

## Women's choices and experiences of using birthing pools

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### ABSTRACT

**Background** - Over a four year period consumer feedback forms were collected by a birthing pool supplier in New Zealand. The feedback forms were sent to the New Zealand College of Midwives (NZCOM) recognising that the feedback forms provide a unique record of women's experiences of using a birthing pool for pain relief and comfort during labour and/or birth. A request was sent by NZCOM to the four Bachelor of Midwifery Degree Schools in New Zealand for an expression of interest in the collation and analysis of the forms. The feedback forms were not developed as part of a research project but as a tool for women and their partners to describe their many and varied experiences of using water during labour and giving birth. The feedback forms provide a unique record of women and their partner's experiences in their planning for labour and birth and their utilisation of birthing pools. **Method** - Both quantitative and qualitative responses to feedback form questions provide an overall view of consumer demographics and experiences. The responses were collated into demographic data and theme descriptive categories. The Statistical Package's for Social Sciences (SPSS) was used for quantitative analysis and direct quotes were taken from answers to feedback form questions. **Results** - The age of women who most used the pool was in the 31 – 40 year age group, with the second largest group in the 21 – 30 year age group. The greatest number of women, 86.8%, used the birthing pool in their own home, although 12.6% transferred during labour to their Base Hospital. The largest number of women, 41.7%, used the pool for both labour and birth and the majority, 81%, used the pool with, or without non-pharmacological pain relief such as massage and aromatherapy. Women's experiences of using of the pool were described as meeting their expectations; however extenuating circumstances such as insufficient hot water impacted on their use of the pool. **Conclusion** - For the women who completed the consumer feedback forms the use of a birth pool was a significant positive factor in their experience of labour and birth.

### BACKGROUND

In the United Kingdom the availability of individual birthing pools has become part of the provision of mainstream maternity care (Kitzinger, 2009). This move away from medical management to women electing to take ownership of their birth environment is also available in New Zealand. For women birth can be planned for as a choice to birth their baby into an environment that is caring and nurturing (Kitzinger, 2001). If the birth is at home it is the same environment in which the mother will care for her baby as it grows therefore the birth sets the scene for the mother and child relationship. A meta study in the United Kingdom in 2003 (Green, Baston, Easton et al.) identified that choice and control was a significant factor to women's satisfaction of their experience of labour and giving birth. For women who feared the pain of labour they reported 'feeling low' (p. 23) during their pregnancy. For women who felt most satisfied they identified that had made own choices 'about pain relief and felt good how they had responded to pain' (Leap & Anderson, 2008, p.31).

The choice and control of where to give birth, including the purchase of a birthing pool, will decrease a mother's anxiety and increase her satisfaction and her perception of her ability to birth her baby

(Harper 1994, p. 134). For women, and their family/whanau, the purchase of a birthing pool reflects a belief that labour and birth is a normal event with the choice of water for pain relief in labour, and giving birth, meeting women's individual needs. This concept is supported by Kitzinger who suggests that "using warm water seeks to change the dynamics of the care of labouring and birthing women, to give control back to them and asserts it is an approach to childbirth than enables birthing women to have autonomy" (as cited in Maude & Fourer, 2005, p.3).

Unlike in the UK where birthing pools are accessible as part of birth management, in New Zealand, the choice is that of the expecting mother. In other words, the expectant mother will have to supply and prepare access to the birthing pool. This article reported the analysis of feedback provided by women who bought a birthing pool to gauge whether their experiences match those reported in the literature. The findings from consumer feedback forms from women who had purchased a birthing pool from a birthing pool provider for the years 2006 to 2010. A statistical analysis with support from qualitative data provides an overview of one-hundred and fifty New Zealand women's experiences of using a birthing pool during labour and/or birth.

## **METHOD**

Feedback forms were sent by the birthing pool provider to survey women's and their partners opinions and experiences of using the pool purchased. Signed consent for the use of information for research and promotion was requested and all returned forms were signed. The forms were semi-structured and included quantitative, qualitative and open-ended questions. The dataset provided personal data such as age, number of previous pregnancies and previous birth experiences, as well as information about the most recent birth, e.g. place and transfer, Apgars and breastfeeding rates, the types of support available during the labour and birth, e.g. the midwife, partner. General comments on the birth experience itself, and the ease of use of the pool, were also asked for.

Between September 2006 and January 2010 one hundred and fifty-one feedback forms were returned to the birthing pool provider. Over the four years the format of the questionnaire was revised twice to improve better information gathering. For consistency in collation only questions that were the same in the three forms have been used in the data. Statistical Packages for Social Sciences (SPSS) software was used for data input and analysis. Not all of the questions were answered by all of the respondents; 112 women answered the question relating to Apgars and 148 women answered the question relating to breastfeeding.

