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Why Pediatricians Fear Waterbirth – Barbara Harper Reviews the Research on Waterbirth Safety

March 27th, 2014 by Sharon Muza
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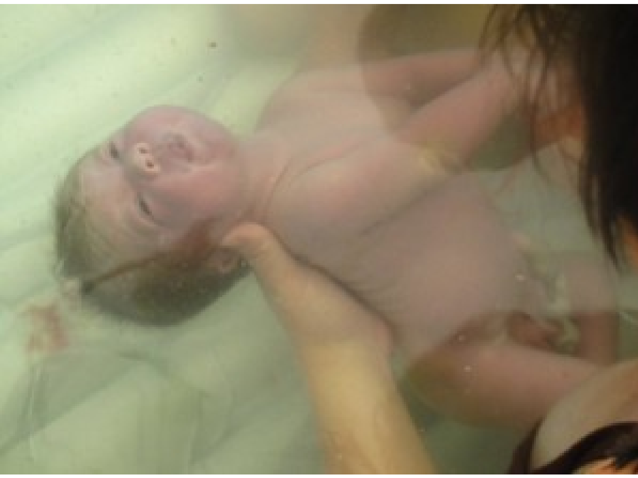
By Barbara Harper, RN, CLD, CCE, DEM, CKC, CCCE

On March 20th, 2014, the American Academy of Pediatrics Committee on Fetus and Newborn and the American College of Obstetricians and Gynecologists Committee on Obstetric Practice released a joint clinical report entitled Immersion in Water During Labor and Delivery in the journal Pediatrics. While not substantially different than previous statements released by the AAP, quite a stir was created. Today, Barbara Harper, RN, CLD, CCE, DEM, CKC, CCCE, of Waterbirth International provides a research summary that supports waterbirth as a safe and reasonable option for mothers and babies. Barbara Harper has been researching and teaching about safe waterbirth protocols for several decades and is considered an expert on the practice. I am glad Barbara was able to share her knowledge with Science & Sensibility readers all the way from China, where she just finished another waterbirth workshop for Chinese hospital programs. – Sharon Muza, Community Manager, Science & Sensibility



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In a candle lit room in Santa Barbara, California, in October of 1984, my second baby came swimming out of me in a homemade tub at the foot of my bed. As soon as he was on my chest, I turned to my midwife and exclaimed, "We have got to tell women how easy this is!"

Earlier that month I sat in my obstetrician's office with my husband discussing our plans, which had changed from an unmedicated hospital birth to a home waterbirth. The OB shook with anger and accused me of potential child abuse, stating that if I did anything so selfish, stupid and reprehensible he would have no choice but to report me to the Department of Child Welfare. I never stepped foot in his office again, but I did call his office and share the news of my successful home waterbirth.

Before setting up my homemade 300 gallon tub, I had researched through medical libraries for any published data on waterbirth, but could not find a single article, until a librarian called me and said she was mailing an article that came in from a French medical journal. The only problem was that it was quite old. It had been published in 1803! The next article would not come out until 1983, the very year that I was searching.[i]

The objections to waterbirth have always come from pediatricians, some with vehement opinions similar to those expressed by my former obstetrician. The current opinion of the American Academy of Pediatrics Committee on Fetus and Newborn is nothing new. It was issued in 2005, restated in November 2012 and it is showing up again now. There are many obstetricians and pediatricians who are perplexed and angered over the issuing of this statement. Especially, doctors like Duncan Neilson of the Legacy Health Systems in Portland, Oregon. [ii] Dr. Neilson is chair of the Perinatology Department and VP of both Women's Services and Surgical Services at the Legacy Emanuel Hospital in downtown Portland.

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In 2006, Dr. Neilson did an independent review of all the literature on waterbirth, including in obstetric, nursing, midwifery and pediatric journals. He concluded, "there is no credible evidence that waterbirth is a potential harm for either mothers or babies." He reported that the majority of the waterbirth studies have been done and published in Europe with large numbers in retrospective analyses.[iii], [iv], [v], [vi] What has been published in the US is largely anecdotal and has involved very small numbers of case reports from home birth or birth center transfers into NICU. [vii], [viii], [ix] Dr. Neilson even pointed out that Jerold Lucy, M.D., the editor of the *American Journal of Pediatrics* put the following commentary in a sidebar in a 2002 issue of this respected research journal, "I've always considered underwater birth a bad joke, useless and a fad, which was so idiotic that it would go away. It hasn't! It should!" [x]

The publication of such prejudicial statements makes it difficult for pediatricians to look at the European research without skepticism. Dr. Neilson concluded that American doctors were not getting the complete picture. After this comprehensive review of waterbirth literature, Dr. Neilson believed that waterbirth is a safe birth option that provides other positive obstetric outcomes. He helped set up a Legacy research committee and the parameters for waterbirth selection were created, using current recommended selection criteria followed by other Portland hospitals offering waterbirth.

