

The Fact and the Fiction: A prospective study of internet forum discussions on vaginal breech birth

ABSTRACT

Background

Women with a breech baby late in pregnancy may use the internet to gather information to assist in decision-making for birth. The aim of this study was to examine how women use English language internet discussion forums to find out information about vaginal breech birth and to increase understanding of how vaginal breech birth is perceived among women.

Method

A descriptive qualitative study of internet discussion forums was undertaken. Google alerts were created with the search terms "breech birth" and "breech". Alerts were collected for a one-year period (January 2013 to December 2013). The content of forum discussions was analysed using thematic analysis.

Results

A total of 50 forum discussions containing 382 comments were collected. Themes that arose from the data were: *Testing the waters-which way should I go?; Losing hope for the chance of a normal birth; Seeking support for options-who will listen to me?; Considering vaginal breech birth-a risky choice?; Staying on the 'safe side'- caesarean section as a guarantee; Exploring the positive potential for vaginal breech birth.*

Conclusion

Women search online for information about vaginal breech birth in an attempt to come to a place in their decision-making where they feel comfortable with their birth plan. This study highlights the need for clinicians to provide comprehensive, unbiased information on the risks

23 and benefits of all options for breech birth to facilitate informed decision-making for the woman.
24 This will contribute to improving the woman's confidence in distinguishing between "the fact and
25 the fiction" of breech birth discussions online.

26

27 **Keywords:** vaginal breech birth; decision-making; information; internet

28 **Introduction**

Problem
Vaginal breech birth remains a rare option for birth. It can be difficult for women to find information to assist them with their decision-making when exploring the potential for a vaginal breech birth.
What is Already Known
Pregnant women turn to online communities to seek information about birth in general. These interactions can have a significant impact on pregnant women in their decision making around birth.
What this Paper Adds
Women are searching for information online about vaginal breech birth. There is a need for clinicians to provide comprehensive, non-judgmental information on the risks and benefits of all birth options for women with a breech presentation.

29

30 Breech presentation occurs in 3-5% of pregnant women at the end of their pregnancy ¹.

31 Caesarean sections (CSs) are widely regarded as the default option for birth of a breech baby,

32 with worldwide trends showing only a small number of breech babies being born vaginally ².

33 Data on the percentage of women with breech babies who seek planned vaginal birth is limited,

34 however in Australia, 2013 data shows that of the 13, 617 babies who were diagnosed breech

35 at term (4.4% of all babies born), 88% were delivered by CS³. This trend is echoed across a

36 number of developed countries ⁴⁻⁶. The small number of vaginal breech births (VBBs) can most

37 likely be attributed to a large international randomised control trial conducted in 2000, known as

38 the Term Breech Trial, which concluded that planned CS is the safest mode of birth for babies in

39 the breech position ⁷. Following this Trial, CSs increased significantly and the number of

40 clinicians skilled in facilitating VBBs decreased to almost non-existent levels in many countries ⁵,

41 ^{8, 9}. Subsequent research and systematic reviews have also been released since the TBT

42 reinforcing the Trial's results^{10, 11}, with one study noting that VBB carries a two to five fold

43 greater relative risk of short term morbidity and mortality than CS⁵.

Support for the option of VBB is based on significant research demonstrating the safety of VBB for carefully selected women with the appropriate care and expertise^{2, 5, 8, 12, 13}. Additionally, long term outcomes of babies born via VBB or CS have been shown to be similar¹⁰, and a recent meta-analysis has demonstrated that the absolute risks of VBB is lower than previously indicated⁵. The existence of guidelines and recent research that supports VBB in selected cases also indicates that there is some potential for women to explore this birth option in facilities that have staff with the relevant clinical expertise¹⁴⁻¹⁷.

Despite this recent evidence and clinical guidelines supporting planned VBB in selected cases, this option for birth remains rare with lack of clinician skill being cited as a major factor for the limited opportunity to birth a breech baby vaginally^{8, 12, 18, 19}. As a result, most women with a known breech baby have a planned CS^{2, 9}, however there are a small number of women who seek out the potential for VBB^{9, 20}. Given the limited number of clinicians skilled in VBB, it can be difficult for women to find information to assist them with their decision-making^{16, 20}.