## **RESULTS**

Of interest were the following questions: 1) place of birth, i.e. at home or hospital delivery suite; 2) when the pool was used, i.e. during labour only, birth only, labour and birth; 3) use of the pool for pain relief during labour and/or birth, i.e. for pain relief only, used with non-pharmacological pain relief, used with any other form of pain relief; 4) birth delivery outcome, i.e. planned, normal vaginal birth, transferred to Base Hospital Delivery Suite, assisted birth; 5) Apgars at five minutes, i.e. 0- 3; 4 – 6; 3 – 10; and, 6) if the baby breastfed or not.

The age range of women in the sample was slightly greater in the 31-40 year age group with 52.3% (78 women) compared to 46.4% (70 women) in the 21 – 30 year age group.

### **Place of birth**

Of the 131 women (86.8%) who elected to give birth at home, 19 (12.6%) transferred to a hospital delivery suite. For three of these women the decision to birth in the delivery suite related to conditions before they went into labour: blood pressure, twin pregnancy and placenta praevia. Only one of these three women used the pool for pain relief in labour. One other woman had pyrexia and

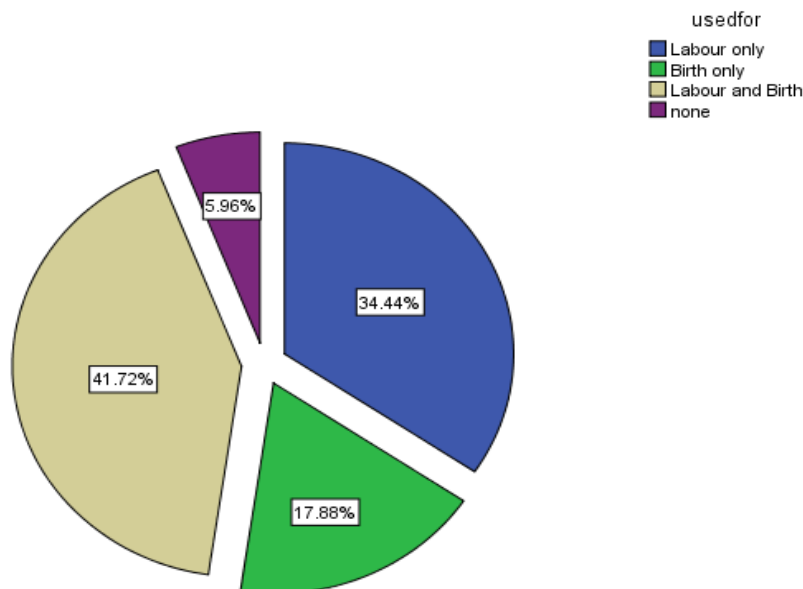
transferred early in labour. For the remaining 15 the decision to transfer to delivery suite was identified as 'slow to' or 'failure to' progress. Women identified the decision in terms of 'a long labour' and 'transfer to hospital because of (the need for) a ventouse' as the reason for transferring.

Of the 35.8% (54 women) who birthed at their base hospital 23.2 % (35 women) had elected to birth there as part of their birth planning. The decision was made because a birthing pool was available, or they could take their pool to the hospital, as well as hospital being the preferred choice of their partner.

### When the pool was used

The use of the birthing pool for pain relief in the first and/or second stage of labour was a choice made by women relative to their comfort needs at the time, as well as the logistics of setting up the pool and the availability of hot water. For 34.4% (52 women) the pool was used for labour only, either at home or at their Base Hospital. For some women, 17.9% (28), the pool was used for birth only. Sixty-three women (41.7%) used the pool for the majority their labour and the birth (Figure 1).