Upon Dr. Neilson's recommendations, the entire Legacy system has adopted waterbirth. The most recent hospital to begin waterbirth was Good Samaritan in Portland, which conducted their first waterbirth in February of 2014.

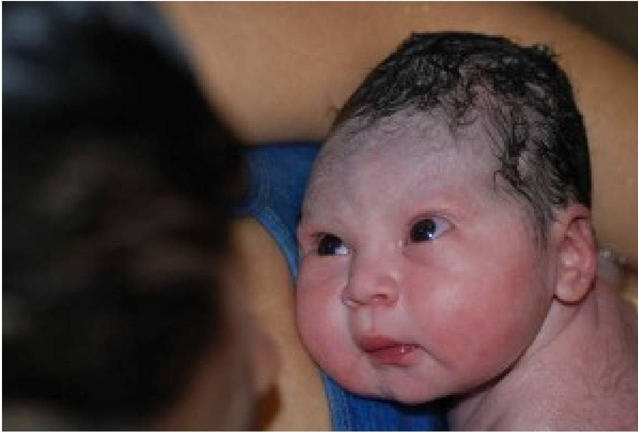
Women seeking waterbirth and undisturbed birth have usually considered the consequences of interference with the birth process on the development, neurology and epigenetics of the baby. The goal of the pediatrician and the goal of mothers who choose undisturbed birth is really exactly the same. The use of warm water immersion aids and assists the mother in feeling calm, relaxed, nurtured, protected, and in control, with the ability to easily move as her body and her baby dictate. From the mother's perspective, using water becomes the best way to enhance the natural process without any evidence of increased risk. A joint statement of the Royal College of Obstetricians, the Royal College of Midwives and the National Childbirth Trust in 2006 agreed. They sat down together to explore what would increase the normalcy of birth without increasing risk and the very first agreement was that access to water for labor and birth would accomplish that task.[xi]

Framework for Maternity Services Protocol

The UK National Health Service and the National Childbirth Trusts formed a Framework for Maternity Services that includes the following statements:

- Women have a choice of methods of pain relief during labour, including non pharmacological options.
- All staff must have up-to-date skills and knowledge to support women who choose to labour without pharmacological intervention, including the use of birthing pools.
- Wherever possible women should be allowed access to a birthing pool in all facilities, with staff competent in facilitating waterbirths.

There is a concerted effort to educate midwives and physicians in all hospitals in the UK on the proper uses of birthing pools and safe waterbirth practices. [xii]



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The baby benefits equally from an unmedicated mother who labors in water and has a full complement of natural brain oxytocin, endorphins and catecholamines flowing through her blood supply. The mother's relaxed state aids his physiologic imperative to be born. The descent and birth of the baby is easier when the mother can move into any upright position where she can control her own perineum, ease the baby out and allow the baby to express its primitive reflexes without anyone actually touching the baby's head. The birth process is restored to its essential mammalian nature.

The true belief in the safety of waterbirth is a complete understanding of the mechanisms which prevent the baby from initiating respirations while it is still submerged in the water as the head is born and then after the full body has been expelled. When Paul Johnson, M.D., of Oxford University, explained these mechanisms at the First World Congress on Waterbirth at Wimbledon Hall, in 1995, there was a collective nod of understanding from more than 1100 participants. With this information, more waterbirth practices were established all over the UK and Europe. Dr. Johnson went on to publish his explanations in the British Medical Journal in 1996.[xiii]

Johnson's 1996 review of respiratory physiology suggests that, in a non-stressed fetus, it is unlikely that breathing will commence in the short time that the baby's head is underwater. Johnson sees no reason to prevent this option being offered to women.

A Cochrane Review[xiv] of women laboring in water or having a waterbirth gives no evidence of increased adverse affects to the fetus, neonate, or woman.

American Academy of Pediatrics' Misleading Committee Commentary

Despite this review, the 2005 American Academy of Pediatrics committee on Fetus and Newborn commentary raised concerns regarding the safety of hospital waterbirth. The committee commentary was not a study itself, but rather an opinion generated upon the review of research.

