

4-1-2015

## A Review of Fatherhood Related Issues in the Country of Lebanon

Hadi Danawi  
*Walden University*

Tala Hasbini

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4-2015

# A Review of Fatherhood Related Issues in the Country of Lebanon

Hadi Danawi  
*Walden University*

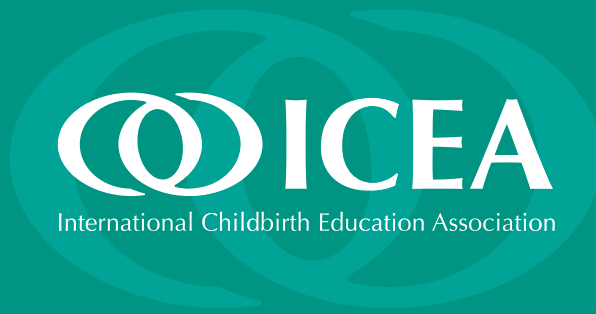
Tala Hasbini

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# *International Journal of* Childbirth Education



*Open Focus*

*The official publication of the International Childbirth Education Association*

VOLUME 30 NUMBER 2 APRIL 2015

Lamaze<sup>®</sup>  
International

ICEA  
International Childbirth Education Association

# 2015 Lamaze & ICEA Joint Conference

**RAISING THE STAKES**  
*for Evidence-Based Practices & Education in Childbirth*

SEPTEMBER 17-20, 2015 / LAS VEGAS, NEVADA / PLANET HOLLYWOOD HOTEL

**SAVE THE DATE**



The official publication of the  
International Childbirth Education Association

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The International Childbirth Education Association, founded in 1960, unites individuals and groups who support family-centered maternity care (FCMC) and believe in freedom to make decisions based on knowledge of alternatives in family-centered maternity and newborn care. ICEA is a nonprofit, primarily volunteer organization that has no ties to the health care delivery system. ICEA memberships fees are \$95 for individual members (IM). Information available at [www.icea.org](http://www.icea.org), or write ICEA, 1500 Sunday Drive, Suite 102, Raleigh, NC 27607 USA.

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# International Journal of Childbirth Education

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# Do You Know Your Carbon Footprint?

by Debra Rose Wilson, PhD MSN RN IBCLC AHN-BC CHT

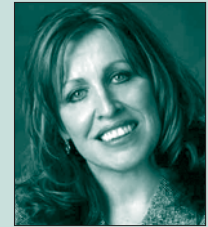
I encourage all readers to calculate their personal carbon footprint. The climate of the earth is changing. There is clearly a direct relationship between human activity, increases in greenhouse gases, and global warming. New minimum temperatures will be hotter than the baseline maximums of the past. Climate change is not the same as weather change. We expect, with climate change, for there to be greater swings to the extremes, which has certainly been true globally in the past few years. Up to 70% of the seasons from 2010 to 2039 are projected to exceed the last century's maximum. Arctic and tropical areas will more rapidly and clearly see and feel the changes. Estimates may be conservative as green house gas emissions in the past five years have already exceed the estimates used in previous calculations.

It has taken more than 20 years for the idea that human activity influences the climate and global warming to be widely accepted by the scientific community. We now know that the increase in the emissions of CO<sub>2</sub> in the last 30 years is directly related to burning of fossil fuels. Global warming is an evidence-based model that reflects the influence of human activity on climate and the balance of the earth's ecosystems. Corporations, businesses, and individuals have a responsibility to know the impact their own activities have on climate change.

## What Is a Carbon Footprint?

A carbon footprint is defined as the amount of greenhouse gases emitted related to human activities, and is usually expressed in equivalent tons of carbon dioxide (Time for Change.org, 2015). The

carbon footprint calculation can be powerful tool to help people understand the impact of their own behavior on global warming. The carbon footprint is calculated and results show how much CO<sub>2</sub> one is responsible for yearly. For example 1 gallon of gasoline consumption emits 8.7 kg of CO<sub>2</sub>, one gallon of heating oil emits 13.6 kg of CO<sub>2</sub>, and production of one cheeseburger (who knew?) emits 3.1 kg of CO<sub>2</sub> (Time for Change.org, 2015). Knowing and monitoring your own carbon footprint instills personal responsibility in environmental health (The Nature Conservancy, 2015) and is kind of a cool interactive online tool. There are numerous carbon footprint calculators available online. I recommend Carbon Footprint.com, (2015), The Nature Conservancy (2015) and Time for Change.org, (2015).



Debra Rose Wilson

## What I Learned About Reducing and Offsetting My Carbon Footprint

Carbon offsetting is a way to compensate for carbon dioxide emissions by somehow saving carbon dioxide emissions in other places (Carbon Footprint, 2015). Buy locally grown food, which not only improves health, but also decreases the amount of transport fuel. Pay bills online instead of using postal mail. Turn off unused electrical devices, appliances, computers, and unplug chargers when not in use. Walk when you can instead of driving. Drive instead of flying. I have been cognizant of the health risks of red meat, but hadn't considered the environmental

*continued on next page*

## Do You Know Your Carbon Footprint?

*continued from previous page*

costs with transport fuel consumption and methane production from cows. Keep the house temperature 2 degrees cooler during cold temperatures and 2 degrees warmer in warm seasons. Set up the central heating timer so the house requires less heating and cooling when you are at work. The added benefits of reducing the heating bill will be appreciated. Turn down the water heater 2 degrees (I haven't noticed the change at the sink) and wrap the hot water tank with the recommended insulation. Wash laundry with a full load, use the clothesline more (and be mindful of the fresh scent of sheets dried outside). Don't boil more water than needed. Change light bulbs to energy saving types. While they cost more, they also last much longer and are energy and budget efficient. Consider buying a bio-diesel or hybrid car next purchase, but delay that purchase for as long as possible. The CO<sub>2</sub> cost of manufacturing a car was far higher than I knew. Avoid buying bottled water to reduce plastic and transport costs and instead use a home filtering system. Go to a farmer's market instead of the supermarket to purchase local produce and take public transportation instead of driving. I prefer local, organic, and seasonal foods for other reasons, but can better justify the costs of organic knowing I am saving the world. Plant a vegetable garden, plant trees, recycle, compost, and avoid over-packaged products. Set an example for family, colleagues, clients, and students with actions instead of words.

It seems to me that we have always believed that we are able to control Nature. The arrogance of this misconception and years of denial of the consequences of our actions is further evidence of to our self-centered misconception. I will do my part to control my carbon footprint, and try to instill in others this social responsibility.

Welcome to the Spring issue which is open focus. We have numerous articles, editorials, research,



and book reviews for your reading. Let me know what you think of this issue. Write an article for your journal, suggest a theme, or request an article on a specific topic. Many thanks to the oncoming ICEA board for their enthusiastic participation in editorials and articles. Thanks to Laura Comer who as our graphic artist lays out a beautiful journal. Thanks to my peer reviewers, proofreaders, assistants, and support. Get out there and hug a tree.

*Peace,  
Debra  
editor@icea.org*

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# Being the Change

by Connie Livingston, RN BS LCCE FACCE ICCE

*“A growing body of research makes it alarmingly clear that every aspect of traditional American hospital care during labor and delivery must now be questioned as to its possible effect on the future well-being of both the obstetric patient and her unborn child.”*

—Doris Haire, Past ICEA President, 1970-1972

Doris Haire was a woman who lit a thousand candles. She was a true catalyst for change. And she changed maternity care in a big way. Beginning as a medical sociologist and consumer advocate, Doris knew from her extensive world travels that there were many practices surrounding birth. It could be said of Doris that she embodied evidence-based maternity care, for it was through her tireless efforts that care began to change.

While a consumer advocate and birth activist, she was neither militant nor aggressive. She held her own in such roles as a presenter at the American Society of Anesthesiologists' panel on Controversial Aspects of Obstetrics and Obstetrical Anesthesia in 1978, as a member of the FDA Advisory Committee on Ultrasound in 1979-1980, as a planner and testified at two Congressional hearings on obstetric care 1980 & 1981 and as the author of *How the FDA Determines the “Safety” of Drugs – Just How Safe is “Safe”?* in 1984. Two of her most famous works, *“The Cultural Warping of Childbirth”* and *“The Pregnant Patient's Bill of Rights”* (both ICEA publications) are to this day as foundational as they are relevant. How did she initiate the changes? Evidence-based information!

In the *“The Cultural Warping of Childbirth”*, statements such as “Ignorance of the possible hazards of obstetrical medication appears to encourage the misuse and abuse of obstetrical medication, for in those countries where mothers are not told routinely of the possible disadvantages of obstetrical medication to themselves or to their babies, the use of such medication is on the increase,” are as true today as they were in 1972. *“The Cultural Warping of Childbirth”* advocated for

the right of a woman to make an educated decision on homebirth, identified relaxation as a key component for dealing with painful contraction stimuli, opposed elective induction due to the hazards of prematurity, opposed to withholding food and drink from un-medicated women in labor, as well as promoting position changes and movement in labor. And *Cultural Warping of Childbirth* was groundbreaking. From her focus on breastfeeding benefits extending far beyond infancy to professional dependence on technology to induction, it becomes clear that Doris was a visionary. To read the entire document, it is available as a pdf and can be found by Googling *The Cultural Warping of Childbirth*.

Doris's enthusiasm and drive is famous in our profession. From working in small groups in other countries to legislation here in the U.S., her drive to improving maternity care should be an inspiration to us all. We must all continue that legacy by spreading evidence-based information to expectant parents through in-person classes and through social media; be energized to volunteer for local birth/breastfeeding community groups or birth networks; explore volunteering for various ICEA positions and committees; and find innovative ways to encourage mothers to come back to childbirth education classes to learn.

Although Doris was one person, it is easy to see all of the candles she lit. Imagine if the entire ICEA membership lit candles! There would be a blaze that no one could ignore. Find the Doris Haire inside of you. Challenge traditional maternity care practices with professionalism, grace and evidence. Take small steps, and these will lead you down the path to more opportunities.

I find myself quoting Mahatma Gandhi again in this message:

***“You must be the change you wish to see in the world.”***

*In your service,  
Connie Livingston, ICEA President  
clivingston@birthsource.com*



Connie Livingston



# 2015 Joint Conference with Lamaze in Las Vegas

by Holly Currie, ICEA Executive Director

It seems like our 2014 conference was just yesterday, and yet our 2015 conference is just around the corner. This year ICEA will team up with Lamaze to bring their members the joint conference “Raising the Stakes” in Las Vegas, Nevada, September 17-20, 2015. This will be a great conference with preconference workshops as well as breakout sessions and several main speakers.

This will be the second joint conference with Lamaze in the last five years. In October of 2010, we celebrated the joint 50th celebration in Milwaukee, Wisconsin. We’re excited to offer this joint conference, which provides a variety of benefits to help members. The conference offers the industry one show to attend to get the education and networking that they need to succeed. This combined conference also unites the industry while celebrating the last 55 years of advocating safe, healthy births as well as freedom of choice based on knowledge of alternatives in family-centered maternity and newborn care.

Our convention planning committee is being chaired by Kimberly Myers from Maryland. Kimberly joined our board in January 2015 and has been working with our committee to ensure the best program for our members. Connie Livingston and Debra Tolson, President and President-elect, respectively, are also on the committee. These dedicated committee members know what is important to our members and take that into consideration as we work with Lamaze.

Working daily with the planning committee is Angela Kite, CMP, from the Raleigh main office. Angela has been with FirstPoint, our management company, for almost eleven years. In that time, she has worked on numerous meetings, and her experience ranges from board room and banquet hall set-up to applying for continuing education hours to running exhibit halls. Angela also met requirements to be certified in her field, a certification similar to that of the ICEA. Angela passed the requirements and examination established by the Convention Industry Council (CIC) in November 2012 and can now use the initials CMP (Certified Meeting Planner) behind her name. Angela’s expertise will help the 2015 conference run smoothly.

The planning committee has been involved the past several months with weekly phone conversations along with emails to Lamaze’s planning committee, which is also made up of planning chairs, educational chairs, and staff from their management company. The joint committee first decided on

the theme for the conference. This year’s theme is “Raising the Stakes for Evidence-based Practices & Education in Childbirth.” Our planning committee members use their experience in the field to choose the best speakers and breakout sessions and the schedule of events that they envision for the best conference. The staff members then implement by contacting speakers, working with the hotel, and arranging program content for distribution to the attendees.



Holly Currie

The planning committee is currently reviewing all abstracts that were submitted. We had over seventy submissions, and with today’s technology, each committee member can log on to her account and review and rate each one. We will then narrow the field down and move forward in finishing the schedule. Once that is in place, we will be able to open registration. You will then be able to register in the convenience of your own home by visiting [www.lamazeicea2015.org](http://www.lamazeicea2015.org).

Once the speakers are in place, the committee will also work together to determine the meals, social activities for attendees to make the trip seamless, and the committee will also provide a list of off-property shows and restaurants that might be of interest to ICEA members. As the planning portion comes to an end, the staff from both organizations will then pick up their pace. We use the information provided to us from the committee to use our skill sets to implement everything. ICEA and Lamaze staff will work together to provide marketing, select a room for each speaker, organize Continuing Education hours, determine the audiovisual equipment needed, maintain an organized registration list, and map out the exhibit hall, just to name a few tasks.

A lot of thought and work goes into each conference, but the end result is worth it. It is so important for our membership to have a place to come together each year to network and discuss with peers the changing ideas, trends, thoughts, and feelings of the significant world of childbirth education.

As more information is available regarding the conference in September, the website [www.lamazeicea2015.org](http://www.lamazeicea2015.org) will be updated. Please be sure to check it out on a regular basis.

See you in Vegas!!

# Opportunity Awaits Beyond the Comfort Zone

by Jennifer Shryock, BA CDBC, Marketing and Membership Director

*“Limitations live only in our minds. But if we use our imaginations, our possibilities become limitless.”*

– Jamie Paolinetti



Jennifer Shryock

It is an honor to be on the ICEA Board serving this organization as Marketing and Membership Director. I am a new face but have been involved in the Childbirth Community for over 10 years and it's amazing getting to know so many inspiring members of ICEA. I have a strong passion for knowledge about all things related to birth, post-

partum, babies, and family dogs. An interesting combination I know but a very important niche!

I live in Cary, North Carolina with my husband Joe and four wonderful children ages 18, 17, 13 and 5. We fostered over 70 dogs over the years and many wise felines. Currently, we share our home with three wonderful family dogs and four mischievous cats. Prior to staying at home with our children, I worked in Special Education in a variety of environments. My experiences ranged from directing a residential summer program for adults and children with severe disabilities to Preschool Teacher in a transitional housing setting in North Philadelphia. I love variety and new experiences that stretch me out of my comfort zone and my consistent theme is my passion to support families and children in ways that help them be as successful as possible. I see ICEA as the perfect fit for me to continue to nurture and grow my passion!

In 1996 when my son Andrew was born, I was very grateful to find a comfortably supportive nursing Mom's group. As a new nursing mom, I was so grateful for the support I received that I became a nursing counselor myself. This experience inspired me to continue my learning and

really made it clear to me that whatever I did it was going to be with new families. In 2001 when I was still trying to decide what I wanted to be when I grew up, I was very interested in becoming a lactation consultant as I had been a nursing counselor going on five years. I saw such a need for this professional support. I was very drawn to supporting new moms and the role of Postpartum Doula felt like home for me too.

Then, as a volunteer for German Shepherd Rescue, managing the phone line, I observed a huge gap in education and resources for expectant families with dogs. Sadly this led to many dogs being rehomed or often, just dumped at shelters. I believed this could change with increased awareness, resources and support for parents. This is when I realized I could combine all my passions into one unique career. Why not work with new and expectant families who have dogs? This way I can stay connected with all of my passions and support amazing families too! This is how Family Paws® Parent Education was created.

How does this relate to my role as marketing director and ICEA? Great question! Parent education can be a tough sell. Creating programs and delivering the information is often the easy part. But reaching your audience is where the challenge lies!

I created our program Dogs & Storks in 2002 and offered it from my living room, consistently the second Sunday of every month. This strategy was designed to build credibility and keep our program in front of people. I wanted an easy way for doctors, veterinarians and families to remember when this class was going to be held. Keeping the logo and name in the public eye was key.

At that time, I wasn't too internet smart. We used traditional techniques for marketing locally (newspaper and magazine ads, posting at local stores and businesses, word of mouth). This worked pretty well in the beginning. I have

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## Opportunity Awaits Beyond the Comfort Zone

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embraced the incredible resources through the internet to continue marketing, collaborating and networking all over the world. Our network of professionals promote our brand and mission while bringing our materials to their local community. This is the best marketing strategy of all.

As a result, over the last decade Dogs & Storks has gained international recognition and allowed us to increase safety and decrease stress for new and expectant families near or far! We continue to add resources and update programs based on research and current information. I am proud to say that I have mentored hundreds of dog professionals over the years and supported thousands of families as they ease into the transition from pet parents to parents with pets. Looking back over the lessons I have learned from licensing our program to hundreds of professionals, I am so grateful for each experience.

In 1991 when I graduated with my Bachelors Degree in Special Education, business, marketing, and sales were never a thought on my mind. I always said I would work with kids and dogs but never did I dream of the opportunities I've

experienced since then. Opening myself up to new learning experiences, allowed me to expand my passions and grow my strengths. I love the marketing puzzle and game, and speaking to groups, and I'm always trying to learn more in this fast paced world we live in. Sometimes those little choices you make allow you the detours you never would have stumbled on if you did not take a chance and travel the unfamiliar.

As I look at my role within ICEA, I see an exciting new journey to continue learning and apply my experiences to best serve ICEA and its members. I feel the discomfort of the unknown and the exhilaration of the fresh new opportunity! It is with this that I ask you to consider where you are. Are you too comfortable? Is it time to stretch your comfort zone and try something new? ICEA is a dynamic organization that is evolving and progressing like never before. I invite you to join me and stretch your comfort zone. Where might you fit in? Is there an area you are drawn to but not sure how to proceed? You just never know where that new opportunity will take you. Of course I would welcome you to our marketing committee. Your input and outreach is what builds our membership. I am looking forward to sharing in my new journey as I proudly learn, grow and promote ICEA's success.

# Call for Nominations 2016-2017

Do you have a few hours a month to volunteer for your profession? Would you like to help others all over the world support family-centered maternity and newborn care? Do you enjoy the camaraderie of working together with a great team, developing new skills, while promoting freedom of decision making based on knowledge of alternatives?

ICEA is currently seeking volunteers for the following positions on the ICEA Board of Directors: Director of Education, Director of Communications, Director of International Relations.

ICEA is also seeking individuals interested in serving as the Advertising Editor of the *International Journal of Childbirth Education*. Training for this position is included; no previous experience necessary.

**Nominations/self-nominations due August 7, 2015. Check [www.icea.org](http://www.icea.org) for details/forms!**



International Childbirth Education Association

# Cheering for Change in Childbirth

by Katrina Pinkerton, RN IBCLC, Director at Large



Katrina Pinkerton

As a little girl, I grew up around childbirth education- my mother and aunt have been ICEA educators for decades. I grew up playing with cervical dilation models (it made an excellent tea set tray)! My sister and I played next door to childbirth classes (my mother hid us giggling little girls in the neighboring room as she taught next door). Experiences around birth education during my youth instilled in me the value of empowering families into making informed birth choices.

My current path began with my role as an ICEA childbirth educator. Working with patients as a hospital-employed perinatal educator gave me insight into the ways that current birthing practices help, or some cases, harm, women and their families. During our classes, women would share their fears, hopes and excitement surrounding the impending birth of their baby. Partners expressed concerns and feelings of helplessness when talking about going through the birth process with their loved ones. Some couples wanted every technological intervention available to them, while others desired a less invasive approach from their care providers. The one thing that unified each couple, however, was that every couple had a set idea of how they wanted birth to be. No one wanted to feel out of control, to feel like birth was something they could not manage, or to feel like they were not getting the best care possible.

As I moved into an inpatient role as a lactation specialist, I saw perinatal education in action. There was a great difference in how birth was perceived between parents who had taken childbirth preparation classes and those who had no formal birthing classes, regardless of the outcome. Parents with education felt more prepared, which gave them a sense of control and familiarity with the process they went through with birth. Also, the mothers who had taken breastfeeding classes were more confident with breastfeeding, regardless of how feeding was actually going in the moment, and thus were

better able to maintain exclusive breastfeeding in the hospital.

The power of perinatal education became clear to me, and I realized how much of a difference it truly makes for women and their families in their experience of pregnancy, labor, birth, and postpartum. I felt frustrated that many health care providers were still not referring patients to perinatal education classes and concerned that many patients received almost no information in their prenatal visits about the importance of learning about and preparing for childbirth and breastfeeding. My love of working with patients, coupled with my desire to infuse prenatal care with perinatal education and advocacy, propelled me on my path to become a Certified Nurse Midwife.

I currently have the blessing to be in the second of my three-year education at the Yale School of Nursing to become a Certified Nurse Midwife and Women's Health Nurse Practitioner and will be graduating in May of 2016. My love of providing breastfeeding support is satisfied through my employment at various Connecticut hospitals as a Registered Nurse Lactation Consultant. I also spend time volunteering as a co-director of the Reproductive Health Education and Advocacy student organization at my school. I am an advocate of social justice and cultural competency within the healthcare field, with a specific focus on enhancing care and competency for LGBTQ populations. As my new role as a board member with ICEA begins, I end my role as a Board Member at HAVEN, the free clinic in New Haven which is run by Yale health professional students. I am also a mother to the world's sweetest six-year-old boy, who came smoothly into the world with the support of childbirth educators and under the tender care of midwives.

I am thrilled to receive this position on the board with ICEA. I am excited to bring to the table my varied skill set and unique perspective, and look forward to working with the other board members who have a wealth of experience and wisdom in the field of Childbirth Education. Lastly, I am deeply honored to serve the members of ICEA and their clients.



# Paternal Postpartum Depression

by Lee Stadtlander, PhD

**Abstract:** *Paternal postpartum depression (PPD) within the first postpartum year is estimated to occur in 4% to 25% of new fathers. Paternal PPD occurs later postpartum in men than in women, and results in father/infant bonding issues, may lead to long term effects for the child, and has detrimental effects on the couple's relationship. Risk factors of paternal PPD include the mother having PPD, the father having a history of depression, being under 25, and being unmarried. Recent evidence suggests that paternal PPD may be related to sensitivity to low testosterone in some men. Childbirth professionals have the opportunity to raise awareness of this issue through pre and postnatal education of both parents.*

*Keywords:* pregnancy, fatherhood, paternal postpartum depression

Rick is the father of three month old Amy. While he was excited initially at the birth of Amy, he finds himself easily becoming angry, arguing with his wife, unable to make decisions, and suffering from repeated indigestion and diarrhea. He feels less close to his daughter, gets angry at her crying, and frequently avoids caring for her. His wife mentions her concerns to her midwife at her postnatal checkup; her midwife suggests that he may be suffering from paternal postpartum depression.

## What is Paternal Postnatal Depression?

Maternal post-partum depression is a well-recognized mental health issue, affecting approximately 13% of postpartum women (O'Hara & Swain 1996). However, depression in the father is also an issue that is less recognized. Estimates of the incidence of paternal postpartum depression (PPD) in the literature vary widely, ranging from 4% to 25% of new fathers within the first postpartum year (Goodman, 2004; Paulson, Dauber, & Leiferman, 2006; Ramchandani, Stein, Evans, O'Connor, & ALSPAC Study Team, 2005).

Mothers' onset of postpartum depression is generally in the early postpartum period (Hendrick et al. 2000); however, depression in men tends to begin later. The definition of many studies is that paternal PPD is depression that occurs within the first 12 months postpartum with the highest rates found at 3 to 6 months postpartum (Goodman, 2004; Musser, Ahmed, Foli, & Coddington, 2013; Nazareth, 2011; Paulson & Bazemore, 2010).

*PP depression in men tends to begin later than women*

## Signs and Symptoms of Paternal PPD

The greatest risk factor of paternal PPD is postpartum depression in the mother (Goodman, 2004; Nazareth, 2011; Paulson & Bazemore, 2010). In a literature review conducted by Goodman (2004), the incidence of paternal PPD during the first postpartum year ranged from 1.2% to 25% in community samples; however, this incidence increased to 24% to 50% among men whose partners were experiencing PPD. This relationship is unclear, but male partners of depressed women reportedly feel less supported, experience fear, confusion, frustration, helplessness, anger, a disrupted family, and uncertainty about the future (Schumacher et al., 2008).

Other signs of paternal PPD include: (a) withdrawal or avoidance of social situations, work and or family; (b) *continued on next page*

## Paternal Postpartum Depression

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cisiveness; (c) cynicism; (d) anger attacks; (e) self-criticism; (f) irritability; (g) alcohol/ drug use; (h) marital conflict; (i) partner violence; (j) somatic symptoms (e.g., indigestion, headache, diarrhea, constipation, insomnia); and (k) negative parenting behaviors (e.g., decreased positive emotions, sensitivity, increased hostility; Musser et al., 2013). Other risk factors include a history of depression, fathers less than 25 years old, lower socioeconomic status, working class occupations, being unmarried, and having an inadequate support system (Goodman, 2004; Musser et al., 2013; Nazareth, 2011).

### A Biological Cause?

Kim and Swain (2007) speculate that paternal PPD may be related to changes in the father's testosterone level, which tends to decrease over time during his partner's pregnancy and for several months during the postpartum period (Fleming, Corter, Stallings, & Steiner, 2002; Storey, Walsh, Quinton, & Wynne-Edwards, 2000).

Several researchers (Clark & Galef, 1999; Wynne-Edwards, 2001) have suggested that such testosterone decrease leads to lower aggression, better concentration in parenting, and stronger attachment with the infant. Fathers who have lower testosterone levels tend to express more sympathy and feel a strong need to respond when they hear an infant's cry (Rohde, Lewinsohn, Klein, & Seeley, 2005).

The relationship between low testosterone levels and depression is not clear in the literature. Men aged 45 to 60 who are clinically depressed also exhibit lower testosterone levels than men with higher testosterone levels (Burnham et al., 1999). Depressed women given low doses of testoster-



one showed improvement in depression levels (Miller et al., 2009). However, a recent study by Johnson, Nachtigall, and Stern (2013) suggests that depression and low testosterone levels are correlated in only a subpopulation of men; thus, confirming that it may be only a subgroup of new fathers with a sensitivity to low testosterone levels who are at risk for paternal PPD.

### Effects of Paternal PPD on Infants and Children

Research indicates that paternal PPD leads to a higher risk for increased family stress, a lack of infant bonding, an increased incidence of spanking, and later child psychopathology such as emotional issues, conduct disorder, and hyperactivity (Davis, Davis, Freed, & Clark, 2011; Musser et al., 2013; Paulson et al., 2010; Ramchandani, Stein, et al., 2008; Ramchandani, O'Connor, et al., 2008). Davis et al. (2011) examined the relationship between depression in fathers of one-year-old children and their parenting behaviors. Depressed fathers were more likely to report spanking their child and were less likely to report reading to their child.

The effects of paternal PPD appear to have long term effects on children. Ramchandani, Stein, et al. (2008) followed families prenatally through 7 years. The study found a strong relationship between paternal depression at 8 weeks postpartum and a psychiatric diagnosis in children at 7 years of age: 12% of children diagnosed with attention deficit

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Tiffany Panas, Call It Love Photography

## Paternal Postpartum Depression

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disorder, oppositional defiant/ conduct disorder, anxiety or depression had depressed fathers during the postpartum period compared to 6% of children with non-depressed fathers.

The risk of poor parenting increases when both parents experience PPD depression. Fathers have been reported to play an important role in “buffering” their children from maternal PPD, which is lost when both parents are depressed (Melrose, 2010). When both parents are depressed, they are more likely to view their child negatively, describe their child as below average or average, and perceive more health problems in their children (Melrose, 2010). Paulson, Dauber, and Leiferman (2006) examined both the individual and combined effects of maternal and paternal PPD on parenting behaviors. The study found that the greatest negative effects on parenting behaviors occurred when both parents were depressed: infants were less likely to be breastfed and more likely to be put to bed with a bottle. Fathers were less likely to play outside and sing songs to their babies when both parents were depressed.

## Implications for the Childbirth Professional

Education of both parents by childbirth professionals is important to increase awareness of the condition and decrease stigmas that may be associated with PPD. Prenatal visits and education classes, as well as, postnatal visits provide opportunities for discussing the signs and symptoms of PPD in both parents. Fathers may also be directed to online resources, such as <http://www.postpartummen.com> and <http://www.postpartumhealthalliance.org>. An excellent resource for both parents and professionals is Spencer’s (2014) book *Sad Dad: An exploration of postnatal depression in fathers*.

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# Delayed Umbilical Cord Clamping: Is It Necessary to Wait?

by Jessica L. Bechard, MSN RN

**Abstract:** *Umbilical cord clamping is a standard intervention that takes place after birth. However, it remains a controversial issue. While it is common practice to clamp and cut the umbilical cord immediately after birth, there remains debate whether these are still viewed as best practices. This article will examine the literature to determine how delayed cord clamping is defined and whether the benefits of this practice outweigh the risks.*

**Keywords:** *cord clamping, neonate, full-term, pre-term*

When to clamp the umbilical cord has been a hot topic of debate within the hospital setting for years. Umbilical cord clamping is a routine birth intervention. Nevertheless, optimal timing for cord clamping remains controversial.

Immediately following the birth of the fetus, the umbilical cord is clamped in two places and severed from the placenta. In the U.S. this third stage of labor practice routinely occurs prior to placental expulsion and within 30 seconds after birth occurs. At birth, approximately one-third of the neonate's blood still remains in the placenta. Once cord clamping and cutting occurs transfusion of oxygenated blood is immediately suspended resulting in a decrease of circulating blood volume (Malloy, 2013; Hutchon, 2013). Erasmus Darwin, an 18th-19th century English physician, recognized the effects of delaying the cutting of the cord,

*Another thing very injurious to the child, is the tying and cutting of the navel string too soon; which should always be left till the child has not only repeatedly breathed but till all pulsations in the cord ceases. As otherwise the child is much weaker than it ought to be, a portion of the blood being left in the placenta, which ought to have been in the child... (Raju & Singhal, 2012, p. 889).*

Early midwifery practices (Magennis, 1899) instructed that the clamp should be left open until the cord had ceased in pulsation. Placental blood transmission to the fetus is rich in oxygenated blood. Thus, the volume of blood if clamped prior to the end of pulsation can deplete as much as 100 ml of this oxygenated blood from the neonate (Raju & Singhal, 2012). This alone could potentially lead to complications.



Steve Fox Photography

## Delayed Cord Clamping: What Is It?

While there are varying definitions of delayed umbilical cord clamping within the literature, the World Health Organization (WHO) defines delayed cord clamping (DCC) as clamping occurring one minute or later after birth takes place (WHO, 2014) and is considered the minimum amount of time to increase maternal and neonatal health outcomes. WHO (2014) also recommends the cord should not be clamped any earlier than necessary to facilitate quicker expulsion of the placenta.

*Increased hemoglobin, hematocrit, and iron stores, and decrease in anemia are favorable effects of delayed cord clamping.*

Clamping times vary considerably between studies in the literature. In a meta-analysis of 15 controlled trials of full-term neonates conducted by Hutton and Hassan (2007),

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most defined DCC as clamping occurring at 3 minutes or after pulsation ceased, with recommendations to delay the clamping of the cord for at least 2 minutes after birth. Van Rheenen and Brabin's (2006) systematic review found DCC occurring between 30 seconds and 2 minutes, however the recommendation was to delay clamping up to three minutes to allow for optimal placental transfusion. Strauss et al. (2008) identified that a 1 minute delay resulted in significantly increased red blood cell volume in preterm neonates, while Rabe and colleagues (2012) found fewer preterm neonates needed transfusions when cord clamping was delayed up to 3 minutes.

