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### ADD Reference

A thematic analysis of the difference in narratives about birth satisfaction and health awareness between postnatal women who have high and low trauma scores on the *Posttraumatic Stress Disorder Checklist*.

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A thematic analysis of the difference in narratives about birth satisfaction and health awareness between postnatal women who have high and low trauma scores on the *Posttraumatic Stress Disorder Checklist*.

#### **Abstract**

<u>Background</u>: Around one third of women experience childbirth trauma, with 3-15% developing *Postpartum Posttraumatic Stress Disorder* (PP-PTSD).

<u>Aim</u>: Explore birth satisfaction and health perception across two groups of postnatal women with either high or low trauma scores.

Method: Forty postnatal women were divided into groups dependent upon Posttraumatic Stress Disorder Checklist (PCL-5) scores: high-severity (n=20; range 25-57) or low-severity (n=20; range 0-7). Semi-structured interviews explored women's childbirth experiences related to birth satisfaction and reports of postnatal health. Thematic analysis was performed. Findings: Narrative content differed appreciably between High(A) and Low(B) scoring groups. Group A narratives were more negative (A1: Overall, a negative recall), referencing lack of autonomy, support or being heard (A2: Missing needs) and negative influences (A3: Disrupting my bubble). Group B recalled more birth satisfaction (B1: Mostly positive recall) associated with (B2: Autonomy; B3: Being cared for; B4: Intuition, instinct, and primal force). Group A narratives focused strongly on mental health (A4: Reduced awareness; A6 Experiencing PTSD; A7: Needing help); with some focus on physical health (A5: How I feel physically); Group B spoke less about health (B5: My health).

<u>Discussion</u>: High-quality psychological care during labour, with continuity, choice, support, and control, alongside postnatal health follow-up may improve birth satisfaction and reduce incidence of PP-PTSD.

<u>Conclusion</u>: To increase birth satisfaction and reduce trauma maternity care providers must be supported to prioritise high-quality psychological care to women during labour, providing choice, control, and continuity within trusting relationships. Trusting relationships are key to ongoing conversations regarding health and seeking/receiving help. Routine birth satisfaction screening and education for care providers about signs of trauma are important.

**Keywords:** Posttraumatic Stress Disorders; Psychological Trauma; Childbirth, Birth Satisfaction; Qualitative; Triangulation.

A thematic analysis of the difference in narratives about birth satisfaction and health awareness between postnatal women who have high and low trauma scores on the *Posttraumatic Stress Disorder Checklist*.

# **Background**

Childbirth is a complex and yet significant life event. Birth satisfaction is important, because having a poor experience contributes to trauma and can lead to Posttraumatic Stress Disorder (PTSD) (Bastos et al., 2015). When diagnosing PTSD, a range of 20-symptoms present, which are divided into 4-categories (criteria B, C, D, E): re-experiencing, avoidance, negative thoughts and moods, and hyperactivation (APA, 2013). To diagnose PTSD, a minimum number of symptoms within each category must present for at least 1 month (criterion F), which can negatively influence daily functioning (criterion G) and must not be as a result of medication, drug misuse, or a physical condition (criterion H). Childbirth differs from other traumatic events, given that it follows a predictable physiological process and is viewed as normal by society (Ayers et al., 2016). Nonetheless, a proportion of women experience injury during childbirth and either perceive or experience real threat of death of self and/or baby (Ayers, 2004), which fulfils trauma criterion A (APA, 2013). Some women recall a negative childbirth experience, yet do not meet the DSM-5 trauma criterion A for PTSD (APA, 2013). These women may still experience trauma symptoms, such as reexperiencing the event and having associated negative thoughts (Ayers & Ford, 2016), which is important because around 30% of women rate their childbirth experience as traumatic (Boorman et al., 2014).

Estimates of prevalence vary, with a meta-analysis of 78-studies showing that 3.1% of the population experience *Postpartum Posttraumatic Stress Disorder (PP-PTSD)*, and 15.7% from high-risk groups (Grekin & O'Hara, 2014). A further systematic review found that PTSD affects 4-6% of postnatal women (Yildiz et al., 2017), which is important because *PP-PTSD* has consequences for mother-infant attachment and child health (Williams et al., 2016), with maternal mental health problems effecting cognitive functioning, language development, and a range of physical, psychosocial, and behavioural problems (Murray et

al., 2003; Garthus-Niegel et al., 2017). *PP-PTSD* also effects ability to socialise, relationship with partner, and desire for future reproduction (Nicholls & Ayers, 2007). Even when birth is medically normal, mothers can experience *PP-PTSD* (Gottvall & Waldström, 2002; Grekin & O'Hara, 2014). Extent is dependent upon individual appraisal (Slade, 2006), with lack of control and interaction with caregiver a key cause of birth trauma (i.e., communication, listening, emotional & practical support) (Hollander et al., 2017).

Birth satisfaction is a multi-dimensional construct captured in the validated measuring tool called the *Birth-Satisfaction-Scale-Revised (BSS-R)* (https://www.bss-r.co.uk), which consists of distinct but related subscales of *quality of care provision* (4-items), women's personal attributes (2-items), and *stress experienced during labour (4-items)* (Hollins Martin & Martin, 2014). Many factors are reported to improve birth satisfaction, which include having choice, control, support and connection with care providers within continuity of care (Hodnett, 2002; Waldenström et al., 2004; Hollins Martin & Fleming, 2011; Carquillat et al., 2016). Associations between birth satisfaction and birth trauma have been reported (e.g., Skvirsky et al., 2019; Emmens et al., 2021; Harrison et al. 2021), yet few studies have measured trauma using validated scores. By utilising PCL-5, this study fills this gap.