Several researchers have observed that some pregnant women turn to online communities to network with other pregnant women, seek information on their pregnancy and share their experiences²¹⁻²⁴. The information found in these online communities can have a significant impact on pregnant women in their decision-making around birth. This study adds to the growing body of research on health information seeking on the internet and the way in which this informs patient decision-making on personal health matters^{22, 25-29}. While existing research has demonstrated discussion with communities online can be positive tool for women's decision-making during pregnancy, this method of information gathering has also been criticised for "scare mongering" due to misrepresentation of information or misinformation^{27, 30}.

Given the widespread use of the internet for gathering information, and the lack of options around VBB, it is likely that women finding themselves with a breech baby may turn to the internet for support and information. No studies exist that explore the ways in which women discuss VBB online. Therefore, the aim of this study was to examine how women use English language internet chat forums to discuss the option of VBB and to increase understanding in how VBB is perceived in these online communities. It is hoped the findings will support clinicians to adequately address women's concerns and tailor evidence based information that supports women's decision making for planned VBB.

Methods

A qualitative descriptive study using internet discussion forums as the source of data was undertaken. This method was considered an appropriate choice for this study as it is a technique used to collect and analyse data in areas where there is little knowledge^{23, 31}. It is the preferred approach when a description of phenomena is required to capture experiences and breadth of knowledge on any given topic prior to subsequent theoretical development and testing of the data³². The data gathered in this study were likely to provide a rich source of discourse amenable to this analysis approach.

84

85 **Data collection**

86 Data were gathered over a 12 month period to explore freely available Australian and
87 international internet forums discussing breech birth. Google was used for this study as it
88 enabled gathering data that could be tailored to the specific needs of the researcher. Google
89 allowed the option to gather data by permitting the entry of the desired search terms into an
90 “alerts” option, whereby emails could be forwarded to a selected email address containing
91 websites that mentioned the selected search terms. Alerts were created to search for the term
92 “breech” and “breech birth” on the internet from 1/1/2013 to 31/12/13. For this study, additional
93 information was also requested, such as the type of information required (e.g. news, web or
94 groups), how often it was required (e.g. once a day, as-it-happens) and language (English).

95 Once the “alert” was created, an email was sent to the named contact that confirmed the
96 request. Emails were subsequently sent to the nominated email address at the requested time
97 intervals containing hyperlinks to articles that were identified as containing the requested terms.
98 For this study, the alerts were received on a daily basis by the first author and filed for analysis
99 at the end of the data gathering period. Each of the discussion forum links received during the
100 one-year period were accessed, read and saved according to the month received.

101 Based on the experience of similar research, ethical approval was not sought as the data from
102 the internet discussion forums being studied are in the public domain and fully accessible and
103 no human participants were directly contacted^{23, 33, 34}. All internet forums used as data for this
104 research were open for all to comment and were not password protected. Internet forums can
105 facilitate intimate discussion, yet they are publically available. This can be challenging for the
106 researcher when designing such studies, as it should be ensured the data gathered contain
107 appropriate protections for human subjects³⁵. For the purposes of anonymity, website details in

this study have been removed and no names have been provided. Eastham (2011) describes online discussions forums located via a search engines as public information which is open to the response of others, while password protected or member sites are seen as less open forums that are more restricted and private in nature. This study avoided password protected sites as the researchers felt this would be misrepresenting our intentions and invading the privacy of group members²³.

Data analysis

Thematic analysis was used to analyse the data ³⁶. Thematic analysis involves repeated reading of text, facilitating identification of main concepts, categories or themes that reveal themselves in the data. This method has been used previously in similar research on internet forum discussions ^{23, 34} and involves immersion in the data to gain an understanding of the “feel” of what forum participants were saying and to identify meaningful statements. The lead author grouped statements to form preliminary concepts, with common and contrasting views identified in the data. These concepts were coded and eventually named as the themes that are reported as the results of this analysis³⁶⁻³⁹.