## Benefits of DCC

The most beneficial outcomes of DCC continues beyond the neonatal period (Hutton & Hassan, 2007) and some are seen almost immediately. Increased hemoglobin, hematocrit, and iron stores, and decrease in anemia are favorable effects of DCC.

### Hemoglobin/Hematocrit Levels and Anemia

The oxygen carrying capacity of the blood is affected by the number of red blood cells within the body. If a neonate has a sufficient number of red blood cells, the hemoglobin and hematocrit levels will be increased, thus decreasing the chances of anemia. When DCC occurs, these levels can be 2 to 3 g/dL higher than neonates who had early umbilical cord clamping (Hutton & Hassan, 2007; Raju & Singhal, 2012). What is even more encouraging is that these levels last at least until the child is 2 to 3 months of age (Hutton & Hassan, 2007). A reduction in the number of transfusions for anemia was found in preterm neonate populations when DCC was practiced (Rabe et al., 2012).

### Iron Levels

Additional blood volume will increase iron stores within the body. The increased blood volume can add a surplus of up to 50 mg/kg of iron to the neonate (Eichenbaum-Pikser & Zasloff, 2009; Van Rheenen & Brabin, 2006) and these lab values will continue to increase up to 6 months of age. This excess of iron can ultimately decrease the risk of iron-deficiency anemia, which is the leading cause of anemia found in neonates. Overall, DCC leads to improved neurological and cognitive development related to increased hematological and iron levels in the body.

## Risks of DCC

Several valid concerns are associated with DCC. While some studies suggest that DCC increases the risk of respiratory distress or neonatal resuscitation, jaundice, and polycythemia (Eichenbaum-Pikser & Zasloff, 2009; Hutchon, 2012; Hutton & Hassan, 2007; Raju & Singhal, 2012), there is no evidence of these causing significant harm to the neonate. Therefore, these risks must be noted and considered when determining if DCC is the right choice for the neonate.

### Neonatal Resuscitation and Respiratory Distress

Current practice involves transferring an asphyxiated neonate to the warmer immediately after birth for resuscitation. With this, the cord is immediately cut. There are however, increasing opinions that "maintaining a placental circulation in these babies will aid recovery" (Hutchon, 2012, p. 726). Hutton and Hassan (2007) found no significant difference between early or delayed cord clamping on the increased risk of transient tachypnea. Eichenbaum-Pikser and Zasloff (2009) found that transient tachypnea may occur, but no additional resuscitation may be needed. While preterm neonates are already at an increased risk for respiratory difficulties, research shows there is no further potential increase due to DCC (Garofalo & Abenhaim, 2012).

### Jaundice

With the increase in hemoglobin stores and iron concentration in the blood from waiting to clamp, the neonate can be at an increased risk for jaundice. Jaundice occurs when the neonate has a total serum bilirubin greater than 5 mg per dL and is related to a slowing of red blood cell breakdown. With more red blood cells, the risk for jaundice could be seen as increased. Hutton and Hassan (2007) found no significance in serum bilirubin measurements or requirement of phototherapy lights in neonates with DCC. Contrarily, McDonald and Middleton (2008) did find that fewer infants required phototherapy when early cord clamping occurred compared to delayed, however, the difference between clinical jaundice findings were not significant. Increased serum bilirubin levels with DCC were higher in preterm infants, however, preterm neonates are already at an increased risk for jaundice (Rabe et al., 2012). Unfortunately, controversy over the increased risk of jaundice still prevails. More recent studies found phototherapy usage increased even with early cord clamping (Garofalo & Abenhaim, 2012; Hutchon, 2013).

### Polycythemia

Polycythemia, a venous blood hematocrit greater than  
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65% in the neonate, can occur in up to 4% of all births (Sankar, Agarwal, Deorari, & Paul, 2010). With increased blood volume from DCC, this thickened viscosity of the blood can deplete oxygen carrying capacity and increase the risk of respiratory distress. When DCC is practiced, elevated serum hematocrit levels are found up to 48 hours after birth in full-term and preterm neonates. However, there are no presenting symptoms noted between either groups (McDonald & Middleton, 2008).

### Conclusion

The decision to delay umbilical cord clamping is currently determined by the health care provider. The Committee on Obstetric Practice of The American College of Obstetricians and Gynecologists along with the American Academy of Pediatrics (2012) reaffirmed its position in 2014 and feel current literature is insufficient in validating or refuting the act of DCC. They suggest more research is needed to effectively determine if DCC is beneficial as current studies suggest.

The small literature review presented here reveals DCC consistently improves short term and long term hematological values of both the preterm and term neonate. Although there is inconsistency in defining what time frame to use with DCC, studies show neurological and cognitive outcomes are increased when clamping occurs after one minute of age with term neonates and at least 30 seconds with preterm neonates. Overall, all health care providers must weigh the benefits and risks (See Table 1) to provide optimal care for the neonate after birth.

**Table 1. Benefits vs Risks**

#### Benefits

Term Neonate	Preterm Neonate
Lower risk of iron deficiency anemia for first 6 months	Lower risk for transfusions
Higher Hct/Hgb levels for up to first 4 months	Increased blood volume
Increased blood volume	

#### Risks

Term Neonate	Preterm Neonate
Increased risk of jaundice	Increased risk of jaundice
Possible transient tachypnea	

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# LGBTQ Focused Education: Can Inclusion Be Taught?

by Randi Beth Singer, CNM MSN RN

***Abstract: With the advent of the LGBTQ civil rights movement, particularly the fight for marriage equality, there is a growing awareness of non-traditional families. This awareness requires all health care professionals including childbirth educators to shift away from heterosexist thinking and language in caring for patients. Doctors, nurses, prenatal educators, doulas, and midwives must be adequately educated about LGBTQ health issues to be empathic and conscious of the needs of this population. Without proper culturally competent educational opportunities, the health care system is inadequately prepared to provide responsive health care.***

*Keywords: LGBT, lesbians, pregnancy, prenatal care, heteronormativity, cisnormativity*

When a patient chooses a prenatal care provider, doula, childbirth educator, or midwife, they are choosing a year-long relationship based on trust, expertise, and skill. Patients want to know if their care providers will also be understanding, accepting, and trustworthy. Trust is more likely to be achieved with a health care professional whose philosophy is to maintain inclusion and cultural sensitivity (Janssen, Ryan, Etches, Klein, & Reime, 2007). We can only be more effective in patient care by demonstrating sincere understanding, acceptance, and inclusion.

Although pregnant Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) patients receive prenatal care from OB physicians and other healthcare providers and educators (Unger, 2014), there is little research to support how best to implement LGBTQ education (Poteat, German, & Kerrigan, 2013). Despite whatever training they have received, many healthcare professionals are not aware that there is a problem in relation to their care of LGBTQ families (Lim, Brown, & Justin Kim, 2014). However, LGBTQ childbearing families have reported insensitivity on the part of their obstetric healthcare professionals (Bonvicini & Perlin, 2003; Nusbaum & Hamilton, 2002). Therefore, there is a gap between perceptions of health care professionals and what they actually need to know in order to provide competent, compassionate, and inclusive care for the LGBTQ childbearing community.

Evidence suggests that health care professionals best serve the needs of their patients by being knowledgeable, approachable, understanding, and trustworthy (Janssen et al., 2007; Reis et al., 2008). To be knowledgeable, approachable, understanding, and trustworthy, health care professionals must prepare and show competence with continuing education and exposure to the specific needs of various patient populations (Lannon, 2005). Therefore, to meet the needs of the LGBTQ patients, preparedness and competence can be achieved through LGBTQ-focused education. It is the responsibility of health care professionals to learn how to be affirming allies who are able to anticipate diverse identities in terms of both sexuality and alternative gender presentation. This allows acceptance of and knowledge about the LGBTQ community. Curriculum changes, continuing training, and development all need to take place so that healthcare inclusion may occur for members of the LGBTQ community.

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*Heteronormativity is the incorrect presumption that we are all, by default, heterosexual.*

### Theoretical Support for Change

Before even beginning to implement curriculum and training changes, we first need to assess what is and is not being taught. Additionally, attention needs to be given to the gaps in LGBTQ knowledge so that they may effectively educate future nurses, physicians, midwives, and doulas. Finally, scholars must gain insight into what those practicing do and do not know about the LGBTQ community as it relates to their health and wellbeing.

### Heteronormativity within Obstetrical Care

Heteronormativity is the incorrect presumption that we are all, by default, heterosexual (Lim et al., 2014). Cisnormativity negates the very reality of gender variance and the complicated experience of diverse gender expression (Callahan et al., 2014). This two-dimensional presumption is often what is being taught at medical and nursing schools and may be what is being practiced (Platzer & James, 2000; Rondahl, 2011). Healthcare education continues to be hetero and cisnormative and ignorant of the daily life and health challenges faced by LGBTQ community. Curricula need to be modified allowing for LGBTQ inclusion taught, discussions begun during training, and discomforts eased (Vanderleest & Galper, 2009).



Sue Fox Photography

## How Heteronormativity Plays Out in Practice

Many practicing are heteronormative in how they care for patients, blindly assuming all individuals are heterosexual until proven otherwise (Sue, 2010). Because the possibility of proving otherwise is rarely provided, questions about sexual orientation and gender identity are eliminated during office visits. Currently, fewer than 35% of healthcare providers inquire about sexuality with their patients, ultimately leading patients to withhold information (Nusbaum & Hamilton, 2002). According to Lee (2004), by not asking questions related to sexual and gender identity, LGBTQ individuals are not given the opportunity to disclose. With decreased disclosure, there is a scarcity of data, which further contributes to the LGBTQ population being less visible (Lee, 2004).

While some healthcare providers nearly eliminate sexual identity in history taking, other healthcare providers tend to be curious and inquisitive about those identifying as LGBTQ and give excessive attention to the relationship (Lee, 2004; Rondahl, 2009). When curiosity takes hold and patients are asked to educate their healthcare provider about their sexual orientation or gender identity, patients might feel they are being robbed of their prenatal, intrapartum or postpartum experience (Rondahl, 2009).

### LGBTQ – Focused Education

There is not enough LGBTQ-inclusive material at the University level for those studying to be healthcare providers (Vanderleest & Galper, 2009). For example, Wallick, Cambre, and Townsend (1992) reported that medical students received fewer than four hours of LGBT education in four years of medical school. Rondahl's (2011) research also demonstrates the inadequacy of LGBT material being covered within health care education curriculum. Vanderleest and Galper (2009) suggest that current faculty might need significant education to successfully answer students' questions related to the care of LGBTQ people. Because LGBTQ inclusion has not been traditionally implemented within all aspects of nursing, midwifery, doula, and medical school curricula, Vanderleest and Galper (2009) suggest that educators will require faculty development in the area of LGBTQ care. Additionally, there is no continuing education requirement for the cultural competency of practicing physicians, nurses, midwives, and nurse practitioners as it relates to human sexuality (Janssen et al., 2007; Reis et al., 2008).

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## LGBTQ Focused Education: Can Inclusion Be Taught?

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### Start with the Basics

In order to begin to understand the needs of LGBTQ childbearing patients, we must first understand how sexual orientation, biologic sex, gender expression and gender identity are different from one another. This author recommends the Genderbread Person (Killermann, 2013) be the framework for explaining these four different components of sexuality: Gender Identity, Gender Expression, Biological Sex, and Attraction. Using the Genderbread Person as the framework for the lessons offers a visual depiction of the complexities within human sexuality. As a visual depiction, the Genderbread Person will give the provider a sense of ownership of the material (Killermann, 2013). By understanding identity versus biology, healthcare professionals will have a foundation with which to ask appropriately worded interview questions and to offer individualized, unbiased care.

There is no single solution to the heteronormativity experienced by OB patients today. In order to change the way obstetrics is practiced in relation to the LGBTQ population, three changes have to be made. All first-year nursing and medical students should have a semester-long course designated to human sexuality within healthcare. Secondly, the faculty responsible for facilitating these aforementioned classes must be appropriately educated about how to teach the various aspects of human sexuality. Finally, those currently practicing with the childbearing family should be given the opportunity to attend sexuality and LGBTQ-focused education. Based on prior research, using predominately heterosexual, cisgender patients (Reis et al., 2008), LGBTQ patients would be more satisfied with their care and more likely to seek care when they perceive that their health care professionals behave in a way that communicates understanding, validation, and caring. The proposed educational interventions should aid current and future care of the population.

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# Natural Labor Pain Management

by Debra Henline Sullivan, PhD MSN RN CNE COI and Courtney McGuiness, CCHP E-RYT

**Abstract:** *There is a current trend toward natural pain management in labor, and pregnant women will seek the guidance of childbirth educators to make qualified decisions. The childbirth educator bases practice on the most current evidence; however, natural pain management in labor is not well studied. This paper offers information and current evidence as well as a story that illustrates the use of many natural or complementary and alternative medical therapies used in pain management during labor.*

*Keywords:* labor pain, childbirth, CAM, natural pain management, acupuncture, acupressure, yoga, water birth, water immersion, relaxation exercises

Childbirth Educators must be current and well informed about pain management during labor. Pregnant women will ask the educator what options are available and will rely on them for insight. Pain management is a decision that can have consequences for the health and wellbeing of both mom and baby. Mixed with the excitement and happiness of bringing a child into the world, there is also fear and anxiety of the impending physical and psychological challenges that laboring women will face (Smith, Collins, Cyna, & Crowther, 2010). Complete removal of pain may not offer the most satisfying or safe experience in labor, and satisfactory pain management must be individualized. There is a global movement toward a more naturalistic approach for childbirth (Goldbas, 2012). Natural or sometimes referred to as complementary and alternative medicine (CAM) practices offer pregnant women choices for treatment that are different from the conventional methods. CAM therapies can be

effective with fewer side effects (Goldbas, 2012). This article will offer evidence to the childbirth educator toward the use of natural pain management and share a true story of woman who chose a home birth with natural pain management along with her journey in making some of these difficult choices.

*There is a global movement toward a more naturalistic approach for childbirth*

## Significance to Childbirth Educators

CAM is popular worldwide, with almost half of women of reproductive age using these types of treatments (Smith et al., 2010). Birdee, Kemper, Rothman, and Gardiner (2014) analyzed the data from the 2007 National Health Interview Survey including only US women ages between the ages of 18 and 49 years who were pregnant or had children less than one year old. They reported 37% of pregnant women and 28% of postpartum women reported using CAM in the last 12 months. Hastings-Tolsma and Vincent (2013) conducted a qualitative study interviewing pregnant women and nurse midwives to determine the perceptions of decision making for the use of CAM therapies. They found that there is a need for dialogue with pregnant women about CAM and CAM should be included in mainstream education programs. It is apparent that many pregnant women want more information from their childbirth educators regarding CAM and natural pain management.

In the 2007 National Health Interview Survey, mind-body practices were the most common CAM therapy reported, with one out of four women reporting use (Birdee et al., 2014). In a Cochrane systematic review that looked at CAM therapies, Smith et al. (2010), analyzed fourteen trials with data reported on 1,537 women using different modalities. The most commonly cited CAM practices used for

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pain management in labor was categorized into four areas; mind-body practices that included hypnosis, relaxation, and yoga, alternative medicine that included homoeopathy and traditional Chinese medicine, manual healing methods that included massage and reflexology, and pharmacologic and biological treatments that included bioelectromagnetic application and herbal medicines. The use of water immersion and water birthing is another form of natural pain management that has long been used (Smith et al., 2010; Cluett & Burns, 2009).

### CAM Therapies

In the following portion of this article, CAM therapies will be reviewed. A description of the therapy along with the current literature pertaining to the pain management practice will be included.

#### Water Immersion

Water immersion is a common practice in many birthing centers since the 1990s (Lukassel, Rowe, Townend, Knight, & Hollowell, 2014). This labor pain management strategy involves completely submerging the woman's abdomen in warm water in a large tub, bath, or pool before the actual birth of the baby (Davies, Davis, Pearce, & Wong, 2014; Lukassel et al., 2014). The buoyancy from the water immersion provides the woman with easier movement and has been found to optimize labor progression, report less painful contractions, and a shortened labor (Davies et al., 2014). Current research has found benefits of relaxation, pain relief, reduced length of labor, reduced interventions, increased spontaneous birth, and reduced first and second degree perineal tears (Davies et al., 2014). A review of eight randomized control trials concerning water immersion in labor found a significant reduction of epidural analgesia use and a reduction in duration of the first stage of labor with no studies finding adverse effects to the woman or neonate (Cluett & Burns, 2009).

#### Waterbirth

Waterbirth has been recorded as being practiced since the 1800s. This therapy places the woman in a bath or pool of water where the baby is actually born underwater (Davies et al., 2014). This practice became very popular in the 1980s as it offered the benefits of buoyancy as described with



water immersion, but remains controversial with research providing conflicting information (Davies et al., 2014). Today waterbirths are not mainstream and are restricted to women with a low risk pregnancy even though there is a paucity of research in this area with most research being case studies. Young and Kruske (2013) did offer some evidence towards debunking the five areas of concern; risk of neonatal aspiration, neonatal and maternal infection, neonatal and maternal thermoregulation, and skills of attending midwives.

#### Mind-Body Interventions

Mind-body practices include relaxation exercises, meditation, visualization, and breathing techniques. These techniques are offered commonly in prenatal classes, and are an easily accessible way to calm anxiety and provide distraction from the pain. Other interventions that fall in this category would be yoga and hypnosis. Smith et al. (2010) in their review included fourteen trials with data on 1537 women and found hypnosis effective in labor pain relief. Smith, Levett, Collins, and Crowther (2011) in a different Cochrane systematic review analyzed 11 studies (1374 women) related to mind-body interventions and found limited evidence to support relaxation techniques to reduced pain, increased satisfaction, and improved clinical outcomes to mother and baby.

**Relaxation.** Relaxation techniques include interventions such as guided imagery, breathing exercises, and progressive muscle relaxation. Guided imagery uses one's imagination as a tool to alter the emotional state and in the laboring mom, stress reduction. Breathing techniques use a breathing pattern for a conditioned response to labor contractions (Smith et al. 2011). Progressive muscle relaxation involves the pro-

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gressive release of muscle tension. This process instructs the woman to identify painful areas in order to replace the pain with comforting sensations. Relaxation exercises in general were associated with reduced pain during the latent and active phase of labor. Evidence was found, although limited, to support improved outcomes from relaxation interventions (Smith et al., 2011).

### *There is evidence to support relaxation techniques reduce pain, increase satisfaction, and improve clinical outcomes*

**Yoga.** There are many types of yoga, but typically, the practice combines stretching exercises and different poses with breathing and meditation techniques (Field, 2011). Another description of yoga explains that it is based on five sheaths of existence, or Koshas, including the physical body, energy body, mind body, higher intellect body, and bliss body. Imbalance of these sheaths can lead to illness (Chuntharapat, Petpichetchian, & Hatthakit, 2008). In their study using a six one-hour sessions of yoga, the yoga group showed higher levels of comfort during labor which continued to two hours post-labor, and they experienced less labor pain



than the control group. A shorter duration of the first stage of labor as well as a shorter total time spent in labor was found in the yoga group as well (Chuntharapat et al., 2008). Antepartum yoga instruction can empower women to acclimate to the yoga-like positions that build muscle strength for labor, as well as develop pain response using relaxation and coping strategies (Satyapriya, Hongasanda, Nagarathna, & Padmalatha, 2009). A randomized control trial that included 45 women in the experimental group and 43 in the control group found that a yoga program of 12-14 weeks with three sessions a week reported higher self-efficacy during the active stage of labor compared to the control group (Sun, Hung, Chang, & Kuo, 2010). In another study of 16 pregnant women who took a seven week mindfulness yoga class, participants experienced reduced anxiety and pain as evidenced by reduced cortisol levels (Beddoe, Yang, Kennedy, Weiss, & Lee, 2009). Yoga was found to be related to reduced pain, increased satisfaction with pain relief, and satisfaction with the childbirth experience (Smith et al., 2011).

**Hypnosis.** Hypnosis is a focused state of mind where awareness of external stimuli is decreased with an increased response to non-verbal or verbal suggestions that can alter perceptions of mood and behavior (Smith et al., 2010). Therapeutic suggestions are made verbally, reaching a patient's unconscious, and the responses are not of any conscious effort or reasoning. Women can learn self-hypnosis to reduce labor pain, or be guided into hypnosis by a practitioner during labor (Madden, Middleton, Cyna, Matthewson, & Jones, 2012). Smith et al. (2011) found that hypnosis reduces the need for pharmacological pain relief and did not find any evidence of adverse effects on the neonate or mother. In another review of seven randomized trials with 1,213 women using hypnosis for pain management during labor, it was found that some hypnosis interventions were promising, but more research is needed before recommendations can be made (Madden et al., 2012). Based on these findings it is recommended that hypnosis be used as an adjunct to pain management. The benefit for the woman in labor is that hypnosis can be used autonomously to enhance self-confidence.

### Alternative Medicine

**Homoeopathy.** The principle of treatment with a homoeopathic substance is that it will stimulate the body and healing functions to achieve a state of balance (Smith et al., 2010). Remedies are made from natural substances such as herbs and minerals. Laboring women are given remedies

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## Megan's Story

Megan based her decisions on tireless research and worked diligently to prepare physically and emotionally. When Megan became pregnant, she knew that she wanted to deliver her baby in a way that felt natural, safe, and healthy for them both. She was fearful of the thought of medical interventions during her labor and delivery, and concerned about the high level of Cesarean births in the US. Through personal research, Megan found several sources that pointed to fear itself during childbirth as a source of pain. In order to birth successfully, the body must dilate, or open, and when there is tension caused by fear, this opening will be a more difficult process. With the intention of removing fear and anxiety from her experience, Megan determined that for her, the right choice was a midwife-attended home water birth.

With monitoring from both her midwife and a partnering obstetrician, Megan received a high level of prenatal care to assure that her pregnancy was one of “low-risk” (i.e. safe to birth at home), and to prepare her for a healthy pregnancy and childbirth. In addition, Megan prepared on her own by reading birth stories of all kinds and by educating herself about the mechanism of childbirth. She kept her body healthy by eating well and staying active through dance, walking, and prenatal yoga. She met with and hired a professional Doula to support her during labor. Later in her pregnancy, she visited a chiropractor weekly in order to relieve pressure and strain on her pelvis and to encourage her baby into an optimal position for birth.

When Megan went into labor, she was free to move around and change positions frequently. In the comfort of her own home, she could keep the lights dimmed, play soothing music, and have only her small, trusted birth team present. All of these elements allowed Megan to stay comfortable and relaxed. Her Doula helped her breathe through contractions, reminding Megan of the breathing exercises practiced in her yoga classes. She applied counter-pressure to Megan's lower back and hips. When Megan's contractions became more frequent and intense, her Doula suggested she get into a warm bath to relieve some of her discomfort. She offered essential oils for the bath; peppermint for nausea, citrus for energy, or lavender for relaxation. Immersing in the water had an immedi-

ate soothing effect, and Megan was able to relax into her contractions again.

She took her time and nobody rushed her to progress. In fact, her dilation was never checked once during labor. Her midwife and the other members of her support team allowed Megan the space to trust her own body and her unique experience of birthing her baby. Listening to her body, Megan knew when the birth of her baby was close. She asked her husband and doula to help her into the birthing pool that had been inflated in another room. It was larger than her bathtub, and offered the support of higher sides to rest against. Megan moved onto her knees with her upper body resting on the side of the pool, and her body soon began to push involuntarily with each contraction. She was never directed to push or hold her breath. Her support team held her hands, rubbed her back, and encouraged her to breathe deeply. Because she did not push forcefully, her body had time to stretch naturally, as the baby's head began to crown. With one more shift, Megan turned over into a sitting position, drew her knees up, and birthed her daughter peacefully into the water. Due in part to the gentle nature of her birth, Megan did not require stitches.

Looking back on the experience, Megan believes that her preparation and trust in her body and the birthing process helped her to have the birth for which she hoped. With the encouragement of her midwife and the continual support of her husband and doula (including positioning suggestions, counter-pressure, and guidance to maintain calm, focused breathing), she felt safe to work with her body and allow her labor to unfold naturally. She does not consider this birth to have been a painful process. In her own words, “It was intense, and surely required all of my attention. There was discomfort, but not pain.” She says the water was instrumental in relieving that discomfort, and credits the tireless efforts of her doula, as well as her own years of yoga training in helping her stay focused and relaxed. In stark contrast to her previous fears about childbirth being a painful experience to endure, Megan considers her birth to have been a positive, empowering one. “I have absolutely no regrets about the decision I made to have a natural, home water birth,” she says. “Given the opportunity, I wouldn't change a thing.”

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based on the amount and type of pain experienced. The goal is to stimulate her physiological process enabling her to cope with labor pain and relax her emotionally.

**Acupuncture.** Acupuncture involves the insertion of fine needles along meridians of the body to treat illness. Women using acupuncture required less analgesia and less oxytocin, but more research is needed in this area (Smith et al. 2010).

**Acupressure.** Acupressure involves the application of pressure for a limited time to certain points of the body and has been reported useful to manage labor pain (Chung, Hung, Kuo, & Huang, 2003). However, according to Smith et al. (2010) there is insufficient evidence as to the effectiveness of acupressure and more research is indicated.

### Manual Healing Methods

**Massage and Reflexology.** Massage involves manipulation of soft tissues in the body used to relax tense muscles (Smith et al., 2010). Massage may help relieve pain by improving blood flow or inhibiting pain signals. Reflexology involves massaging reflex points on the feet that correspond to structures of the body. By massaging the foot at defined points that correlate to another part of the body, pain relief is achieved in the alternate part of the body. Smith, et al. (2010) reported only one study in Taiwan that included massage but found that there was not enough evidence to support the effectiveness of massage or reflexology therapy (Smith et al. 2010).



## Pharmacologic and Biological Treatments

**Herbal Supplements.** Herbal supplements were used by 36% of pregnant women in a study by Forster, Denning, Wills, Bolger, and McCarthy (2006). Half of the subjects had not informed their practitioner of their herbal use.

**Aromatherapy.** Aromatherapy uses the essential oils of plants to increase the body's own sedative, stimulant, and relaxing substances. The oils may be inhaled with steam infusion or a burner and also may be massaged into the skin. There have not been many studies done, and the ones that were found have not provided enough evidence that psychological or physiological changes have occurred (Smith et al., 2010).

**Audio-analgesia.** Audio-analgesia is the use of sound for labor pain. A trial in England included 25 randomized women who received "sea noise," but no difference was found between groups (Smith et al., 2010). Currently there is not sufficient evidence about the effectiveness of audio-analgesia on labor pain management.

## Summary of CAM therapies

Overall, the current available data does not support the exclusive use of any CAM therapy; however, the reason for this is the paucity of research in CAM therapies. Implications for practice would suggest that hypnosis is effective as an adjunctive analgesic during labor and acupuncture appears beneficial but acupressure, aromatherapy, audio-analgesia, relaxation and massage therapy have not been studied enough to provide evidence of efficacy (Smith et al., 2010).

## Summary

Megan's story illustrates a positive outcome using natural pain management. Like many pregnant women, she was fearful of conventional methods of pain management such as epidurals because they have been associated with increased risks of adverse maternal effects and increased use of other medical interventions (Madden, et al.2012). For those women who want to experience natural pain management, it is imperative that childbirth educators be aware of current evidence related to CAM therapies. Pregnant women look to childbirth educators for guidance and expertise making the information contained in this article applicable to their practice.

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# Medications During Pregnancy: A Prenatal Perspective

by Maria A. Revell, PhD MSN COI and Adrienne D. Wilk, MSN RN

**Abstract:** *Pregnant women take a variety of medications in an effort to manage symptoms and treat pre-existing illnesses. These medications not only include those prescribed by health care providers but those used for self-treatment such as over-the-counter, and herbal and dietary products. It is important that care providers be proactive and knowledgeable regarding medications, their potential side effects and alternative treatments that may be used by pregnant women. Developing a trusting relationship and working collaboratively with the pregnant woman will facilitate the development of an individualized plan of care that is evidence based and promotes proper medication management in pregnancy.*

*Keywords:* medications, pregnancy, labeling rule, prescription drug labeling, antibiotics, influenza vaccines

## Introduction

Medications include prescription, over-the-counter, and herbal and dietary products a pregnant woman may take. Many medications have global labeling. Very little is known about the effects of specific medications in pregnancy as most pregnant women are not included in medication research studies. It is imperative that women who are attempting to get pregnant or are pregnant not rely on labels or online information but consult with their health care provider prior to taking medications of any kind. Care providers must be proactive in discussing medication ingestion with pregnant women.

*Care providers must be proactive in discussing medication ingestion with pregnant women.*

## New Labeling System for Pregnancy and Lactation

The U.S. Food and Drug Administration published the Content and Format of Labeling for Human Prescription Drug and Biological Products; Requirements for Pregnancy and Lactation Labeling, referred to as the “Pregnancy and Lactation Labeling Rule” (PLLR or final rule) on December 3rd, 2014 (Department of Health and Human Services, 2014). This rule requires changes to the presentation of prescription labeling. Changes to both the content and format of information is required for prescription labels in the Physician Labeling Rule. The new PLLR format is designed to help providers assess both benefit and risk of medications in their pregnant patients (see Figure 1). New labeling combines Pregnancy (8.1) and Labor and Delivery (8.2) components into one subsection entitled Pregnancy (8.1). This subsection will provide information regarding dosing and potential fetal risks and will require a registry for maintaining information on drug use and its effect on pregnant women. Nursing Mothers (8.3) is now Lactation (8.2). This subsection will include information related to use a specific drug while breastfeeding (e.g., drug amount excreted in breast milk). The new label expands to include a section for reproduction potential that addresses both males and females (8.3). This new subsection will include information on how the drug may affect pregnancy testing, contraception and infertility. This new labeling format will be in effect as of June 30, 2015 and allow better informed decisions by pregnant and lactating women in whether to take or not take specific medications.

The PLLR also made changes to the system of labeling which was designed to identify fetal pharmaceutical risk.

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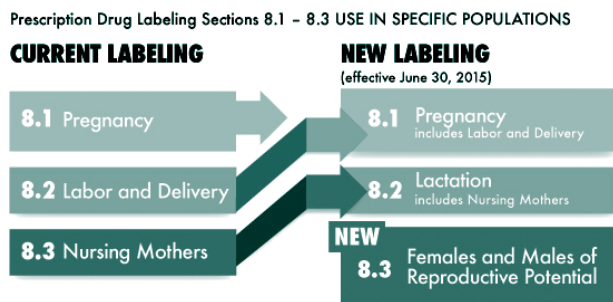


## Medications During Pregnancy: A Prenatal Perspective

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The system previously had five categories: A, B, C, D and X. It was identified that this labeling could be misleading as it could imply that risk increased from A to X which was not the case. Risks in categories C, D and X could be similar as medications in categories C & D could be very similar in risk to those medications in category X. Research based findings related to animal and human data was also felt to be not well delineated. As a result of this and other considerations, pregnancy categories A, B, C, D and X were removed from all prescription drug labeling (Department of Health and Human Services, 2014).

### Figure 1. Prescription Drug Labeling Changes



Graphic used with permission – U.S. Department of Health and Human Services, U.S. Food and Drug Administration. From <http://www.fda.gov/Drugs/DevelopmentApprovalProcess/DevelopmentResources/Labeling/ucm093307.htm>

## Medications in Pregnancy

### Nausea and Vomiting Over the Counter Medications and Alternative Treatments

Just because a medication is identified as over the counter, it does not guarantee safety or efficacy in pregnancy and during lactation. Often symptoms that are self-treated include nausea and vomiting during pregnancy which is usually most severe during the first trimester. Up to 80% of women with normal pregnancies have nausea and vomiting (Bottomley & Bourne, 2009).