Mothers often do not associate negative reflections of their birth experience with trauma symptoms, and consequently do not ask for help. Also, many care-providers do not recognise trauma symptomology in women, because they perceive birth-trauma to involve physical injury (Beck 2004a, 2004b). To date, a dearth of literature has reported on relationships between birth satisfaction and its association with screened levels of *PP-PTSD*.

Hence, our aim was to understand the experiences of two groups of postnatal women; one with high and one with low trauma scores on the validated 20-item-*Dutch-PCL-5*Posttraumatic Stress Disorder Checklist (PCL-5) (Boeschoten et al., 2014), in terms of their birth satisfaction as explored through narratives of their birth experience and perception of current health.

# **Participants**

Participants were a subsample of Dutch postnatal women (n=40) who had participated in the Emmens et al. (2021) quantitative study. Informed and consenting participants were taken from an original sample of (n=127) women who had completed the PCL-5 (Weathers et al., 2013). Both primiparous and multiparous women were eligible for inclusion if they were >18 years old, spoke Dutch, and had completed the PCL-5 between 1-month and 5-years postpartum. Each of the 40 participants were allocated to one of two groups according to their scores on the validated 20-item-*Dutch-PCL-5 Posttraumatic Stress Disorder Checklist* (PCL-5) (Boeschoten et al., 2014).

### **Ethics**

Full informed consent was freely given prior to data collection and analysis. Anonymity and confidentiality were maintained. Ethical approval was provided by the *Medical Ethics Review Committee (METC)* in Utrecht.

#### Method

Qualitative methodology using narrative research and thematic analysis (Braun and Clarke, 2006) explored women's experiences of childbirth and their reports of postnatal mental health. Interviews were conducted by the first author and incorporated open and semi-structured questions to facilitate participant narratives in their own words, with some prompting during the semi-structured part of the interview to elicit deeper exploration. A reflexive approach was taken during the thematic analysis to acknowledge any presuppositions held by the researchers. Thematic analysis is considered appropriate to triangulate findings from quantitative data that reported a significant association between poor birth satisfaction and *PP-PTSD* (Emmens et al., 2021).

# Quantitative data utilised

Emmens et al. (2021) measured levels of birth trauma using the validated 20-item-*Dutch-PCL-5* (Boeschoten et al., 2014). To explore separately the narratives of women with high and low severity trauma scores, two groups were formulated (1) *Group A-High trauma scoring group (range 25-57; n=20)*, and (2) *Group B-Low trauma scoring group (range 0-7; n=20)*. To view *Dutch-PCL-5* scores, see *Table 1*.

#### Table 1

### Qualitative data-collection

Data was collected between August-September 2020 by the first author. Participants were interviewed online or by telephone, dependent upon participant preference. The interview was divided into two parts, post consent for audiotaping.

Part 1 elicited the participants spontaneous response to an open question regarding birth experience:

As you know, we are interested in your experiences around the birth of your baby.

What would you like to tell us about that?

Part 2 was semi-structured to elicit a particular response regarding aspects of birth satisfaction and current perceptions of physical and mental health:

If you look at the circumstances at the time regarding the quality of care, your personal attributes and experience of stress, how did you experience this? \*

What is your health perception at the moment? How do you feel physically and mentally compared to how you felt before your pregnancy?

The average interview lasted 30-minutes, and during process the interviewer wrote fieldnotes.

#### Data-analysis

The interviewer transcribed all 40-interviews, which is an excellent way to familiarise self with data. Scripts were analysed following Braun and Clarke's (2006) stages of thematic analysis (*Table 2*).

#### Table 2

Audiotapes, transcripts, and field notes were coded by hand (participants 1-40 and Part A or Part B of transcript). Post-translation from Dutch into English, distinct themes, subthemes, and participant's quotes were discussed with 2nd and 3rd author. The findings are provided for each of the two groups (A-High scoring, B-Low scoring) with representative quotes within each theme, alongside table 4 and 5 detailing themes, sub themes and numbers of participants expressing experiences within these themes.

### **Findings**

### Demographic data

Mean age of participants in the high-score group (n=20) was 31.45 (range, 26-39) and low score group 33.45 (range, 28-41). To view characteristics, see *Table 3*.

### Table 3

### Group A-High trauma scoring group (score range 25-57)

Themes and subthemes from *Group A* are summarised in *Table 4*.

#### Table 4

### (A1) Overall, a negative recall

All 20 women spoke negatively about their birth experience and used words akin to *stressful* and *traumatic* when describing their story. The following 2 examples illustrate this:

It ended up being quite traumatic unfortunately (5, Part 1).

Eventually I got my daughter out, but it was very stressful (28, Part 2).

A range of factors underpinned *negative recall*, which included not having one's needs met.

### (A2) Missing Needs

Women spoke about factors that would have reduced their stress and fear during childbirth, which included loss of autonomy; being heard; and emotional and practical support as represented by the following sub themes of A2:

### (A2a) Autonomy

Across 15 women, examples of loss of autonomy included, not giving permission, being forced to, or forbidden to do things, feeling out of control, and having lack of choice. For example:

You lose all your autonomy. You are not asked for anything. You are not asked for permission. Nothing is explained to you actually... and in the long run you don't dare to say anything about it if someone is so dominant, that happens to you. That's pretty intense. I felt small and despondent. It didn't feel like our birth process at all (28, Part 1).

It all had to go faster than it was going. It didn't work. I eventually had to get out of the bath and back into bed. That was the last thing I wanted. I had also written that in my birth plan. If necessary, I will stand on my head, but I don't want to end up on my back in a bed. But I did! (4, Part 1).