A second and third researcher critiqued the initial findings and themes, which allowed for further refinement of the results. This process supported researcher reflexivity by facilitating reflection and acknowledgement of any bias or personal beliefs ⁴⁰. Involving other researchers was considered to increase the face validity of the findings ²³.

Results

A total of 50 “discussion threads” were collected from 1/1/2013 to 31/12/13 which consisted of 382 separate comments. Approximately 10% (n=31) of comments were from women who provided multiple comments with the remainder of women providing one comment only. The forums did not always allow for identification of the woman’s country of origin, therefore it was

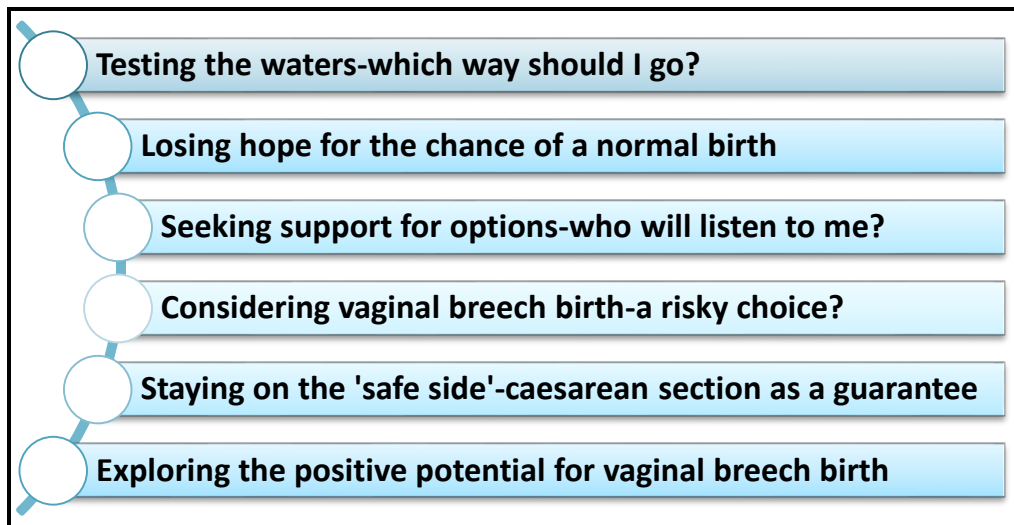
not possible to analyse by country, however website addresses were based in the UK, USA, Canada and Australia. This may have been due to the fact that the data search was limited to English sites only. While many of those who commented were pregnant women seeking advice, clinicians identified themselves on two occasions and provided advice and information.

The forums were all public web pages with a focus on childbirth and parenting related content. Some were run independently while others contained sponsored content. The discussion threads led with a question from one woman seeking information and others' views on VBB. Women making the initial approach to forum discussions with a leading question made up approximately 20% (n=70) of all comments gathered. An initial question on a forum denoted the commencement of a "discussion thread" for that particular question. Some of the threads were brief, with only 2 or 3 respondents to the initial question, while others contained a higher number of responses that created ongoing discussion between participants (i.e. longer threads). Facebook pages did not feature strongly in the data gathered (23 comments only). It is likely that this is due to many of these pages belonging to "closed groups", where permission is required to join and the content is therefore not freely available to the public.

Six themes that arose out of the data were: *Testing the waters-which way should I go?*; *Losing hope for the chance of a normal birth*; *Seeking support for options-who will listen to me?*; *Considering vaginal breech birth-a risky choice?*; *Staying on the 'safe side' - caesarean section as a guarantee*; *Exploring the positive potential for vaginal breech birth (Figure 1).*

156 **Figure 1**

157 **Key themes: The Fact and the Fiction: Internet forum discussions on vaginal breech birth**



158

159 **Testing the waters-which way should I go?**

160 Women turned to online forums to hear the stories of other women's experience of their baby
161 presenting as breech late in pregnancy. Women initiating online discussions seemed to have
162 many unanswered questions and doubts about the possibility of having a VBB, despite some
163 having support from their care provider. Conflicting emotions were common, for example:

164 *"I spoke to my consultant [doctor] yesterday who says I have proven hips and he'd be happy for*
165 *me to try a VBB...I have so many worries and questions right now. [I'm] Struggling between*
166 *feeling like a coward one minute and then feeling like I have complete faith in my body. I'm*
167 *trying to think things through because I have some big decisions to make."*

168 Others were advised that CS was the only option should the baby persist in the breech position
169 following an external cephalic version:

170 *"I have an ECV scheduled for a week from today that if it is not successful the doctor wants to*
171 *immediately follow with a C-section. I have had all my other kids natural and do not want to go*
172 *this route if at all possible. I know her safety is number one concern. Has anyone had a*
173 *successful birth of a butt first baby vaginally?"*

174
175 Many of the forum posts were initiated by women seeking information from others who had
176 experienced a VBB, with some saying they were fearful of a CS. Women struggled with the idea
177 of placing the baby at a perceived risk of harm if choosing a VBB compared with the challenges
178 of recovery from a CS, for example:

179 *"He [the clinician] also said that babies born vaginally who are breech are often in shock and*
180 *need help to breath which can mean going to the SCBU (Special Care Babies Unit), of course*
181 *this might not necessarily happen but I hate the thought of my baby being in the SCBU just*
182 *because I don't want a section! So what would you do? Try for the vaginal birth which might not*

183 *be so pleasant for the baby or go for the section with the longer recovery period? I am torn. I*
184 *just wish they would tell me what to do!"*

185 The search for connections with other women online showed that that women felt conflicted in
186 their decision making process and that there was a need to find comfort in hearing stories from
187 other women.

188 **Losing hope for the chance of a normal birth**

189
190 Women who did not have access to services that supported VBB seemed to report a sense of
191 loss of control and mourned the loss of opportunity to give birth to their baby vaginally. CS was
192 spoken of as an inevitable outcome and women were resigned to the fact that they would have
193 no choice but to undergo a surgical procedure for birth, for example:

194
195 *"...what has me down is the thought of missing out on the whole natural experience and have it*
196 *feel so surgical. I know if it's safer for baby and myself I will do whatever is necessary..."*

197
198 A change in birth plan for some was a source of great disappointment:

199
200 *"I was planning on having a home delivery and to say I'm devastated is an understatement."*

201 Many hoped that their baby would turn to a cephalic (head down) position before labour, as this
202 was the only way they could hope to experience vaginal birth:

203
204 *"...they told me our baby boy is breech at 36 weeks. Thus, a scheduled CS should take place in*
205 *the next 2.5 weeks. I want to feel hopeful that he will turn on his own and I will get to experience*
206 *vaginal delivery."*

207 A major factor in women's disappointment seemed to be a sense of losing control and fear of
208 what a CS operation entails and how this affects their ability to bond with their baby:

209
210 *"I'm not sure how I feel about the sudden loss of control I feel and the sense of feeling a bit*
211 *robbed of a much more natural, positive labour. I am concerned that I am not going to enjoy*
212 *holding and feeding my baby because I am going to be in pain? Is this an over the top worry? I*
213 *am also just generally worried about how I am going to feel emotionally...this sense of loss of*
214 *the labour I had dreamt of seems like a lot to take in right now. I considered a vaginal birth still*
215 *but it wasn't really presented to me as a possible option anyway."*

216
217 The women who were grieving a missed opportunity to birth vaginally did not appear to be able
218 to access services that supported VBB as a legitimate option.

