the RCT intervention or prenatal education control sessions. Considering this study focuses on the perceptions of pregnant people in a single metropolitan area, future studies involving pregnant individuals from diverse racial/ethnic and vulnerable populations (e.g., refugees, immigrants, etc.) and under-resourced settings (e.g., high-poverty neighborhoods in urban areas, rural communities, etc.) can be significant in focusing on the cultural differences in disclosing or discussing trauma, as well the different perceptions regarding the importance of emotional support versus clinical care during the prenatal period.

Implications

This study demonstrates the need for a shift in organizational culture and clinical practices towards trauma-informed prenatal care, which provides pregnant people with more control and prioritizes their physical and emotional safety. In accordance with the 2017 Guidelines for Perinatal Care developed by the American Academy of Pediatrics (AAP) and the American College of Obstetrics (ACOG), our preliminary findings echo the need to develop a comprehensive, continuity of care model that ensures an integrated service delivery assessing for medical and psychosocial risk [93]. Subsequently, implementing trauma screening and inquiry that focuses on patients' strengths and needs would allow for the provision of appropriately matching care due to early and ongoing assessments, particularly for higher-risk patients. Furthermore, our study highlights the need to elicit prenatal provider perspectives on trauma-informed prenatal care, identifying the barriers and facilitators of incorporating TIC into individual practice, as well as implementing trauma-informed systems [94]. An important next step will be to design, develop, implement, and test TIC training programs for prenatal providers that focus on trauma knowledge and its impact on health, and trauma-sensitive, therapeutic patient-provider relationships and communication. TIC programs can be designed based on perceived gaps in provider knowledge and practices, and in collaboration with patient advisors, who bring a valuable perspective to inform policies and practices according to patient preferences. The trainings should focus on the provision of information in addition to including simulated skills training to facilitate the transference of TIC knowledge into practice [95]. Moreover, clinics should focus on building community partnerships to enhance the provision of resources for pregnant people, especially those from underrepresented and under-resourced communities. Finally, feasibility, time, and workflow studies can be valuable in exploring and attempting to overcome barriers in implementing TIC [96].

Conclusion

Preliminary findings underscore the importance of addressing the psychological well-being of pregnant individuals by routinely incorporating TIC principles into all aspects of prenatal care. By integrating patient preferences into practice, obstetric providers can promote tailored support and empathetic engagement for pregnant people. Subsequently, TIC enables the delivery of high-quality, comprehensive, and effective care that can enhance outcomes for pregnant individuals and their children. This is especially important in delivering trauma-informed and culturally-responsive care for pregnant people from underrepresented communities. Future studies should explore the perspectives of both patients and providers to illuminate best practices, perceived gaps in provider knowledge and practice, and strengths and opportunities to improve practice and organizational culture related to providing trauma-informed prenatal care.

Abbreviations

TIC	Trauma-informed care
AAP	American Academy of Pediatrics
ACOG	American College of Obstetrics
WIC	Special Supplemental Nutrition Program for Women, Infants, Children
CDC	Center for Disease Control
COREQ	Consolidated Criteria For Reporting Qualitative Research

Supplementary Information

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Supplementary Material 1.

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Authors' contributions
The manuscript has been conceptualized and designed by EG. EG wrote the protocol. EG, MI, and MS developed the manuscript, and EG collected the data. EG, MI, and MS equally helped in data validation and analysis in addition to revising the manuscript and reviewing the final draft.

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Data availability
The datasets generated and/or analyzed during the current study are not publicly available to protect the privacy and confidentiality of participating patients.

Declarations

Ethics approval and consent to participate
This study was approved by the University of Illinois Chicago Institutional Review Board (2022 – 1175). Informed consent was sought from all study participants before data collection. The work described has been carried out in accordance with the Code of Ethics of the World Medical Association (Declaration of Helsinki).

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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