A review of the commentary and the sources cited, revealed irregularities. The commentary often paraphrased text from the references, redacted crucial words and sentences from the texts, and sometimes re-interpreted the authors' conclusions. Anecdotal case studies were referenced without being part of an empirical study.

Example:

Committee text: "All mothers used water immersion during labor, but only a limited and unspecified number of births occurred under water." 2 infants required positive pressure support, but little additional data were provided.

From cited reference: 100 births occurred under water. Only 2 infants out of 100 needed suction of the upper respiratory tract and a short period of manual ventilatory support. [xv]

Committee text: "Alderdice et al performed a retrospective survey of 4494 underwater deliveries by midwives in England and Wales. They reported 12 stillbirths or neonatal deaths"

From cited reference: "Twelve babies who died after their mothers laboured or gave birth in water, or both, in 1992 and 1993 were reported. None of these cases was reported to be directly related to labour or birth in water."[xvi]

Committee text: "In a subsequent survey of 4032 underwater births in England and Wales, the perinatal mortality rate was 1.2 per 1000 live births (95% confidence interval: 0.4–2.9) and the rate of admission to a special care nursery was 8.4 per 1000 live births (95% CI: 5.8–11.8) The author of this survey suggested that these rates may be higher than expected for a term, low-risk, vaginally delivered population."

From cited reference: "4032 deliveries (0.6% of all deliveries) in England and Wales occurred in water. Perinatal mortality was 1.2/1000 (95% confidence interval 0.4 to 2.9) live births; 8.4/1000 (THEY LEFT OUT THE 2ND CI 5.8 to 11.8) live births were admitted for special care. No deaths were directly attributable to delivery in water…."

The reference also provides that the UK perinatal mortality and special care admission rates for conventional birth ranged from 0.8 to 4.6/1000 for perinatal mortality, and 9.2 to 64/1000 for special care admission—significantly higher than those utilizing waterbirth.

Nowhere in the cited reference can the statement be found that "these rates may be higher than expected for a term, low-risk, vaginally delivered population." In fact, the study results reflect no effect on fetal outcomes and certainly not an increase in fetal mortality and special-care admissions.[xvii]

Finally, the committee commentary acknowledges the findings of the Geissbühler study[xviii]:

"A prospective observational study compared underwater birth with births using Maia-birthing stools and beds. Although underwater birth was associated with a decreased need for episiotomies and pain medication as well as higher APGAR scores and less cord blood acidosis in newborns, the birthing method was determined by maternal preference, and potential confounding variables were not analyzed."

The committee does not elaborate on which confounding variables they feel are of concern. It appears this supportive study was automatically discredited without a reason.

While the American Academy of Pediatrics is committed to patient safety and evidence-based medicine, this commentary's conclusions that hospital waterbirths are of greater risk than other hospital birth options for low risk and carefully screened patients are completely unfounded.

Waterbirth Studies

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In 1998, I copied all the medical journal articles about waterbirth that had been published to date and sent the labeled and categorized studies to the Practice Committee of ACOG. In the cover letter accompanying the rather weighty binders, I asked the Committee if they would review the literature and issue an opinion about actual birth in water. The letter that arrived a few months later from Stanley Zinberg, MD, then head of the Practice Committee, stated, "until there are randomized controlled trials of large numbers of women undergoing birth in water, published in peer reviewed journals in the US, the committee is not able to issue an opinion."

Randomized studies of waterbirth are difficult to design and implement for one major reason: women want to choose their own method of delivery and should be able to change their mind at any point of labor. Because of this, it is difficult to design a randomized controlled study without crossover between control and study group. A 2005 randomized trial which was set up in a Shanghai, China hospital was abandoned because the hospital director realized after only 45 births that the study was unethical. The original goal was to study 500 births, but the results of those first 45 were so good they abandoned the research project, yet continued their commitment to offering waterbirth to any woman who wanted one. The latest communication from the Changning Hospital in Shanghai indicates that they have facilitated well over 5000 waterbirths since then.

Randomized controlled trials may be few, however, many retrospective and prospective case-controlled studies have been performed, primarily in European countries with a long history of waterbirth. In reviewing published studies, a comparison of the safety of waterbirth to conventional births among low-risk patients can be made. The evidence reveals the option of waterbirth is safe and, looking at certain parameters, has superior outcomes.