# (A2b) Please listen to me and give it a try

Eight women perceived that little attempt was made to fulfil their wishes, which was accompanied by expressions of frustration about not being heard. For example:

I don't think they took a look at my birth plan. I don't know for sure of course, but I mean, there was no indication at all that they had read any of it (19, Part 1).

In my case I already had the feeling that things were not going well with our son.

What would have happened if they had listened then? (14, Part 2).

### (A2c) Adequate care professional emotional support

Lack of emotional support expressed by 15 women aroused considerable level of fear for the following woman:

There was no one who paid attention to my mental part or gave any explanation. That has created a lot of extra fear for both of us (28, Part 1).

### (A2d) Adequate care professional practical support

Lack of adequate practical support, expressed by 14 women, caused the following woman frustration:

Afterwards I understood from the gynaecologist that I should never have given birth alone with an obstetrician after a total rupture. I was sorry, because now it has happened again (6, Part 1).

### (A3) Disrupting my bubble

Ten women described how hard it was to stay in their bubble. During childbirth, *being in a bubble* is about creating a comfortable, secure, private, safe, space; where one can relax into the birthing process and follow intuition and allow physiological birth to unfold. It can be disrupted by attention being drawn towards external factors, as represented in the following subthemes:

### (A3a) Feeling unpleasant

Six women expressed unpleasant feelings like feeling unsafe or restless by sounds or care providers actions or talking. For example:

I actually didn't feel free and really comfortable during the whole birth...I was actually constantly busy with oh there's the midwife again, how does she look, what does she say? 'This isn't really getting along, is it'? And all those kinds of things she said. I noticed it but could not say anything. It was hard to stay in my bubble (4, Part 1).

### (A3b) <u>Too much interference by protocols</u>

Part of care provision involves following protocols designed to achieve greater safety for mother and baby. Eight women felt protocols interfered with their attempts to stay in their bubble, this woman expressed how prescribed actions interfered as follows:

There was too much interference with me, I had to do everything. I thought, leave me alone! Just leave me alone! I felt that things were going well, and I was convinced that our baby was doing well. There was no reason to initiate. Except for the 42-week limit. I also indicated that, can I just wait to the weekend? But no, protocols had to be followed (4, Part 1).

### (A4) Reduced awareness

Cognitive space for assimilating new information is reduced when women are in labour. Nine women remarked that their awareness of what was going on during labour was reduced, for example:

My body was so tired that after half an hour I just couldn't feel the contractions anymore. I no longer felt the pain. I no longer knew when I had them. I fell asleep (31, Part 1).

I don't have a clear memory...you are going in a kind of survival mode...yes, I know she came out of me, but that's about it (28, Part 1).

I still feel like it's not about me... I still feel like I am discussing a movie and not my own life. That all of that really happened to me (18, Part 2).

### (A5) How I feel physically

All women commented on their physical health, but only when specifically asked in Part 2 of the interview. Both positive and negative comments about physical recovery were made.

### (A5a) Quite well recovered

Nine women stated they experienced full physical recovery. For example:

I don't have any physical complaints anymore (4, Part 2).

In contrast, the remaining 11 experienced physical compromise.

# (A5b) Not 100% the old one yet

For 11 women, there was a delay in physical recovery, for example:

I'm still breastfeeding. I notice I'm not 100% the old one yet and need time to get there. It is still quite intensive physically (21, Part 2).

Emotional recovery was impacted by trauma symptoms as shown by theme A6.

### (A6) Experiencing PTSD

Trauma symptoms were described by 16 women.

### (A6a) Feeling guilty

Four women spoke of guilt. The following woman expressed guilt about avoiding intimacy:

It's impossible for me to talk about this without crying...My partner and I still haven't been intimate because I don't want to. I feel guilty about that too. It is very difficult to talk about this. Also, for my partner. He doesn't know how to support me. Because how do you explain it. Why do I feel this way? I really have no idea (40, Part 2).

### (A6b) Don't want to be reminded

Five women wished to avoid reminders. For one woman, reminders of childbirth triggered distress:

I still can't look back at the pictures that were made. Then I have to cry, because I can only think I missed that, as I wasn't there. As I had to go to the OR (Operating Room) (4, Part 1).

# (A6c) Feeling lonely and sad

Ten women stated that they felt emotionally sad. The following woman experienced fairly intense sadness post-childbirth:

One of my friends said, 'come on you have a healthy child, why are you so sad?' That hurt me a lot. That confirmed to me even more how happy I should be with a healthy baby. So, I kind of feel like my sadness shouldn't be there (40, Part 1).

### (A6d) Flashbacks

Five women experienced repeated recall of specific memories. The following woman was traumatised by being separated from her baby:

If I have to leave her somewhere, I get flashbacks of when I was driven away to the OR. I found that so difficult to leave her so quickly. She was just 10-minutes out of me and then I had to leave her alone already (10, Part 2).

### (A6e) Irritability

Two women spoke of irritability. The following woman became irritable when she engaged with a stimulating environment:

I am very easily overstimulated, e.g., I do not go to a supermarket. That is too much stimulation. I cannot handle that (12, Part 2).

## (A7) Needing help

Experiencing trauma symptoms prompted some women to reach out for help. This was primarily expressed during part 2 of the interview following more specific focus on current health. This is represented by the following subthemes:

## (A7a) Dysfunctioning

Seven women expressed a sense of dysfunction. The following woman sought out professional help:

Finally, I have got therapy to give it a place. To get some rest. That helped a lot so that's great (14, Part 2).