Nausea is thought to occur as a result of changes in the hormones human chorionic gonadotropin (hCG) and progesterone. These hormones rise rapidly early in pregnancy and it is not completely known how these contribute to pregnancy but it appears in a timed sequence that correlates with the nausea episodes.



Non-medical interventions are the first place to start in relieving symptoms. These include consuming crackers approximately 15 to 20 minutes prior to rising in the morning. Eating smaller meals and consuming snacks can also reduce nausea and vomiting throughout the day. If able to consume salt without increasing fluid retention, consuming salty chips prior to a meal can promote a reduction in nausea and vomiting. Natural remedies include the use of ginger (e.g., ginger ale) to settle the stomach prior to food consumption. Complementary and alternative therapy includes acupuncture which, while research does not reveal any definitive contraindication (Smith & Cochrane, 2009), is becoming an increasingly used therapy in pregnancy.

The most severe form of “morning sickness” or what is better identified as nausea and vomiting during pregnancy is called hyperemesis gravidarum (HG). HG can occur in up to 1.5% of pregnant women (Bottomley & Bourne, 2009). This diagnosis is made when vomiting is severe and occurs numerous times a day. This should not be self-treated as it can lead to dehydration and loss of necessary electrolytes. It also results in poor weight gain which affects both mother and fetus. This debilitating condition can have detrimental effects that must be treated early and effectively.

### Depression Treatment and Pregnancy

Among women, there is a 10 to 25% lifetime risk of major depression. This risk peaks in prevalence during child-bearing years (Marcus, Flynn, Blow, & Barry, 2003). Women may be on antidepressants prior to getting pregnant and others may need to be treated as depression occurs following pregnancy. For those who are being treated for depression prior to pregnancy these medications should never be stopped without careful review by a care provider. It is important to weigh the risks and benefits for both mother and

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fetus (Bonari, Koren, Einarson, Jasper, Taddio, & Einarson, 2005). Relapse rates following antidepressant discontinuation are high with a rapid onset (Einarson, Selby, & Koren, 2001).

Frequently prescribed medications for depression include selective serotonin-reuptake inhibitors (SSRIs). A research study by Alwan, Reefhuis, Rasmussen, Olney and Friedman (2007) identified that use of SSRIs during early pregnancy was not associated with a significantly increased risk congenital defects (heart or other categories). They also identified that continued research is needed in order for pregnant women and care providers to make informed decisions regarding use of SSRIs.

### Influenza Vaccines and Pregnancy

Influenza is an upper respiratory infection that results from viral invasion. Every year, influenza affects 5 to 20 percent of the U. S. population with more than 200,000 individuals hospitalized. Of this number 36,000 die from influenza (National Center for Complimentary and Integrative Health, 2015). These numbers are part of the three to five million cases annually and the 500,000 deaths worldwide (Ortiz, England, & Neuzil, 2011). Influenza can have devastating effects on individuals who are compromised due to illness or physiological alterations. It is more likely to cause severe illness in pregnant women than women who are not pregnant.

Pregnancy is a high priority group for influenza vaccination. Despite this group designation, vaccination rates in pregnant women remain low. Decisions of pregnant women do not appear to be influenced by these health initiatives. Henninger, Naleway, Crane, Donohue and Irving (2013) identified that “trust in recommendations, perceived susceptibility to and seriousness of influenza, perceived regret about not getting vaccinated, and vaccine safety concerns predict vaccination in pregnant women” (p. 741). Women were less likely to get an influenza vaccine if they were concerned about side effects during pregnancy (Henninger, Naleway, Crane, Donohue, & Irving, 2013).

There are benefits of influenza vaccination not only for the mother but for the newborn. Vaccinations during pregnancy may result in a reduced risk for the newborn up to six months of age for acquiring influenza. Infants less than six months old delivered from vaccinated mothers can be 45 – 48% less likely to be hospitalized for influenza related symp-

toms and illnesses (Poehling, Szilagyi, Staat, Snively, Payne, et al., 2011). This may reduce the risk of mortality from influenza symptoms that can be devastating to newborns.

### Antibiotics in Pregnancy

There are multiple uses for antibiotics throughout the duration of a pregnancy. Over 40% of women in labor are administered antibiotics immediately preceding delivery (Ledger & Blaser, 2013). The two most common desired outcomes for intrapartum delivery of antibiotics is to prevent group B streptococcus (GBS) infection in the newborn or to prophylactically treat women undergoing caesarean section. Additional uses for antibiotics from early to late pregnancy include preterm rupture of membranes, asymptomatic bacteriuria, bacterial vaginosis, genital infections, and various respiratory infections (Martinez de Tejada, 2014).

While the use of antibiotics during pregnancy has decreased the occurrence of infectious illness (Turrentine, 2013), overuse of antibiotics during pregnancy may have multiple harmful effects on both the mother and baby. Childhood onset of asthma, type 1 diabetes, obesity, and autism is thought to be partly attributed to antibiotic absorption while in utero (Ledger & Blaser, 2013). Additionally, mothers receiving antibiotic therapy may experience a wide spectrum of allergic reactions including anaphylaxis, gastrointestinal disturbances including clostridium difficile (Wynne, 2013), cardiac arrhythmia, and death (Rao et al., 2014).

While determining the need for antibiotic therapy, it is imperative that both the mother and healthcare provider are part of the decision-making process to achieve optimal outcomes. Whether or not to prescribe antibiotics is a multi-faceted decision that should weigh both the benefits and risks associated with antibiotic therapy while pregnant (Martinez de Tejada, 2014). It is of utmost importance that antibiotics, if prescribed, are taken as directed by the healthcare provider.

### Asthma Medications in Pregnancy

Asthma, a common chronic respiratory disease, affects roughly 4% to 12% of all pregnant women (Kwon, Belanger & Bracken, 2003). Controlled and uncontrolled asthma is a major contributing factor to poor pregnancy outcomes (Carter, Downs, Bascom, Dyer & Weisman, 2011) such as low birth weight, small for gestational age, preterm delivery and pre-eclampsia (Murphy et al., 2011). Carter et al. (2011) states that prior to conception, healthcare providers and

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hopeful mothers should focus on reducing exacerbating factors for asthma attacks and subsequent hypoxia. Measures such as increasing physical activity, quitting smoking, decreasing body mass, and reducing stress have been shown to improve pregnancy outcomes.

According to a study by Hansen et al. (2012), roughly 63% of mothers with an asthma diagnosis receive at least one dose of an asthma medication during pregnancy. Most asthma medications are classified as Food and Drug Administration (FDA) pregnancy category B or C, neither of which guarantee safety for the fetus (Rance & O'Laughlen, 2013). Despite safety concerns, asthma medications should be continued throughout pregnancy to prevent and manage symptoms. Common asthma medications such as short-acting beta agonists, long-acting beta agonists, inhaled corticosteroids, and leukotriene modifiers are all considered safe to use during pregnancy. However, oral corticosteroids may be administered in low doses despite the risk of preeclampsia and low birth weight babies (National Heart, Lung, and Blood Institute, 2007).

The goal in managing maternal asthma is to eliminate fetal hypoxia. Mothers should strictly follow the prescribed medication regimen. Additionally, the use of cigarettes should be discontinued and exposure to environmental allergens such as dust mites and pet dander should be reduced (Rance & O'Laughlin, 2013).

## The Care Providers Responsibility

Women who are or may be pregnant are often not included in pharmaceutical research studies. It is only after medications have been approved and are consumed by pregnant women that the effects are often identified. This is because in an effort to treat some of the troubling symptoms that occur during and following pregnancy while breast feeding, these effects become known. Research is inconsistent in identifying remedies for nausea and vomiting in pregnancy (Matthews, Haas, O'Mathúna, Dowswell & Doyle, 2014). There is insufficient research evidence to promote any one specific intervention. It is imperative that the care provider work with women to identify what works for each and promote its use while continuing assessment and review of these interventions.

Complementary and alternative interventions for pregnancy symptoms and other troubling problems that occur should be considered and critically evaluated by care providers as viable alternative to medications. Using validated web-based information by reputable sites like the Centers for Disease Control and the U. S. National Library of Medicine are important. Some helpful sites follow:

- The U.S. National Library of Medicine –
  - Database of Drugs and Lactation Database (LactMed) located at <http://toxnet.nlm.nih.gov/newtoxnet/lact-med.htm>
- Centers for Disease Control and Prevention –
  - Treating for Two located at <http://www.cdc.gov/pregnancy/meds/treatingfortwo/>
  - National Birth Defects Prevention Study located at <http://www.cdc.gov/ncbddd/birthdefects/nbdps.html>
- U.S. Department of Health and Human Services, Food and Drug Administration located at <http://www.fda.gov/default.htm>
  - List of Pregnancy Exposure Registries located at <http://www.fda.gov/ScienceResearch/SpecialTopics/WomensHealthResearch/ucm134848.htm>

Symptom presence and severity is subjective. Care provider attitude can affect whether hyperemesis symptom presence and severity is disclosed by women during pregnancy. Many women in the qualitative study by Power, Thomson and Waterman (2010) identified that they felt unsupported when they reported symptoms. The care provider must possess a helpful attitude and encourage women to disclose symptom occurrence and severity in order for them to receive a timely response when symptoms present themselves. It is imperative that providers be available and engaged with the pregnant woman in working to develop a plan of care to promote control of symptoms.

Treatment options should be personalized for all illnesses. A thorough history and physical assessment is necessary in order to identify and validate the best options for intervention and symptom treatment. Careful review and collaborative intervention decisions are required for the best outcome. Decisions to prescribe medications for the pregnant woman should be a collaborative and joint decision following careful assessment and identification of the pros and cons of such an intervention. The provider should remain knowledgeable of current evidence related to the use of medications in pregnancy in order to educate and medicate appropriately.

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# Early Socialization

by Leslie Reed, RN MSN HCNS AHN-BC

***Abstract: Socialization is unique and begins in infancy. Parenting skills and style have a strong influence on outcomes of integrated socialization. Education is a preventative measure that will assist parents to effectively manage negative emotional displays by children. Understanding the backgrounds of parents will help childbirth educators provide the most useful support and instruction for successful parenting skill development.***

*Keywords: socialization, parenting styles, infant socialization, parenting*

## Socialization

The self as a system is divided into two primary parts, the I and the Me. Self-awareness is subjective and comes from within. This is the process of truly knowing who one actually is. Self-awareness is the “I.” Self-concept is objective and has to do with observable behaviors and actions. Others’ reactions and opinions influence the self-concept, or the “Me” aspect (Broderick & Blewitt, 2006). Another important piece of human analysis related to, yet separate from, the “I” and “Me” is self-esteem. Self-esteem is a product of both self-awareness and self-concept. It is personal, yet strongly influenced by others. In addition, self-regulation and self-recognition are important parts of the human developmental journey. Self-regulation is necessary so that children learn effective behavioral control, which will enable them to socialize with others in an effective manner. Self-recognition is important in the development of independence that allows children to establish boundaries with others. As these skills enhance and revise the self-awareness and self-concept, self-esteem becomes more fully developed. Positive self-esteem has an enormous impact on operative socialization.

Oregon State University (2008) defines socialization as the progression of learning and understanding culture and society, right from wrong, and values and beliefs. Though some of these aspects vary among different ethos, some com-

mon elements are not culturally biased, such as comprehension that murder is immoral and illegal, as is theft. Parenting style has a direct effect on productive socialization. Though infants begin to have recognition of themselves from others and learn to adjust their behaviors based upon the reactions of others, the self-system does not begin to fully develop until around the age of two (Broderick & Blewitt, 2006). The developmental process of self-esteem and awareness can provide an educational framework for those who work with young parenting families.

## Parenting Style

There are many different discussions concerning parenting style types. Parenting style during infancy has an effect on the self-system development in the toddler and has a life-long impact on the child. Cultural differences influence parenting styles depending upon what is valued as more socially acceptable and more vital within the community (Keller et al., 2004). In Keller et al.’s (2004) study involving three separate cultures, Greek, Costa Rican, and Cameroonian mothers and infants were observed, and the differences between proximal (body contact), distal (face to face interaction and eye contact), and a combined proximal-distal parenting type were documented. During toddlerhood, these same children were again observed to determine levels of self-regulation (behavioral control) and self-recognition (leading to increased autonomy) (Keller et al., 2004). Proximal parenting led to better self-regulation in the child, and distal parenting led to more rapid self-recognition (Keller et al., 2004). Proximal-distal care, as expected, showed a more equal level of self-regulation and self-recognition in the observed toddlers (Keller et al., 2004). Keller et al. (2004) hypothesized that the children with more self-regulation will develop the self-concept aspect of identity more rapidly, while the children with better self-recognition skills will begin self-awareness development with fewer delays.

***Self-esteem is a product of both self-awareness and self-concept.***

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As a child grows and develops, parenting styles alter. Gottman and DeClaire (1997) outlined four varied parenting styles that have different effects on socialization and child temperament. These styles are dismissing, disapproving, laissez-faire, and emotion-coaching.

The **dismissing parenting style** involves ignoring emotions and minimizing distress with comments such as “everything will be fine.” These parents do not know how to respond to negative emotions and simply want the negative expressions to go away, and be replaced with happiness. This type of parenting leads to children who grow into emotionally restricted adults who cannot effectively express themselves and have many communication problems in relationships (Gottman & DeClaire, 1997). A lack of emotional consciousness leads to ineffective self-awareness development (Jung, 1961/1989).

A **disapproving parent** is attempting to control a child’s negative emotions because they are an inconvenience to the parent. These parents believe that negative emotions are easily controlled and that displays of sadness, anger, and fear are signs of weakness, bad character, and non-productivity. Children raised in this manner grow into adults who have low self-esteem, an inability to regulate emotional outbursts, difficulty solving problems, difficulty getting along with others, and an inability to trust their own intuition (Gottman & DeClaire, 1997).

The **laissez-faire parent** is accepting of emotions. They encourage expression and discussion of negative emotions and help their children acknowledge that it is okay to be upset or angry or fearful or sad. These parents fall short in teaching their children to understand the negative emotions, find the source, and regulate them thereafter. What happens to children who are raised with this parenting style is that they often cannot calm down, have more problems with concentration, and have less understanding of socially acceptable emotional behavior (Gottman & DeClaire, 1997).

The **emotion coaching parent** provides the most effective care and nurtures children through empathy. Being aware of strong emotions and not having fears about dealing with them is the key to successful emotional coaching. Next, validation of the feelings, naming the emotions involved, and setting boundaries while also providing assistance with problem solving is imperative. This parenting style has shown fewer mood swings, better socialization, higher academic

achievement, fewer illnesses, and fewer behavioral issues in childhood. It has also led to better relationships and conflict development in adulthood (Gottman & DeClaire, 1997).

Maccoby and Martin (1983) described four parenting styles as well. These four types of parenting are called authoritative, authoritarian, permissive, and neglecting. Authoritative parents are responsive and demanding (Maccoby & Martin, 1983). They set clear boundaries and rules, yet they are loving and have good communication skills. Authoritarian parents have one-sided communication and are very demanding (Maccoby & Martin, 1983). Rules are clearly established, but explanations are often absent. These parents do not display frequent affection. Permissive parents are nurturing and warm but not demanding (Maccoby & Martin, 1983). Therefore, children raised with this style of parenting have less understanding of boundaries and rules. Neglecting parents do just that – they neglect their youngsters. They display little love and few demands; however, when pushed, these parents react with dominance and intensity (Maccoby & Martin, 1983).

In a study of 872 first grade children, participants whose mothers utilized the authoritative parenting style were half as likely to become overweight as the children whose mothers practiced authoritarian, permissive, and neglecting parenting styles (Rhee, Lumeng, Appugliese, Kaciroti, & Bradley, 2006). This study shows that ineffective parenting can lead to maladaptive eating patterns in young children. A literature review of several studies involving academic achievement and the relationship to parenting styles revealed that children who had authoritative parents had more positive overall academic outcomes; however, specific measurements such as test scores, grade point average, and successful homework, were widely varied among socio-economic status and ethnicity (Spera, 2005).

## Educating Parents

Personality begins to form at approximately the age of two. The awareness of exactly who we are begins to be unlocked at this time, and those around us have much influence upon how well we come to know ourselves (Jung, 1961/1989). A toddler who displays a negative emotional temperament is learning about him- or herself as well as how to express him- or herself. Teaching parents the most effective way to handle this behavior will ensure positive outcomes for the entire family.

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**Table 1. Parenting Styles, Potential Outcomes for Infants and Children, and What to Teach Parents**

<b>Parenting style:</b>	<b>Potential outcomes for infants and children:</b>	<b>What to teach parents:</b>
Proximal	Better self-regulation	Continue to engage in physical touch and body contact and add more face to face and eye contact with infant/toddler. Continue on-going assessment for readiness for enhanced learning.
Distal	More rapid self-recognition	Continue face to face and eye contact and engage in more physical touch and body contact with infant/toddler. Continue on-going assessment for readiness for enhanced learning.
Combined Proximal-Distal	Equal balance of self-regulation and self-recognition	Continue the current sound level of face to face and eye contact and physical touch and body contact with infant/toddler. Give recognition for positive interactions that are witnessed. Initiate enhanced education with parents regarding emotion coaching and authoritative parenting styles.
Dismissing	Emotional restrictiveness, ineffective self-expression, poor communication skills	Provide verbal and written information about the benefits of proximal-distal parenting, emotion coaching, and authoritative style. It may be necessary to refer the family for counseling to work on communication skills as a unit.
Disapproving	Low self-esteem, difficulty regulating emotions, poor problem solving skills, difficulty getting along with others, poor intuition development and maladaptive self-trust	These parents may need referral for individual counseling to get to the root of their own need for control and to help them uncover and understand their fears about emotional expression. Provide verbal and written education about the benefits of proximal-distal parenting, emotion coaching, and authoritative style. Keep in mind that due to the strong need for control, evidenced-based documentation with authenticated results is preferred. Teach parents the importance of learning to listen and consider referring to parenting classes.
Laissez-faire	Difficulty regulating emotions, poor concentration, difficulty understanding socially acceptable behavior	Continue to facilitate effective allowance for and discussion of negative emotions. Balance these skills by moving towards emotion coaching and add education about the importance of setting boundaries with emotional expression and learning to problem-solve through difficult feelings.
Emotion coaching	Fewer mood swings, better socialization, higher academic achievement, fewer illnesses, fewer behavioral issues, better relationships, and better conflict resolution	Continue this effective parenting style. Give recognition of positive interactions witnessed. Provide further education concerning proximal-distal parenting and authoritative type.
Authoritative	Better self-control, higher self-esteem, higher academic achievement, express more happiness	Continue this effective parenting style. Give recognition of positive interactions witnessed. Provide further education concerning proximal-distal parenting and emotion coaching.
Authoritarian	Self-trust issues, poor problem solving skills, low self-esteem	Help parents understand the importance of being responsive and explaining the reasoning behind rules. This is an important parenting skill even for infants. For example, constantly telling a crawling infant to stay away from a heater without introducing the words “hot,” “hurt,” “pain,” “cry,” etc. will only serve to facilitate defiance with time due to a lack of comprehension about the consequences of the “rule.” Explain the importance of forgiveness for mistakes in facilitating self-trust and self-esteem. Because parents using this style often fear social criticism, educating about the benefits of proximal-distal parenting and emotion coaching and providing evidence based documentation supporting these parenting styles is often enough to encourage the desire to improve skills right away.
Permissive	Higher incident of depression, poor self-regulation, lower academic performance	Parents displaying this type of parenting characteristics could benefit greatly from referral to programs such as RIP. Provide education concerning proximal-distal parenting, emotion coaching, and authoritative style. Continue on-going assessment and teach parents the pitfalls of minimal boundaries that will come as their child advances in age. Provide positive feedback for nurturing behaviors while teaching boundary setting.
Neglecting	Poor self-control, low self-esteem, poor academic performance	First and foremost, ensure that the basic needs of the child is being met. Parents demonstrating this style could benefit greatly from referral to programs such as RIP as well as family counseling and parenting classes. Effective health care providers will have a list of resources and a variety of programs to refer these families to.

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First, a thorough family assessment should be conducted, and the parenting style can be determined. Then helping parents recognize and understand the strengths and weaknesses of parenting styles can be discussed. When parents see the maximum benefits in the emotion coaching style, they will be encouraged to try to coincide their parenting to this optimal approach. Giving positive reinforcement for favorable responses to a child's negative displays is important in helping parents build their own self-esteem and recognize their self-worth. It is also extremely crucial that parents learn to control their tempers when dealing with negative responses in their children (Parenting, n.d.).

Next, the need for individual counseling will be determined. It is highly likely that unconstructive parenting skills are a direct result of the methods used with these parents during their respective childhoods. Breaking the cycle of maladaptive actions and reactions first begins with uncovering the source of the issue. Parents who were exposed to violence and/or physical abuse as children tend to display styles that are more aggressive, while parents who were sexually abused and fearful of unknown consequences as children display more passive and neglectful styles (Lyons-Ruth & Spielman, 2004).

Referrals to resources such as the Regional Intervention Program (RIP, 2005) can lead to invaluable experiences for parents. RIP works with children six and below. This program helps identify problem behaviors, developmental delays, and poor social skills in children as well as ineffective disciplinary actions and futile interactions made by parents. RIP helps parents help children to obtain optimal socialization.

## Conclusion

Parenting styles can have long-term effects on children. Poor parenting can lead to problems that extend into adulthood, including repetitive negative parenting with the next generation. Parents who seek help are to be commended for recognizing that problems exist. Understanding the different types of parenting and providing guidelines for working towards the most effective styles will enhance socialization in children as well as positive interactions between parents and their offspring. Childbirth educators and health care

providers working with families are essential team members who can facilitate the growth and development of effective and healthy parenting styles. Table 1 summarizes the various parenting styles, expected outcomes for infants and children, and what teaching tips can assist parents to be the best they can be.

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# *Toxoplasmosis:* A Threat to Mothers and Babies, But One That Is Preventable

by Shelley C. Moore, PhD MSN RN

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***Abstract: The purpose of this article is to review definition, epidemiology, and pathophysiology of toxoplasmosis. Congenital toxoplasmosis is the focus because of its potential adverse effects on children. Transmission to fetus and diagnosis during pregnancy are discussed. Timing of prenatal as well as post-delivery treatment are summarized. Latent effects and additional diseases thought to be associated with toxoplasmosis are reviewed. Primary prevention is emphasized such as avoiding undercooked meat and contaminated fruits/vegetables; consuming only safe drinking water; and eliminating exposure to contaminated cat litter (dried feces) or soil. Secondary and tertiary prevention are addressed.***

*Keywords: Toxoplasmosis, toxoplasma gondii, T. gondii, congenital, prevention*

Toxoplasmosis is an infectious disease caused by a parasite, *Toxoplasma gondii* (*T. gondii*). Anyone can contract this disease, but pregnant women are particularly vulnerable because the infection threatens the health of the unborn child. Changes in the immune system of a pregnant woman “may

induce a state of increased susceptibility to certain intracellular pathogens, including viruses, intracellular bacteria, and parasites” (Jamieson, Theiler, & Rasmussen, 2006, p. 1638). *T. gondii* infects about one third of the world’s population (Neves et al., 2011). Although less prevalent in the United States (U.S.) than some other regions (for example Central America, Central Africa, France), an estimated 500 – 5,000 babies in the U.S. are born with congenital toxoplasmosis. The majority of these appear healthy at birth; significant adverse effects may become evident months and years later. Toxoplasmosis is a preventable disease (Montoya & Remington, 2008) – something childbirth educators can influence with counseling and education of clients.

Toxoplasmosis is acquired by humans: 1) via consumption of undercooked meat containing *T. gondii* cysts; 2) by ingestion of oocysts from the dried feces of infected cats or contaminated and unwashed fruits/vegetables; or, 3) transplacental transmission from an infected mother, called congenital toxoplasmosis (Pedersen, Stevens, Pedersen, Nørgaard-Pedersen, & Mortensen, 2011).

## **Epidemiology**

Determining the actual numbers of toxoplasmosis infections is difficult to pinpoint because of variations in screening and diagnosis across the globe and latent symptoms. An older article cited Norway, Belgium, and France as having a prevalence of 20 times greater than the U.S. “Both incidence of disease and predominant route of transmission differ greatly regionally, secondary to differences in climate, cultural practices, and hygiene standards” (Pinard et al., 2003, p. 309). The Center for Disease Control (CDC) reports that up to 95% of some populations across the world have been infected with *T. gondii*. Infection is often high-

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est in areas of the world that have hot, humid climates and lower altitudes (Prevention, 2015). The reason for this is that oocysts can stay infective in warm, moist soil but not in arid, cold climates. There is also a higher prevalence of *T. gondii* in regions where it is common to eat raw or uncooked meat. In the U.S., pork and lamb products have the highest incidence (Montoya & Remington, 2008). Of note, toxoplasmosis is not a reportable disease in the U.S. (Pinard et al., 2003; Prevention, 2015).

## Pathophysiology

*T. gondii* is a protozoan parasite. This parasite infects humans mainly via ingestion of undercooked meat and by exposure to infected cat feces (Jamieson et al., 2006). Mice, sheep, and pigs can also serve as intermediate hosts. Accidental ingestion of infected cysts residing in environmental soil is also a possibility (McGovern, Boyce, & Fischer, 2007).

## Congenital Toxoplasmosis

Fetoplacental transmission occurs in approximately 40% of pregnant women with primary infection (acute acquired infection during the pregnancy or a reactivation of a chronic infection). Most of these women do not exhibit any obvious signs and symptoms. Some may experience low-grade fever, malaise, lymphadenopathy, and fewer yet may have visual changes (chorioretinitis). One study revealed that 52% of mothers who delivered a congenitally infected baby could not recall having an infection-related illness during their pregnancy or even being exposed. Because of this, many experts recommend serologic testing (Montoya & Remington, 2008). Studies have indicated that pregnancy itself is a risk factor for toxoplasmosis (Jamieson et al., 2006), which potentiates danger to offspring. The degree of danger is determined according to the trimester within which the mother becomes infected.

## Transmission to Fetus

Maternal infections occurring during the first trimester have only a 5-10% chance of transmission to the fetus but a worse prognosis for the newborn than later trimester transmission (Habib, 2008; Berrébi et al., 2010). Transmission rate during second/third trimester is higher, but less dangerous

to the fetus. Complications to the fetus increase the earlier in the mother's pregnancy that the infection is contracted (Montoya & Remington, 2008). These fetoplacental infections often lead to a miscarriage, or, if the pregnancy survives, adverse central nervous system (CNS) effects. The incidence of fetoplacental transmission increases to 60 – 80% as gestational age increases, but fortunately severity of complications lessens (Berrébi et al., 2010).

## Diagnosis During Pregnancy

To determine whether an infection was acquired recently or in the distant past, presence and amount of *T. gondii* antibodies in the mother's serum is assessed. Infection acquired during early gestation/shortly before conception puts the fetus at greatest risk. Serial assessments are needed in order to determine if and when an infection occurred. Physicians in the U.S. usually only do one serum sample test. This is a problem. For example, "testing of a serum sample drawn after the second trimester most often will not be able to exclude that an infection was acquired earlier in the pregnancy" (Montoya & Remington, 2008). Due to the different risks to the fetus, this is vital information.

## *Infection acquired during early gestation/shortly before conception puts the fetus at greatest risk*

If a pregnant woman is seropositive, an ultrasound is done to determine fetal damage. Only severe CNS anomalies can be detected (Berrébi et al., 2010). Ventriculomegaly is the most common sonographic finding. Other anomalies seen are: intracranial calcifications and choroid plexus cysts, as well as hepatomegaly, ascites, splenomegaly, and a thickened placenta. CT scan and MRI may also be used (Montoya & Remington, 2008). Examining percutaneous umbilical blood or amniotic fluid is an accurate method of determining fetal infection, while ultrasound cannot detect fetal infection. Termination of pregnancy may be considered, depending upon severity of anomalies. One of the less severe complications associated with late pregnancy infection is chorioretinitis, which cannot be detected prenatally by any of the above. This can only be diagnosed by ocular exam after birth; it may not even be identifiable until months to years later (Berrébi et al., 2010).

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### Treatment

If seroconversion is confirmed in a mother, some studies indicate that spiramycin to prevent fetoplacental transmission is helpful. It is not commercially available in the U.S.; more prospective clinical trials need to be done. For women acquiring the infection after approximately 18 weeks' gestation or those in whom fetal infection is highly suspected, pyrimethamine, sulfadiazine, and folinic acid are recommended. Pyrimethamine is not recommended during the first trimester because it is teratogenic (Montoya & Remington, 2008). Treatment of the newborn varies according to complications, but usually includes the same drugs as above.

### Treatment Influence on Long-term Effects

A prospective study spanning 20 years from 1985 – 2005 in a large obstetrical center in France where *T. gondii* is fairly prevalent, explored long-term effects of congenital toxoplasmosis who were all treated *in utero*. Investigators were able to follow 107 live born infected children for years (35 children for 0 - 5 years, 39 for 5 – 10 years, 12 for 10 – 15 years, and 21 for at least 20 years). These children all attended school and had normal neurological and intellectual development. Twenty-six (26) % of them developed chorioretinitis, with 39% of these diagnosed at birth and the rest 5 – 10 years after birth. One of these children had significant neurological impairment (hydrocephalus, convulsions, abnormal muscle tone) but dramatically improved with treatment. The other 74% remained asymptomatic. These are encouraging results, but it must be understood that the country of France is very diligent in screening, treating, monitoring pregnant women for toxoplasmosis and terminates pregnancies when indicated. They also provide long term follow-up for children. These researchers recommend diagnosis and management very early in pregnancy and follow-up for children at least 10 years after birth.

A cross-sectional study of 106 children diagnosed with congenital toxoplasmosis in Brazil from September 2006 – March 2007 concluded that even with early diagnosis and treatment of infected children, there is a high prevalence of hearing problems and language delays. This study found approximately 12% conductive, 4 % sensorineural, and 27% central hearing dysfunction (de Resende, Andrade, Azevedo, Perissinoto, & Vieira, 2010) .

The National Collaborative Chicago-Based Congenital Toxoplasmosis Study, done between 1981 – 2004 of 120 *T. gondii* infected infants without significant neurological disease whose treatment began shortly after birth and continued for 12 months, reported “normal cognitive, neurologic, and auditory outcomes for all” (McLeod et al., 2006, p. 1383). Treatment of those with moderate – severe neurologic conditions also resulted in normal outcomes for 72% of them, and none had sensorineural hearing loss. Ninety-one (91) % of those without neurological disease at birth and 64% of those with it did not develop new eye lesions. The majority of these outcomes are decidedly better for children treated immediately and for 12 months, than for those untreated or treated for just 1 month (McLeod et al., 2006).

A large study (27,727 children) done in Norway, found no association between congenital *T. gondii* and hearing loss. All of the women in this study except one had been treated during pregnancy. These authors remark: “If such treatment reduces the risk of sequelae in general, and congenital hearing loss in particular, the results from our study do not give information on the true risk attributed to maternal *T. gondii* infection” (Austeng et al., 2010, pp.67 - 68). Conclusions from this study do not suggest that *T. gondii* and hearing loss are not related, but rather that when treatment is instituted, hearing loss does not occur.

### In Addition to Congenital Effects

Two billion people worldwide are believed to be chronically infected with *T. gondii*. This can result in chronic cerebral toxoplasmosis (CT); there is some evidence to suggest that development of autism spectrum disorder (ASD) may be due to reactivation of latent CT (Prandota, 2010). Several data indicate that Down syndrome and Alzheimer's disease may also be associated with CT. The molecular theories for these associations are beyond the scope of this article and can be found elsewhere (Prandota, 2011).