European Research

Highlights of the literature:

- APGAR scores were found to be unaffected by water birth.[xix] One study found a decrease in 1-minute APGAR scores exclusively in a subgroup of women who were in water after membranes were ruptured longer than 24 hours.[xx]
- A consensus of researchers found that waterbirth had either no effect or reduced cesarean section and operative delivery rates.[xxi]
- No studies have found an effect on rates of maternal or fetal infection.[xxii]
- Statistically, waterbirth leads to increased relaxation and maternal satisfaction, decreased perineal trauma, decreased pain and use of pharmaceuticals, and decreased labor time.[xxiii]

Cochrane Collaboration Findings

A Cochrane Collaboration review of waterbirth in three randomized controlled studies (RCTs) show no research that demonstrates adverse effects to the fetus or neonate.[xxiv] Other studies that were not RCTs were included in the conclusion:

"There is no evidence of increased adverse affects to the fetus or neonate or woman from laboring in water or waterbirth. However, the studies are variable and considerable heterogeneity was detected for some outcomes. Further research is needed."

Conclusion

Waterbirth is an option for birth all over the world. World-renowned hospitals, as well as small hospitals and birthing centers, offer waterbirth as an option to low risk patients. Though some members of the American Academy of Pediatrics and American College of Obstetricians and Gynecologists feel otherwise, the Cochrane Review and many other studies find no data that supports safety concerns over waterbirth.

Women increasingly are seeking settings for birth and providers that honor their ability to birth without intervention. Waterbirth increases their chances of attaining the goal of a calm intervention free birth.

Physicians and midwives are skilled providers who are being trained in waterbirth techniques, safety concerns, the ability to handle complications and infection control procedures.

Carefully managed, waterbirth is both an attractive and low-risk birth option that can provide healthy patients with non-pharmacological options in hospital facilities while not compromising their safety.

In contrast to Dr. Lucy's statement, waterbirth is not a fad and it is not going away, especially when it is mandated as an available option for all women in the UK and practiced worldwide in over ninety countries. The first hospital that began a waterbirth practice in 1991, Monadnock Community Hospital in Peterborough, New Hampshire, is still offering this service to low risk women 23 years later. They have been joined since then by just under 10% of all US hospitals including large teaching universities and the majority of all free standing birth centers. Hospitals have invested in equipment, staff training and are collating data to present to the medical community. Dr. Duncan Neilson in Portland, Oregon is working on a summary of the data on over 800 waterbirths at only one hospital in the Legacy Health System.

I have dedicated my entire life to changing the way we welcome babies into the world since that October night in 1984, when I told my midwife that we have to tell women about the wonders of waterbirth. Since that night, I have traversed the planet to 55 countries and helped hundreds of hospitals start waterbirth practices. Birth in water is safe, economical, effective and is here to stay, despite the AAP's recent statement.

References

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[i] Odent, M.,1983. The Lancet, December 24/31, p 1476

[ii] Medical Plaza Bldg. 300 N. Graham St., Suite 100 Portland, OR 97227, (503) 413-3622 dneilson@lhs.org

[iii] Alderdice, F., R., Mary, Marchant, S., Ashiurst, H., Hughes, P., Gerridge, G., and Garcia, J. (April 1995). Labour and birth in water in England and Wales. *British Journal of Medicine*, 310: 837.

[iv] Geissbuehler, V., Stein, S., & Eberhard, J. (2004). Waterbirths compared with landbirths: An observational study of nine years. *Journal of Perinatal Medicine, 32, 308-314*

[v] Gilbert, Ruth E., Tookey, Pat A. (1999) Perinatal mortality and morbidity among babies delivered in water: surveillance study and postal survey. *British Medical Journal* ;319:483-487 (21 August)

[vi] Zanetti-Dallenback, R., Lapaire, O., Maertens, A., Frei, F., Holzgreve, W., & Hoslit, I. (2006). Waterbirth:, more than a trendy alternative: A prospective, observational study. *Archives of Gynecology and Obstetrics*, 274, 355-365

[vii] Bowden, K., Kessler, D., Pinette, M., Wilson, D Underwater Birth: Missing the Evidence or Missing the Point? Pediatrics, Oct 2003; 112: 972 – 973.