219
220 **Seeking support for options-who will listen to me?**

221
222 Women used the internet chat forums to seek advice on facilities that would support VBB as the
223 hospitals they had originally planned to give birth in did not support this birth option. Facilities
224 that supported VBB were often further away from home, for example:

225
226 *"I am thinking of changing [hospitals], but as I'll be 36 weeks when I know for sure if bub is*
227 *breech I wonder if that's too late? I chose the local hospital because its 15 mins away not 35*
228 *mins."*

229
230 Although this woman appeared happy to have a CS, her comment indicated it would be
231 challenging for women seeking VBB at her chosen facility:

232

233 *"My little dude is breech and I'll be scheduled for a c section on Wednesday. Personally I*
234 *wouldn't deliver him vaginally...my hospital don't even consider vaginal breech delivery! So*
235 *couldn't have one if I wanted to."*

236

237 Other women seeking a VBB described positive interactions with the health system they were
238 accessing. They described supportive care where they felt confidence in the clinicians skilled in
239 VBB and expressed excitement about their impending labour and birth experience:

240

241 *"My appointment with the specialist went so well today! I'm healthy, bub is perfect size and*
242 *position. It's all systems go for an active breech birth! Woohoo! He didn't even question my*
243 *decision. He just spoke to me like it was a done deal and made me feel so confident that it won't*
244 *be too difficult since my first basically 'fell out'. I'm so relieved!"*

245

246 There was a clear difference in tone in forum comments from women who felt supported in their
247 choice for VBB by their care provider compared with those who were accessing a facility that did
248 not support VBB. Those who were supported used excited, joyous language, while those who
249 felt unsupported spoke of lost hopes and opportunities as their care providers saw VBB as a
250 dangerous option.

251 **Considering vaginal breech birth-a risky choice?**

252 Respondents to those initiating the discussion threads were divided on the safety of VBB, with
253 many mentioning anecdotal stories of what could go wrong. There appeared to be limited
254 knowledge, or acknowledgement, of services, evidence and guidelines that support the option
255 for planned vaginal breech birth from the women commenting on the forums and clinicians or

256 friends they interacted with during their pregnancy. The possibility of VBB was not thought by
257 some to be a viable birth option:

258 *"...I'm amazed they're even considering a VBB, I didn't realise they were still willing to try, I*
259 *thought they always had to be [caesarean] sections due to the risks involved."*

260

261 The risk of VBB was also considered by some women to be significantly higher than for other
262 birth scenarios. This discussion was usually not framed in the context of risk of VBB compared
263 with the risks associated with other modes of birth but rather as a choice that would bring
264 heightened anxiety and was associated with an assumption by their care providers that it would
265 end in a poor outcome, for example:

266 *"I looked into it before my daughter turned at 35 wks. I personally wouldn't. The risks to mother*
267 *a baby are HUGE and if something happened I would never forgive myself. And to be honest*
268 *my hospital would do everything to persuade me not to do it."*

269 System attitudes to VBB also showed an assumption that VBB would end in poor outcomes.
270 VBB was described as not being supported as it was associated with an increased medico-legal
271 risk:

272

273 *"I also have a girlfriend who works as a midwife in another hospital and when I asked her about*
274 *breech births she said her hospital didn't do them because of the court costs??"*

275

276 *"My doctor said my [medical/health] insurance would not cover a vaginal birth with a breech*
277 *presentation, and that was that."*

278

279 Women spoke of clinicians describing VBB as a dangerous option. Some used graphic
280 descriptions of the mechanism of breech birth, including physiological reasoning as to how VBB
281 can be unsafe for the baby:

282 *“My doctor explained the danger of breech to me. Aside from the fact the bottom or foot can*
283 *come out first and cause a variety of complications for mom, the vagina can tighten around*
284 *baby's neck and basically refuse to open back up to allow baby's head to pass. This is horribly*
285 *graphic but literally the baby is strangled by the birth canal and their head is stuck inside mom*
286 *and the doctor is forced to try and yank baby out, potentially causing severe damage.”*

287 Similarly, the use of negative language and warnings were issued by some women to those
288 interested in hearing about the experiences of women having had a VBB. The potential for poor
289 outcomes associated with CS were not mentioned:

290 *“Even if you labour at home and go in late, they will section you. Believe me, you don't want*
291 *most current health care providers trying to catch your breech baby. They no longer train breech*
292 *births in most places and it should never be done with an inexperienced health care provider.*
293 *Breech births require special skills which are different from normal head-first births. An*
294 *inexperienced clinician can damage your baby, sometimes fatally, and it poses additional risks*
295 *for you as well.”*

296
297 CS was spoken of in as the inevitable outcome for women with a breech presenting baby as it
298 provided a sense of predictability, whereas VBB outcomes were seen as unpredictable by
299 commenters, despite the existence of supporting guidelines and evidence for planned vaginal
300 breech birth.