# (A7b) *Taboo*

In contrast to seeking help, twelve women felt prohibited from expressing negative thoughts, especially following a healthy outcome. The following woman perceived that it was taboo to be dissatisfied post-childbirth, especially when she had a healthy baby:

I thought 'enjoying? No!' If you say something, people don't get it. Then you try to explain it very carefully. And then you get a lot of misunderstanding, so just keep your mouth shut. After all, you have a healthy daughter. And if you hear that every time, you will at some point think 'you have a healthy daughter, don't complain, just don't say anything' (40, Part 1).

### (A7c) Let's face it

For six women, taking part in this study activated self-realisation that they were experiencing mental health symptoms. One woman stated that discussing her birth had facilitated self-understanding that she needed help:

Good for myself to tell the story again. The realisation that it has also been quite intense, and that I also have to allow myself to feel it and acknowledge that 'yes' I have to do something with it. You know that, but it is also that you think afterwards did I not exaggerate or was it perhaps not that intense, it might not be that bad. But it does have a lot of traumatic elements, especially because you completely lose control in a vulnerable position (28, Part 2).

In summary, the narratives of *Group A* women uncovered a consistent relationship between high trauma scores (25-57) and experiencing lower-quality birth experience. In contrast, *Group B* women's narratives illustrated the opposite.

# Group B-Low trauma scoring group (range 0-7)

Themes and subthemes from *Group B* are summarised in *Table 5* 

### Table 5

### (B1) Mostly positive recall

Seventeen of the women in *Group B* recalled their birth in a favourable way.

# (B1a) Overall, positive

These women used positive words to describe their birth:

I have never been so proud of my body that I could do this (15, Part 1).

I have experienced it as very magical and special. Very empowering (37, Part 1).

### (B1b) Could have been better

Three women raised negative elements. The following woman expressed transient negative thoughts about her birth experience:

It was a short and intense birth. The feeling I've been left with. It went the way it went (23, Part 1).

## (B2) Autonomy

Retaining autonomy was also a key element of experiencing a high-quality birth experience.

Autonomy is associated with being provided with choice and control as represent in the following themes.

# (B2a) Choice and control

Eleven women spoke about choice and control. The following woman perceived that having an active say contributed to her positive birth experience:

This birth I was in control. No interventions. No people lashing you. Midwife who, so to speak, was looking with arms crossed until it is ready (8, Part 2).

# (B2b) Partly in charge

Shared decision-making is necessary when obstetric complications exist. Eight women felt they had at least some control. The following woman recognised that autonomy was in-part possible:

I feel like I was able to make my own decisions where possible during my medical delivery. So I gave birth in bath, for example, I really wanted that. Despite the fact that I had to be on the monitor, that was still possible. And no pain relief either, which is what I wanted most (23, Part 2).

### (B3) Being cared for

A further element towards having a quality experience was feeling cared for. Being cared for involved receiving support, personal contact, and aftercare.

# (B3a) Supportive care professionals

Seventeen women highly valued receiving care provider support, particularly emotional support, for example:

This time my midwife and I had a mutual trust. It was an interaction. I think the most important thing is that I got the feeling that I could do it, because I had such an incredibly warm, sweet, gentle midwife next to me. She gave me the feeling that I could do it. I think that contributed very much to this very nice experience (9, Part 2).

# (B3b) Personal contact

Eight women spoke about personal contact. This woman expressed appreciation for personal contact:

This second pregnancy I was under the control of the hospital. I found the difference between the obstetric practice and the hospital check-ups really big. The midwife takes so much more time and makes it so much more personal than in the hospital. There you really are a number (7, Part 2).

## (B3c) Aftercare

Eight women valued aftercare. This woman explained how aftercare contributed to her positive birth experience:

Aftercare has helped... Doctors all came by again the next day to see how I was doing. Going through everything again. How it had gone exactly and why choices were made. That helped me a lot (7, Part 2).

### (B4) Intuition, instinct, and primal force

Listening to their body was also considered to be important. Following intuition and instinct were key elements of experiencing a quality experience.

## (B4a) Feeling what is right

Thirteen women recognised that trusting their 'gut feeling' was key as represented here:

My body, I just knew what needed to be done... I had her on my belly, and I was thinking about puppies. When they are born. That you have to rub their back to get them going. I also thought that with my daughter. She needs to be started and then she's there; and that was the case (38, Part 1).

I've experienced it with all 3-births. It's something natural and as long as you surrender to it, it goes as natural as possible. I always find that very nice. Nature really takes over. There is nothing more primal than that (33, Part 2).

### (B4b) Negative consequences protocols

Nonetheless, protocols can obstruct opportunity to follow intuition. Four women highlighted this, for example:

The stress I experienced was mainly related to not being able to give birth the way I wanted because of protocols of the hospital. So not 'may' take a shower, 'must' have a CTG. And therefore, fear of how the birth would proceed. With less freedom of movement and less room to dive into my own 'bubble' (17, Part 2).

### (B5) My health

A good birth experience may also contribute to good postnatal health. All women talked about their health, but only when specifically asked. Except one, who also talked about it in part 1.

## (B5a) Feeling good, maybe even better

Nine women felt the same or even better than before their pregnancy:

I'm not bothered by anything. No, I would rather say that this one has been healing on the previous birth (9, Part 2).

### (B5b) Not yet 100% the old one

Nine women felt they were not quite recovered. The following woman experienced both sexual and sleeping problems:

Not quite yet as before pregnancy, through sleepless nights. What I also notice is that it is sexually a bit of a search because it feels different physically. I also think this is something that is not often talked about (17, Part 2).

### (B5c) Realising negative feelings and emotions

Experiencing complications can raise a myriad of thoughts and emotions, noted by two women. Whilst reflecting upon her health, the following woman recognised powerful emotions:

I notice it is pretty intense to tell (30, Part 2).

In summary, the narratives of *Group B* women uncovered a consistent relationship between having low trauma scores (0-7) and experiencing a higher quality birth experience.