Besides physiological effects to offspring from congenital toxoplasmosis, there are also risks of neuropsychologic disorders to the seropositive mothers. A prospective cohort study in Denmark followed 45,609 women for several years after they gave birth. Those testing positive for *T. gondii* at time of delivery and whose serum levels were highest had a significantly elevated risk of schizophrenia disorders. A weakness to this study, however, is that the test at obstetrical delivery was the only assessment. This means it was possible for

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a woman to subsequently contract the disease, but this seroconversion would be missed, possibly affecting the statistically significant difference between the two groups (Pedersen et al., 2011). Although Pedersen et al. controlled for variables such as family psychiatric history, urbanization of residence, and age at delivery, confounding genetic and environment factors were possible. Nevertheless, “the promise of this work is underscored by the fact that many infectious exposures and other environmental insults are treatable and preventable” (Brown, 2011, p. 765-766).

## Prevention is Key

Although research results vary for this very complicated topic, there is one thing for sure: toxoplasmosis infection is preventable. Primary prevention includes: avoidance of undercooked meat and contaminated fruits and vegetables; access to safe drinking water; and reducing/eliminating direct contact with cat litter (dried feces) or soil containing oocysts. Secondary prevention includes early detection and treatment of acute maternal infection so as to minimize fetoplacental transmission. Tertiary prevention includes early detection and treatment of infected neonates.

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# Exploring Racial Disparity in St. Louis City Fetal-infant Death

by Marie Peoples, PhD and Hadi Danawi, PhD

**Abstract:** *The perinatal periods of risk (PPOR) methodology was used to analyze resident fetal and infant deaths in St. Louis City, Missouri, for the years 1999 - 2008. The PPOR approach is mapped into four periods: Maternal Health/Prematurity (MHP), Maternal Care (MC), Newborn Care (NC), and Infant Health (IF). Both Blacks and Whites experienced excess fetal-infant death within the MHP periods. Recognizing specific periods of increased risk provides key information to transform data into action. Findings allow childbirth educators, community members, and policy-makers to further explore barriers limiting maternal care.*

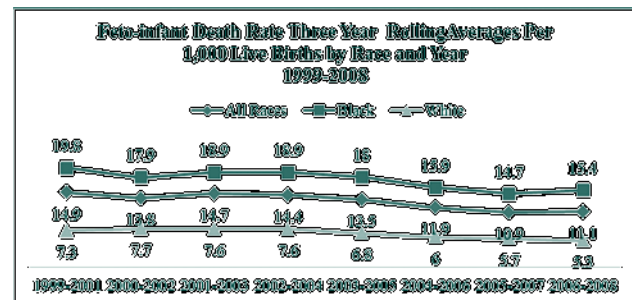
**Keywords:** *perinatal periods of risk, fetal and infant mortality, racial disparity, social determinants, logistical regression*

In the United States, the infant mortality rate (IMR) has decreased by 85% from 1940 to 2005 (Kung, Hoyert, Xu, & Murphy, 2008). While the decrease in IMR is momentous, the decline in adverse birth outcomes has not been equitable across races (MacDorman & Mathews, 2008). The IMR varies greatly by maternal race, reflecting a longstanding and perplexing racial paradox. Data on trends in IMR in the United States from the Centers for Disease Control and Prevention (CDC) and the National Center for Health Statistics (NCHS) highlight the IMR inequity between Blacks and Whites. IMR in the United States continues to be higher than most developed countries, and IMR for Black women was 2.4 times higher than the rate of White women (MacDorman & Mathews, 2008).

IMR in St. Louis City, Missouri, mirrors the national

disproportion between Blacks and Whites, continuing the need to explore contributing risk factors to determine related public health interventions. Even with medical advancements and targeted outreach efforts to increase access to health care, Black IMR in St. Louis City is more than double that of their White counterparts as depicted in Figure 1. Black cohort continually experienced more than double the rate of fetal-infant deaths for each three-year period establishing significantly inequitable fetal-infant death outcomes when compared to the White cohort.

**Figure 1. Fetal-Infant Death Rates per 1,000 Live Births by Race and Year**



In addition to race as an indicator of potential adverse outcomes, other social factors such as educational attainment, prenatal care uptake, marital status, teenage pregnancy, maternal tobacco use, and low birth weight have been identified (Dominguez, Dunkel-Schetter, Glynn, Hobel, & Sandman, 2008). Geographic location has been identified as a defining divider of birth outcomes with Southeastern states generally having higher IMR rates when compared to Northern states (Singh & van Dyck, 2010).

The IMR is the customary indicator used to measure the health and well-being of a community or population. The IMR is calculated by the number of deaths prior to a child's first birthday and divided by the total of live births (CDC,

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2014a). While the IMR is a reliable and critical indicator of community health, it does not provide a framework to isolate precise risk factors that influence the decrease or increase in a community's infant mortality rates (Burns, 2005) and does not clear up why there is a disparity between the Black and White infants.

Those invested in population health developed the Perinatal Periods of Risk (PPOR) methodology (Cai, Hoff, Dew, Guillory, & Manning, 2005). Compared to the traditional use of the IMR, PPOR analysis provides a more complete understanding of infant death because the analysis considers fetal death and stillbirth in addition to infant deaths. This data helps identify developmental stages and targeted interventions for women at greater risk of experiencing a death in the womb or infant death.

### *Infant mortality in the U.S. is higher than most developed countries and 2.4 times higher for Black families*

The PPOR method is a more robust process to investigate IMR because it provides “direction, focus, and suggests effective interventions” (Burns, 2005, p. 3). PPOR analysis requires live birth data coupled with fetal and infant death data. The data are then used to chart the weight along with the fetal or infant age at demise. This approach categorizes fetal-infant deaths into four distinct prevention periods corresponding with the pregnancy term or infant stage. PPOR analysis classifies the four periods of risk as 1) Maternal Health/Prematurity (MHP), 2) Maternal Care (MC), 3) Newborn Care (NC) and 4) Infant Health (IF) (Citymatch, n.d.). Figure 2 depicts the four periods of risk with recommended themes around which communities can develop targeted interventions.

**Figure 2. Periods of Risk and Possible Associated Areas for Action**

Maternal Health/Prematurity	Maternal Care	Newborn Care	Infant Health
<ul style="list-style-type: none"> <li>• Preconception Health</li> <li>• Health Behaviors</li> <li>• Perinatal Care</li> </ul>	<ul style="list-style-type: none"> <li>• Prenatal Care</li> <li>• Risk Referral</li> <li>• Obstetric Care</li> </ul>	<ul style="list-style-type: none"> <li>• Perinatal Management</li> <li>• Neonatal Care</li> <li>• Pediatric Surgery</li> </ul>	<ul style="list-style-type: none"> <li>• Sleep Position Education</li> <li>• Breast Feeding Education</li> <li>• Injury Prevention Education</li> </ul>

## PPOR Methods for St. Louis, MO

This report summarizes analysis and findings of St. Louis, MO fetal and infant death data from 1999 - 2008, using the PPOR framework. The linked data, provided by the Missouri Department of Health and Senior Services Bureau of Vital Records, were split into two five-year temporal periods, 1999 - 2003 and 2004 - 2008, resulting in a ten-year span. The data contained 25,875 live births that met PPOR methodology requirements of weighing  $\geq 500$ g at birth during the 1999-2003 period and 25,428 live births during the 2004-2008 period totaling 50,609 live births in St. Louis during the ten year cohort period of 1999 - 2008.

**Figure 3. PPOR Cohort Map, 1999-2003.**

### PPOR Fetal-Infant Cohort Map, 1999 - 2003

500-1,499 g	Maternal Health/Prematurity = 160		
	Fetal	Neonatal	Infant
	52	85	23
	Black 40	Black 73	Black 21
	White 12	White 12	White 2
>1,500 g	Total Maternal Care, Newborn Care, Infant Health = 229		
	Maternal Care	Newborn Care	Infant Health
	95	56	78
	Black 75	Black 44	Black 66
	White 20	White 12	White 12

**Figure 4. PPOR Cohort Map, 2004-2008.**

### PPOR Fetal-Infant Cohort Death Map, 2004 - 2008

500-1,499 g	Maternal Health/Prematurity = 131		
	Fetal	Neonatal	Infant
	47	63	21
	Black 37	Black 48	Black 20
	White 10	White 15	White 1
>1,500 g	Total Maternal Care, Newborn Care, Infant Health = 174		
	Maternal Care	Newborn Care	Infant Health
	76	33	65
	Black 69	Black 24	Black 53
	White 7	White 9	White 12

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The majority of deaths for both occurred within the maternal health/prematurity risk period. PPOR excess mortality calculations determined that maternal health/prematurity and maternal care remained the two classifications with the highest rates of excess fetal-infant deaths across both periods for Blacks in St. Louis. Whites continued to experience excess fetal-infant deaths during the maternal health/prematurity period across both temporal periods. Analysis demonstrated improvement in birth outcomes for Whites during the 2004 -2008 period in the categories of maternal care and newborn care; however, White birth outcomes markedly worsened during the infant health category.

Multiple logistic regression was performed to determine if Low Birth Weight (LBW) was influenced by the variables of gestational age, educational attainment, marital status, maternal age, maternal race, Medicaid status, multiple pregnancy, prenatal care, and smoking status. The status for Women, Infants, and Children (WIC) and food stamp variables were excluded, as they are considered co-linear with Medicaid. In Missouri, if a woman with a child under one year of age qualifies for Medicaid coverage, she would also qualify for WIC and food stamps.

Preterm babies were, of course, more often of low birth weight. This finding aligns with current knowledge that recognizes the importance of carrying a fetus to 40 weeks or nine calendar months (CDC, 2014b). Additionally, preterm birth has been associated with insufficient prenatal care particularly among African American women (CDC, 2014). While the  $p$  - value associated with affirmative Medicaid status was not significant, the results of  $p = .054$  were suggestive and consistent with research findings that having Medicaid is not necessarily a protective factor for the fetus. Women may still not access adequate prenatal care (Meikle, Orleans, Leff, Shain, & Gibbs, 1995; Milligan et al., 2002; York et al., 1999).

## Discussion

Black women in St. Louis City experienced higher rates of death in the womb or the death of an infant within the first year of life when compared to their White cohorts. For Whites, the category with the highest fetal-infant deaths was during the maternal health/prematurity period, with a rate of 5.7/1000, double the referent group of non-Hispanic

Whites nationwide. There is no clear evidence as to why White cases experienced outcomes worse than the national referent group of White women. St. Louis, like other metropolitan areas, has experienced a growing biracial population, increasing from 1.9% in 2000 (United States Census Bureau [USCB], 2000) to 2.4% in 2010 (USCB, 2010). Consistent with data collection, the mother's race was used as a proxy for infant race; White mothers either pregnant with a biracial child or parenting a biracial infant may be vulnerable to similar challenges that Black women face, thus contributing to adverse birth outcomes.

White populations in St. Louis demonstrated healthier birth outcomes across both the 1999 - 2003 and the 2004 - 2008 periods when compared to Blacks. Additionally, Whites in St. Louis did not make comparable gains across temporal periods when compared to the Black cohort. Even with Whites failing to make strides in decreasing fetal-infant death, the mortality gap between Blacks and Whites increased slightly.

Findings indicated that Black cases fared worse in educational attainment status, marital status, and poverty as indicated from higher utilization of government subsidies, including WIC, food stamps, and Medicaid at higher rates than Whites. Black women conceived at younger ages when compared to White women. Nearly 50% of the Black study population fetal-infant deaths were attributed to Black women in the 18 - 24 age groups, whereas less than 15% of the White fetal-infant deaths were in this age group. This is consistent with research that indicates social determinants of health shape health inequities, including adverse birth outcomes (Berg, Wilcox, & D'Almada, 2001; Collins, David, Simon, & Prachand, 2007; WHO, 2011).

Research has unearthed many structural and personal barriers such as the cost of care, staff treatment of patients, overburdened clinics that are unwilling/unable to provide flexible appointments, denial of the pregnancy, actively desiring termination of the pregnancy, and personal problems such as domestic violence, substance abuse, and homelessness that may impede Blacks from obtaining prenatal care (Meikle et al., 1995; Milligan et al., 2002; York et al., 1999). Not all reasoning for delayed or unsought prenatal care can be defined as structural or personal barriers. Many identified barriers such as cost of care or lack of adequate and affordable healthcare can be viewed as both a system failure and a personal responsibility, rendering the need for comprehensive solutions. The findings of this study provide context for

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disparate birth outcomes between Black and White women in St. Louis.

Minority urban populations experience barriers to receiving prenatal care, which aligns directly with the maternal care and prematurity risk periods. This finding allows for the development of interventions and targeted resources for childbirth educators, community members, and policy-makers to further explore mechanisms affecting limited or inadequate maternal care for minority women residing in St. Louis. Specifically, childbirth educators and other professionals that interact frequently with low-income Black women receiving governmental subsidy services (WIC, food stamps) have an opportunity, with the support of community leaders and policy makers, to counteract obstacles that impede early prenatal care from acting as a full protective factor for Black fetal-infants.

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# The Role of Ultrasound in the Lebanese Outreach Setting

by Reem S. Abu-Rustum, MD FACOG FACS, M. Fouad Ziade, PhD, Sameer E. Abu-Rustum, MD FACS, and Hadi Danawi, PhD

**Abstract:** A cross-sectional study was carried out on 669 patients to assess the role of introducing ultrasound into obstetrical outreach in Lebanon. Data were collected, and descriptive statistics were performed. Sonographic findings were compared using Chi-square tests between underserved Lebanese and Syrian refugee mothers. Ultrasound plays a significant role in properly dating pregnancies in addition to identifying at-risk fetuses and detecting placental abnormalities. Medical providers need to make sonographic evaluation in the Lebanese outreach obstetrical setting more available and more systematic in order to secure a safe outcome for underserved Lebanese and Syrian refugee mothers and offspring.

*Keywords:* challenges, obstetrical outreach, Lebanese, Syrian refugees

## Introduction

Underserved populations, especially in developing countries, often overlook prenatal care. One of the primary goals of prenatal care is identifying factors that put the pregnancy at risk in order to positively impact maternal mortality rates and improve neonatal outcome. According to the National Institute of Child Health and Development (NICHD, 2012), the key factors that put a pregnancy at risk are preexisting medical conditions, age, lifestyle factors, and conditions of pregnancy. Though there is no evidence that identification of high risk factors decreases maternal morbidity and mortality, prenatal care primarily serves as a screening modality in order to offer optimal patient management (Tsu, 1994). In

the outreach setting, Shah et al. (2009) demonstrated that ultrasound was a useful modality particularly in obstetrical care.

Lebanon is a developing country located in the Middle East with economic and political instability. According to the United Nations Development Programme (UNDP, 2008), 28.2% of Lebanese live below the upper poverty line of \$4 a day, and 8% live under the lower poverty line of \$2 a day. The majority, 52.5%, reside in North Lebanon, primarily located in the Akkar, Dinnieh, and Minieh areas (International Fund for Agricultural Development, 2006). The inhabitants of the North constitute 21% of the entire Lebanese population, yet they make up 46% of the country's extremely poor (International Fund for Agricultural Development, 2006).

Beyond the extreme poverty conditions in these areas, many of the women and children are exposed to a multitude of injuries and infections and are surrounded by environmental risks. The average family of six earns less than \$130 a month, an income that does not cover the cost of food and housing. High unemployment (30%) fuels extreme poverty (Saab, 2007). Economic measures to alleviate this are few. The rural villages of Akkar, Dinnieh, some areas of inner city of Tripoli and its outskirts are disadvantaged by isolation, minimal education, and little chance of opportunity outside of seasonal farming for Akkar. Over 46% of the inhabitants of this region are deprived of even minimal standards in healthcare (UNDP, 2008). The combination of these lower standards of living can remove any sense of security, well-being, and access to health care.

The Syrian crisis has added fuel to the already volatile situation. The population landscape of Lebanon changed dramatically since the beginning of the Syrian conflict four years ago. The United Nations just released a report stating that by the end of this year over one third of the population will be comprised of Syrian refugees, 52.5% of which are women (United Nations High Commissioner for Refugees,

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2014). This has led to the phenomenon of the needy hosting the needy and taking care of them in matters of daily living. This is escalating into unmet medical problems in general, maternal obstetrical challenges in particular due to cultural makeup, illiteracy and inherent problems of the local inhabitants and added refugees.

Prenatal care stakeholders aim to identify risk factors in order to provide counseling and devise preventive measures, where possible, for the ultimate goal of decreasing maternal morbidity and mortality (Villar & Bergsjø, 1997). According to the World Health Organization (2013), the reported maternal mortality rate is 16 per 100,000 and 49 per 100,000 in the Lebanese and Syrian populations respectively. This is now complicated by the influx of refugees who have several high risk factors in addition to limited affordable medical care that is available to them (Amnesty, 2014). This has directly impacted Lebanon's progress to meeting its Millennium Development Goals particularly on the reduction of poverty and the environmental sustainability goals (UNDP, 2014), and it shall inevitably translate into higher maternal morbidity and mortality rates in the Lebanese outreach setting.

SANA, a Lebanese non-governmental organization (available at <http://sanango.org/>), "is dedicated to serving the remote needy areas of Lebanon with the highest levels of home births and maternal morbidity and mortality. SANA's aim is to provide assistance to the patients and caregivers in the form of education and training with the ultimate goal of impacting maternal and perinatal morbidity and mortality". SANA Medical NGO was established in May 2011 in loving memory of Dr. Sana Elias, and modeled after the International Society of Ultrasound in Obstetrics and Gynecology's (ISUOG) Outreach Program. SANA's medical missions are carried out in cooperation with local and international partners at the forefront of which are Doctors without Borders and World Vision International. SANA has been faced with the changing demographics of the underserved population over the past three years in the rural areas in Northern Lebanon because of the Syrian crisis. Their rising unmet medical needs and fears of impending maternal mortality and morbidity rates are daunting. SANA, as such, has been uniquely positioned to identify and compare the risk factors among underserved Lebanese and Syrian refugees in an attempt to formulate an action plan to curtail the potential resulting complications.

## Purpose

The purpose of the study is four-fold:

1. Characterize the underserved population in the Lebanese outreach setting
2. Identify the risk factors that may potentially affect maternal morbidity and mortality and their incidence among the Lebanese population and Syrian refugees
3. Explore the role of ultrasound in the Lebanese outreach setting
4. Recommend various preventative measures in an attempt to safeguard mothers and their offspring

## Methods

SANA conducted a cross sectional study to assess the role of introducing ultrasound into the obstetrical outreach setting in Lebanon among a mixed population of mothers of underserved Lebanese and Syrian refugees. Data on 669 patients were collected over a three year period by a single obstetrician who obtained full medical and obstetrical histories during the medical outreach missions of SANA in North Lebanon. The information obtained included patients' age, gravidity, parity, presence of consanguinity, history of prior loss or preterm birth, mode and location of prior delivery, and the number of prenatal care visits thus far. Patients were also questioned about their blood group and Rh as well as a history of any medical problems requiring medical therapy. All patients had their weight and blood pressure measured, and they were asked to provide a urine specimen to check for proteinuria. In certain locales where there are no laboratory facilities patients had their hemoglobin checked on spot. Patient glucose levels were checked as well if they were fasting or if they were two hours post-prandial. All patients were examined by the same obstetrician who performed screening obstetrical sonography in a systematic manner in order to ascertain fetal viability, number of fetuses, date the pregnancy, assess fetal well-being and growth, measure the amniotic fluid, and determine placental location. End points were compared among Lebanese as well as Syrian refugee patients. Outcome delivery data was not available. Data were analyzed using SPSS Version 19. A Chi-square test was utilized to compare the differences between the Lebanese and Syrian refugees. Statistical significance was  $p < 0.05$ .

No prior programs with this scope or magnitude known to the authors have been previously attempted in these impoverished areas of rural Lebanon. This study helped

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identify major contributing risk factors of maternal and child morbidity and will in turn help shape program design and implementation targeted towards the use of ultrasound and inform obstetrical outreach best practices.

### Results

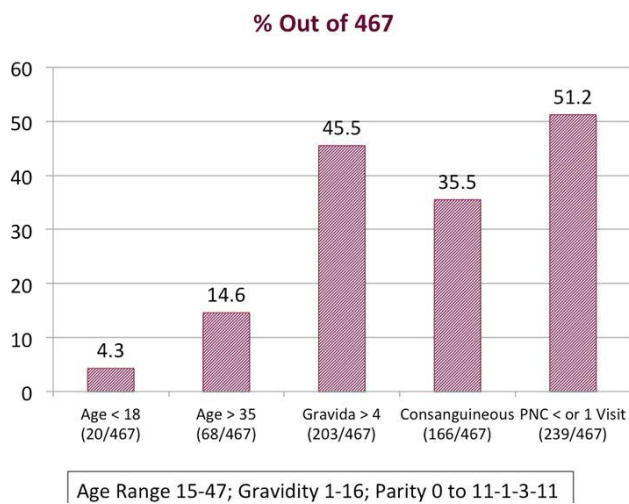
There were a total of 669 patients included in the analysis of whom 467 (69.8%) were Lebanese and 202 (30.2%) were Syrian refugees. The majority of patients were seen in the Akkar region ( $n = 286, 42.8\%$ ), followed by Tripoli and

its outskirts ( $n = 170, 31.8\%$ ), and then Dinnieh region which compromised 170 (25.4%) participants.

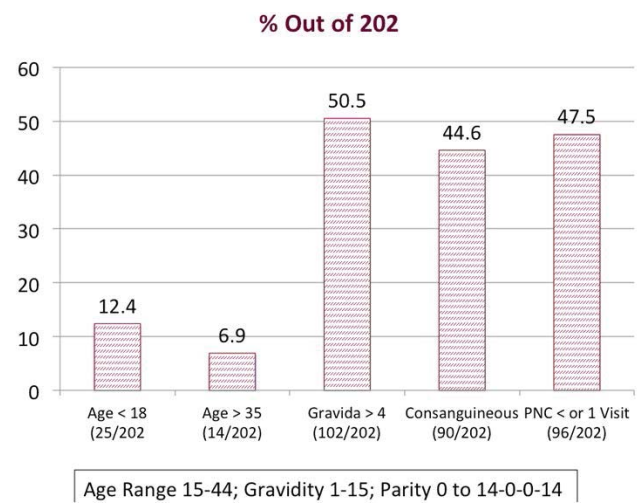
The patients ranged in age between 15 and 47. There was a statistically significant difference between the two populations in terms of maternal age less than 18 (4.3% and 12.4%,  $p < 0.00001$ ). Surprisingly, the rate of prenatal care was similar in the two populations as roughly 53% had had no prior prenatal care or a maximum of 1 prenatal care visit in the current pregnancy. The differences between the two populations in terms of maternal age over 35, gravidity, parity, consanguinity and the number of prenatal visits thus far did not reach statistical significance (Figures 1 and 2).

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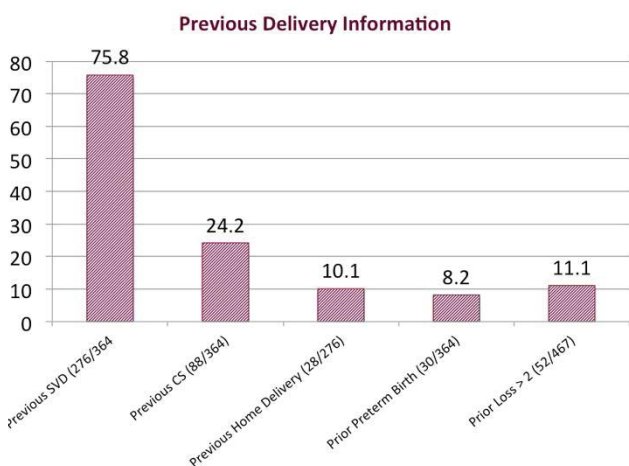
### Figure 1. Lebanese Patient Demographics



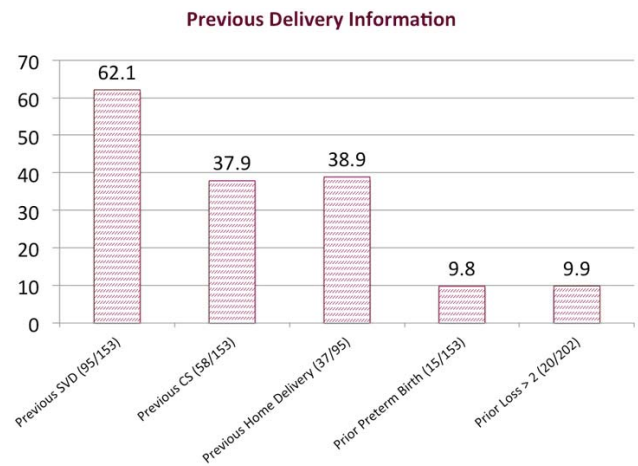
### Figure 2. Syrian Patient Demographics



### Figure 3. Previous Obstetrical History - Lebanese



### Figure 4. Previous Obstetrical History - Syrian



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There was a statistically significant difference between the Lebanese and Syrian patients in terms of prior home births (12.9% and 37.1%,  $p < 0.0001$ ) and the rate of a prior cesarean birth necessitating a repeat cesarean birth in this current pregnancy (24.5% and 37%,  $p = 0.004$ ) respectively (Figures 3 and 4).

SANA re-dated the pregnancies of 124 (18.5%) of the 669 participants. Seven (1%) fetuses presented with anomalies, and 11 of the 669 (2.6%) pregnancies showed amniotic fluid abnormalities. In addition, there were two (0.3%) pregnancies with a placenta previa and another two (0.3%) with an in utero fetal demise present in the sonographically detected problems (Figure 5).

There was a statistically significant difference between the Lebanese and Syrian patients in terms of wrong dates (13.7% and 19.7%,  $p < 0.0001$ ) and the presence of fetal anomalies (0.4% and 2.5%,  $p = 0.017$ ) respectively (Figure 6).

## Discussion

Ultrasound has been shown to help identify risk factors for maternal and perinatal mortality (Adler, Mgalula, Price, & Taylor, 2008). In addition, it has been shown that it is possible to establish a sustainable training model for the outreach setting (Swanson et al, 2014). The greatest impact for ultrasound in the outreach setting is in obstetrics (Shah et al., 2009) where it has been shown to be a positive addi-

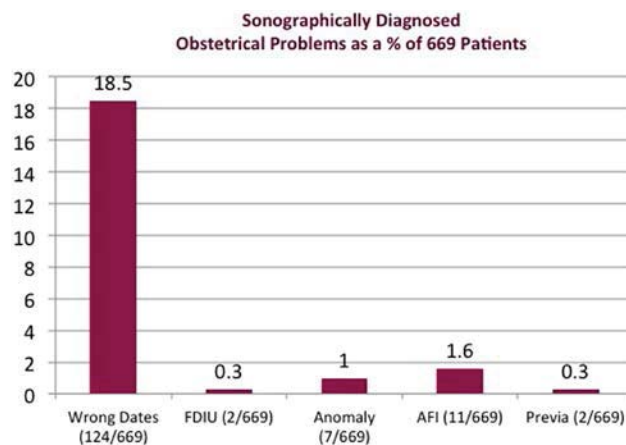
tion to prenatal care providing reassurance to mothers when they can see their fetus and motivating them into a positive change of behavior (Oluoch et al., 2013). Nonetheless, the sonographic examination must be carried out by properly trained personnel in order to prevent falsely reassuring families and to safeguard against the dangerous use of ultrasound for entertainment purposes or for selective gender-based feticide.

This paper aims to provide the childbirth educator with relevant information pertaining to the makeup and challenges in the Lebanese outreach setting. In addition, it provides evidence in support of the role of introducing ultrasound into the obstetrical outreach setting in Lebanon as it sheds some light on the importance of the use of ultrasound among a mixed population of underserved Lebanese and Syrian refugees mothers in the impoverished areas of Northern Lebanon.

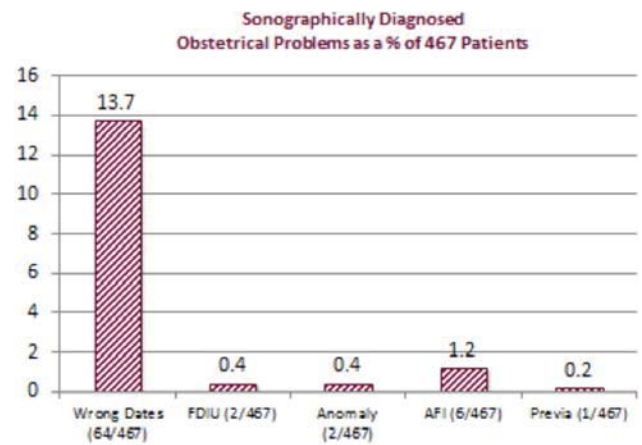
First and foremost, our data demonstrates that the makeup of the Syrian refugees puts them at higher risk for obstetrical and neonatal complications given they are younger in age and are in more consanguineous marriages, and though not statistically significant, consanguinity is at the concerning rate of 44.6%. This carries with it the inherent developmental problems of consanguinity in their offspring that are not easily detected sonographically. In addition, they are more likely to have had a prior home birth in the past making them unlikely to seek prenatal care and present to a hospital once in labor. Their higher rate of prior

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**Figure 5. Sonographically Diagnosed Problems in all 669 Patients.**



**Figure 6. Sonographically Diagnosed Problems in Syrian Patients.**





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cesarean births puts them at higher risk of complications (uterine rupture, adherent placenta, difficult surgery, need for blood transfusion). This is further compounded by financial constraints that may prevent them from presenting to a medical center or increase their chances of being refused the medical care they need, and they may attempt unattended risky home vaginal births.

Second, our data is in support of the critical role that ultrasound plays in the Lebanese outreach setting. Its diagnostic impact is evident in the ability to correct the dates on 18.5% of all pregnancies. Proper dating is a key issue in order for the health care providers to recognize preterm labor and avoid post-datism with their resultant morbidities. Though the rate of prenatal care was similar in our two populations, it was suboptimal where 53% of patients had had no prenatal care or a maximum of 1 prenatal care visit in the current pregnancy. However, there were statistically more wrong dates and congenital fetal malformations among the Syrian refugees raising concern about the quality of the care they are receiving. Childbirth educators and health care professionals from around the world might consider making a difference by using their skills of medical mission to teach and assist. In addition, the diagnostic impact of ultrasound was evident through the identification of at-risk pregnancies where fetal demise, amniotic fluid abnormalities, congenital fetal malformations and abnormal placentation were detected. This directly affected pregnancy management where the at-risk pregnancies were counseled as to the importance of compliance and the type of follow up needed in order to ensure the safest delivery and best neonatal outcome.

There are several limitations to this study, most notably is the unavailability of pregnancy outcome on expectant mothers. Given the circumstances, it was not possible to obtain follow up data.

There are many challenges faced in the Lebanese obstetrical outreach setting especially in light of the current crisis in Syria and the influx of Syrian refugees. Rural areas in Lebanon face specific challenges summarized by poverty, lack of effective prenatal screening programs, and access to healthcare, all of which have a negative impact on perinatal and maternal morbidity and mortality.

We thus propose that to ensure best obstetrical practices in the Lebanese outreach setting with its unique makeup there is a need to:

1. Train and educate local healthcare providers, childbirth educators, and expectant mothers on obstetrics and gynecological best practices and the different risk factors amongst the two populations.
2. Identify high risk women by proper history taking for further early screening with targeted program intervention.
3. Implement the introduction of routine screening ultrasound. This can be accomplished by training/ensuring the availability of medical personnel who are capable of performing a proper screening ultrasound in the outreach setting in accordance with ISUOG Outreach guidelines.

Ultimately, this will translate into positive social change in the much needed areas of rural Lebanon for future indoctrination and self-sustainment and to prevent negative birth related outcomes.

