

# Postpartum Hemorrhage (PPH): A "rugged" childbirth

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## Background

Postpartum bleeding, otherwise known as postpartum hemorrhage (PPH), is defined by the World Health Organization as "an original uterine bleeding, occurring within 24 hours of delivery and responsible of a blood loss estimated between at least 500 ml and 1000 ml respectively for a vaginal delivery or a cesarean. "

It remains the main cause of maternal mortality in France and in industrialized countries. In most cases, It is an unpredictable and therefore sudden and unexpected event for the woman, her partner, their infant but also for the maternity professionals.

Some recent studies (Thompson JF. And coll, 2011 Sentilhes L. and coll, 2011 Ricbourg. A et al, 2015) have examined the psychological repercussions of postpartum hemorrhage. However, only a few have focused on evaluating the consequences of PPH on mother-infant interaction through maternal speech. Thus, we propose to assess the impact of postpartum bleeding on women and mother-infant relationship in the case of a cesarean section.

## Methodology

Our methodology is based both on:

- **Qualitative datas** with semi-structured interviews with women 1 month and 3 months after their childbirths.
- **Quantitative datas** with questionnaires assessing symptoms of post traumatic stress (IES-R), depression (EPDS) and anxiety (Spielberger) also filled 1 month and 3 months after their delivery.

## Population

Our population is a cohort of 31 patients enrolled in a study cases / controls (Ricbourg. A et al, 2015) in a Parisian hospital specifically taking care of PPH. This cohort was reduced to 4 women who experienced postpartum hemorrhage after cesarean section. The results are compared to those of four women in a control group who experienced cesarean delivery without PPH.

Group	Average Age	Emergency Caesarean	Planned cesarean section	
PPH + cesarean section	32,25	3	1	First pregnancy: 2 Second pregnancy: 1 Third pregnancy: 1
cesarean section without PPH	34,5	2	2	First pregnancy: 2 Second pregnancy: 1 Third pregnancy: 1

## Results

### Symptoms of posttraumatic stress disorder (IES-R)



1 month after childbirth, a traumatic psychopathology appears to be stronger for mothers who had a Caesarean section followed by PPH with significant post-traumatic stress disorder (Avg : 31.25 > 30 significance level), while the average is 27 for women in the control group.

### Qualitative results:

- 3 out of 4 mothers who had a Caesarean and PPH experience have a sleep disorder with nightmares on their hemorrhage:

« I was in the operating room or I'm bleeding in my bed... I go in : he (her baby) will die or I will" ; " A little on... : "you will die next week"»

- All women who have experienced PPH were afraid for their lives:  
« I felt that I was dying... This was the most difficult period. (...) I was afraid not to see my husband and my son again. (...) I kept saying: « I'm going to die! I'm going to die " »

- The experience of PPH seems to be an important traumatic threat, also because patients went through old traumas again:

« It reminds me of my mother's death. (...) She committed suicide»

«It really reminded me about my heart operations»

One of the mothers thought back a lot about the MTP (Medical Termination of Pregnancy) she lived 2 years ago

« I reminded my father's accident, 3 years or more... 4 years ago... He is half paralyzed (...) there was blood coming out of his head »

### Symptoms of depression (EPDS)



1 month after giving birth, patients who underwent PPH have fewer depressive symptoms (Avg : 11) than the control group with a significant score (14.75 > 12 -significance level).  
3 months after birth, women who have experienced PPH are less depressed than the control group despite lower scores

### Qualitative results

- For mothers who experienced a cesarean and PPH, it seems that the traumatic experience crush the other symptoms (they also appear less anxious at the Spielberger state-trait anxiety inventory (STAI)). Indeed, mothers link more their state of sadness to their traumatic experience than to the upheaval of giving birth:

« I am sad but because I am concerned about bleeding again. I cry a few minutes when I feel really anxious»

« I cry a lot, I 'm stressed, anxious, tired, and it's a little bit hard to think»

« I feel a bit like a special case (laughs) I feel sad yes... but it's more the feeling of loneliness that is related to sadness»

- On their side, the mothers from the control group make more references to the impact of their cesarean delivery (bad experience of the announcement of the caesarean section):

« My only regret is that I have not given birth like all the women do»

« I feel like I missed something »

« We were not together, the baby has been working on his side and I couldn't help him. It is true that it's ...I've been feeling bad about my caesarean because of that»

### Mother-infant interaction across maternal speech

- 3 of 4 women who have experienced PPH describe their baby as an easy-going, calm, like a perfect baby:

« He sleeps, he drinks, when we put him down he plays...Really, he's a great baby» « When I'm in the room, he is only here for me, it makes me feel good » ; « I don't regret I had to go through that (PPH), finally I have a wonderful baby »

- While in the control group, these women seem to express more their difficulties to be a mother: « I am often anxious, I often feel that I don't do things well » ; « I start feeling frustrated when he starts crying » ; « I am making efforts, I always try to be up »

« I cried for any reason, I felt overwhelmed, I had to get to know my baby »

## Conclusions

- Despite a small sample that moderates our conclusions, these 4 cases illustrate the traumatic potential of PPH regardless of the type of delivery (in terms of trauma).
- The experience of PPH emerged as an important traumatic threat, not only because of the situation in itself (the fear of dying), but also because of the revival of old traumas.
- Mothers who experienced PPH have fewer symptoms of postpartum depression than mothers in the control group. Trauma seems to take over "ordinary" depressive reactions. The life drives are thus given priority to in order to fight back the death anxiety they had to face because of PPH.
- These mothers recognize the benefits of such research interviews. Therefore, this study allows us to consider the establishment of a specific psychological care for these women.