#### **Discussion**

Key themes that emerged from the data contained appreciably different content between the *Group A-High trauma scoring group* and *Group B-Low trauma scoring group*. Narratives related to birth experience from *Group A* were more negative (*Theme A1: Overall, a negative recall*), with many women talking about what they missed during childbirth (*Theme A2: Missing needs*) and what influenced their birth experience negatively (*Theme A3: Disrupting my bubble*). In contrast, *Group B* recalled more positive birth satisfaction (*Theme B1: Mostly positive recall*) and explained what contributed (*Theme B2: Autonomy; Theme B3: Being cared for; Theme B4: Intuition, instinct, and primal force*). Narratives related to health generated 4 further themes in *Group A* (*Theme A4: Reduced awareness; A5: How I feel physically; Theme A6: Experiencing PTSD; Theme A7: Needing help*), but only 1 further theme in *Group B* (*Theme B5: My health*). Notably, except when specifically asked in part 2 of the interview, all Group A women did not refer to their physical health, and all Group B women (except 1) did not speak about physical or mental health.

Findings sustain that feeling in control, being provided with (emotional) support, during and after birth, and having a high-quality relationship with caregiver are key components of promoting a more positive birth experience and which together help to reduce trauma, in keeping with Hodnett (2002), Waldenström et al. (2004), Larkin et al. (2012),

Hollander et al. (2017), Fontein-Kuipers et al. (2018), and Patterson et al. (2019). Findings suggest that unless asked specifically those with a high trauma score related a primary focus on their mental health, while those with a low trauma score spoke little of their health at all.

Our findings should alert health care professionals to be vigilant towards recognising that women who report negative birth satisfaction may also be experiencing trauma. Per se, when a negative birth experience is reported, we are recommending that both a trauma (e.g., PCL-5; Weathers et al., 2013) and a birth satisfaction scale (e.g., BSS-R; Hollins Martin & Martin, 2014) are issued. Also, further research is required to test associations between the two, especially at 1-6 months postpartum when prevalence of PTSD increases. Ordinarily, postnatal care ends long before this 6-month time-point, with greater vigilance recommended (Yildiz et al., 2017). Given the observed relationship between low birth satisfaction and high levels of birth trauma (Emmens et al., 2021), screening and responsive treatment could help reduce risk of postnatal women developing mental health problems. Also, teaching women to self-identify trauma symptoms and their relationship with negative perceptions of childbirth, and where to seek-out help is important. Similarly, healthcare professionals should be mindful that postnatal women, particularly those with high trauma scores may not associate links between their mental and physical health and so may not know to seek help. Adding to the curriculum of parenthood education classes, discussing at antenatal clinics, and reporting in leaflets, magazines, journals, and on-line resources could be of value. Furthermore, building a trusting relationship between care provider and childbearing mother may facilitate ongoing conversations regarding health and enable women to seek for help.

Results from this study also underscore the importance of prevention, with maternity care providers also being taught what promotes a positive birth experience and what prevents psychological trauma from developing. Good intranatal care involves care providers being alert to the needs of woman during labour and providing them with choice, continuity, and control (Renfrew et al., 2014). Quality care provision involves listening to women's individualised needs, providing emotional support, accommodating birth-plans, and minimising unnecessary intervention (Hollins Martin & Martin, 2014). Also, childbearing

woman should be encouraged to listen to their intuition and 'find their bubble', which will promote autonomy and feelings of being in control.

Encouraging women to express their needs should begin at antenatal booking, alongside promotion of birth planning (Hollins Martin, 2008) and accommodation of individualised needs, which is often easier at home. Women who experience 'home birth' report higher birth satisfaction compared with those who deliver in hospital (Handelzalts et al., 2016; Hitzert et al., 2016). Comparatively, home births are relatively high in the Netherlands, with Perined (2020) reporting that 12.7% of Dutch women give birth at home. In our study, 45% of women in *Group B-Low trauma scoring group* gave birth at home, compared with 5% in the *Group A-High trauma scoring group*. Birth satisfaction is reported to be lower when women have interventions, such as forceps, vacuum delivery, or caesarean section (Carquillat et al., 2016). In our study, 85% of the *Group B-Low trauma scoring group* women had spontaneous vaginal deliveries, compared with 40% in the *Group A-High trauma scoring group*, which supports the idea that high levels of intervention are associated with trauma symptomology.

### **Limitations and Strengths**

Generalisability of our findings is limited because participants were Dutch, with results potentially different to other ethnic groups. Also, no data was gathered about mediating variables, such as socioeconomic factors, coping strategies, and/or prior trauma.

#### Conclusion

This paper reports an analysis of qualitative data, which through comparisons of narratives between a 'high trauma scoring group' (A) and a 'low trauma scoring group' (B) post childbirth has explored associations between birth satisfaction and postpartum psychological trauma. Narratives appreciably differ between groups. Reports of birth satisfaction from Group A were more negative than Group B, alongside a strong focus on mental health experience. Within Group B narratives reflected factors reported to affect birth satisfaction

positively, including feeling in control, high levels of support, meaningful relationships with care providers, and being able to listen to their intuition and 'find their bubble'.

These findings reflect the pivotal role of care providers in facilitating birth satisfaction and therefore reducing *PP-PTSD*. Furthermore, the findings highlight the need for postnatal follow-up to assess trauma and birth satisfaction; alongside women's perceptions of mental and physical health and need for help. These findings are in keeping with the *Continuity of Care Model*, which advocates one midwife to one woman, which has consistently been associated with improved outcomes of spontaneous births and reduced interventions during labour (Renfrew et al., 2014; Sandall et al., 2016). The trusting relationship often built within such a model may also facilitate ongoing conversations regarding health.