## Conclusion

Special care is needed in the underserved Lebanese outreach population where there is a high rate of teen pregnancies, advanced maternal age mothers, consanguinity, prior home birth, prior cesarean births, as well as uncertain dates. This is compounded by the Syrian crisis where comparatively the underserved Syrian population tends to be younger with more inter-marriages, higher prior home deliveries, higher prior cesarean births, and more sonographically identified problems. Obstetrical care needs to be incorporated into routine outreach initiatives carried out by governmental and non-governmental agencies in Lebanon. The introduction of ultrasound into the Lebanese outreach settings plays a significant role in properly dating the pregnancies in addition to identifying at risk fetuses and detecting placental abnormalities. This impact is greater amongst the Syrian refugees. Sonographic evaluation in the Lebanese outreach obstetrical setting needs to be more available and more systematic in order to secure a safe outcome for mothers and their offspring.

*The introduction of ultrasound into the Lebanese outreach settings plays a significant role in properly dating the pregnancies in addition to identifying at risk fetuses and detecting placental abnormalities. This impact is greater amongst the Syrian refugees.*

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# Interpretative Phenomenological Analysis: Implementing Research to Influence Breastfeeding Education

by Samantha J. Charlick, PhD(c) BHLthSc(Hons) BMid BA, Lois McKellar, PhD BN(Hons) BMid, Andrea Fielder, PhD BSc(Hons) BSc, and Jan Pincombe, PhD MAppSc DipEd BA RM RN IN

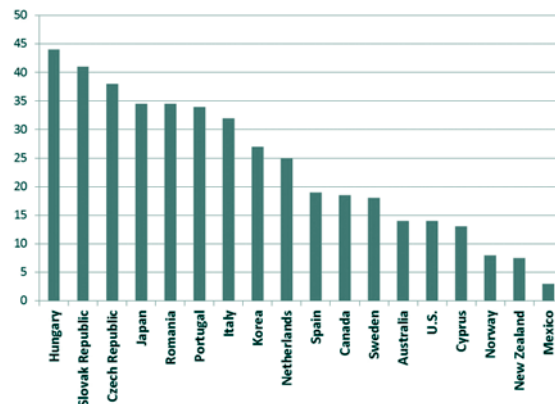
**Abstract:** Midwives and childbirth educators are well placed to identify issues and contribute to positive change regarding antenatal breastfeeding education for women. “Interpretative Phenomenological Analysis (IPA)”, is an accessible research method that can be conducted by many different health care professionals to explore practice challenges and the needs of women, in order to gain data to support change in practice. This article provides a background to IPA, an example of its application in midwifery research, and outlines a series of steps on how to conduct an IPA study. When antenatal breastfeeding education reflects the needs and issues of the women in the local practice setting, the potential to positively influence women’s breastfeeding journeys, including extending the duration of exclusive breastfeeding, can be enhanced.

**Keywords:** Interpretative Phenomenological Analysis (IPA), midwifery, women-centred care, breastfeeding education, qualitative research

## Background

Breastfeeding has been cited as one of the most cost-effective, health promotion and disease-prevention strategies of the 21st century (Varaei, Mehrdad & Bahrani, 2009). Given the significant benefits of breastfeeding for the infant, mother and community (American Academy of Pediatrics, 2012), the World Health Organization (WHO) (WHO & UNICEF, 2003) recommends that women exclusively breastfeed their babies for the first six months of life. Despite a large amount of Australian government funding directed towards public health campaigns to improve breastfeeding rates (Australian Health Ministers’ Conference, 2009), Australia currently has one of the lowest six month exclusive breastfeeding rates in the developed world (14%), (see Figure 1) (AIFS, 2008). Interestingly, the U.S. has an almost identical rate of exclusive breastfeeding at six months (13.8%) (Centers for Disease Control and Prevention, 2014).

Figure 1. Percentage of Children Exclusively Breastfed at 6 Months (OECD, 2009)



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## Breastfeeding Education in Australia

In Australia, breastfeeding education occurs during antenatal appointments, antenatal breastfeeding education classes, and in the early postnatal period (Pairman & McAra-Couper, 2010). Most mother infant dyad follow-up in the postnatal period concludes by six weeks, and after that time, no standardized care plans are in place. Statistics reveal that by two months, 62% of Australian women are exclusively breastfeeding, however as previously mentioned, only 14% are exclusively breastfeeding at six months (AIFS, 2008). With the majority of Australian women not achieving the WHO's recommendation of exclusive breastfeeding for six months, it is important to explore both the content in current breastfeeding education and also the needs and issues of women from birth to six months, with a focus on the two to six month period. Much research to date has quantitatively focused on the early postnatal period with little, if any research being extended to explore exclusive breastfeeding to six months.

## IPA Research Explores Deep Reflections on Individual's Experiences

IPA is a contemporary qualitative methodology, which provides a framework to explore individual's lived experiences (Smith, Flowers & Larkin, 2009). For example, in seeking to understand the continued decline of exclusive breastfeeding rates in Australia, IPA provides a framework for a study in which participants can reflect on their experiences with breastfeeding. IPA seeks to capture examples of convergence and divergence, and focuses on the deep reflections of a few rather than the general insights of many.

## Theoretical Foundations of IPA

IPA has three influences: *Phenomenology*, *Hermeneutics* and *Ideography*. *Phenomenology* is a philosophical approach to the study of experience. Its goal is to explore a lived experience, and it stresses that only those who have experienced phenomena can communicate them to the outside world (Todres & Holloway, 2004). Regarding the low exclusive breastfeeding rates in Australia, the phenomenological aspect of an IPA research enables the lived experience of first-time mothers who succeeded in exclusively breastfeeding their baby for six months to be explored.

The second theoretical underpinning of IPA is *hermeneutics*. The aim of hermeneutics is to provide surer foundations and processes for interpreting text (Finlay, 2011). Hence, hermeneutics facilitates the meaning within the participant's story to be interpreted, providing a deeper level of analysis.

The third influence upon IPA is *ideography*. Ideography is concerned with the individual and their particular circumstances, rather than making claims at the group or population level (Smith et al., 2009). Ideography's commitment to the particular operates at two levels: firstly, in the sense of detail, with a thorough and systematic depth of analysis; and secondly, from the perspective of particular people in a particular context.

## Midwives and Childbirth Educators Can Influence Practice Change Through Research

Midwives, doulas, and childbirth educators aim to work in partnership with each woman, and to provide individualized, women-centered care that best supports the needs and expectations of each woman (Pairman & McAra-Couper, 2010). When problems in practice arise, such as the decline in exclusive breastfeeding rates, we as health care professionals are well placed to respond, particularly by seeking to understand the needs of the women in their care (Enkin, 2006). As IPA focuses on the individual, it resonates with the women-centred philosophy of midwifery care. The findings from this individual focus can also help close the gap between established broad knowledge principals and in-depth individualized findings from a local context, both of which are particularly valuable in midwifery research. As such, conducting IPA research in the practice setting, generates data which highlights what works in "your" setting, rather than what works in "most" settings.

There has been concern about the appropriateness of practitioners undertaking research within their own practice environment. For instance, conducting research with the primary aim of changing practice and protocols at the expense of gaining unbiased knowledge development (McNiff & Whitehead, 2006). It is therefore important that those working with the childbearing family understand the requirements of rigour and ethics in research, and the need to contribute to academic knowledge. Despite this concern, it is thought that practitioners who do choose to undertake research usually do so because they have observed difficulties in their own practice setting and have a desire to enhance the quality of care provided (Coghlan & Casey, 2001). The

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first-hand recognition of problems – insider knowledge – developed through experience and understanding the specific research environment, and the innate desire to improve practice creates a willingness to embrace sustainable change (McKellar, Pincombe & Henderson, 2010). To avoid potential challenges and to increase rigour, IPA research can follow the flexible framework suggested by the developers of IPA.

### Step by Step Implementation of an IPA Study

The developers of IPA (Smith et al., 2009) have suggested steps in setting up, conducting and analysing the results of an IPA study. Before embarking on data collection, a *research question* must be considered. Research questions in IPA studies are usually framed broadly and openly. There is no attempt to test a predetermined hypothesis; rather, the aim is to explore, flexibly and in detail, an area of concern (Smith & Osborn, 2008). For example, in a study being undertaken by the authors to explore exclusive breastfeeding for six months, the research question focused on how mothers perceived and made sense of their journey towards achieving exclusive breastfeeding up to six months in Australia. The research question was simply, ‘What factors influence a woman to exclusively breastfeed for six months?’

IPA studies are conducted with small homogenous sample sizes. Smith et al., (2009) suggest that between three and six participants can be a reasonable *sample size*, and even single case studies can be powerful. Having an ideographic focus, the aim of IPA is to say something in detail about the perceptions and understandings of a certain group of people who have shared particular experiences (Smith & Osborn, 2008). In some cases, the topic under investigation may itself be rare and define the boundaries of the relevant sample. In other cases, where a less specific issue is under investigation, the sample may be drawn from a population with similar demographic/socio-economic profiles. In relation to recruiting participants within the practice setting, an inclusion and exclusion criteria could be as followed, listed in Figure 2.

### Collecting Data: Semi-Structured Interviews

The data collected in an IPA study is generally gathered through semi-structured interviews, which are often described as “a conversation with a purpose” (Smith et al., 2009, p. 57). This may be undertaken initially as a distinct case study, and

Figure 2. Inclusion and Exclusion Criteria for an IPA Study Exploring the Breastfeeding Journey

Inclusion Criteria	Exclusion Criteria
First-time mothers.	Mothers whose baby required level 2 or 3 nursery care (special care/intensive care).
Birthed at a gestation at or greater than 37 weeks.	Mothers with any kind of disability that would alter physical functioning as a parent.
Have a live, singleton baby aged between 6 months and 1 year.	Mothers with a history of breast surgery (as this can affect milk supply).
Intended to exclusively breastfeed.	
Exclusively breastfeeding for six months.	
Are able to understand and communicate in English.	
Are able to give informed consent.	

then followed by a number of interviews. It is important that an interview schedule is prepared in advance, so the order and wording of questions that may relate to sensitive topics can be asked appropriately. Although the researcher will have an idea of the types of questions to pursue, depending on where the ‘conversation’ is heading, the ordering of questions can be changed. The aim of IPA is to facilitate the participant to provide a deep reflection of their experience, and to enter, as far as possible, the psychological and social world of the participant (Smith & Osborn, 2008). Hence the interviewer should follow up and probe interesting areas that arise, while allowing the participant’s interests or concerns to lead and dominate the dialogue (Smith & Osborn, 2008).

Semi-structured interviews generally last for an hour and it is therefore important to establish a rapport with the participant as early as possible. Choosing an appropriate location to conduct the interview can make a difference to the data collected, as people usually feel most comfortable in a setting they are familiar with, such as their own home, or hospital room (Smith et al., 2009). There may be times however, where this is not practicable and a different venue will need to be chosen. Some things to consider with semi-structured interviews, is that they can take a long time to carry out and even longer to transcribe, can be personally demanding, and are difficult to analyse (Smith & Osborn, 2008).

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## Constructing Questions

Once the topic and research question have been chosen and the researcher has an overall idea of the order and types of questions, it is important to revisit the way the questions will be asked. It is important to use open, not closed questions, and to also ask questions that are neutral rather than value-laden or leading (Smith et al., 2009). For example an open-ended question could be, “What did you expect breastfeeding to be like?” Questions should be constructed in a way that encourages the participant to speak about the topic with as little prompting from the interviewer as possible. However, if prompts are required, the use of questions such as, ‘Can you tell me more about that?’, and ‘How did you feel about that?’ can be used to help a participant continue talking and to reflect deeper on their experience.

## Recording and Transcribing

When conducting each interview, the conversation needs to be recorded. This enables the focus to be on facilitating a smooth interview, and establishing rapport with the participant rather than attempting to write down everything the participant is saying, and potentially brushing over the nuances of each participant’s answers (Smith et al., 2009).

When transcribing an interview, the whole interview needs to be transcribed, including the questions asked by the interviewer, any false starts, significant pauses, laughs and other important features. Transcription can take a long time. As a rough guide, one hour of interview can take between five and eight hours to transcribe (Smith et al., 2009).

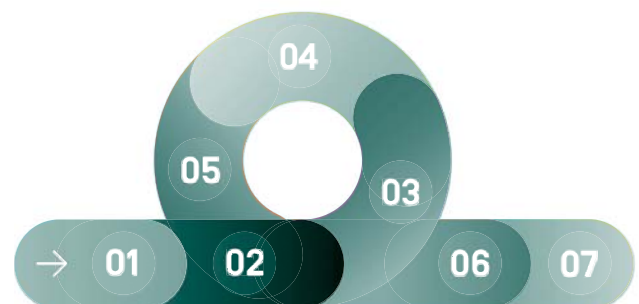
## Analysing Data

When analysing data in an IPA study, the aim is to learn something about the participant’s psychological world by analysing the participant’s attempts to make sense of their experiences. Meaning is central, and the objective is to try to understand the content and complexity of those meanings rather than simply measuring their frequency. To do this, Smith et al. (2009) have suggested a flexible seven-step approach, (see Figure 3).

Figure 3. The Seven-Steps of IPA Data Analysis

### Data Analysis – Seven Steps of Analysis

- 01 Reading and re-reading**  
Immersing oneself in the original data.
- 02 Initial noting**  
Free association and exploring semantic content [e.g. by writing notes in the margin].
- 03 Developing emergent themes**  
Focus on chunks of transcript and analysis of notes made into themes.
- 04 Searching for connections across emergent themes**  
Abstracting and integrating themes.
- 05 Moving to the next case**  
Trying to bracket previous themes and keep open-minded in order to do justice to the individuality of each new case.
- 06 Looking for patterns across cases**  
Finding patterns of shared higher order qualities across cases, noting idiosyncratic instances.
- 07 Taking interpretations to deeper levels**  
Deepening the analysis by utilizing metaphors and temporal referents, and by importing other theories as a lens through which to view the analysis.



In the study conducted by the authors, to explore the major influences around why some Australian women exclusively breastfeed for six months and why others do not, an initial case study was conducted. Using this case study, as an example, Smith et al.’s (2009) seven steps of data analysis will be described.

Once the interview from the case study was transcribed, steps one and two were undertaken. This included the researchers reading, re-reading and writing some initial notes in the margin of the printed transcript. This led to step three,

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## Interpretative Phenomenological Analysis

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where emergent themes were identified including ‘practitioner support’, ‘partner support’, ‘mother/mother-in-law support’ and ‘neighbourhood support.’ Figure 4 provides supportive quotes to illustrate this analysis.

**Figure 4. Emergent Themes with Supportive Quotes from the Case Study Results**

Emergent Themes	Supportive Data
Practitioner support	“Your milk’s really not that good at nine months”
Practitioner support	“Oh yeah definitely it’s [breastfeeding] great”
Partner support	“It [breastfeeding] was influenced by a bit of what, you know, of what my husband was saying”
Mother / mother-in-law support	“They’ve always been good about me feeding”
Neighbourhood support	“They were amazing, and they brought me food everyday”

Step four guided the researchers to make connections across the emergent themes. In this case, step four led to the development of an integrated theme, ‘social supports’ as each of these emergent themes reflected a social aspect. Steps five and six would then move to the next cases and search for patterns across the cases. However, in this particular example using only a single case study, steps five and six were not applicable.

The researchers then moved to step seven of data analysis, the interpretation of the themes. This step allowed the researchers to enter, as far as possible, into the psychological and social world of the participant. In the case study for example, ‘social supports’ was taken to a deeper level. By importing the psychological theories of planned behaviour, of motivation and social support to view the data analysis, the results go further than just describing stories. Social supports could therefore be interpreted through the degree of influence they have in relation to the participant’s breastfeeding intentions, desire to breastfeed and the support or lack of support received by significant others.

## Writing Up

This stage is concerned with translating the themes into a narrative account, which is like a persuasive story. In IPA, the ‘results’ are a joint product of the researcher and the researched (Smith et al., 2009). The researcher is attempting to capture something of the lived experience of the participant, presented through raw extracts, but this interpretation will inevitably involve something of the researchers. Gadamer (1990/1060), a German philosopher and major hermeneutic theorist spoke of a “fusion of horizons.” He suggested that you cannot separate the researcher and the researched, because as one engages in the world, the world changes us:

*To reach an understanding in a dialogue is not merely a matter of putting oneself forward and successfully asserting one’s own point of view, but being transformed into a communion in which we do not remain what we were. (Gadamer 1990/1960, p. 378-379)*

Smith et al. (2009) suggest that the results section of the write up should begin with an overview, a concise summary of what was found. This could be presented as an abbreviated table or a schematic (diagram) representation of the themes, or as a list similar to the one in Figure 4. This concise summary helps the reader to gain a broad sense of the whole, before becoming immersed in the detail of the first theme. The themes are then explained, illustrated and nuanced, supported with interspersed verbatim extracts from the transcripts.

## Implications for Future Antenatal Breastfeeding Education Classes

Antenatal breastfeeding education classes provide a forum where information and support can be given by the midwife and where pregnant women can ask questions. Making improvements to these classes through information gained from research in the midwife’s practice setting, creates positive change and fosters a more individualized approach. Considering midwifery care concludes at six weeks postnatal, and coincidentally the largest decline in exclusive breastfeeding rates are seen between two and six months postnatal, future antenatal breastfeeding classes may need to consider educating expectant mothers about long term breastfeeding issues and benefits, not just those regarding breastfeeding in the early postnatal period. When antenatal breastfeeding education reflects local issues and needs, the potential to influence the rate and duration of exclusive breastfeeding in each local context can be improved.

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## Interpretative Phenomenological Analysis

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### Conclusion

IPA is a contemporary qualitative methodology aimed at fully describing and interpreting people's lived experiences. It enables contextual issues to be explored and provides a means to gain a deep understanding around these issues such as the ongoing decline in rates of exclusive breastfeeding at six months. IPA provides midwives with a practical means by which they can collect data specific to their practice setting, making it more relevant and more influential. Resonating with the women-centred philosophy of midwifery care, IPA privileges the individual in data analysis, and hence acknowledges the complexities of individualized care. It would be highly valuable if more IPA studies were conducted in local contexts to ensure that women are receiving the best care and breastfeeding education possible.

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International Childbirth Education Association



# Five E's to Support Mothers with Postpartum Depression for Breastfeeding Success

by Kimberly H. Lavoie, RN BSN MN

**Abstract:** *Breastfeeding confers several physical and psychological health benefits for mothers and infants. However, women experiencing postpartum depression will frequently wean early if presented with breastfeeding challenges. As such, childbirth educators have a fundamental role to play in assisting women to have a positive breastfeeding experience. In women with postpartum depression, factors such as strong intention toward breastfeeding and maternal confidence have been shown to have a positive impact on a woman's breastfeeding success. Health-care providers can help to strengthen the breastfeeding experience by using the Five E's: encouragement, empathy, education, engagement and evaluation while providing holistic care to mothers throughout the postpartum period.*

*Keywords:* breastfeeding, postpartum depression, support strategies, holistic care

For the majority of mothers, breastfeeding is a positive and rewarding experience. However, for some women, breastfeeding does not always come naturally, or result in a successful outcome and as a result they are less likely to maintain breastfeeding. Buckley and Charles (2006) have concluded that when mothers are successful at breastfeeding they are more inclined to breastfeed longer. The value that women place on infant feeding methods, such as whether

or not to breastfeed or formula feed, hold different meanings for each individual and will influence the degree to which difficulties are experienced (McCarter-Spaulding & Horowitz, 2007). A mother who is emotionally invested yet struggling with breastfeeding, may feel extremely overwhelmed by the challenges faced, especially if the activity is coupled with postpartum depression. Mothers suffering from postpartum depression may fail to initiate breastfeeding or give up altogether. Providing adequate support and encouragement to mothers who suffer from postpartum depression can make many of the challenges that are experienced easier to overcome (Zauderer & Galea, 2010).

Given the widely acknowledged maternal-infant physical and mental health benefits associated with breastfeeding, childbirth educators should actively promote successful lactation, as they are in an optimal position to provide support to those affected by postpartum depression and continued support and encouragement for breastfeeding (Zauderer & Galea, 2010). It is essential that childbirth educators recognize factors associated with breastfeeding cessation and early signs of postpartum depression to provide timely support and appropriate interventions in order to improve breastfeeding duration. Holistic care of the childbearing families should involve several supportive practices to enhance breastfeeding during postpartum depression. Childbirth educators teaching mothers about postpartum depression can use Five E's such as encouragement, empathy, education, engagement and evaluation as assessment and intervention strategies in promoting breastfeeding success.

## Background

A major transition in motherhood requires that the mother adapt to physical, social, and emotional changes (Lau & Chan, 2009). The inability to think clearly and to be de-

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clusive are often challenges that mothers are faced with when dealing with postpartum depression, which ultimately can make the choice to breastfeed more difficult (Roberts, 2006). It is widely recognized that any form of breastfeeding, or more ideally exclusive breastfeeding, wherein the infant receives only breast milk, has been shown to have far reaching benefits to both the mother and child (de Jager, Skouteris, Broadbent, Amir, & Mellor, 2013; Hall, 2011). Longer durations of breastfeeding confer fewer health problems, decrease hospital visits, and lowers rates of obesity in children (Lau & Chan, 2009). The maternal benefits of breastfeeding can have a protective effect on the mother's postpartum mental health by decreasing hormonal and physiological conditions associated with depression, and thereby improving the physiological processes that reduce depressive symptoms (Figueiredo, Canário, & Field, 2014). Societal benefits associated with breastfeeding include reduced health care expenditures and environmental waste that is otherwise found with formula supplementation (Bomer-Norton, 2014).

The World Health Organization (2014) promotes breastfeeding as the optimal method of infant feeding, and recommends that breast milk solely be given for the first six months of infancy, and should continue with complementary foods up to the age of two years and beyond. Yet it has been well documented in the literature that throughout the world very few women meet these current recommendations for infant feeding practices (de Jager et al., 2013). Thus, it is imperative that breastfeeding be promoted to sustain important health outcomes for the mother, infant and society (Zauderer & Galea, 2010).

*breastfeeding has been shown to have a protective effect against postpartum depression*

### Overview of Postpartum Depression

In various cultures in many countries, breastfeeding has been shown to have a protective effect against postpartum depression (Donaldson-Myles, 2011). Maternal depression is of great concern because of the lifetime impact it has on the mother and infant's quality of life and the potential for life threatening events if left unchecked (DelRosario, Chang & Lee, 2013). According to Hatton et al. (2005) approximately

1 in 4 women will experience an episode of depression with the greatest prevalence occurring during the reproductive years. Postpartum depression is a common condition in which approximately 10 to 20% of mothers are affected (Hatton et al., 2005), at any time up to one year following childbirth (Beck, 2006). However, despite the relatively high prevalence of postpartum depression it is often underreported because new mothers feel reluctant to discuss their symptoms with a health care provider (Leahy-Warren, McCarthy, & Corcoran, 2011). Infants are less inclined to receive the nutritional and health advantages of sustained breastfeeding from mothers with depression (Henderson, Evans, Straton, Priest, & Hagan, 2003). Consequently, a maternal-infant sense of detachment may stem from postpartum depression (DelRosario et al., 2013) that can impede the breastfeeding experience.

### Factors Associated with Breastfeeding

Psychosocial factors such as postpartum depression, and maternal confidence and intentions towards breastfeeding have been recognized as strongly affecting breastfeeding outcomes (de Jager et al., 2013). Several studies have found that an increase in depressive symptoms in the postpartum period is directly associated with breastfeeding cessation (Dunn Davies, McCleary, Edwards, & Gaboury, 2006; Hatton et al., 2005; Henderson et al., 2003; Misri, Sinclair, & Kuan, 1997; Pippins, Brawarsky, Jackson, Fuentes-Afflick, & Haas, 2006; Watkins, Meltzer-Brody, Zolnoun, & Stuebe, 2011). One study found that early weaning occurred because the coping ability of women became exceeded due to the simultaneous challenges of breastfeeding and postpartum depression (Dunn et al., 2006). Research has also shown that women who experience depressive symptomology prenatally have shorter durations of breastfeeding (Hahn-Holbrook, Haselton, Dunkel Schetter, & Glynn, 2013; Ystrom, 2012).

In a study conducted by Watkins et al. (2011) women that experienced severe pain with breastfeeding early on in the postpartum period had increased odds of experiencing postpartum depression. A study by Henderson et al. (2003) revealed perceived inadequate milk supply, or infant problems as factors for breastfeeding cessation. Poor self-esteem, negative mood, and anxiety which are common depressive symptoms, may lead mothers to perceive hurdles with breastfeeding as overwhelming or more serious due to negative cognitions stemming from depression (Dennis & McQueen, 2007). Women suffering from postpartum

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depression may give up breastfeeding due to magnified feelings of vulnerability, inadequacy, and difficulty interpreting hunger cues and distress in their infant (Henderson et al., 2003).

It is suggested that the relationship between breastfeeding and postpartum depression is complex and bidirectional, wherein women who breastfeed experience a protective effect against lower levels of depressive symptomatology when compared to their non-breastfeeding counterparts, and women with prenatal depression are said to be more predictive of breastfeeding less, soon after giving birth (Hahn-Holbrook, et al., 2013). Thus, decisions regarding infant feeding methods in women dealing with depression often result in supplementation with formula (Humphries & McDonald, 2012).

### Case Study – Carly

The following reconstructed case study illustrates the importance of mothers receiving adequate support with breastfeeding as an integral part in the management of depression during the postpartum period. Carly, a 30 year old happily married nurse and first time mother, has just recently delivered a healthy full-term newborn and remains in the hospital on the postpartum unit. Carly has been taking a low dose of the antidepressant venlafaxine hydrochloride (Effexor XR®) for the past 4 years for a history of generalized anxiety disorder and depressive symptoms. Although ecstatic about the arrival of her new baby, she has overwhelming feelings of inadequacy with parenting, and fear consumes her. She has strong intentions of breastfeeding but is puzzled when she encounters a poor latch and her baby shows no desire to feed at the breast. One breast has an inverted nipple for which she has a disturbed body image of her breasts. As she communicates to one of the health care providers regarding her concerns with breastfeeding she is told to get some rest and not to worry about putting her baby on a strict feeding schedule. She attempts to get some sleep but is abruptly awoken by the high-pitched cries of her newborn. Sensing that her newborn is hungry, Carly cradles her infant in her arms, she attempts to put her baby to the breast only to struggle with holding her infant while attempting to establish a feed. Carly feels as though she knows nothing, waits for help and cries alone in silence.

## Enhancing the Breastfeeding Experience: The Five E's

Childbirth educators are in an ideal position to help support women to breastfeed for longer durations by assessing modifiable factors such as breastfeeding intention, self-efficacy and support. Specifically, implementing strategies that enhance the women's desire to breastfeed longer, assisting women to identify their supports to improve breastfeeding outcomes, and heighten the women's breastfeeding self-efficacy (Meedy, Fahy, & Kable, 2010). It is crucial that all health care providers work together to strengthen the mother's supports to improve the breastfeeding experience.

### Encouragement

The foundation for breastfeeding success in mothers with postpartum depression is encouragement (Zauderer & Galea, 2010). As evidenced in the case study, Carly had limited support and encouragement during her attempts at breastfeeding. Support from others plays a significant factor in successful breastfeeding (Gill, 2001). Encouraging women that feel strongly about the breastfeeding experience should be supported, as women who are struggling with postpartum depression may feel that it is their only intact positive connection felt with their infant (McCarter-Spaulding & Horowitz, 2007; Roberts, 2006; Zauderer & Galea, 2010). Thus the feelings of having a connection to the baby that are often lost during postpartum depression can be enabled through breastfeeding (Zauderer & Galea, 2010). It has been well established that the mother that is invested in breastfeeding may give up or unnecessarily wean their infant when encountering problems, which then can further exacerbate feelings of depression (McCarter-Spaulding & Horowitz, 2007).

Self-efficacy is the belief and confidence that the individual holds of their performance and capabilities related to a task such as parenting or breastfeeding (Leahy-Warren et al., 2011). Often women determine their capabilities to breastfeed based on previous success with breastfeeding an infant, learning from others through direct observation of successful breastfeeding experiences, and from receiving encouragement and support to breastfeed from significant others (Dennis & Faux, 1999). Zauderer and Galea (2010) suggest that mother-to-mother support groups can help to alleviate any untoward feelings that mothers have in caring for their infant as well as help the women to learn common techniques with breastfeeding. Also childbirth educators

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have an excellent opportunity to enhance new mother's breastfeeding self-efficacy by implementing strategies that build confidence (Dennis, 1999). It is important that the health care provider provides feedback to the mother on how she is doing with breastfeeding (Gill, 2001) in order to boost the mother's confidence and address any issues that may be experienced. Women can feel a sense of achievement if successful in breastfeeding. Moreover, enhancing parental self-efficacy in first time mothers can result in having a positive and significant impact on their maternal mental health (Leahy-Warren et al., 2011).

Finally, self-care measures should be encouraged so that women can get through postpartum successfully (Zauderer & Galea, 2010). Encouraging mothers to improve their quality of sleep and to rest whenever the infant is sleeping can be beneficial to mothers suffering from postpartum depression since the ability to get adequate sleep is often compromised from symptoms of depression (Camp, 2013). In addition, exercise and good nutrition combined with other holistic care measures has proven beneficial in improving mood in depressed mothers (Zauderer & Davis, 2012).

### Empathy

The absence of a therapeutic relationship in the case study could be alleviated by taking the time to listen and conveying a non-judgmental and empathetic attitude which are important in the interactions with others, especially women who already feel vulnerable, who are experiencing PPD, and who are encountering challenges with breastfeeding. Once a therapeutic relationship is established, the health care provider should encourage the mother to express her feelings. It is important to explore not only the views of mothers, but more importantly the personal meaning that

women attach to breastfeeding (McCarter-Spaulding & Horowitz, 2007; Roberts, 2006). For some women breastfeeding is seen as a natural infant feeding choice while others may see it as an essential component to foster a nurturing relationship with their infant (Lau & Chan, 2009). Whatever the meaning is to the individual, nurses and other health care providers must consider the woman's intent to breastfeed and be respectful of personal decisions regarding infant feeding practices (McCarter-Spaulding & Horowitz, 2007). Regardless of the outcome, if a woman chooses to discontinue breastfeeding the health care provider should be supportive of their decision (Zauderer & Galea, 2010), and let them know that it is okay not to breastfeed, if that is what they are comfortable with, so that there are not any feelings of guilt or being judged (Roberts, 2006).

### Education

Although the mother in the case study was a well-educated nurse, it is important to remember that breastfeeding is not always a natural process for everyone, but rather a process that must be learned. Education has a strong influence on women's intentions to breastfeed or bottle-feed (McCarter-Spaulding & Horowitz, 2007). Inconsistent breastfeeding information from health care professionals can lead to feelings of uncertainty and depression in women (Zauderer & Galea, 2010). Childbirth educators need to be knowledgeable about breastfeeding and how to handle common situations, as mothers in any given setting rely on health care providers to provide them with accurate evidence based practice information (Watkins & Dodgson, 2010). By being aware of the proven benefits of breastfeeding, childbirth educators can develop appropriate strategies for breastfeeding and maternal mental health, to ensure that women have every chance of success in initiating a positive feeding experience (Donaldson-Myles, 2011).