301

302

Staying on the 'safe side' - caesarean section as a guarantee

Many women recounted their experience of discussions with their care provider where CS was discussed as the safer option, without mention of any associated risks, and they contrasted this with a detailed list of the risks and potential negative outcomes associated with VBB. Labouring with a breech baby was also discouraged in most of the forums as it was seen to be associated with emergency scenarios and higher risk of poor outcomes for the baby. For example:

"The registrar came down and she explained that if I wanted to attempt a vaginal delivery they would support me but there is a slightly higher chance of cord prolapse, cord compression and placental abruption in a breech delivery. There is also a chance that the feet/leg can deliver and then the shoulders/head become stuck. All of which would result in a crash caesarean and some of which (e.g. prolapse or abruption) carried a high risk of still birth. She also told me that breech babies delivered vaginally have a chance of slight developmental delay (I don't have stats on it). The pros of a caesarean were given as higher chance of a favourable outcome, safer for me as well as baby."

Questioning the "status quo" of CS for breech presentation was also met with incredulousness from some forum participants in response to women seeking information on the option of VBB, for example:

"I can't see why you would want to purposefully go against doctor's orders. It's quite possible you would get to the hospital in a terrible state and then need a very scary emergency c section. Hopefully you will realize you need help before it is too late and something terrible happens."

329 When comparing the risk of VBB with CS, the latter was spoken of favourably in terms of limiting
330 physical damage to the baby as it is born:

331
332 *“His hip joints would be put under a huge amount of pressure during the birth, which could*
333 *cause problems. But during a c/section, the entire baby is lifted out safely, with no pressure on*
334 *any part of its body. That is why doctors do c/sections for breech babies – it’s the best and*
335 *safest way of delivering them. Don't worry about the hip problems as those are caused when*
336 *the baby is delivered vaginally, not via caesarean.”*

337
338 Those women considering a VBB also described a lack of support from their social circles when
339 they discussed exploring the potential for VBB, indicating that lack of support for VBB
340 encountered by some women in clinical settings was mirrored in socio-cultural attitudes
341 towards VBB . Women felt pressure from family and friends to opt for a CS as it was viewed as
342 a guaranteed safe outcome, whereas VBB was not supported. They described these
343 experiences as upsetting and found it increased their anxiety levels. Clinicians who supported
344 VBB were helpful in allaying these fears:

345
346 *“I'm finding it harder to get support from people around me than medical people! There have*
347 *been a few very insensitive comments said. My SIL (sister in law) had two previous c sections*
348 *and was having her third a few months after me so my partner and I were faced with the "why*
349 *wouldn't you just have one". My partner's parents were quite shocked we would even consider a*
350 *natural birth. There comments and reactions actually made me nervous, but speaking to my OB*
351 *evened everything out [i.e. allayed any fears the woman may have had].”*

352

Other women who commented provided a more balanced view and compared risks of both VBB and CS and also addressed the view of others who commented regarding CS as guaranteeing a safe outcome:

"I'm not sure I agree that having a C-section is ensuring your baby is safe. I did a huge amount of reading while my baby was breech (including the Term Breech Trial) and from memory, the risks of vaginal delivery were not that much greater (if particular conditions were in place and your care provider was confident in breech delivery), and decreased significantly when compared to the risk to subsequent pregnancies following caesarean. But, we all make our own choices based on perceived risk and in discussion with our care providers."

Health system and social attitudes appeared to be dictated by the prevalence of CS as the most common management for breech presentations. Very few forum comments (about 10%) were positive about the option of VBB.