### **Declaration of Competing Interest**

None declared.

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#### References

- American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of mental disorders: DSM-5™* (5th ed.). American Psychiatric Publishing, Inc. https://doi.org/10.1176/appi.books.9780890425596
- Ayers, S. (2004). Delivery as a traumatic event: Prevalence, risk factors, and treatment for postnatal posttraumatic stress disorder. *Clinical Obstetrics and Gynecology, 47*(3), 552-567. doi: 10.1097/01.grf.0000129919.00756.9c
- Ayers, S., Bond, R., Bertullies, S., & Wijma, K. (2016). The aetiology of post-traumatic stress following childbirth: a meta-analysis and theoretical framework. *Psychological Medicine*, *46*(6), 1121-1134. doi: 10.1017/S0033291715002706
- Ayers, S., & Ford, E. (2016). Posttraumatic stress during pregnancy and the postpartum period. In A. Wenzel. (Ed.). *The Oxford handbook of perinatal psychology* (pp.182-200). Oxford University Press.
- Bastos, M.H., Furuta, M., Small, R., McKenzie-McHarg, K., & Bick, D. (2015). Debriefing interventions for the prevention of psychological trauma in women following childbirth. *Cochrane database of systematic reviews*, (4), Article CD007194. https://doi.org/10.1002/14651858.CD007194.pub2
- Beck, C.T. (2004a). Birth trauma: In the eye of the beholder. *Nursing Research*, *53*, 28–35. doi: 10.1097/00006199-200401000-00005
- Beck, C.T. (2004b). Post-traumatic stress disorder due to childbirth: the aftermath. *Nursing* research, 53(1), 28-35. doi: 10.1097/00006199-200401000-00005

- Boeschoten, M.A., Bakker, A., Jongedijk, R.A., & Olff, M. (2014). PTSD checklist for the DSM-5 (PCL-5) *Nederlandstalige versie Uitgave. Diemen*, The Netherlands: Arq Psychotrauma Expert Groep.
- Boorman, R.J., Devilly, G.J., Gamble, J., Creedy, D.K., & Fenwick, J. (2014). Childbirth and criteria for traumatic events. *Midwifery*, *30*(2), 255-261. https://doi.org/10.1016/j.midw.2013.03.001
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology, 3*(2), 77-101. https://doi.org/10.1191/1478088706qp063oa
- Carquillat, P., Boulvain, M., & Guittier, M.J. (2016). How does delivery method influence factors that contribute to women's childbirth experiences? *Midwifery*, *43*, 21-28. https://doi.org/10.1016/j.midw.2016.10.002
- Emmens, B., Hollins Martin, C.J., & Martin, CR. (2021). Translation and validation of the Dutch version of the Birth Satisfaction Scale-Revised (BSS-R). *Journal of Reproductive and Infant Psychology*, *18*, 1-15. https://doi.org/10.1080/02646838.2021.1979200
- Fontein-Kuipers, Y., Koster, D., & Romijn, C. (2018). I-POEMS–Listening to the voices of women with a traumatic birth experience. *J Psychol Cognition*, *3*(2), 29-36.
- Garthus-Niegel, S., Ayers, S., Martini, J., von Soest, T., & Eberhard-Gran, M. (2017). The impact of postpartum post-traumatic stress disorder symptoms on child development: a population-based, 2-year follow-up study. *Psychological Medicine, 47*(1), 161-170. https://doi.org/10.1017/S003329171600235X

- Gottvall, K., 7 Waldenström, U. (2002). Does a traumatic birth experience have an impact on future reproduction?. *BJOG: An International Journal of Obstetrics & Gynecology, 109*(3), 254-260. https://doi.org/10.1111/j.1471-0528.2002.01200.x
- Grekin, R., & O'Hara, M.W. (2014). Prevalence and risk factors of postpartum posttraumatic stress disorder: a meta-analysis. *Clinical Psychology Review, 34*(5), 389-401. https://doi.org/10.1016/j.cpr.2014.05.003
- Handelzalts, J.E., Zacks, A., & Levy, S. (2016). The association of birth model with resilience variables and birth experience: Home versus hospital birth. *Midwifery, 36*, 80-85. https://doi.org/10.1016/j.midw.2016.03.005
- Harrison, S.E., Ayers, S., Quigley, M.A., Stein, A., & Alderdice, F. (2021). Prevalence and factors associated with postpartum posttraumatic stress in a population-based maternity survey in England. *Journal of Affective Disorders*, 279,749-756.

  https://doi.org/10.1016/j.jad.2020.11.102
- Hitzert, M., Hermus, M.A., Scheerhagen, M., Boesveld, I.C., Wiegers, T.A., van den Akker-van, M.E., van dommelen, P., van der Pal-de Bruin, K.M. & de Graaf, J.P. (2016). Experiences of women who planned birth in a birth centre compared to alternative planned places of birth. Results of the Dutch Birth Centre Study. *Midwifery*, 40, 70-78. https://doi.org/10.1016/j.midw.2016.06.004
- Hodnett, E.D. (2002). Pain and women's satisfaction with the experience of childbirth: a systematic review. American Journal of Obstetrics and *Gynaecology*, *186*(5), S160-S172. doi: 10.1067/mob.2002.121141