The use of antidepressants can be a difficult choice for depressed women that intend to breastfeed (McCarter-Spaulding & Horowitz, 2007; Roberts, 2006). According to the literature there is limited data to suggest that the use of antidepressants is unsafe while breastfeeding (DelRosario et al., 2013). Therefore, these findings should be clearly communicated to women struggling to make this choice, as there are many different treatment options available. The health care provider may choose to access a professional pharmacology and lactation resource to provide information on the transfer of certain medications in breast milk. Some

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mothers may express interest in a more holistic approach and resort to taking herbal supplements for depression such as St. John's wort (hypericum) as an alternative to prescription medications; however, there is limited data available on herbal remedies, and therefore childbirth educators should caution women seeking this approach (Camp, 2013). Furthermore, childbirth educators in collaboration with other members of the healthcare team can help women to make informed decisions and avoid unnecessary weaning by providing information on therapeutic and pharmacologic treatment options for postpartum depression, and by educating women that the risk of serious complications to infants from exposure to antidepressants in breast milk is low (McCarter-Spaulding & Horowitz, 2007). Childbirth educators have a fundamental role in educating women with postpartum depression about the disorder, what symptoms to watch for, when to seek help, and the treatment options available to them (Camp, 2013).

### Engagement

Successful breastfeeding requires a mother-health care provider team approach (Gill, 2001). As noted in the case study supportive practices proved to be fragmented. In this case, the mother felt alienated and ill equipped to manage her attempts at successfully breastfeeding when support was needed most. Therefore, staying with the mother and being supportive and accessible, particularly if she is struggling, is critical so that she can learn the skill of breastfeeding (Shakespeare, Blake, & Garcia, 2004). Meedy et al. (2010) suggest that women should identify and strengthen their support networks and include these individuals in breastfeeding educational interventions. The support and attitude of the women's partner towards breastfeeding has a pivotal role in their success with breastfeeding. In fact, research by Meedy et al. (2010) found that women breastfeed longer and have a stronger desire to breastfeed when there is family involvement and engagement. Thus, childbirth educators must ensure that women have the support they need in order to improve breastfeeding success. To support women, childbirth educators can also be involved in the facilitation of peer support groups within the community so that mothers can learn through the vicarious experiences of others (Leahy-Warren et al., 2011). Such support groups can further help to normalize any anxiety or stress with parenting as well as provide a

forum for early detection of postnatal depressive symptoms (Leahy-Warren et al., 2011).

Bonding is positively associated with breastfeeding, resulting in benefits for both mothers and infants (Bomer-Norton, 2014). However, women suffering from postpartum depression may be emotionally detached, less responsive and unengaged during interactions with their infant, and therefore strengthening the mother-infant relationship is vital (Buultjens, Robinson, & Liamputtong, 2008). Childbirth educators can implement holistic interventions within a group setting that encourage and facilitate a positive mother-infant relationship through guided, interactive, and therapeutic activities to aid the mother's recovery from postpartum depression in a supportive environment (Buultjens et al., 2008). Additional holistic strategies to promote bonding and enhance the breastfeeding experience include carrying the newborn in a sling (Zauderer & Galea, 2010), and supporting mother to infant skin-to-skin contact (Bomer-Norton, 2014). Consequently, the physical closeness of skin-to-skin contact wherein the infant is placed on the mother's chest has been shown to lessen depression symptoms and reduce the mother's physiological stress early in the postpartum period (Bigelow, Power, MacLellan-Peters, Alex, & McDonald, 2012).

### Evaluation

It is unclear whether or not the health care provider in the case study recognized Carly's predisposition to experiencing postpartum depression. As noted by McCarter-Spaulding and Horowitz (2007) "evaluat[ion] of women in the early postpartum period for PPD symptoms and any difficulties with breastfeeding is a clinical imperative" (p. 16). The health care provider should stay with the mother long enough during breastfeeding attempts in order to evaluate the effectiveness of breastfeeding and offer early support. Early identification of women at risk of lactation failure and postpartum depression can decrease the negative sequelae of depression and increase the chances of breastfeeding success (Watkins et al., 2011). A commonly used instrument to screen for symptoms of postpartum depression is the Edinburgh Postnatal Depression Scale (EPDS). The 10 item EPDS questionnaire is a quick and reliable assessment tool that asks mothers questions based on their ability to laugh and look forward to enjoyment with things, unnecessarily blaming oneself, feeling worried, anxious, fearful, panicky, tearful, being overwhelmed, having difficulties with sleep

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## Five E's to Support Mothers with Postpartum Depression

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or thoughts of harming oneself (Cox, Holden, & Sagovsky, 1987). If women are successful at breastfeeding, they are less likely to perceive themselves as suffering from depressive symptoms and stress than women who have chosen to formula feed (Donaldson-Myles, 2011). Moreover, if women with postpartum depression can ascribe any level of continued breastfeeding as positive this can have significant mental health benefits (McCarter-Spaulding & Horowitz, 2007).

### Final Thoughts

The consequences of postpartum depression and benefits of breastfeeding have been well documented in the literature. Several studies have found that depressive symptoms precede the cessation of breastfeeding, and that women with depressive symptoms were more likely to wean. While other research has found that women with symptoms of depression during the prenatal period had shorter duration of breast-

feeding. Thus, the relationship between breastfeeding outcomes and postpartum depression should not be overlooked. Nurses and other health care providers have an opportunity to help strengthen the breastfeeding experience early on, and sustain it, until the mother no longer chooses to breastfeed her child. In practice, health care providers can use the Five E's – encouragement, empathy, education, engagement and evaluation – as a guide to help develop an individualized plan of care to support breastfeeding success.

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## Table 1 – Practical Strategies for Enhancing the Breastfeeding Experience

### Encouragement

- Health care providers must communicate breastfeeding successes and provide reassurance to new mothers after observing a successful breastfeed to boost maternal confidence and encourage continued breastfeeding despite the challenges.
- Keep lines of communication open, validate the emotions one is experiencing and encourage mothers to explore their feelings.

### Empathy

- Using empathy while interacting with women suffering from postpartum depression can help to foster a therapeutic relationship and more open expression of feelings and personal meaning of breastfeeding.
- An empathetic attitude requires effective listening skills, maintaining presence, use of touch and demonstrates an understanding towards others.

### Education

- Health care providers can assist mothers to make informed decisions regarding available treatment options for postpartum depression to avoid unnecessary weaning.
- Childbirth educators should discuss the benefits of breastfeeding and early warning signs of depression to the childbearing family.

- Several educational resources are available online to support breastfeeding mothers with depression:
  - [www.motherisk.org/women/index.jsp](http://www.motherisk.org/women/index.jsp)
  - [www.postpartum.net](http://www.postpartum.net)
  - [www.lifewithnewbaby.ca](http://www.lifewithnewbaby.ca)
  - [www.thesmilingmask.com](http://www.thesmilingmask.com)

### Engagement

- Ensure mothers have adequate supports in place to aid in recovery from postpartum depression and improve breastfeeding success.
- Recommend support groups that provide an opportunity for mothers to connect with others and share similar experiences.
- Promote bonding and skin-skin contact to help establish breastfeeding and provide benefits to the mother's mental health.

### Evaluation

- Health care providers delivering care to women throughout the postpartum period should screen women for symptoms of depression and assess for difficulties with breastfeeding to offer early support and increase the chances of successful breastfeeding.
- The Edinburgh Postnatal Depression Scale (EPDS) is a reliable and commonly used instrument to screen for risk of postpartum depression.

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# A Review of *Fatherhood Related Issues* in the Country of Lebanon

by Hadi Danawi, MPH PhD and Tala Hasbini, RN MSc

***Abstract: Fatherhood issues in the country of Lebanon remain largely unexplored and undocumented. This review serves as a basis for fatherhood issues and presents a snapshot of the current situation with a background of some of the most related challenges affecting the issue of parenting in Lebanon. In addition, this review lays the background of how these challenges affect women of childbearing age who often end up raising their families on their own. Cultural and religious beliefs as well as factors relating to political influences in the Middle East region are discussed. The author concludes with a set of lessons learned.***

*Keywords: fatherhood, Lebanon, emigration, challenges*

## Introduction

In the pursuit of the true essence of fatherhood, we should first consider the original definition of the term. Initially the biological action immediately comes to mind, followed by the provider aspect. Is the father's role limited to the provision of basic life needs – shelter, food, and sustenance – or does it go beyond that and include such traits as self-sacrifice, integrity, and unconditional love? In fact, all aspects are equally essential in nurturing future generations. Our past creates who we have become today and our orientation to fatherhood is derived from our own past experiences. This review will present facts and challenges of fatherhood in Lebanon.

Being raised in Lebanon, a Middle Eastern country with democratic origins, which once fostered many western values, my childhood was overshadowed by 15 years of civil war and economic strife. This forced my father to continue the family business in Africa and only return to Lebanon once a year. This separation was common practice and continues to this day. My orientation to fatherhood was one of being a provider from a distance. Often times, the spouse will offer the love, nurturing, and discipline needed to complete the healthy family dynamic.

A thorough search of Medline/Pubmed, EBSCO/SocINDEX, Academic Research complete, and Education Research revealed that the literature in this area is very limited. Some of the literature was not recent but were cited this article for relevance and significance.

Challenges relating to change in family dynamics and structures are recognized not only in Lebanon but internationally as well. These challenges relate to the increase in women's labor participation, an increase in the absence of the father figure within the immediate nuclear family, and lastly the emergence of smaller families with less than three children per family. Absence of father figure can be attributed to reasons of separation and divorce as well as the pursuit of a better income (Cabrera et al., 2000). Issues relating to fatherhood in the country of Lebanon remain largely unexplored yet some are obvious. Women of childbearing age tend to raise their children for the most part on their own due the father's death, or separation due to pursuit of job opportunities outside of Lebanon.

Lebanon has a population of almost 4.3 million who reside within the country, projected to be 5 million in 2015 (United Nations, 2011), with an estimated 15 million who live abroad on a either temporarily or permanent basis (Trading Economics, 2015). No official census has taken

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place since 1932 due to the “sensitive balance between the country’s religious groups” (World Population Review, 2014). Recently the Syrian conflict has caused an influx of nearly 1.5 million refugees and now represents one third of the total population (UNHCR, 2014). This in itself has changed the values, morals, and parental role responsibilities of the Lebanese population.

Immigration trends in Lebanon date back to the late 1800s due to the long history of trade, dating back to the Phoenician age. Most recent immigration occurred during the Lebanese civil war, which erupted in 1975, resulting in more than 1.5 million emigrants to the Americas, including the United States, Canada, Argentina, Mexico, Colombia, Ecuador, Venezuela, and Dominican Republic. Other destinations included Brazil (an estimated 7 million immigrants), Europe, Africa (mostly West Africa), and Australia. Immigration to nearby Middle Eastern countries such as Saudi Arabia, Kuwait, and United Arab Emirates are based on a temporary status due to the fact that immigrants are not legally allowed to claim the host countries’ citizenship (Issawi, 2013).

Lebanese emigrants who live abroad tend to be wealthy, educated, and influential. The Lebanese economy is based on remittances sent from the Lebanese Diaspora to their family members within the country and these were estimated at \$7.5 billion in 2010 and accounted for 18% of the country’s economy (Middle East Eye, 2014). This enforced a new culture in the country of Lebanon relating to public views of fatherhood. Most emigrants, who work and live temporarily in Africa or nearby Arab countries in the Middle East, leave their families and children behind in Lebanon for economic reasons. Following is a discussion of major challenges relating to fatherhood in the Middle East and more specifically in the country of Lebanon, and the impact they have on their spouses and offspring.

## Challenges

### Emigration

It is not uncommon to witness Lebanese families functioning without the male head of household, the author included having lived this experience and currently living it with his own newly created family. This phenomenon places the families of emigrant fathers at a financial advantage with all the remittances sent back home. However, it has created a

gap between fathers and their families living in Lebanon for those who are fortunate enough to have found and chosen positions outside the country. Endicott (1992) and Hewlett (1992) revealed the roles of maternal and paternal involvement with offspring documented from different cultures, and reported exhibiting egalitarian marital and parental relationships towards their families. Most women are forced to work to leverage the expensive daily living in Lebanon. Children spend a significant amount of time with relatives and hired help. Lebanon and most of the Middle Eastern countries have experienced a boom in the domestic help business in recent years where almost every middle to upper class household employs a live-in maid. Many of these domestic helpers are contracted for a period of 2 to 3 years from other countries in South East Asia like Sri Lanka, Philippines, and Nepal, and African countries such as Kenya and Madagascar. The fact that some of male heads of households live abroad has created an added layer among their family members and extended families in Lebanon in the sense that it is expected that they live affluently. This has created a sense of a social hierarchy in Lebanon not found in other neighboring countries. The male head of households living abroad find themselves at an increased pressure to provide and keep up with their families’ demands in Lebanon. Some choose to visit their families as often as once every other week or once a month or as little as once a year, depending on financial status. This group of fathers has a limited relationship with their immediate families beyond the use of social media.

### Poverty

The other end of the socioeconomic spectrum represents some of the most impoverished people in the Middle East. A majority of its population is living at or below the poverty level. Fifty percent of these families earn below the US equivalent of \$333 per month and 82% make less than \$533 per month. Over 46% of the inhabitants are deprived of even minimal standards in healthcare (Alakhbar, 2014). The combination of these lower standards of living can remove a sense of security, well-being, and hope. They represent the same qualities that a strong father image can instill and produce. This appears to be an open cycle of recurrence in an area seemingly fated to repeat its misfortunes. This situation has been occurring now for generations. That being said, one questions the possibility to overcome this type of overwhelming odds to become a positive father figure.

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### Illiteracy and Unemployment

Children often times are forced to drop out of school to begin earning money for their family. There are areas that maintain a current level of illiteracy at 20% for young men (Alakhbar, 2014). Children are then forced to work 10-12 hour days only to receive a few dollars per day. Issa and Houry reported in 1998 that more than 40,000 children 18 years of age and younger are active participants in the labor force in Lebanon. The extreme high rate of adult unemployment, which can exceed 30% in some regions, leads to an excruciating economic situation (Nuwayhid, Saddik & Quba, 2001). Coupled with a low literacy rate, it leaves the adult caregivers feeling that they have no other choice than allowing and pushing their children to seek work (The Daily Star, 2012). Potential employers would prefer to hire a child at an obscenely low rate and simply replace them with another should they complain about any abuse. What type of father would choose to send his child out into a world of virtual slavery and even more important what kind of future father would that produce? The deteriorating conventional roles and obligations of a traditional family engulfed and surrounded by poverty have a detrimental effect.

### Absence of a Father Figure

Changes in family patterns can signal a weaker commitment to their children through the absence of a father figure. Decades of civil war, regional fighting in Iraq and Syria, and continued sectarian battles within Lebanon have left tens of thousands of fathers dead or missing. This has led to a new social trend whereby women (Lebanese or refugees of Syrian or Iraqi nature) took on the role of family leader. As the “new” head of the household, they found themselves forced to look for jobs but ended up being unsuccessfully employed. Many are found homeless with their families, left to other relatives or relief organizations to assist. Others are forced to turn to “survival sex” where a marriage ritual is performed for few days in exchange for cash (Feller, 2008). Most have smaller children that require constant supervision, and are forced to send their oldest children to the streets to earn any money to sustain their family’s existence.

*The population of Lebanon has changed dramatically since the beginning of the Syrian conflict*

### The Syrian Crisis

The population landscape of Lebanon has changed dramatically since the beginning of the Syrian conflict 4 years ago. The United Nations released a report stating that by the end of this year over 1/3 of the population will be comprised of Syrian refugees and 53% of those are children (UNHCR, 2014). That influx of people has caused the country’s unemployment rate to rise to 20% according to the International Monetary Fund (Press TV, 2014). This only complicates the previously mentioned challenges. There are no statistics found to substantiate the extent of the cultural changes that have occurred in Lebanon since the arrival of the refugees but certain agendas and visual aspects are apparent.

### Religious Aspects

The streets are now filled with women of all ages wearing “hijab” or the traditional Muslim head scarf. This act was once reserved for those of a mature age who had thought and desired to become more spiritual and obey the words of the Quran.

*“And say to the believing women that they should lower their gaze and guard their modesty; that they should not show off their beauty and ornaments except what is (ordinarily) visible thereof; that they should draw their veils.”*  
(Quran-Surah 24 Verse 31)

Today it is evident that very young girls, some as young as 6 years old, are not allowed to leave their home and appear in public without covering their heads. This is not derived from a free will to obey the written words of the prophet Mohammed but rather due to the insistence of the ultra-conservative fatherly figure of the household. Poverty and illiteracy have generally constituted two breeding grounds for fundamentalism (Peace Women, 2013). This belief system has spawned an entire cultural revolution geared towards religious and political extremism governed by fathers.

### Child Marriage

Child marriage had already existed, particularly in the rural areas of Northern and Eastern Lebanon, but is on the rise because of the influx of poor and vulnerable Syrian refugees. Girls as young as nine years old are forced by their fathers to marry for a price. Many times this act can pay rent or feed their families. In a majority of these cases, the result is one less mouth to feed (The National World, 2014).

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### Domestic Violence and Honor Killing

An additional example of this radicalism is domestic violence and honor killing. Honor killing is defined as the homicide of a family member due to what is to be perceived as a social shaming of the family through a personal act. It is estimated that there is approximately one honor killing per week in Lebanon, though it is thought to be rare (The Daily Star, 2007). This punishment may be enforced for being caught alone with any man outside of the family in any situation. These traditions are instilled in the male youth by examples demonstrated by the family leader or father figure.

### Cultural Beliefs

Most children reside at their parent's home until marriage. This is true regardless of their economic situation, age at time of marriage or gender. This cultural belief, although changing in the upper socioeconomic classes, is dominant in the Middle East and has engendered more power to fathers as head of the household (Walther, 1993; Schvaneveldt, Kerpelman & Schvaneveldt, 2005).

### Corporal Punishment

Corporal Punishment is still largely performed especially in rural areas at both school and household levels. This is done despite the Illegal Disciplinary Physical or Mental Violence Act following the adoption of article 19 of the United Nations in 1991 by the Lebanese government to protect the right of all children. This fact perpetuates the problem of existing authoritarian fatherhood figure in the country leading to extreme outcomes (Executive, 2014).

### Other Challenges

Other related issues concentrate around machoism, anti-feminism, religious extremism, and social mores which are mostly lived, experienced and documented in rural areas of Lebanon like the Bekaa Valley, villages in the South and Akkar in the Northern part of the country.

### Conclusion

There are plenty of nurturing, loving, and caring fathers in today's Lebanon. It would be inappropriate to avoid mentioning them. Now, with the new perspective I have developed as a father, I would hope to achieve and raise a loving well-balanced family on my own. The lessons I would like to share will certainly highlight the level and importance of

awareness of mothers and women of childbearing age. Child-birth educators need to act as catalysts for a future healthy family and environment. Ideally, fathers should mirror exemplary and nurturing behavior that results in a well-balanced, disciplined, and responsible adult. The goal is to establish an environment that fosters both character and integrity. This will necessitate a basic understanding and patience with priorities that overshadow any personal needs.

Becoming active in one's children's life is a challenge for most fathers; it is a commitment that requires a personal level of motivation. This level of motivation requires embracing new thoughts and topics, alternative theories, and changing socially acceptable subjects that differ from one's own. Displaying a genuine interest in these issues will play a role in children's happiness. Without this involvement, less socially responsible children will grow to instill less socially desirable values as engaged fathering increases children's emotional and social wellbeing (Cabrera et al, 2000). With daily chores and responsibilities, how do we get the strength to become involved with our children? It does require an authentic desire that cannot be imitated. These types of activities will include quality and quantity of time that you allocate to your children. Our own experiences and upbringing will serve as a benchmark and will in turn determine the level of involvement needed or desired. Asking your child is another key component. They can and will answer but we should be prepared for that outcome which could prove to be surprising. Sometimes the most important valued occasions are those moments of simply "hanging out" without any agenda. Often these are the moments that are most treasured.

Children seem to thrive with routines even from an early age. Being reliable and stable instills a sense of security and confidence, which can lay a firm foundation in later years for healthy self-esteem. Learning that there are consequences for your actions is a key attribute that will serve any maturing child well. Promoting encouragement and assuring protection and care should provide the essential building blocks for a well-rounded and adjusted human being.

The final elements that are crucial yet seem to be said so easily are love and acceptance. Most every parent when they gaze upon their newborn child realizes those qualities. The pivotal role of fathers, widows, single mothers, and father figures is crucial in the development of any child. The statistics show the detrimental effects that negative traits, ideals, and environment can have on children during development. It is our responsibility to ensure that what remains is molded and

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cared for to have a positive result. We hope our efforts will produce a loving, accepting, tolerant, well-adjusted adult. That is the hope all fathers should aim to achieve. It is hoped that this article provides a cultural understanding of the issues of fatherhood for childbirth educators.

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# Obstetric Ultrasounds are Not Necessarily Safe

by Abbie Goldbas, MS Ed JD

**Abstract:** *While ultrasounds are used with great frequency worldwide, and most research has shown they are generally safe, there are studies which bring their safety into question with regard to their impact on fetuses in terms of neurological damage. There are some FDA and ultrasound organizations' guidelines and cautions in place. We need laws for ultrasound use. This statement is even truer for the for-profit stores that are cropping up and which offer ultrasound images and videos for cost, for entertainment. These stores often have untrained operators using high-powered, complex devices for prolonged periods of time. This vanity use of ultrasounds is contrary to general guidelines for safety. The limited research evincing possible dangers of ultrasounds generally makes entertainment use seem a totally unreasonable risk to the safety of the fetus. Under all circumstances, women should obtain as much information as possible and obtain an Informed Consent form.*

*Keywords: medical ultrasounds, diagnostics, neurological damage, entertainment images, safety*

Ultrasounds are diagnostic procedures in which high-frequency, low-energy sound waves are used to scan a pregnant woman's belly and pelvic cavity to create a picture (also known as a sonogram or ultrasonograph) of the fetus to establish certain conditions and identify abnormalities and the gender (American Pregnancy, 2015). For the traditional ultrasound a gel, which works as a conductor, is spread on the transducer and the woman's abdomen. The operator moves a transducer (similar to a computer mouse), rubbing the gel around creating sound waves going into the uterus. The sound waves bounce off tissue and bones, return to the transducer and immediately produce images of the fetus on a monitor (American Pregnancy, 2015). There are two bioeffects on the tissues through which the sound waves move, mechanical and thermal. There are several types of ultrasound devices:

- **Standard Ultrasound** – transducers used over the abdomen that generate 2-D images
- **Advanced Ultrasound** – this is the same as the standard ultrasound but targets specific suspected problem areas
- **3-D Ultrasound** – often used for vanity photos, it generates 3-D images using specially designed probes and software
- **4-D or Dynamic 3-D Ultrasound** – special scanners are used to view the face and movements of the baby
- **Fetal Echocardiography** – used to check the baby's heart anatomy and functioning to determine possible congenital heart defects

*(American Pregnancy, 2015)*

The medical ultrasound was first developed in 1955 in Scotland when an obstetrician used an industrial ultrasound to spot imperfections in metals on pregnant women for diagnostic purposes. It very quickly became a popular diagnostic tool (Wagner, 2015). Their use has increased worldwide so that it is now standard obstetric protocol for pregnant women to have several ultrasounds during the course of a pregnancy (Reddy, Abuhamad, Levine, & Saade, 2014).

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Healthcare providers vary in their use and frequency of ultrasounds as part of prenatal care. There are no limitations as to how many ultrasounds may be taken during a pregnancy; during a healthy pregnancy, none is required. Despite their widespread use, the safety of ultrasounds for obstetric use remains questionable, especially when they are used for non-diagnostic purposes. Generally it is understood that they should only be used when medically necessary; medical indications are broadly defined so two and more ultrasounds per pregnancy are not unusual (American Pregnancy, 2015).

It is not disputed that ultrasounds are valuable tools when information for serious diagnostic issues is needed, including for instance, the determination of gestational age and placenta location and enhancing the ability to detect fetal growth anomalies and irregular abnormal amniotic fluid volume (Reddy et al., 2014). Further, there are advantages for specific groups such as obese and overweight women and those having twins (Reddy et al., 2014).

On the other hand, routine ultrasounds have not been shown to be particularly useful (Wagner, 2015). For instance, one major reason for current, frequent routine screening is to determine whether there may be intrauterine growth retardation (IUGR). However, it has been determined that an experienced doctor or midwife can determine the size of the baby with equal accuracy as an ultrasound (Wagner, 2015). Another argument for not using ultrasounds for IUGR is that while generally, diagnostic procedures are often justified when some curative treatment can help the condition found, there is virtually nothing that can be done to treat IUGR (Wagner, 2015). Another example of routine use that is not necessarily diagnostic in nature is the determination of the gender of the baby (Kirkey, 2014). Finally, Fatemi, Ogburn, and Greenleaf (2001) studied the effect of the ultrasound on the movement of the fetus. They found that the sound waves actually make the fetus move. If the diagnostic use is to evaluate the movement of the fetus, the ultrasound will skew the results rather than give accurate information.

Today, also, ultrasounds are used for photographs and videos to “meet your baby,” that is for commercial rather than non-clinical purposes (Wagner, 2015). A pregnant woman can go to an ultrasound boutique in a shopping mall and spend hundreds of dollars for three and four-dimensional pictures and videos, cellphone ringtones of the baby’s heartbeat, and a live broadcast of movement (Kirkey, 2014).

## Safety Issues

It is not unusual to discover that diagnostic tools that were once considered safe are later found to be dangerous. X-rays were considered completely benign for fetuses and used for about 50 years until they were determined to be very dangerous because they caused childhood cancer (Wagner, 2015). Ultrasounds too, which are now assumed to be safe, may also eventually be deemed too risky to use despite their benefits (Reddy et al., 2014; Wagner, 2015).

Most of the research so far has concluded that ultrasounds are safe (Reddy et al., 2014). Out of many studies that support this statement, two reviews are illustrative. Houston, Odibo, and Macones (2009) reviewed approximately 50 studies and their general assessment (with the caveat that more, specific research was needed especially regarding the very powerful Doppler machines) was that ultrasounds were safe when used as medically indicated. Whitworth, Bricker, Neilson and Dowswell (2010) published results of a meta-analysis of research into obstetric exposure to ultrasounds. The final analysis was that there was no correlation between ultrasound use and any postnatal abnormality other than a weak association between left-handedness in boys (see below). The authors conceded that the cited studies were not well controlled and were inadequate in terms of details of the frequency and duration and intensity of the women’s exposure and the type of equipment used (Houston, 2009; Whitworth, 2010).

Abramowicz (2012) has reviewed the scientific research on the issue of ultrasound safety, specifically as it relates to the etiology of autism spectrum disorder (ASD). He noted the simultaneous increase in ASD diagnoses and the increased use of obstetric ultrasounds. He also remarked that studies reported a possible link between autism and increased viewing of television (cable television in particular), use of cell phones, folic acid, personal computers, and frozen foods. None of these theories has evinced correlations; rather they call for extended research (Abramowicz, 2012). He stated that, “there is no independently confirmed peer-reviewed published evidence that a cause-effect relationship exists between in utero exposure to clinical ultrasound and development of ASDs in childhood” (Abramowicz, 2012, p. 1261).

The limited studies that indicate a risk of harm, specifically neurological damage, however, give pause. For instance, Swedish researchers Kieler, Cnattingius, Haglund, Palmgren,

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and Axelsson (2001) conducted a study with 6,858 military men born in hospitals that provided ultrasound procedures and 172,537 military men born in hospitals that did not offer ultrasounds during 1973-1978. Using logistic regression analysis, it was found that men who were possibly subjected to ultrasound procedures as fetuses were more likely to be left-handed (non-heredity left-handedness in boys denotes possible brain abnormalities). It was concluded that ultrasound exposure increased the risk of left-handedness in men and that thus ultrasounds affect the fetal brain. It is understood that more boys than girls have ASD and these boys are more likely to be left-handed (McClintic, King, Webb, & Mourad, 2013). More recently, a study has been conducted on pregnant mice. Those subjected to ultrasound procedures had offspring that displayed symptoms similar to those of children with autism including abnormal social behaviors (McClintic et al., 2013).

Safety issues include whether the ultrasound operator is credentialed and duly experienced. Additional factors that make assessment of ultrasounds' safety difficult include the length of time of each exposure, the frequency of the ultrasound procedures, gestational age, the dose (power) of the sound waves, and finally whether the ultrasound devices are in any way defective (Wagner, 2015). The heat generated in the uterus is problematic. Increased heat in the uterus as a result of ultrasounds can be harmful to the fetuses' central nervous system by hampering enzyme reactions (Edwards, 1998; Miller et al., 2002). The damaging effects of increased heat in the uterus have been well known for decades: pregnant women are cautioned to avoid hot tubs and saunas because the heat has been shown to triple the risk of having babies with spina bifida and brain defects (Milunsky, 1992).

While ultrasounds can be risky whether done in a clinical setting or at the mall, vanity ultrasounds pose a much greater risk to the fetus because of the need to use increased sound output (power) for high-definition photos. To get the best image, more time is needed as well; the combination of high energy levels and lengthy sessions plus an inexperienced operator unskilled regarding the nuances of these complex machines are all likely to result in fetal damage (Rodgers, 2006). There are no studies that assess the damage due to such excessive use (Kirkey, 2014).



Faith Doggett

## Regulations and Guidelines

There are no national or international laws to control ultrasound use, nor is there legislation regarding manufacturers' machine labeling requirements (Wagner, 2015). Nevertheless in the United States, the Food and Drug Administration (FDA) has been active in reviewing ultrasound use and providing guidelines. As early as 1976, the FDA established an upper limitation for power output. It has more recently approved increased levels of power output so that it is now more the operators' responsibility to ensure that too much power is not used (Houston et al., 2009). In 2004, the FDA warned that, even at low levels [of energy] studies have shown effects in fetus tissues including jarring vibrations and increased temperatures (Rados, 2004). The FDA has warned against the commercial, non-medical use of ultrasounds, stating that commercial use of ultrasound devices is an unapproved use of a medical device. Additionally, it cautioned that the non-medical use may be a violation of state and/or local laws and regulations that cover use of prescription medical devices (FDA, 2011). Guidelines for use, based upon current evidence, are propounded by various organizations such as the American College of Radiology, the American College of Obstetricians and Gynecologists, and the Society for Maternal-Fetal Medicine (Reddy et al., 2014). These organizations highlight the positive aspects of ultrasounds.

The World Health Organization (WHO) maintained that technologies must be fully evaluated before their widespread use (Wagner, 2015). Unfortunately, ultrasounds are used world-wide without adequate assessments for safety (Wagner, 2015). Further, the WHO suggested that patients have the right to make informed choices about their medical treatments; health care providers are supposed to provide full disclosure about ultrasounds. Notwithstanding, empirical

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evidence that there is no value to routine ultrasounds during pregnancy or that it may pose risks to the fetus growing IUGR, they remain routine prenatal treatment (Wagner, 2015).

In Canada, the Society of Obstetricians and Gynaecologists of Canada (SOGC) and the Canadian Association of Radiologists (CAR) have stated that it is unethical for commercial clinics to provide ultrasound videos for entertainment or to determine the sex of the baby because women tend to abort baby girls (Kirkey, 2014). Interestingly, some doctors in Canada have proposed that doctors not divulge the sex of the child that has been determined by an ultrasound until after the 30th week of pregnancy so that the woman cannot obtain a legal abortion (Kirkey, 2014). It is understood that generally, “[U]ltrasound should be used only when clinically indicated, for the shortest amount of time, and with the lowest level of acoustic energy compatible with an accurate diagnosis (as low as reasonably achievable or ALARA principle” (American Institute of Ultrasound in Medicine, 2013).



April Matthews

The ultimate caution, until appropriate regulations are in place, is this: “[b]ecause ultrasound is a form of energy with effects in the tissues it traverses (thermal and mechanical), its use should be restricted to medical indications, by trained professionals, for as short a period and as low an intensity as compatible with accurate diagnosis” (Abramowicz, 2012, p. 1266).