Fig. 1 - When the pool was used



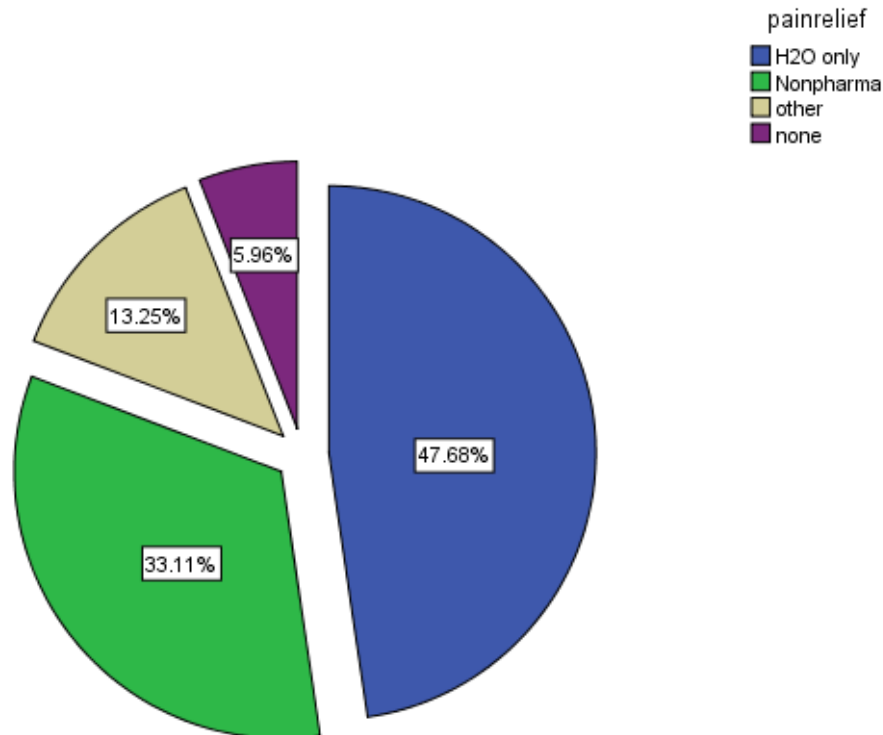
### Use of the pool for pain relief

For 47.68% (82) women water was the only method of pain relief during labour and birth. Other nonpharmacological pain relief such as homeopathy, massage, acupuncture, aromatherapy and tens machine were used by 33.11% (59 women) as well as water (Figure 2). The majority of women (81%) reported using water only or water and non-pharmacological methods.

Pharmacological pain relief for example pethidine, epidural/spinal anaesthesia were used by 13.25% (20 women). Some women used both non pharmacological and pharmacological pain relief. All the women who described using pharmacological pain relief gave birth at their Base Hospital (secondary/tertiary Hospital). These women included those who had elected to give birth at their

Base Hospital, or had transferred during labour. These women had also used the pool early in labour for pain relief.

**Fig. 2 - Use of the pool for pain relief**



### Planning for the birth

In response to the question 'Did the birth go as you had planned? Would you do anything different next time?' 83.4% (126 women) said their labour and birth had gone to plan but, for the majority, with a proviso for improving the experience next time.

The availability of a birthing pool at the women's closest Base Hospital (secondary/tertiary hospital) was reported to have influenced women's choice of where they wanted to give birth.

Of the women who transferred to hospital during labour, 6 women had a caesarean section. The most common reason for caesarean section given was described as failure to progress.

### Apgar scores and Breastfeeding

Of the 112 women who answered the question 'Apgar @ 5 minutes' 100% said their babies had an Apgar within a range of 7 – 10 (a score of 10 representing best possible condition in a newly born).

For the 148 women who answered the question 'Did you choose to breastfeed?' all but one woman confirmed that they had

## WOMEN'S EXPERIENCES

### Timing of using the pool

The timing of the use of the pool for labour and/or birthing was not always straight forward. One woman described how she had had to organise her children before support arrived. Once her support had arrived she could make use of the pool:

*'Mostly out simply because I had to organise other children while the support people were on their way. 5cm and I was in the pool. I birthed in the pool. Loved the high sides to push onto. Loved the depth of the pool and the soft base'.*

Some women described getting in and out of the pool in the first stage in tune with their labour before entering the pool to give birth:

*'Walking then the pool, but in and out to keep contractions regular. (For second stage) was excellent to take the pressure off my back and get into a more comfortable position'.*

For a number of reasons women used the pool for birth only. One woman found that her solar heating system didn't produce enough hot water quickly enough. Her husband tried to fill the pool while she was in labour:

*'We ran out of hot water so he was a bit stressed trying to boil up extra. Also so my labour was very fast so it was all a bit sudden. Got into pool when had the urge to push. Just enough to deliver baby'.*

Another woman waited for the midwife to arrive before getting into the pool:

*'Waited to get into pool until midwife arrived, could have gotten in sooner'.*

For other women it was the timing of getting into the pool that they then felt like pushing, for example:

*'I laboured mostly on all fours and leaning over the couch, I jumped into the pool as the head was already there and my waters broke. I then started pushing. Didn't end up labouring in the pool'.*

### Using the pool for pain relief

The use of the birthing pool for pain relief in the first and/or second stage of labour was a choice made by women relative to their needs, and the availability of the pool, at the time. Reasons for using the pool for labour only were described as

*'ran out of hot water so had to get out and birth on the floor'*

*'exited pool and placed on drip/hydration. Still assessed at 9cm dilated'*

*'I was asked to get out of the pool to go pee but couldn't was then checked on the bed. Was asked if I wanted to go back to the pool but I said no I was too tired to move in hindsight I wish I had returned to the pool'.*

For a number of women other natural methods of pain relief were used in conjunction with water in the first stage of labour. For example:

*'Used tens machine, massage, then water once I was 5 – 6 cm dilated. (For second stage) water, chose to get in once fully established for pain relief. Was great. softened everything up. Had bubs in H2O'.*