- Hollander, M.H., van Hastenberg, E., van Dillen, J., van Pampus, M.G., de Miranda, E., & Stramrood, C.A.I. (2017). Preventing traumatic childbirth experiences: 2192 women's perceptions and views. *Archives of women's mental health, 20*(4), 515-523. https://doi.org/10.1007/s00737-017-0729-6
- Hollins Martin, C.J. (2008). Birth planning for midwives and mothers. *British Journal of Midwifery,* 16(9), 583-587. https://doi.org/10.12968/bjom.2008.16.9.30881
- Hollins Martin, C.J., & Fleming, V. (2011). The birth satisfaction scale. *International journal of health* care quality assurance, 24(2),124-35. https://doi.org/10.1108/09526861111105086
- Hollins Martin, C.J., & Martin, C.R. (2014). Development and psychometric properties of the Birth Satisfaction Scale-Revised (BSS-R). *Midwifery*, *30*(6), 610-619. https://doi.org/10.1016/j.midw.2013.10.006
- Larkin, P., Begley, C.M., & Devane, D. (2012). 'Not enough people to look after you': an exploration of women's experiences of childbirth in the Republic of Ireland. *Midwifery*, *28*(1), 98-105. https://doi.org/10.1016/j.midw.2010.11.007
- Murray, L., Cooper, P., & Hipwell, A. (2003). Mental health of parents caring for infants. *Archives of Women's Mental Health*, *6*(2), s71-s77. https://doi.org/10.1007/s00737-003-0007-7
- Nicholls, K., & Ayers, S. (2007). Childbirth-related post-traumatic stress disorder in couples: A qualitative study. *British journal of health psychology, 12*(4), 491-509. https://doi.org/10.1348/135910706X120627.
- Patterson, J., Hollins Martin, C.J., & Karatzias, T. (2019). Disempowered midwives and traumatised women: Exploring parallel processes of care provider interaction that contribute to women

- developing Post Traumatic Stress Disorder (PTSD) post childbirth. *Midwifery*, *76*, 21-35. https://doi.org/10.1016/j.midw.2019.05.010
- Perined, (2020). Perinatale zorg in Nederland anno 2019: landelijke perinatale cijfers en duiding,

  Utrecht. [cited 2021 Dec 1].: https://assets.perined.nl/docs/aeb10614-08b4-4a1c-9045
  8af8a2df5c16.pdf
- Renfrew, M.J., McFadden, A., Bastos, M.H., Campbell, J., Channon, A.A., Cheung, N.F., Silva, D.R.A.D., Downe, S. Kennedy, H.P., Malata, A. McCormick, F., Wick, L., & Declercq, E. (2014). 'Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care'. *Lancet*, 384(9948), 1129-45. https://doi.org/10.1016/S0140-6736(14)60789-3
- Sandall, J., Soltani, H., Gates, S., Shennan, A., & Devane, D. (2016). Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database Systematic*\*Reviews, (4), Article CD004667 https://doi.org/10.1002/14651858.CD004667.pub5
- Skvirsky, V., Taubman–Ben-Ari, O., Hollins Martin, C.J., & Martin, CR. (2019). Validation of the Hebrew Birth Satisfaction Scale–Revised (BSS-R) and its relationship to perceived traumatic labour. *Journal of reproductive and infant psychology, 38*(2), 214-220. https://doi.org/10.1080/02646838.2021.1979200
- Slade, P. (2006). Towards a conceptual framework for understanding post-traumatic stress symptoms following childbirth and implications for further research. *Journal of Psychosomatic Obstetrics & Gynecology*, 27(2), 99-105. https://doi.org/10.1080/01674820600714582

- Waldenström, U., Hildingsson, I., Rubertsson, C., & Rådestad, I. (2004). A negative birth experience: prevalence and risk factors in a national sample. *Birth, 31*(1), 17-27. https://doi.org/10.1111/j.0730-7659.2004.0270.x
- Weathers, F.W., Litz, B.T., Keane, T.M., Palmieri, P.A., Marx, B.P., & Schnurr, P.P. (2013). The PTSD Checklist for DSM-5 (PCL-5). *National Center for PTSD*https://www.ptsd.va.gov/professional/assessment/adult-sr/ptsd-checklist.asp
- Williams, C., Taylor, E.P., & Schwannauer, M. (2016). A web-based survey of mother–infant bond, attachment experiences, and metacognition in posttraumatic stress following childbirth. *Infant Mental Health Journal*, *37*(3), 259-273. https://doi.org/10.1002/imhj.21564
- Yildiz, P.D., Ayers, S., & Phillips, L. (2017). The prevalence of posttraumatic stress disorder in pregnancy and after birth: A systematic review and meta-analysis. *Journal of affective disorders*, 208, 634-645. https://doi.org/10.1016/j.jad.2016.10.009

Table 1

PCL-5 Severity Scores (N=40) Including How Long After Birth PCL was Completed.

High score (25-57) group (n=20)			Low score (0-7) group (n=20)			
Participant		No. days after	Participant		No. days after	
reference	PCL-5	birth PCL	reference	PCL-5	birth PCL	
	score	completed		score	completed	
4	41	539	1	0	176	
5	31	88	2	0	46	
6	31	166	3	2	161	
10	35	155	7	2	91	
11	42	760	8	3	31	
12	52	311	9	0	653	
13	35	42	15	3	283	
14	44	110	17	3	40	
16	36	49	22	4	149	
18	47	249	23	4	110	
19	40	107	25	7	75	
20	29	325	26	5	132	
21	25	103	27	1	135	
24	57	181	29	4	62	
28	26	42	30	6	67	
31	31	61	32	0	127	
34	31	57	33	0	347	
35	31	166	37	5	490	
36	45	222	38	5	424	
40	35	84	39	7	119	
Mean	37.2	190.85	Mean	3.05	185.90	

Table 2

Phases of Thematic Analysis (adapted from Braun & Clarke, 2006)

Phase		Description of the process			
1	Familiarising yourself with the data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.			
2	Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.			
3	Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.			
4	Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.			
5	Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.			
6	Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research questions and literature, producing a scholarly report of the analysis.			