[viii] Nguyen S, Kuschel C, Reele R, Spooner C. Water birth—a near –drowning experience. *Pediatrics.* 2002; 110:411-413

[ix] Schroeter, K., (2004). Waterbirths: A naked emperor (commentary) American Journal of Pediatrics, 114 (3) Sept, 855-858

[x] Neilson, Duncan Presentation at the Gentle Birth World Congress, Portland, Oregon, Setpember 27, 2007

[xi] RCOG/The Royal College of Midwives (2006) Joint Statement no 1: Immersion in Water During Labour and Birth. London: RCOG

[xii] Johnson P (1996) Birth under water – to breathe or not to breathe. *British Journal of Obstetrics and Gynaecology* **103**(3): 202-8

[xiii] ibid

[xiv] Cluett, E.R., Burns, E. Water in Labor and Birth(review) Cochrane Database of Systematic Reviews 2012, Issue 2 Art. No.: CD000111.DOI: 10:1002/14651858.CD000111.pub3

[xv] Odent, M.,1983. The Lancet, December 24/31, p 1476

[xvi] Alderdice, F. et.al.1995. British Journal of Midwifery 3(7), 375-382

[xvii] ibid

[xviii] Geissbühler V, Eberhard J, 2000

[xix] Aird, et al, 1997; Cammu, et al, 1994; Eriksson, et al, 1996; Lenstrup et al, 1987; Ohlsson et al, 2001, Otigbah et al, 2000; Rush, et al, 1996, Waldenstrom & Nilsson, 1992.

[xx] Waldenstrom & Nillson, 1992

[xxi] Aird, Luckas, Buckett, & Bousfield, 1997; Cammu et al, 1994; Cluett, Pickering, Getliffe, & St. George, 2004; Eckert, Turnbull, & MacLennon, 2001; Lenstrup, et al, 1987, Ohlsson, et al, 2001, Rush, et al, 1996)

[xxii] Cammu, Clasen, Wettere, & Derde, 1994; Eriksson, Lafors, Mattson, & Fall, 1996; Eldering, 2005; Lenstrup, Schantz, Feder, Rosene, & Hertel, 1987; Geissbuhler & Eberhard, 2000; Rush, et al, 1996; Schorn, McAllister, & Blanco, 1993, Thöni A, Mussner K, Ploner F, 2010; Waldenstrom & Nilsson, 1992.

[xxiii] Mackey,2001; Benfield et al, 2001

[xxiv] Cluett, E.R., Burns, E. 2012

About Barbara Harper

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Barbara Harper, RN, CLD, CCE, DEM, CKC, CCCE, loves babies and has been a childbirth reform activist since her first day at nursing school over 42 years ago. She is an internationally recognized expert on waterbirth, a published author and she founded Waterbirth International in 1988, with one goal in mind – to insure that waterbirth is an available option for all women. During the past four decades, Barbara has worked as a pediatric nurse, a childbirth educator, home birth midwife, midwifery and doula instructor and has used her vast experience to develop unique seminars which she teaches within hospitals, nursing schools, midwifery and medical schools and community groups worldwide. She was recognized in 2002 by Lamaze International for her contributions in promoting normal birth on an international level. Her best selling book and DVD, 'Gentle Birth Choices' book has been translated into 9 languages so far. Her next book '*Birth, Bath & Beyond: A Practical Guide for Parents and Providers*,' will be ready for publication at the end of 2014. Barbara has dedicated her life to changing the way we welcome babies into the world. She considers her greatest achievement, though, her three adult children, two of whom were born at home in water. She lives in Boca Raton, Florida, where she is

active in her Jewish community as a volunteer and as a local midwifery and doula mentor and teacher. Barbara can be reached through her website, Waterbirth International.

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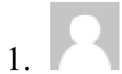
1. 
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   Outstanding! I would stand up and cheer if it wouldn't spill my coffee!

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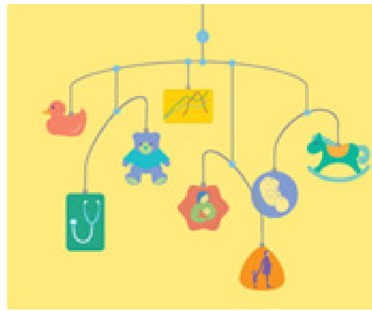

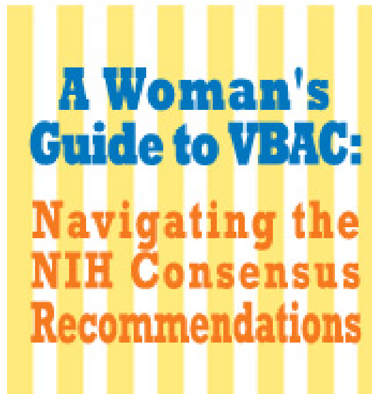

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