Exploring the positive potential for vaginal breech birth

While approximately 90% of the responses about VBB were negative, there were some women who spoke positively about the option of breech birth. These women wrote of CS as a choice rather than an inevitable outcome for women with a breech baby. CS was also noted by some as coming with its own set of risks, for example:

"Breech doesn't have to mean c-section! My breech baby was born naturally and many care providers are retraining in the skills of how to deliver a breech baby. Other complications aside, c-section is not necessarily safest option for breech anyway. Of course, if that is what you feel

378 *safest with then that is your choice to make. But don't feel railroaded into a c-section if you don't*
379 *want it just because of breech."*

380

381 Some discussed the Term Breech Trial ⁷ and how that has affected the availability of VBB as a
382 birth option. Clinicians also contributed to these discussions online and cited increasing care
383 providers' skill in VBB as challenging:

384

385 *"It's [the Term Breech Trial] been shown to be a deeply flawed piece of research that has*
386 *unfortunately had a huge effect on how we manage breech births.*

387

388 *"...the simple fact is that as mws (midwives) and drs (doctors) we have become deskilled at*
389 *delivering breech babies. We are working hard to train and change this but it is hard to change*
390 *attitudes."*

391

392 A number of contributors also discussed how attitudes to VBB in other countries than their own
393 influenced clinician attitude to supporting this birth option. Women also supported the idea of
394 increasing skills locally by agreeing to their birth being observed by more junior doctors:

395

396 *"2 of my 3 OBs did their major training outside Australia where it's more common to do*
397 *VBBs.... OB #3 (who will deliver bub now) said it was normal when and where he trained but it's*
398 *a bit 'out of fashion' here so he's asked me if I would allow a registrar or 2 to watch and get*
399 *some experience. I didn't hesitate to say yes to that if it means that more women will be*
400 *supported to birth naturally in the future!"*

401

402 Forum entries that were supportive of the option of VBB appeared to have a more in depth
403 understanding of historical contexts and the impact of the Term Breech Trial on the availability

404 of VBB. These who commented wrote more openly about women being able to choose
405 between VBB and CS rather than CS as being inevitable.
406

Discussion

This study explored how women use English language internet discussion forums to seek information on the option of VBB to support their decision making for birth. It also aimed to increase understanding of how the option of VBB is perceived among women. Forum users were divided on the issue of safety and risks associated with VBB and the option of CS for birth of a breech baby. Online discussions included content that was either evidence based information (fact) or misinformation (fiction).

The leading comment on each of the forums was usually from women seeking more information to assist her in her decision making for birth of her breech baby (approximately 20% of all comments). These women sought information on VBB and the opinions and experiences of other women who were diagnosed with having a breech presenting baby in pregnancy. They also displayed conflicted feelings on the options for birth of their breech baby and sought support and reassurance from other women who had been in similar situations to their own to help with their decision-making for mode of birth. Some of these women felt CS was inevitable and mourned the lost opportunity of having a vaginal birth. Those who responded conveyed attitudes that were generally negative towards VBB. CS was seen as a guaranteed safe option that provided a predictable outcome. While some others commented more positively about the potential of VBB as a legitimate alternative option, these were in the minority.

There was also evidence of a tension in the decision-making process for those women who considered vaginal birth as their preferred option and wanted to avoid a CS. While they were keen to explore the option of VBB, these women were also anxious about the associated risks of VBB and of the potential for their baby to require intensive care if they chose this option for birth *“all because I didn’t want a CS.”* Responses to these posts were largely negative about

VBB, with respondents implying that the most important outcome was a healthy baby and that, for breech presentation, the mother's wishes to explore VBB are secondary to the baby's welfare. This view has also been echoed in other studies ⁴¹. For the women posting the initial questions, the tension appeared to bring with it anxiety and a sense of urgency in hoping their baby will turn "in time" so that they did not have to make the choice between VBB and CS.