Table 3

Group Characteristics

	Group high score (25-57)	Group low score (0-7)
	n (%)	n (%)
First child	13 (65%)	5 (25%)
Place of birth		
Hospital	18 (90%)	11 (55%)
Home	1 (5%)	9 (45%)
Birth Centre	1 (5%)	0 (0%)
Mode of birth		
Vaginal	8 (40%) *	17 (85%)
Assisted vaginal	7 (35%) *	1 (5%)
Elective caesarean	2 (10%)	0 (0%)
Emergency caesarean	4 (20%)	2 (10%)

<sup>\*</sup>Twins: 1 baby vaginal birth, 1 baby assisted vaginal birth.

Table 4

Themes and Subthemes from Group A High Trauma Scoring Group (Range 25-57; N=20)

Part 1 (open interview)		Part 2 (semi-structured interview)		
Theme	n (%)	Participant's reference	n (%)	Participant's reference
(A1) Overall, a negative recall	<u> </u>	•	<u> </u>	•
(A1a) Overall, a negative recall	20 (100%)	4,5,6,10,11,12,13,14,16,18,19,20,		4,5,6,10,11,12,13,14,16,18,19,2
		21,24,28,31,34,35,36,40	20 (100%)	0,21,24,28,31,34,35,36,40
(A2) Missing needs				
(A2a) Autonomy	11 (55%)	4,5,10,12,13,16,18,19,28,35,36	11 (55%)	4,5,6,10,11,19,28,31,35,36,40
(A2b) Please listen to me and give it a try	7 (35%)	4,14,16,19,28,35,31	3 (15%)	4,14,36
(A2c) Adequate care professional emotional support	12 (60%)	4,11,13,14,16,19,20,21,24,28,35, 36	11 (55%)	4,11,13,16,18,19,20,28,31,36,40
(A2d) Adequate care professional practical support	11 (55%)	6,10,11,13,14,16,19,20,24,28,34	11 (55%)	5,6,10,11,13,14,16,19,20,31,40
(A3) Disrupting my bubble				
(A3a) Feeling unpleasant	4 (20%)	4,16,19,28	4 (20%)	4,16,20,31
(A3b) Too much interference by protocols	7 (35%)	4,13,16,19,34,35,40	7 (35%)	4,16,19,28,34,35,40
(A4) Reduced awareness				
(A4a) Reduced awareness	6 (30%)	5,10,18,19,28,31	5 (25%)	5,6,18,24,40
(A5) How I feel physically				
(A5a) Quite well recovered	0 (0%)		9 (45%)	4,6,10,13,16,24,28,31,34
(A5b) Not 100% the old one yet	0 (0%)		11 (55%)	5,11,12,14,18,19,20,21,35,36,40
(A6) Experiencing PTSD				
(A6a) Feeling guilty	4 (20%)	11,18,35,40	2 (10%)	35,40
(A6b) Don't want to be reminded	1 (5%)	4	4 (20%)	12,18,31,40
(A6c) Feeling lonely and sad	4 (20%)	16,24,36,40	9 (45%)	11,13,19,21,24,28,31,36,40
(A6d) Flashbacks	3 (15%)	4,11,13	2 (10%)	5,10
(A6e) Irritability	1 (5%)	40	1 (5%)	12
(A7) Needing help				
(A7a) Dysfunctioning	3 (15%)	4,5,14	6 (30%)	5,12,13,14,18,19
(A7b) Taboo	6 (30%)	4,5,18,20,21,40	10 (50%)	4,5,10,11,13,14,20,28,35,40
(A7c) Let's face it	0 (0%)		6 (30%)	11,21,28,31,36,40

Table 5

Themes and Subthemes from Group B Low Trauma Scoring Group (Range 0-7; N=20)

	Part 1 (open interview)		Part 2 (semi-structured interview)	
Theme	n (%)	Participant's reference	n (%)	Participant's reference
(B1) Mostly positive recall				
(B1a) Overall, positive	17 (85%)	1,2,7,8,9,15,17,22,25,26,27,29,32, 33,37,38,39	17 (85%)	1,2,7,8,9,15,17,22,25,26,27,29,32, 33,37,38,39
(B1b) Could have been better	3 (15%)	3,23,30	3 (15%)	3,23,30
(B2) Autonomy				
(B2a) Choice and control	8 (40%)	1,2,8,9,15,26,38,39	11 (55%)	1,2,8,9,15,22,25,26,33,38,39
(B2b) Partly in charge	3 (15%)	7,30,37	7 (35%)	3,7,23,25,27,32,37
(B3) Being cared for				
(B3a) Supportive care professionals	11 (55%)	1,2,7,8,9,15,22,25,33,38,39	17 (85%)	1,2,3,7,8,9,15,17,22,23,25,26,27,3 2,33,38,39
(B3b) Personal contact	3 (15%)	17, 30, 39	7 (35%)	7,22,25,30,32,37,39
(B3c) Aftercare	2 (10%)	26,38	7 (35%)	1,3,7,15,27,30,38
(B4) Intuition, instinct, and primal force	,		,	
(B4a) Feeling what is right	6 (30%)	1,7,8,27,37,38	12 (60%)	1,3,7,8,25,26,27,30,32,33,38,39
(B4b) Negative consequences protocols	3 (15%)	1,8,17	3 (15%)	8,17,22
(B5) My health				
(B5a) Feeling good, maybe even better	0 (0%)		9 (45%)	1,2,3,7,8,9,15,25,39
(B5b) Not yet 100% the old one	0 (0%)		9 (45%)	17,22,26,27,29,32,33,37,38
(B5c) Realising negative feelings and emotions	1 (5%)	30	2 (10%)	23,30