## Conclusion

**All mothers-to-be should be warned regarding the risks of all ultrasounds.** Period. Especially since there are now for-profit stores that offer entertainment images and videos – their proliferation reinforces the mistaken belief that ultrasounds are perfectly safe. These operations should be outlawed or highly regulated. Long term effects of all ultrasounds on fetuses are not known. There is enough empirical information to question the safety of ultrasound procedures and to act cautiously with their use. Besides an urgent need for further research, legislation is needed to regulate manufacture and maintenance of all ultrasound devices, operator training and certification, and frequency and duration of the procedures. It is, in the least, important for mothers to consult their healthcare providers and become fully informed of the advantages and disadvantages. Written Informed Consent forms, including the type and power of the ultrasound used, should be required for all procedures, whether in a medical setting or at the for-profit stores. A compromise that may be the safest course is to have a “keepsake” made from the images made during the course of a medically authorized procedure.

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# *Nurse-Ins, #NotCoveringUp:* Positive Deviance, Breastfeeding, and Public Attitudes

by Dana M. Dillard, MS HSMI

***Abstract: While rates of breastfeeding initiation continue to climb, rates of maintenance of breastfeeding through six months of age are much slower to rise, and a majority of mothers do not breastfeed through the first year, as current recommendations dictate. This suggests a failure within the social support systems that women must navigate as they leave the supportive environment of hospitals and enter a social world that is barely accepting of, and often hostile toward, breastfeeding women. Positive deviance, the exploration of practices that go contrary to social norms but provide significant benefits to those engaging in or affected by the actions, offers a framework for challenging these norms, and childbirth educators are in a powerful position to generate a space and place for changing attitudes toward breastfeeding.***

*Keywords: breastfeeding attitudes, positive deviance, local change*

In rural Vietnam, child malnutrition affects a large number of children. The World Health Organization (WHO, 2014) reported a prevalence of stunted growth, a measurement of under-nutrition and infection, in 34.2% of children in South-East Asia in 2013. Diets in rural areas consist predominantly of rice, and infants are weaned from exclusive or almost exclusive breastfeeding by six months, which leaves many young children at risk of developing micro- and

macro-deficient conditions (Nakamori et al., 2010; Tuyet Mai, Kim Hung, Kawakami, Kawase, & Nguyen, 2003; Tuyet Mai, Kim Hung, Kawakami, & Nguyen, 2003). In these rural areas, many families earn their living through farming (Nakamori et al., 2010). Access to nutrient-dense foods may be limited by geography and economy. However, some mothers identified creative solutions for nourishing their children. Contrary to conventional wisdom, deviant and resourceful mothers began adding shrimp, crabs, and sweet potato greens to their children's meals (Sternin, 2002). These mothers looked at these throw-away items and saw value where no one else had. Children in these families thrived because the greens and crustaceans provided key nutrients that had been lacking previously. These practices became the foundation for a nutritional enhancement programs that have led to sustained improvement in child nutrition outcomes in Vietnam within the local communities in which they were implemented (Bisits Bullen, 2012; Trinh Mackintosh, Marsh, & Schroeder, 2002).

These women were deviants—they rejected local customs and traditions to change their children's lives, but they were creating positive change through their actions. This phenomenon, wherein a subset of a population rejects local social mores for the betterment of a group, has been called positive deviance (Bisits Bullen, 2012; Sternin, 2002), and it can be a powerful approach for challenging and perhaps changing local norms and, over time, attitudes. One area in which positive deviance may have unexplored potential is in challenging breastfeeding attitudes. Although breastfeeding rates improved following informational campaigns, federal and state initiatives to increase awareness of breastfeeding benefits have stalled, particularly in maintaining breastfeeding intention, creating opportunities for exploration of less conventional and more localized positively deviant approaches to promoting breastfeeding.

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## Contemporary Breastfeeding Attitudes

Current recommendations by the American Association of Pediatrics (2012) articulate that mothers breastfeed exclusively for the first six months of a newborn's life and continue to breastfeed for at least one year or longer as desired by both mother and infant, while the WHO (2002) recommends exclusive, unrestricted breastfeeding through six months and breastfeeding with complementary foods through age two or beyond. The benefits of breastfeeding are well-established and will not be re-addressed; however, despite these recommendations, access to information, and initiatives to support exclusive and extended breastfeeding, many women do not feel safe, supported, or able to juggle the roles of nursing mother with the other roles they occupy in their careers, families, or social circles. Influential female bloggers have commented that while breastfeeding may be preferred, public shaming, including requests to cover up or move from the premises, negatively affects the breastfeeding experience by turning infant feeding practices into something perverse or shameful (Hinds, 2013; McKinney, 2013; Mustich, 2013). Of particular concern is that early negative experiences in breastfeeding may dissuade mothers from continuing exclusive breastfeeding (Hinds, 2013; McKinney, 2013; Mustich, 2013).

Hinds (2013) discussed her experience in which she was asked to move from the pool deck to a locker room at a community recreation center by a teenage lifeguard who cited a policy against breastfeeding on the deck. Hinds, a lactation consultant and breastfeeding enthusiast, explained to the lifeguard that state law prohibits discrimination against breastfeeding women and followed up with management to recommend additional training for staff. Hinds noted that had she been new to breastfeeding the embarrassment and shaming of the experience may have been a powerful deterrent to continue breastfeeding.

Hinds' (2013) story is a powerful commentary on the idea that women need to feel supported in their decision to breastfeed. This support must come from parenting partners as well as other members of the social circles within which women navigate. Erickson (2011), for instance, noted that men's attitudes about breastfeeding have a significant effect on a woman's decision to initiate and maintain breastfeeding and that those attitudes are, in turn, significantly affected by public images and employer accommodation of breastfeed-

ing practices. Because nurses are seen as a source of information and education, nurses may also have a positive effect on breastfeeding initiation and maintenance; however, although many graduating nursing students have generally positive attitudes toward breastfeeding, many indicated that they do not feel comfortable advocating for breastfeeding because they do not want to interfere with patient autonomy (Vandewark, 2014). Lactation consultants and doulas, however, may bridge the gap between education and advocacy by providing information as well as social support for breastfeeding, which may be the incentive a new mother who is nervous about committing to breastfeeding needs (Thurman & Jackson Allen, 2008; Torres, 2013), and challenging negative attitudes about breastfeeding may be fundamental to improving breastfeeding initiation and maintenance (Bramwell, 2008; Rhodes, Hellerstedt, Davey, Pirie, & Daly, 2008).

## Federal Breastfeeding Initiatives and the Failure to Normalize Infant Feeding

Although healthcare practitioners and health promoters in the United States have campaigned since the early 20th century to increase breastfeeding rates, gains in breastfeeding have not been equal across demographics (McDowell, Wang, & Kennedy-Stephenson, 2008; Wolf, 2003). Although approximately 77% of new mothers initiated breastfeeding in 2010, women living in poverty, younger mothers, and non-Hispanic Black women were less likely to have ever breastfed (Centers for Disease Control and Prevention [CDC], 2013a; McDowell et al., 2008). Additionally, 49% of mothers reported breastfeeding at six months, while breastfeeding rates at one year were at 27% (CDC, 2013a). Rates also differ substantially by geographic region, with women in the Southern United States much less likely to have ever initiated breastfeeding (CDC, 2013a). These disparities suggest a disconnect from the initial positive message of breastfeeding at delivery and the lived experience of a breastfeeding mother who must juggle multiple demands.

Wiessinger (as cited by Wolf, 2003) commented that one failure of the medical community is the lack of normalization of breastfeeding. Practitioners often say breastfeeding is best or optimal, which infers that breastfeeding is not necessary and other feeding methods are normal and acceptable (Wiessinger, as cited by Wolf, 2003). Additionally, in saying that breastfed infants are "healthier," the inference is that non-breastfed babies are the healthy ones, and breastfed babies have immunity super-powers (Wiessinger, as cited  
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by Wolf, 2003). Critical evaluation of verbiage in health-care communication suggests that a stronger influence on breastfeeding may occur if mothers are informed that non-breastfed-fed babies are sicker more often and more seriously (Weissinger, as cited by Wolf, 2003).

Several federal initiatives enacted by multiple agencies to promote breastfeeding have demonstrated some success; however, from the declining maintained rates of breastfeeding, perceived lack of continuing support may override the benefits of these programs. For example, the United States Department of Agriculture's (USDA, 2013) Women, Infants, and Children (WIC) program, has developed the "Loving Support Makes Breastfeeding Work" promotion campaign, a national campaign enacted at the state level. The promotional campaign has seen modest successes in raising breastfeeding rates among program participants, who receive additional benefits for breastfeeding their infants (USDA, 2013, 2014). One issue noted by the CDC (2013b), though, is the lack of coordinated efforts to affect promotion of breastfeeding at a local, state, or national level, and in 2011, the United States Department of Health and Human Services Office of the Surgeon General issued a call to action to develop better social support in employment and community settings for breastfeeding mothers. Perhaps, the answer to creating positive changes in breastfeeding intention, initiation, and maintenance through the first year or longer may require a new – and deviant – approach.

## Positively Deviant Breastfeeding Initiatives and Local Impact

Examination of the effects of positive deviance in breastfeeding is very limited. Ma and Magnus (2012) sought to identify positive deviants in first-time low-income mothers enrolled in WIC in Louisiana. Ma and Magnus identified deviants as those women who initiated breastfeeding despite fitting indicators of those who would be highly unlikely to initiate. For this group of women, those who were most likely to deviate from expectations (i.e., to not initiate breastfeeding) received quality care, education, and instruction on how to breastfeed shortly after delivery (Ma & Magnus, 2012). Additionally, positive deviants tended to be older, more educated, currently employed or in school, receiving Medicaid, married, and salaried prior to birth (Ma & Mag-

nus, 2012). These results emphasize the importance of social support and education in initiating breastfeeding, particularly in groups that are at higher risk for not breastfeeding.

While support for the decision to breastfeed before and at birth may be prevalent, support in action following discharge may be much less available, resulting in decreased commitment to maintain breastfeeding through the first year. Mothers who breastfeed have faced discrimination, threat, and humiliation by choosing to breastfeed, at least when finding themselves faced with a hungry infant outside of the home or other supportive environments. Some deviant mothers have responded to these reactions with nurse-ins and social media. In response to requests for breastfeeding mothers to cover up or leave, groups of breastfeeding mothers have staged nurse-ins, in which a large group of nursing mothers respond to the location where a mother was asked to leave (see, for examples, <http://www.huffingtonpost.com/news/nurse-in/>). The nurse-in phenomenon cultivated in the Great Nurse-In, a 600-woman strong nurse-in that commenced in Washington, D.C., in 2012 ('Great Nurse-In', 2012). These nurse-ins are designed to generate awareness and acceptance through exposure. Social media has created another space for generating awareness and acceptance with mothers using hashtag campaigns, such as #NotCoveringUp and #MilkIsMySuperpower, to normalize the sight of breastfeeding. Some crafters have even joined in the campaign by creating crocheted pro-breastfeeding infant caps. Each of these approaches represents an innovation that, as they are adopted and expand in scope, create the opportunity for real and significant social change at local levels.

## Implications for Childbirth Educators

Childbirth educators have a unique opportunity to create space for positive deviance. Of initial importance, educators can provide information and instruction on breastfeeding and use community resources, including lactation consultants, to improve communication. Additionally, childbirth educators could request that new and nursing mothers attend classes with expecting mothers. These mothers can provide guidance and serve as more knowledgeable others who have intimate experience navigating social situations while nursing. These mothers should be encouraged to bring their infants and to breastfeed as needed so that expecting mothers can observe the practice in action. Childbirth educators can also enlist community partners who will create safe havens for nursing mothers. For example, a tea

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house in Great Britain has become one such haven. The café offers nursing mothers a safe place to nurse and provides them with a free cup of tea while they nurse (Culzac, 2014). The café opened its doors to nursing mothers to provide a response to numerous reports of breastfeeding mothers being told to cover up or leave. This café is a beacon for positive deviance by going against social disdain for public breastfeeding. The café has also earned millions of hits in the social media world as the image went viral, generating free publicity for simply offering a service to harried mothers. Childbirth educators are situated in a very powerful position for creating lasting change in attitudes toward breastfeeding by providing information and a safe place for learning how to accept and adapt to breastfeeding challenges as their infants grow and creating additional change at a local level by reaching out to communities to find local businesses willing to partner in creating breastfeeding awareness.

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# Mindfulness: Being Present in the Moment

by Christine Frazer, PhD CNS CNE and Stephanie Ann Stathas, MS NCC

***Abstract: This article serves to enlighten childbirth educators' knowledge about mindfulness and the mother-baby benefits associated with incorporating mindfulness-based interventions into practice. Jon Kabat-Zinn, who developed the Mindfulness Based Stress Reduction program, brought the concept of mindfulness into the world of healthcare and mainstream society. Mindfulness is the practice of bringing awareness to the here and now using a variety of methods. Nancy Bardacke has taken the practice of mindfulness further and developed a program for expecting mothers, known as Mindfulness Based Childbirth and Parenting. This program has been shown to reduce stress responses that may be harmful to a pregnant woman's well-being and that of her unborn child. Maternal stress is linked to preterm birth, low birth weight, miscarriages, lower Apgar scores, smaller infant head circumference, and postpartum depression. Integrating mindfulness-based interventions throughout pregnancy can help manage pain, reduce stress, anxiety, the risk of developing postpartum depression, and increase a woman's overall mood.***

Will I have a healthy pregnancy? Will the baby be healthy? Can I bear the pain of delivery? Will we be good parents? Will we be able to provide financially for our new baby? The list of unknowns goes on in the mind of mothers-to-be. Unsurprisingly, pregnancy brings about a range of physical and emotional changes, which in turn may generate worry, fear, and stress. Just as not all pregnancy and birthing experiences are alike, how one interprets and copes with the stress of transitioning to parenthood also varies. According to Lazarus and Folkman's (1984) Stress and Coping Theory, individuals assess an event or situation as either a threat (potential future harm) or challenge (what can be learned from the experience). From there, individuals then evaluate how they can deal with the situation at hand and best cope. If one's perception is that they cannot or are unable to cope, negative affect (i.e. subsequent poor health) results. The body's physiological response to stress from a perceived threat causes an increase in heart rate, blood pressure, and respiratory rate. Additionally, digestion slows, the body begins to shake, and flushing of the face occurs. Conversely, positive affect (i.e. excitement) results when one perceives the ability to cope. Positive affect provides the body with a physical and psychological break from the perceived threat that helps prolong coping efforts (Duncan & Bardacke, 2010). So what does this all mean for the expecting mother who interprets the transition to parenthood as a threat and lacks adaptive coping strategies? For the expecting mother, their inability to effectively cope poses a risk to not only their own well-being but the health and well-being of their unborn child (Lupien, McEwen, Gunnar, & Heim, 2009). Henceforth, this article serves to enlighten childbirth educators' knowledge about mindfulness and the mother-baby benefits associated with incorporating mindfulness-based interventions into practice.

*Keywords: mindfulness, pregnancy, stress, anxiety, intervention*

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## Effect of Stress on Maternal and Infant Outcomes

Literature reports on the negative impact of stress during pregnancy may have on maternal and infant outcomes. Maternal stress has been linked to preterm birth (Dejin-Karlsson et al., 2000; Rondo et al., 2003), infant low birth weight (Rondo et al., 2003; Wadhwa et al., 2004), and miscarriage (Boyles et al., 2000). Additionally, the literature reports lower Apgar scores and smaller head circumference are associated with maternal stress (Lou et al., 1994; Pagel et al., 1990; Ruiz & Avant, 2005). Moreover, stress during pregnancy increases the risk for postpartum depression (Beck, 2001; Chojenta, Loxton, & Lucke, 2012).

Keeping the risks of high stress during pregnancy in mind, literature suggests that practicing mindfulness techniques while pregnant may have a substantial positive impact on lowering maternal stress and infant outcomes. Mindfulness has been shown to significantly reduce feelings of stress and anxiety (Duncan & Bardacke, 2010; Warriner, Dymond, & Williams, 2013), lower depression (Warriner, Williams, Bardacke, & Dymond, 2012), help in the management of pain (Ussher et al., 2014), foster a sense of control (Fisher, Hauck, Bayes, & Byrne, 2012), and help women develop an attitude of acceptance while living in the here and now (Beattie, J., Hall, H., Biro, M.A., Lau, R., & East, C., 2014; Brown, Marquis, & Guiffrida, 2013; Stahl & Goldstein, 2010).

## Mindfulness as an Intervention to Reduce Maternal Stress

Stress and Coping Theory suggests that individuals can be taught to change their perspective of the stressor and henceforth, develop effective coping strategies (Lazarus & Folkman, 1984). Interventions based in mindfulness may “facilitate more challenge than threat appraisals” (Duncan & Bardacke, 2010, p. 191) which in turn leads to reduced stress responses. Jon Kabat-Zinn (2005) defines mindfulness as “the awareness that arises from paying attention, on purpose, in the present moment and non-judgmentally” (p. 24). Evidence suggests that interventions based in mindfulness not only reduce stress responses but reduce the negative outcomes that may be harmful to a pregnant woman’s well-being and that of her unborn child (Bastani, Hidarnia, Kazemnejad, Vafaei, & Kashanian, 2005; Duncan & Bardacke,

2010; Vieten & Astin, 2008). In Bastani and colleagues’ (2005) research, findings indicated a reduction of perceived stress and anxiety among pregnant women who participated in relaxation training. Moreover, rates of low birth weight and caesarean sections were also reduced (Bastani, Hidarnia, Montgomery, Aguilar-Vafaei, & Kazemnejad, 2006). The results of a mindfulness-based intervention developed by Vieten and Astin (2008), *The Mindful Motherhood*, which incorporated mindfulness strategies such as breath awareness and body scan meditation, also showed a significant reduction in anxiety and negative affect in mothers during their last trimester of pregnancy. Lastly, a program developed by Nancy Bardacke, Mindfulness-Based Childbirth and Parenting (MBCP), whose foundation is based on Kabat-Zinn’s Mindfulness-Based Stress Reduction (MBSR) program, has shown to decrease anxiety and depression in pregnant women (Duncan & Bardacke, 2010). In Bardacke’s (2012) award winning book, *Mindful Birthing: Training the Mind, Body, and Heart for Childbirth and Beyond*, details of a MBCP course is shared in such a way that it makes the reader feel like he or she is physically present in the class. Bardacke’s book is highly recommended for anyone who desires to learn more about mindfulness during pregnancy, labor, birth, and beyond.

To simplify the definition of mindfulness, the practice consists of bringing awareness of the body and mind while attempting to bring the art of living to the here and now (Stahl & Goldstein, 2010). Mindfulness is a matter of being present and taking experiences, accepting them as they are in a nonjudgmental fashion, one moment at a time (Stahl & Goldstein, 2010). As the individual begins to see life in that it is in a process of constant change, then one can start to appreciate all aspects of experience, such as pleasure, pain, happiness, and fear, with a lesser amount of stress and more balance (Stahl & Goldstein, 2010). Becoming more aware of one’s thoughts, mental processes, emotions, and sensations, one’s physical and psychological well-being begins to improve in all areas of life (Duncan & Bardacke, 2010; Dunn, C., Hanieh, E., Roberts, R., & Powerie, R., 2012; Nilsson, 2014; Stahl & Goldstein, 2010; Warriner et al., 2013).

The concept of mindfulness is a form of mental discipline that with practice can help reduce an individual’s tendency to overreact in stressful situations and provide them with a sense of control (Brown et al., 2013; Fisher et al., 2012; Stahl & Goldstein, 2010). It is only in the present moment that one can make changes, and to be present one

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must bring awareness to whatever it is that is happening in the here and now (Beattie et al., 2014; Duncan & Bardacke, 2010; Stahl & Goldstein, 2010). That is one of the gifts of practicing mindfulness—it helps a person bring to awareness that there are choices in how one reacts to a stressful situation.

As mentioned previously, a population that may benefit from incorporating mindfulness into their daily routines would be expectant mothers. Going through pregnancy can be one of the greatest challenges for a woman, and mindfulness meditation can help manage pain, reduce stress and anxiety, reduce the risk of developing postpartum depression, and increase a woman's overall happiness and attention to her baby (Duncan & Bardacke, 2010; Dunn et al., 2012; Fisher et al., 2012; Warriner et al., 2012). There are skills that individuals can employ so that they may integrate mindfulness into their daily lives and help manage their body and mind throughout the course of their pregnancy.

## Mindfulness Techniques

### Breathing from the Diaphragm

The foundation of mindfulness is breathing from the diaphragm, since one's breath can be used whenever and wherever as an anchor to the present moment, serving as the basis for meditation (Brown et al., 2013; Stahl & Goldstein, 2010). For instance, when an individual is stressed or anxious they tend to engage in shallow breathing. Rather than breathing from the chest, one can learn to breathe from their belly (Stahl & Goldstein, 2010). A great way to see if one is breathing from their chest or belly is to have the individual place one hand on their stomach and one hand on their chest and feel whether it expands as one inhales and contracts when one exhales. If the person feels that they are breathing from their chest, then instruct the individual to bring their attention to breathing in more deeply, focusing on their stomach expanding and contracting with their breath (Brown et al., 2013; Stahl & Goldstein, 2010).

### Mindfulness Meditation

One can choose to meditate in a quiet space and either sit or lay down, with eyes closed, starting with 5 to 10 minutes and working one's way up to 20 to 30 minutes daily (Duncan & Bardacke, 2010; Stahl & Goldstein, 2010; Warriner et al., 2012). While practicing mindfulness



meditation, many people's minds will begin to wander off (Stahl & Goldstein, 2010). One's job is not to judge oneself when your mind drifts, rather be patient, acknowledge the thoughts that arise, notice if they are positive or negative, accept the fact that your mind is wandering, let it be, and then bring attention back to the breath (Stahl & Goldstein, 2010). As one is learning how to be at peace with their thoughts and feelings in the present moment, be gentle with oneself and do not suppress or repress them as they arise (Stahl & Goldstein, 2010).

Benefits to this practice include training an individual's mind to develop their concentration as well as helping to pay attention to the present moment and noticing where one's mind drifts off to, possibly signaling that there are areas in their life that need to be dealt with (Stahl & Goldstein, 2010). Another benefit is that when an individual brings themselves back to the present moment, one will notice the mind-body connection, especially if one is aware of any physical symptoms arising (i.e. pain, tension, jaw clenching) (Stahl & Goldstein, 2010). An easy way to practice this at home is by staying in the present and focusing on an object or task, such as when washing dishes, gardening, doing the laundry, or preparing meals (Brown et al., 2013; Duncan & Bardacke, 2010).

### Loving-Kindness Meditation

Kabat-Zinn (2005) suggests that another form of meditation beneficial for fostering mindfulness is known as Loving-Kindness Meditation (Nilsson, 2014; Stahl & Goldstein, 2010). The premise behind the concept of bringing loving kindness into one's life is to experience and develop deeper levels of empathy, love, and compassion that will lead to the dissolving egocentricity tendencies, resentments, and hatred

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(Nilsson, 2014; Stahl & Goldstein, 2010). Most importantly, one must be able to foster compassion and love for oneself, which can be difficult to do, based on natural human nature tendencies to engage in negative self-talk (Brown et al., 2013; Stahl & Goldstein, 2010). Additionally, once self-love is attained, one can extend those feelings out to others, and finally outspread love and kindness to all living beings (Nilsson, 2014; Stahl & Goldstein, 2010).

Engaging in loving kindness meditation can help cultivate inner healing of the self by helping bring to present awareness any thoughts and feelings that may stem from past experiences (Stahl & Goldstein, 2010). Once these experiences are brought to the present, one uses hindsight to help understand that those actions were at times driven by feelings of fear, lack of control, and lack of awareness (Stahl & Goldstein, 2010). Additionally, according to Stahl and Goldstein (2010), when one begins authentically to love, forgive, and extend compassion towards oneself, one can gradually expand the sense of peace and empathy beyond the self and towards others. Furthermore, with continued practice, this form of meditation will help to open one's heart to feelings and extend outward to feel a universal and spiritual connection (Stahl & Goldstein, 2010).

To facilitate this form of meditation as one's awareness starts to grow, begin by getting in touch with the endless love that exists in the Universe, then direct feelings of love and compassion towards oneself often in mantra form (i.e. *May I be healthy, safe, grateful, and at peace*) (Stahl & Goldstein, 2010, pp. 146-147). Next, Stahl and Goldstein (2010) recommend extending those feelings of empathy, love, compassion, and sympathy outward, first to individuals who are most easy to love, such as teachers, mentors, and benefactors (i.e. *May my benefactors be healthy, safe, and at peace with their body and minds*) (p. 147). After doing that, the next step is to extend outward love and compassion towards the individuals in one's life that are close to one's heart (i.e. *May my near and dear ones be safe, healthy, and at peace with themselves*) (Stahl & Goldstein, 2010, p. 146-147). After sending out positive energy to others who are close, extend the mantra to encompass individuals who are acquaintances or strangers (i.e. *May my neutral ones be safe, healthy, at peace, and have ease of body and mind*) (Stahl & Goldstein, 2010, pp. 146-147). To diffuse feelings of resentment and hatred, Stahl and

Goldstein (2010) suggest the next step is to send love and kindness outward to difficult individuals, or to those that one has a current conflict with (i.e. *May my difficult ones be safe, healthy, at peace, and have ease of body and mind*) (p.148). Finally, extend the principles of the meditation outward and to all living beings in the Universe (i.e. *May all beings in the universe be safe, healthy, and at peace*) (Stahl & Goldstein, 2010, p. 148).

## Body Scan

Often times, the Body Scan technique is employed during mindfulness while in the act of meditating. To facilitate this skill, one slowly moves their attention through the body, starting at the head and working down to the feet, all the while becoming more aware of physical sensations in the various places of the body (Brown et al., 2013; Duncan & Bardacke, 2010; Stahl & Goldstein, 2010). Listening to CDs or apps that help guide an individual through a body scan will make it easier to do this practice at home if one prefers. Acknowledge and feel whatever sensations surface during the body scan, since this can bring an individual in touch with aspects of their life and help them identify sources of pain or discomfort (Brown et al., 2013; Duncan & Bardacke, 2010; Stahl & Goldstein, 2010; Ussher et al., 2014).

Through this practice, an individual can discover where they hold tension and pain, identify and work with any reactions to the pain and tension, and most importantly, learn to keep their mind on the present moment that leads to feelings of control and acceptance (Stahl & Goldstein, 2010). Continuing to practice this will help pregnant women develop an attitude of, "Let's see if I can be with pain in this moment. If pain arises in the next moment, I'll deal with it then" (Stahl & Goldstein, 2010, p. 71). This technique can transform the person's relationship with pain by living in the present moment, letting go of the past, and not having a specific expectation of the future (Brown et al., 2013; Duncan & Bardacke, 2010; Stahl & Goldstein, 2010; Ussher et al., 2014).

## Mindfulness for Pregnancy Apps

In today's IT world, it is of no surprise to hear that individuals turn to technology to obtain information on various topics. Generation Y (born between 1976-1994), also known as the "Facebook Generation" or the "Y-Geners", grew up with technology, digital music players, cell phones, and social networks (Lichy, 2012). Moreover, with the growing num-

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ber of third-party apps available for smartphones, pregnant women born within this Generation Y might consider downloading various apps related to pregnancy and mindfulness. A recent search of Apple's App Store noted three specific apps on mindfulness pregnancy, although numerous apps (557 total) were located on just the topic of mindfulness. A review of two out of the three apps on mindfulness pregnancy is shared below.

### Mindfulness for Pregnancy

Mindfulness for Pregnancy app provides pregnant women with a brief introduction to meditation and mindfulness. The app, developed by MindApps, also includes several guided meditations (Body Scan, Sitting Meditation, Walking Meditation, Mindful Yoga, Being with Baby, Loving Kindness Meditation, and Silent Meditations). For example, The Body Scan guided practice takes the pregnant woman on a body awareness journey as attention of focus is aimed at body sensations. The Being with Baby guided meditation provides instructions for embracing the sensations that pregnant women experience when the baby moves, and how these movements act as a reminder to come back to the present moment. Loving Kindness is a mind-body-heart meditation aimed at stimulating kindness, friendliness, and well-wishing for the pregnant woman, her baby, and others. In addition to the guided meditations, the app also records statistics on when and how long one meditated and offers the scheduling of mindfulness alerts, called mindful notices, throughout the day to breathe, become more present in the moment, and to connect to their unborn baby.

### Mind the Bump – A Mindfulness Meditation Tool for New and Expecting Parents

Mind the Bump, a free app released by Beyond Blue (a mental health support non-profit organization) and Smiling Mind, aims to help mothers-to-be and their partners, through mindful meditations, to manage the stress that comes with pregnancy and caring for a baby beginning at day 1 of pregnancy up through to 24 months after birth of the baby (Rowlands, 2014). The app has 7 stages, each with a different antenatal (first, second, and third trimester) and postnatal (0-3 months; 4-6 months; 7-9 months; and 10-24

### Key Takeaways and Implications for Practice

- For the expecting mother, their inability to cope effectively with stress poses a risk to not only their own well-being, but also the health and well-being of their unborn child.
- Maternal stress has been linked to preterm birth, infant low birth weight, miscarriages, lower Apgar scores, smaller infant head circumference, and postpartum depression.
- Literature suggests that practicing mindfulness techniques may have a substantial positive impact on lowering maternal stress and resulting negative infant outcomes.
- Mindfulness consists of bringing awareness of the body and mind while attempting to bring the art of living to the here and now.
- Mindfulness is a matter of being present and taking experiences, accepting them as they are in a nonjudgmental fashion, one moment at a time.
- Mindfulness techniques include Breathing from the Diaphragm, Mindfulness Meditation, Loving Kindness Meditation, and the Body Scan.
- Practicing mindfulness has been shown to decrease stress, anxiety, depression, help in the management of pain, foster a sense of control and peace, and help pregnant women develop an attitude of living in the present moment – the here and now.
- Books and smartphone apps are available for expecting mothers to help aid in practicing mindfulness techniques.

months) timeline that provides a list of Everyday Practices (meditations), Informal Practice (tips to consider) along with a description of the overarching meditation aim during that particular stage. For example, in stage 1 (first trimester of pregnancy), 8 meditations ranging from 7 to 9 minutes in length and 8 Informal Practice tips on topics such as letting go of guilt, judging oneself, and being patient are shared. The app keeps track of how many meditations were completed as well as how many days until the baby's due date (information that is obtained upon registering with the app). This app also allows "time to meditate" reminders to be set.

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### Conclusion

In summary, midwives, doulas, and childcare educators will benefit from the additional mindfulness techniques while aiding expecting mothers throughout their pregnancy. Mindfulness techniques are increasingly being used as a way for expecting mothers to become more aware of the present, fostering a more positive mindset that can extend beyond the birthing process. As the key takeaways and implications for practice above highlighted, research reveals practicing mindfulness techniques while pregnant significantly reduces feelings of stress and anxiety, lowers depression, helps in the management of pain, fosters a sense of control, and helps pregnant women develop an attitude of acceptance while living in the here and now.

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International Childbirth Education Association

# Type-1 Diabetes and Pregnancy

by Dorothy Jolley, BA MA

***Abstract: Type-1 diabetes is an autoimmune disease that is controlled with insulin therapy. However, during pregnancy it is more difficult to maintain constant blood sugars to prevent hyperglycemic and hypoglycemic events. Monitoring of blood glucose levels and other tests are essential. Levels of Hemoglobin A1c (HbA1c) should not exceed 6.5 for the safety of the diabetic woman and her baby. A team of professionals with expertise in type-1 diabetes can assist in supporting the patient to obtain tight glucose control. Self-management of patient includes constantly checking blood glucose levels, and the childbirth educator can encourage the mother to test her blood sugar regularly.***

*Keywords: type-1 diabetes, pregnancy, fetal drive, fetus, glucose, monitoring*

In the United States, 0.2 to 0.5 percent of pregnancies are complicated by type-1 diabetes. Type-1 diabetes mellitus is the outcome of an immune-mediated injury or the destruction of insulin producing pancreatic cells, and was originally called juvenile diabetes because most cases are diagnosed early in life (Morran, Vonberg, Khadra, & Pietropaolo, 2014). Type-1 diabetes is an autoimmune disease in which immune tolerance is broken down (National Institute of Health [NIH], 2014). The body's immune system attacks the pancreas disallowing insulin production and blood glucose levels increase resulting in type-1 diabetes (NIH, 2014).