Many of those responding to the lead comment seeking information on VBB used alarming language and misinformation when discussing VBB. For example, one respondent spoke of the baby being "strangled by the birth canal" during VBB while another spoke of the high risk of stillbirth associated with VBB. Another stated that hip problems in breech babies are caused when the baby is delivered vaginally, not via CS. These comments are not supported by evidence ⁴² and served to reinforce VBB as a high risk option. The lasting impact of the Term Breech Trial ⁷ and the small number of women who have a VBB appears to have created a dominant perception by both women and healthcare providers that VBB is an unsafe option for mode of birth and that it carries significantly more risk than CS, despite evidence supporting the safety of VBB in selected cases^{2, 5, 8, 12, 13}. While it is acknowledged that VBB carries a two to five fold greater relative risk of short term morbidity and mortality than CS⁵, the absolute risk remains low. The findings of this study indicated there is a distorted perception of risk associated with VBB in the internet discussion forums examined.

The conflicting information online about the option of VBB may contribute to women's anxieties and levels of stress when diagnosed with a breech baby towards the end of their pregnancy and potentially, should a woman choose the option of VBB, during labour. Many comments in the data collected for this study viewed VBB as a "fatal" choice and felt their views had been reaffirmed by interactions with clinicians during their own experiences. These negative attitudes have the potential to impact on women's confidence when seeking information in discussion forums online to support her decision-making for birth.

457 This findings in our study support the need for provision of balanced, evidence based
458 information, found in relevant research and existing clinical guidelines, from clinicians
459 supporting women with a breech presenting baby late in pregnancy. This information should
460 include the risks and benefits for all birth options for the woman's current pregnancy, as well as
461 the consequences of a woman's choices in her current pregnancy for future pregnancies⁴³.

462 Providing accessible information to support women in decision-making for birth options is
463 particularly important given previous research has shown propagation of misinformation online
464 between consumers can lead to inappropriate dilution or distortion of information ²⁷.

465 The findings of our study also suggest that women's decision making is also informed by
466 discussions outside of clinical consultations, including friends and family. Socio-cultural
467 interactions have been identified as one factor that may impact on women's decision making for
468 childbirth ^{21-24, 44, 45}. Our study support this view with regard to the option of VBB and adds further
469 emphasis to the need for women to feel informed during their decision-making for birth.

470 The discussions in the internet forums studied also reveal a need for increased clinician support
471 for women with a breech presenting baby. The rarity of VBB has created a challenging image
472 problem for VBB as an option for mode of birth. Clinicians rarely see breech babies born
473 vaginally, creating the perception that the procedure carries significantly more risk than CS.
474 Clinician reference to guidance documents for supporting women in their decision making for
475 breech birth is essential to ensure all option for care are discussed with the woman. Recent
476 research on clinician experiences in caring for women choosing a VBB has also called for
477 further education and upskilling of clinicians to increase their abilities and confidence in
478 supporting women considering a VBB¹⁶.

479 A number of limitations exist in this study that may impact on generalisability. The authenticity of
480 the data may be questioned given it is difficult to confirm quality assurance given the method

used to collect the data³⁴. Possible selection bias may have also been present given only open-access forums were used when gathering data from discussion forums. Online groups that require members to join and use a password before posting may express different experiences, information and opinions.

Women who choose to make comments on public forums could be those at the extreme of either end of normality versus medicalisation of birth and hence the middle ground may have been missed. Additionally, the only forums accessed were in the English language. However, given there is limited information on the use of the internet for decision making for breech presentation in the literature, the findings in this study offers perspectives from women that may differ from direct questioning through surveys or interviews and may therefore be useful for clinicians to consider when this issue arises for women with a breech presentation³⁴.

Conclusion

This study shows that women are searching for information online about breech birth in an attempt to come to a place in their decision making where they feel comfortable with their plan for birth. The large volume of conflicting content found in the data collected for this study, both for and against VBB, highlights the need for clinicians to provide comprehensive, non-judgmental information on the risks and benefits of all birth options to facilitate informed decision making that is free from the distorted views of VBB that may be encountered online. Provision of accurate and unbiased information by clinicians may contribute to improving the woman's confidence in distinguishing between "the fact and the fiction" of discussions online. This approach to care for women with breech presentation will ensure that woman and baby centred care is maintained and that the woman is supported in making informed choices for birth.

DISCLOSURE STATEMENT

The authors declare that they have no competing interests, financial interest or benefit arising from this research.

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