Other comments recognised the capacity of water to provide pain relief and comfort:

*'Highly recommended for pain relief, relaxing weightlessness, soothing'*

*'It's impossible to feel pain when you're floating in a warm pool in a darkened room watching a good chick flick (featuring Colin Firth)'; and 'When you're in pain and tired, curled up in a warm pool in the foetal position is the most calming thing to do and it feels soothing'.*

### **Birthing in the pool**

The women who gave birth in the pool related their experiences to the choices of positions that the pool offered them: '

*'With my back against my husband in pool'*

*'I was able to squat leaning on the edge of the pool for the last 10 minutes or so'*

*'Semi sitting/squatting in the water, held by my husband'*

*'Knees leaning over edge of pool'.*

### **Home or hospital**

The availability of a birthing pool at the women's closest Base Hospital (secondary/tertiary hospital) was acknowledged as having influenced women's choice of where they wanted to give birth. For the women who chose to birth at their Base Hospital the reasons for their choice was described as:

*'My husband wanted a hospital birth for number one'*

*'Personally I wanted a home birth but I agreed to a hospital for my partners and mothers sake'*

*'close to my family and heard rave reports of excellent support staff'.*

The rationale for birthing at hospital often related to risk and safety issues, for example :

*'In water in hospital. If I needed intervention it would immediately be available'*

*'had problems with our first wee girl and we wanted to play it safe - close to neonatal etc'.*

For women who chose to birth at home the environment was equally important:

*'At home. That the baby is welcomed in a home environment and not a clinical hospital'*

*'To be in a comfortable environment, surrounded by calm and limited few people I wanted there. As well as the after birth experience of being home with our new baby and husband'.*

## **DISCUSSION**

Electing to give birth at home was the most common feature of women who purchased a birthing pool. Of the women 23% had purchased a pool for use at home for labour before transferring to

their base hospital for the birth, or to take with them when they transferred. For the majority women, being in their own home and using a birthing pool provided them with an environment in which they felt safe, supported and comfortable. This comfort was reflected in the use of non-pharmacological pain relief, or water only, for women who gave birth at home. For the women who had transferred to a base hospital there was an increased use of pharmacological pain relief by 13.25%. The importance of water in labour and birth was described by Maude and Foureur (2005) as being both in the physical experience and the psychological anticipation. This is reflected in the comments for example 'Was asked if I wanted to go back to the pool but I said no I was too tired to move in hindsight I wish I had returned to the pool'; 'Loved the high sides to push onto. Loved the depth of the pool and the soft base'; and 'was excellent to take the pressure off my back and get into a more comfortable position'. It may be that it is the psychological sense of wellbeing that water provides that is the significant factor in the effectiveness of water for pain relief (Eberhard, Sterin & Geissbuehler, 2005; Eberhard & Geissbuehler, 2005). This finding is supported by prior research, whereby there is a reduced rate of use of analgesia by women who use water for pain relief (Thoni & Mussner, 2002).

Most of the respondents used the pool for their labour and birth, although how and when women used the birthing pool varied with individual needs and events relating to the labour and birth. Insufficient hot water was both a reason for using the pool for labour and/or birth only. For other women, timing of the use of the pool was determined by the nature of their labour rather the effectiveness of water for pain relief.

## **STRENGTHS AND LIMITATIONS**

This sample represents only those experiences of women and their partners who completed the feedback forms and cannot be interpreted as providing a generalised view of the use of birthing pools and homebirth in New Zealand. Furthermore, the data does not lend itself to carry out comparative studies of birthing methods. For example, with this data, it is not possible to attribute the high Apgar score (range 7-10) and high proportion of breastfeeding to sampling bias, or, to positive experience of giving birth. It is acknowledged that the feedback forms were developed to provide feedback to the birthing pool provider as part of their customer service. The development of themes and topic areas have been generated from questions intended for consumer feedback and not with the intent of data gathering for research. There may be some bias as those who returned their feedback forms may have been those who had a positive experience. The number of forms sent and returned had not been identified by the birthing pool provider.

## **CONCLUSION**

Despite the limitations, the findings from this study are in line with other studies reported in the literature, e.g. see Maude & Fourer (2005), Thoni & Mussner (2002), Zanetti-Dallenbach, et al. (2007). Information from the feedback forms has provided valuable insight into the experiences of women who have used a birthing pool for pain relief during labour and/or birth. For women using the birthing pools their experience of the pool appears to have been a significant factor in how they viewed their labour and birth. The feedback forms identified that the use of a birthing pool provided significant pain relief during labour and/or birth. The depth and warmth of water provided support and comfort during labour, and, with the use of non-pharmacological pain relief, was the most commonly utilised pain relief. Unforeseen circumstances resulted in not all women utilising the birthing pool as they had planned, however for those that did their experience was a positive one.

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