The American Diabetes Association (ADA, 2015) reported that when the body does not produce the insulin hormone to convert sugar, starches, and other food into energy, insulin administration is required. After a diagnosis

of type-1 diabetes, the patient is taught to self-test to determine blood glucose levels throughout the day (ADA, 2015). The results will determine insulin requirements that will lower hyperglycemic levels. Hemoglobin A1c (HbA1c) results are produced by drawing blood to reflect blood sugars over the past three months with a target of 7% or less for non pregnant diabetics. During pregnancy, extra caution must be taken to maintain normal blood sugars to maintain health of the mother and fetus (ADA, 2015).

ADA (2015) recommended that management of type-1 diabetes pregnant women begin with pre-conception counseling. Diabetes tests of HbA1c, thyroid-stimulating hormone, creatinine, and urine albumin-to-creatinine ratio testing is recommended. In addition, checking medication lists for teratogenic drugs such as Acetylcholine (ACE) inhibitors and statins is recommended (ADA, 2015). A visit to the ophthalmologist/retinopathist for eye damage should also be part of regular diabetes management.

To assure good health for mother and baby HbA1c levels are recommended to be < 6% during pregnancy. Insulin treatment of type-1 diabetes can lead to infertility, and if the individual becomes pregnant, there is a 60% chance of fetal and neonatal complications (Vargas, Repke, & Ural, 2010). The mother is at higher risk for high blood pressure, preeclampsia, and eclampsia. Risks to the baby include anomalies, anencephaly, microcephaly, congenital heart disease, macrosomia (large for gestational age), stillbirth, low blood sugar after birth, neonatal jaundice, and type-2 diabetes in the child's later life (ADA, 2015). These complications may also include miscarriage, Intrauterine growth restriction (IUGR), birth trauma, or preterm delivery (Magon & Chauhan, 2012). Type-1 diabetes pregnancy monitoring and education begins before conception and needs to continue during pregnancy (Vargas, Repke, & Ural, 2010). Knowledge and management of diabetes during pregnancy is an absolute necessity (Magon & Chauhan, 2012). With careful monitoring of blood sugar, type-1 diabetes pregnancies do not need to have complications.

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### *With careful monitoring of blood sugar, type-1 diabetes pregnancies do not need to have complications.*

Maintaining constant blood sugar control is difficult but can result in normal pregnancy and healthy babies with support, teaching, and health professionals who reach out to assist and encourage (Magon & Chauhan, 2012). Women may experience anxiety, diabetes-related stress, guilt, professional disconnectedness, and a focus on diabetes treatment rather than motherhood (Rasmussen et al., 2013). A trusting relationship with health professionals such as a childbirth educator or doula will help with a positive transition to motherhood. Active social support, partner support, and shared decision-making with other pregnant diabetic individuals have been found to be helpful (Rasmussen et al., 2013). Type-1 diabetic women need all the support they are able to get during this period of transitioning into motherhood to help with tighter glycemic control through positive attitude, and this is where the childbirth educator can assist (Rasmussen et al., 2013).

Woolley et al. (2015) studied type-1 diabetic women's perspective of how they felt their social, psychological, emotional, and educational needs were met while transitioning into motherhood for the first time. Woolley et al. found type-1 diabetic women were aware of the need to stabilize capillary blood glucose (CBG) and HbA1c levels. The women expressed that their relationship with health care professionals made up of obstetricians, diabetologists, diabetes specialist midwives, childbirth educators, diabetes specialist nurses, dieticians, and psychologists empowered them during pregnancy (Woolley et al., 2015).

Empowerment was observed when women with type-1 diabetes were regarded as a partner in their own treatment. Pregnant women with type-1 diabetes should be acknowledged for good self-management and endless efforts to keep HbA1c below six percent. It is also important and necessary for the health care professionals to utilize their full capability, expertise, and knowledge to help women with type-1 diabetes during pregnancy. Liu, Archer, Srinivasasainagendra and Allison (2015) reported that the effort and time taken to monitor and study this process is great, but it is worth it in the end to help the mother, the baby, and future descendants.

Type-1 diabetes mellitus during pregnancy requires tighter glycemic control than during non-pregnancy. More than daily monitoring of blood sugar, HbA1c is part of monitoring blood sugar and reports effective glucose control over the past several weeks. Another way to monitor long-term effective glucose control is a monosaccharide short-term marker referred to as 1,5-Anhydroglucitol (1,5-AG). This is used to measure after dinner or lunch (postprandial) glucose levels. This test more closely monitors glycemic control, and pregnant women with type-1 diabetes could avoid complications that can still be missed when only monitoring HbA1c results (Nowak, Skupien, Cyganek, Matejko, & Malecki, 2013). It is recommended that in the second and third trimester, glucose and gestational size be more closely monitored. Uncontrolled blood glucose is directly related to large for gestational age babies. Using the short-term marker 1,5-AG, could more accurately give information on appropriate insulin dosage and produce better results throughout pregnancy (Nowak et al., 2013).

### *tighter glycemic control is required in pregnancy*

Nielsen, Møller, and Sørensen (2006) assessed diabetic women's first-trimester HbA1c to detect the negative impact on pregnancy outcome. Diabetic women with HbA1c levels of more than 7% have the possibility of increased adverse outcomes of pregnancy (Nielsen et al., 2006). The unborn baby is affected by hyperglycemia and could suffer negative outcomes (Nielsen et al., 2006). Maresh et al. (2014) studied pregnant diabetic women during the second and third trimester, measuring HbA1c levels at 26 and 34 weeks gestation. A clear link emerged between HbA1c and risk of large for gestational age babies, preterm delivery, pre-eclampsia, and neonatal low blood sugar requiring IV fluids (Maresh et al., 2014).

Untreated or mismanaged diabetes poses other threats to the health of mom and baby and may include microvascular or macrovascular (small or large blood vessel) diseases and pregnancy-related hypertensive disorders (e.g., pre-eclampsia or 'hemolysis elevated liver enzymes, and low platelet' or HELLP syndrome). The condition of pre-eclampsia includes convulsions, hypertension, and even coma for the mother. These conditions become obvious after the 20th week gestation. Diabetic nephropathy can also occur. By careful

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## Type-1 Diabetes and Pregnancy

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attention to fetal progress, blood sugar and kidney function outcomes can be improved (Piccoli et al., 2013).

Monitoring of blood sugar and insulin pump therapy effectiveness can be improved with a monitoring system such as the model predictive control (MPC) algorithm. The MPC algorithm calculates the women's weight, basal insulin requirements, and all daily insulin dosages for three days (Murphy et al., 2011). There are advances in insulin formulations and new forms of delivery are available for obstetricians to tailor to women with type-1 diabetes during pregnancy.

Childbirth educators have a role in helping educate parents about the importance of maintaining appropriate blood glucose. The prenatal class can address the importance of monitoring, while the educator can inquire about blood glucose monitoring, offer support, suggestions for success, encouragement, and referral for more education to other health care professionals such as dietitians, diabetes educators, and support groups.

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# Breastfeeding Solutions: Quick Tips for the Most Common Nursing Challenges

by Mohrbacher, N.

reviewed by Laura Owens, PhD RN CNE

*Breastfeeding solutions: Quick tips for the most common nursing challenges* is a well written book containing practical solutions for mothers with common breastfeeding problems and questions. The author, a breastfeeding expert since the 1980s, has written this guide as a companion for *Breastfeeding made simple: Seven natural laws for nursing mothers*, which she wrote with Dr. Kathleen Kendall-Tackett. The benefits of breastfeeding are only briefly described, since the focus of the book is on solutions to common breastfeeding problems. The book is written, I believe, for those women who have already chosen to breastfeed and are seeking assistance to have a more successful experience.

This book contains seven chapters with each addressing a common breastfeeding challenge. The seven challenges addressed in the book are latching struggles, milk-supply issues, nipple pain, breast pain, night feedings, pumping and weaning. Each chapter identifies several specific problems related to the challenge and provides specific solutions or strategies to address the problem. For example, in chapter 1, Latching Struggles, problem 1 is identified as “your newborn or young infant has trouble latching.” Specific strategies including “try laid-back breastfeeding” are listed with clear and specific descriptions of how to implement the strategies. Sketched figures are included to help clearly illustrate the points made in the chapter. Each chapter also includes a section titled “If these strategies don’t work” that discusses less common reasons for breastfeeding problems and makes suggestions on when to contact a health care provider or lactation consultant. Each chapter contains tips related to the content in the chapter and addresses myths related to breastfeeding while providing the reality related to the myth. Both the Tips and Myth/Reality information are placed in separate boxes so the information is easy to locate.

The book concludes with a thorough Resources section including recommended books, DVDs and websites for breastfeeding mothers. The websites include those of the

author as well as those of breastfeeding support organizations such as La Leche League International, International Lactation Consultant Association, and the Academy of Breastfeeding Medicine. Information relating to locating breast pumps and other breastfeeding

gear is also provided for new mothers along with information on finding skilled breastfeeding help. References for the professional articles and studies used as sources are included for lactation professionals utilizing the book as a resource.

The primary audience for this book is the breastfeeding mother; especially one in the early stages of breastfeeding. The book is written in an easy, conversational tone with the breastfeeding mother as the direct focus. The language is simple and the use of headings, bullet points, tables, diagrams and figures make it an easy and enjoyable read for someone with adequate literacy skills. The book could also be useful for the lactation professional that is consulting with a mother experiencing breastfeeding problems. The chapters are clearly titled and the organization of the book allows an interested reader to quickly locate desired information.

I recommend *Breastfeeding Solutions: Quick tips for the most common nursing challenges* as a supplemental resource for new mothers. The purpose of this book is to provide practical solutions to common breastfeeding problems and I believe the author clearly achieved this goal.



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# Sad Dad: An Exploration of Postnatal Depression in Fathers

by Spencer, O.

reviewed by Pinky Noble-Britton, PhD MSN RN

As indicated by the title, this book explores the issue of postnatal depression (PND) in fathers through different lenses. There is an initial discussion of the effects of PND in mothers and fathers. Spencer then uses the lens of the psychoanalysts, Watts and Jukes, to highlight the reasons for low awareness and negative consequences of the PND experience for fathers of today. These psychoanalysts identified conflicts with traditional roles of the father, lack of effective coping skills, and ease of regression into familiar behaviors, as main contributors to the issue. Preconceived roles of fatherhood and masculinity are also seen as deterrents to seeking out assistance from practitioners. Odent, an obstetrician, supplies the medical perspective for this book and suggests that most men who sought out a practitioner for PND were already in treatment prior to the pregnancy experience. He also speaks of the physical fragility of men which often goes unnoticed and sometimes manifests itself with deep emotional experiences such as pregnancy and birth. Naouri's work is heavily sourced to provide the reader with a sociological viewpoint. Family traditions, roles of the male, father, mother, masculinity, femininity, and traditional and new family units are explored.

Together these perspectives provide a central view; fathers are first males in the society, have learned to identify specific behaviors with their masculinity, and often see themselves departing from that role when they succumb to the emotional dynamics that come with embracing the pregnancy experience. Spencer supplies the reader with possible ways to identify PND, the devastating effects that result if left untreated, and the possible solutions to increase awareness and treatment. The documentation of the anecdotal accounts of tragedy, abandonment and violent behaviors adapted by fathers diagnosed with PND

are necessary additions to this conversation.

This book will certainly provide significant contributions to the field of childbirth education in the conventional, childbirth preparation, and labor and birth classes. The best areas of promotion would be those where there is a need for providing impressions of the frailty of fatherhood and strategies to identify any negative impact during the experience.

The suggested audience for this book is within multi-disciplinary settings. The author provided a sociological, psychosocial and clinical view of PND. This book can be utilized by the general public with possible adaptations in lower college-level courses with a family or fatherhood focus. Suggested disciplines can include psychology and sociology and health care.

I would recommend this book as a resource for the child birth education arena. I believe it would be good for raising awareness of the problem of PND in men. Fathers involved in the pregnancy experience, even in a small way, can be encouraged to take the suggested surveys identified in this book. It will certainly increase the conversation on providing more resources for fathers who are unaware of, or are reluctant to talk about, suffering from PND.



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# Expecting with Hope: Claiming Joy When Expecting a Baby after Loss

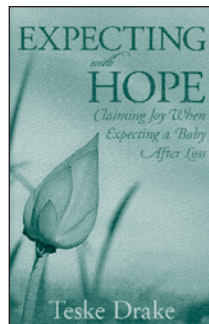
by Drake, T.

reviewed by Dr. Nathania Bush, DNP PHCNC BC

When the expectancy of your child's birth turns into the grief of miscarriage, stillbirth, or early infant death, no words can ease your hurt. However, there is power and encouragement in the wisdom of others who have been there and found that God's comfort is real. Nearly every parent's worst fear is the loss of a child – even babies who have not been born yet. The pain and grief suffered by moms who have lost babies to miscarriage, stillbirth, or early infant death is just as real as the grief of those who lose children later in life.

The author of this book discusses the complex emotional journey women go on who have suffered such loss and become pregnant again. She touches on the emotions of fear, hope, anxiety and joy. In addition, the author beautifully shares the stories of loss from her own life and from others' lives to connect to the reader.

This book is centered on biblical promises and truth. The author challenges women to receive joy in the midst of grief and guides them through the process. The book is full of reassurance from the bible that one can meditate on, and it is divided up into 10 chapters or it can be used a 10 week daily devotional. Each chapter is centered on a promise. The promises are grouped into ten categories: promises of a hope and a future, fearless love, God's presence, a sovereign refuge, provision, God's strength, contentment in God and Christ, hope, victory, and joy. She works through these promises to expose to women reading the



book a place of joy and peace their pregnancy can reveal.

The tone of this book is soothing and compassionate. The intended audience is for expecting mothers who have suffered loss, whether by miscarriage, stillbirth, or infant loss or for professionals working with this group of individuals. Although the author, who has been in this situation personally still acknowledges that everyone's experience is unique. The book also offers space and the author encourages personal reflection and journaling for the reader as she completes the reading of each individual promise.

In conclusion, bereaved parents and child-birth educators will find comfort, sympathy and encouragement in this powerful, truthful sharing of one of life's most painful experiences. I would highly recommend this book to the Christian reader, but it may not be appropriate for non-Christian readers. This book has many strengths and is beautifully, personally written which can assist so many others who are going through similar life experiences.

Kregal Publications,  
Grand Rapids, MI  
2014  
234 pages  
\$12.39

*Dr. Bush is an Associate Professor of Nursing at Morehead State University. She has been a nurse for 18 years and her specialty area in nursing is End-of-Life.*

The next issue of the journal is “Childbirth Education and Information Technology”. If you want to contribute, please send articles to [editor@icea.org](mailto:editor@icea.org) by May 1, 2015.

# Doula's Guide to Birthing Your Way

by Mallak, J. and Bailey, T.

reviewed by Bonita Katz, RN BA ICCE-CD-IAT, Secretary ICEA Board of Directors, Doula Program Chair

In this book Mallak and Bailey have adopted a conversational tone to convey evidence-based information to pregnant women and their families. The information in the first few chapters provides a solid foundation, explaining some of the basic birth options and the wide scope of the benefits of doula care. They distinguish between a birth plan and a birth vision. (It is difficult to truly plan a birth because so much is unpredictable, but it is quite possible for a woman to capture the vision of what she wants her birth to be.) Subsequent chapters address labor stage-by-stage. Different physical and emotional aspects of each stage are clarified, including a discussion of the most common comfort measures and coping techniques. Illustrations are in black-and-white, but very clear. Lists of questions are included to promote discussion between the woman and her partner and between the woman and her health-care provider.

Additional chapters cover information on the immediate postpartum period and breastfeeding. Illustrations and explanations are clear and concise. Postpartum mood disorders are briefly addressed. The section on cesarean birth provides several suggestions to help keep the birth a family-centered one.

One of the final chapters is designed to ease the new family's transition once they are home. Checklists give the new parents issues to consider and help reassure them that

they are meeting the infant's basic needs. Suggestions for everything from planning baby showers to stocking changing stations to recruiting postpartum support are truly helpful.

Mallak and Bailey have provided a book that thoroughly addresses the

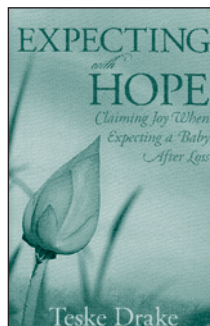
most common needs and questions of pregnant women. They approach the issues in a way that encourages women to think for themselves and make the decisions that are right for them. The authors do an excellent job of using stories to illustrate their points. This contributes to the book's conversational tone and draws the reader in. The information is evidence-based, but warmly presented; informative, but not clinically dry. This is a wonderful book to offer to women as they begin their journey toward motherhood.

Hale Publishing,  
Plano, TX

2010

192 pages

\$14.94



*Bonita Katz has been involved with teaching new families for more than twenty years and has been certified as a doula with ICEA since 1997. In 2013 she revised the ICEA doula program, a year later helped launch the Online Doula Program and currently serves as secretary for the ICEA Board of Directors as well as the Doula Program Chair. She is an approved trainer for ICEA child-birth educators and doulas. She lives with her family in Wyoming.*

## Brief Writer's Guidelines for the ICEA Journal

Articles should express an opinion, share evidence-based practice, disseminate original research, provide a literature review, share a teaching technique, or describe an experience.

Articles should be in APA format and include an abstract of less than 100 words. The cover page should list the name of the article, full name and credentials of the authors and a two to three sentence biography for each author, postal mailing addresses for each author, and 3 to 5 keywords. Accompanying photographs of people and activities involved will be considered if you have secured permission from the subjects and photographer.

**In Practice Articles** – These shorter articles (minimum 500 words) express an opinion, share a teaching technique, describe personal learning of readers, or describe a birth experience. Keep the content relevant to practitioners and make suggestions for best practice. Current references support evidence-based thinking or practice.

**Feature Articles** – Authors are asked to focus on the application of research findings to practice. Both original data-driven research and literature reviews (disseminating published research and providing suggestions for application) will be considered. Articles should be double spaced, four to twelve pages in length (not including title page, abstract, or references).

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*If you have a teaching practice you want to share, but don't feel confident writing, let me help you. [editor@icea.org](mailto:editor@icea.org)*



# Presenting Unexpected Outcomes

by Ilse, S.

reviewed by Suzanne White, MSN RN PHCNS-BC

The purpose of this book is to serve as a resource for childbirth educators that desire to incorporate the concept of unexpected outcomes into course curriculum. An unexpected outcome could include a vast array of circumstances ranging from disappointment about the baby's gender to stillbirth. Other examples might include Cesarean delivery, prolonged labor, and fetal demise. The author, a childbirth educator, experienced three pregnancy losses. She prepared this book to support other childbirth educators who opt to include this subject matter within their classes.

In the introduction section, the author poses the question, "Why do expecting parents deserve to be taught about unexpected outcomes?" Two analogies are presented that attempt to further explain why there is a robust and relevant need to prepare potential parents of unforeseen possibilities.

The introduction seamlessly transitions into the second section of the book titled "The Childbirth Educator's Challenge." Guidelines are presented and the question is asked "Why don't all childbirth educators present unexpected outcomes in class already?" Potential explanations cited include a lack of time and resources, fear of negative class evaluations, and the need to protect others from pain, truth, or negative emotions (protectivism). There is a handout included that provides examples of protection versus preparation.

In the third section of the book titled "Building Dreams and Attachment" there is a brief depiction of how parenting is the hope and desire of many people. It calls attention to the fact that for some these dreams may not come to fruition and highlights the need to offer support in these unanticipated situations.

The fourth section of the book is titled "The Needs and Feelings of Families after Such Losses" and discusses that all potential parents experiencing unexpected outcomes grieve as they move through the journey to acceptance. It offers gentle suggestions of what must be included and what can be left out of difficult conversations.

Titled "What, When, and How to Present Unexpected Outcomes in Class," the sixth section of the book describes specific techniques to initiate dialogue for class discussions. The author urges readers to contemplate personal willingness and commitment when deciding whether or not to include subject matter to course curriculum. Ten activities are provided to encourage introduction of unexpected outcomes themes. The book closes with a summary section that briefly reiterates the concept of integrating unexpected outcomes into class lessons.

Among the book's many strengths are practical methods of incorporation, discussion questions, sensible advice, and real life examples. The simplistic language is easily understood and applied even for novice childbirth educators. The author's personal losses contribute greatly to her expertise in

the field and fuel her passion to see unexpected outcomes education become standard within class content.

There is an extensive bibliography with the vast majority of publications being from the 1980's and 1990's. Little or no evidence based articles were included in the bibliography. The author mentions an informal fifteen year study conducted among childbirth educator seminar participants that experienced an unexpected outcome. There is no data presented regarding number of subjects, dates, or information regarding how the data was collected. The "Reproduction Handout" does not have information regarding date or references for information provided.

The author's substantial array of experience with unexpected outcomes strongly supports her recommendation to include these topics within the field of childbirth education. It should be done without protectivism and with the realization that today's expectant parents seek realistic and open conversations about these matters.

This book is written for childbirth educators regardless of teaching experience. It is equally appropriate for the novice instructor, the seasoned instructor, and every experience level in between.

Recent publications, particularly evidence-based information to support the significance of the subject matter, would strengthen this edition of the book. A formal study by the author utilizing evidence-based practice would provide readers with strong data and promote the objective to include unexpected outcomes into class content. An updated, more detailed version of the "Reproductive Handout" that includes references and dates would improve readability.

The guidelines presented in the book are straightforward, simply stated, and easy to apply regardless of teaching experience. That it delivers uncomplicated activities, real life experiences, and a plethora of resources adds to its appeal. The author has encountered, both personally and professionally, unexpected outcomes of pregnancy and her knowledge of content matter is exceptional. Her passion is powerful and the result is a book overflowing with insight. This book proposes a strong case as to why the topic should be included as a component of standard childbirth education.

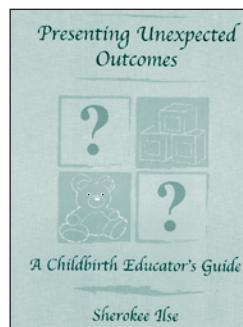
*Suzanne started her career as an obstetrics and newborn nursery care nurse in 1994. She holds a national certification in public health through the American Nurses Credentialing Center (ANCC). She is an Assistant Professor of Nursing at Morehead State University in Morehead, Kentucky.*

Wintergreen Press, Inc.,  
Maple Plain, MN

2012

33 pages

\$11.95



# When Your Child Dies: Tools for Mending Parents' Broken Hearts

by Nagel, A. and Clark, R.

reviewed by Teresa Howell, DNP RN CNE

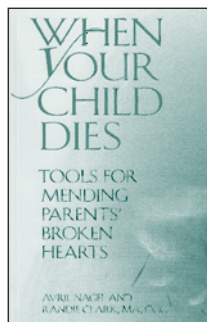
*When Your Child Dies* describes the psychological, emotional and spiritual realms of losing a child. Nagel and Clark substantiate the information by incorporating their personal accounts and the real life experience of parents who have lost a child. The loss of children at various ages is incorporated into the book. The authors address miscarriage, neonatal death, and stillbirth explaining that many times society does not acknowledge that this is loss of a child. Parents are sometimes the only ones to know if the loss was early in the pregnancy. Obstacles and concerns encompassing neonatal death and stillbirth and the ambiguity of family and support personnel responses are discussed.

The incorporation of "real life" experience surrounding the loss of a child is an asset. Reading about other parents who have experienced a loss and how they felt can decrease feelings of isolation in grieving parents. The authors provide an array of helpful information difficult to think about at the time of loss. Nagel and Clark guide the reader with supportive information that can be useful to parents and provide guidelines for healthy coping when a loss occurs. Important social aspects of dealing with grief such as partners, family, social and spiritual realms, rituals and memorials are incorporated into the book. The authors also add advice related to sensitive issues such as legal concerns, the justice system and mass communication.

The suggested audience for this work is parents who

have experienced a loss and anyone working with them (childbirth educators, nurses, social workers, bereavement counselors, etc.) Childbirth educators can add this to their list of available resources for parents

New Horizon Press,  
Far Hills, NJ  
2012  
253 pages  
\$14.95



who experience the loss of a current pregnancy or those who have previously lost a child.

In conclusion, the authors have accomplished the objectives of the book by providing a fairly comprehensive guide for grieving parents which successfully incorporates many aspects that routinely have to be dealt with when a child dies. This guide can serve as a resource for grieving parents to provide insight in dealing with the immediate time period surrounding the loss. Communicating

with bereaved parents and sharing the experiences of others can serve to allay feelings of isolation and distress during tragic loss and serve as an essential element in the healing process.

*Dr. Howell is a Professor of Nursing at Morehead State University in Morehead, KY. She is co-facilitator of Camp SMILE (Sharing Memories in a Loving Environment), a bereavement camp for children ages 7-17. She is also a trainer for ELNEC (End of Life Nursing Education Consortium).*

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# Empty Arms

by Ilse, S.

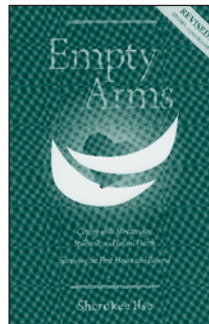
reviewed by Lisa McDavid, MSN RN

*Empty Arms* is an inspiring book that discusses the author's experience with pregnancy loss and stillbirth and is a classic in this subject matter. The book sheds light on the stages of pain, grief and recovery after experience such a loss. The purpose of the book is to assist those who have experienced the pain of losing a child and help them find ways of coping.

The strengths of the book are many. Readers are encouraged to understand that their feelings are real and the grieving process is necessary in order to reach healing. While most books focus on the mother, there are sections that include the coping of fathers as they deal with the loss of their child while trying to care for their partner. Another very helpful section of the book discusses what family members and friends can do to help. Most of the time, family members and friends find it hard to support a grieving family. They are not sure what to say or what would be appropriate to do at the time. This content can help them to be better supporters for the grieving family and help assist them to the recovery level.

Most of childbirth education focuses on the experience of birth and bonding of the baby with the parents and family. However, it is important to bring awareness to the not so happy moments that occur during pregnancy and/or childbirth. There is another group of families that mostly suffer in silence because the public tends to not focus on the bad situations that can occur with pregnancy and birth. The reviewer believes that it is important for this content to be added to all childbirth education materials. Providers need to be educated on how to assist families during this difficult time.

The suggested audience for this book should be everyone, but particularly those who have experienced such a loss. Anyone reading this book could be inspired by realizing the many ways families suffer during the childbearing years. While it seems to come easy for most, the content makes the situation real for those who haven't experienced loss. Readers of the book can focus on the section that is best for their situation and the list of support resources can help those seek the help they need in order to recover.



I thoroughly enjoyed reading this book. As an individual who has endured 15 years of infertility treatments, one chemical pregnancy, two miscarriages, two failed intrauterine inseminations, one failed invitro-fertilization, and one

transferred embryo that did not “take,” the content of this book related so much. This leads me to some of my suggestions. There were a few areas that mentioned infertility, but the reviewer believes a more detailed section would strengthen the book. A loss is a loss that should not be compared, however, the experiences of loss during infertility treatments add on to the process of recovery. While some can simply “try again,” others must have the financial means to attempt to conceive.

The reviewer also would recommend some updated bibliography information to the book. Over the last few years, awareness to pregnancy and infant loss has become more public. Some organizations hold walks and events to remember the loss of a child and/or pregnancy. Some hold annual events on their child's birthday and raise money to assist local hospitals in helping those families who endure loss. The reviewer has a friend who experienced stillbirth. Each year the family holds a fundraiser in the name of their child. Money is donated to local families who endure the loss of a child to assist with funeral planning. Books, plaster molds for handprints and footprints, and journals are donated to local hospitals. The most recent donation is a cooling cot that allows parents more time with their child following a stillbirth. Some of this information may help others cope by organizing such fundraisers in their child's name. By doing this, the child is never “forgotten” and remains a part of everyone lives.

Wintergreen Press/  
Babies Remembered,  
Wayzata, MN

2013

98 pages

\$12.95

*Lisa McDavid is an Assistant Professor in the Associate Degree Nursing Program at Morehead State University in Morehead, Kentucky. She has been a nurse since 1999 and has a background in Medical/Surgical and Operating Room/Surgery nursing.*

# American Afterlife: Encounters in the Custom of Mourning

by Sweeney, K.

reviewed by Teresa Ferguson, DNP RN CNE

Kate Sweeney enlightens readers in her book, *American Afterlife: Encounters in the customs of Mourning*, about death and mourning practices across the country. This book is comprised of eight chapters and five narrative sections that elaborate on the history and customs associated with death and mourning entwined with the stories of several individuals' experiences. Chapters one and two reflect on historical practices associated with death and the display of these customs within the walls of a museum. The reader is able to envision the discomfort felt by women during the Victorian era while wearing the uncomfortable black clothing made of crepe material during their period of mourning loved ones. One of the narrative stories is about a tattoo artist who creates tattoos for individuals suffering a loss to capture a specific memory of a loved one and to help the individual accept the loss. Chapter three portrays the creation of cemeteries for burial and specifically outlines a tour of a cemetery in Atlanta depicting the architecture and stories related to the headstones across the grounds. The custom of writing an obituary is told in the story of one obituary writer who publishes for a newspaper. The obituary writer captures the life of the deceased in a way to make readers of the newspaper feel a personal connection with the individual. Another story reveals the history behind the Great Obituarist Conference which was a gathering for those people interested in obituaries, whether writers or not, which were held for one weekend a year over about ten years. Chapter five enlightens readers about funerals and green burial cemeteries where only biodegradable materials are used in the burial process and monuments are not used to mark the graves. Another narrative tells the story of a woman who preserves parents' memories of their children through use of photographs. She volunteers to take photographs for families during the death of their child either at birth or after extended periods on life support. Chapter six discusses the history behind funeral homes and funeral directors, as well as the changes in mourning practices over

time, including the increasing rise of cremation as a choice of burial. One of the narratives tells the story of a woman's personal encounters associated with her online business selling urns for remains after cremation. In chapter seven, the option of a burial at sea is described as a memorial service for those who have been cremated. In the last narrative, the custom of a funeral chaplain is revealed in the story of one woman's experiences as a chaplain helping those facing the death of a loved one. The last chapter of the book reveals the increasing occurrence across the country of posting memorials along the roadside when a loved one is lost due to a motor vehicle accident.

One of the strengths of this book is the easy way Sweeney portrays the subject of death and different aspects associated with death and mourning. A weakness is that the topic of death and mourning is often difficult for people to think about or discuss. However, Sweeney narrates the story in a personable way which makes the reader at ease with the topics.

Childbirth educators may choose to read the book to get an understanding of the different ways individuals mourn and deal with death. This may help them answer questions about available options or guide individuals who lose a loved one during the birthing process.

This book is geared toward a general audience. The book is an easy read for individuals interested in the history and customs associated with death and mourning. Readers are left with a tasteful portrayal of the customs and encounters associated with death and mourning.

*The University of Georgia Press, Athens, Georgia*  
2014  
248 pages  
\$24.95



*Dr. Teresa Ferguson has been a registered nurse for over twenty years. She has clinical expertise in medical-surgical and maternity nursing. Dr. Ferguson has worked as faculty for the past nine years in the Department of Nursing at Morehead State University.*



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