Hyperemesis Gravidarum and Clinical Cannabis: To Eat or Not to Eat?

Wei-Ni Lin Curry

SUMMARY. Hyperemesis gravidarum (HG), a debilitating ailment characterized by severe nausea and vomiting, malnutrition, and weight loss during pregnancy, occurs to 1-2% of pregnant women globally. Although the medical community offers clinical and pharmaceutical intervention, the procedures are: (1) partially effective, if at all, (2) costly and unaffordable without health insurance, (3) questionable in their long-term safety for the fetus, as most have not been scientifically tested, and (4) in more severe cases, physically painful and psychologically disempowering for the pregnant woman. This study unveils the deep suffering endured by women undergoing HG from a folkloristic perspective and proposes the use of medical cannabis as an effective natural remedy for the symptoms of HG. Due to the criminalization of cannabis and the stigma of its use during pregnancy, no formalized testing has been conducted, thus far, to investigate such a claim. While a small, underground, pilot study of cannabis treatment for HG has proven relatively promising, clinical trials are necessary for a more conclusive answer. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <getinfo@haworthpressinc.com> Website: <http://www.HaworthPress.com> 2002 by The Haworth Press, Inc. All rights reserved.]

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The ideal pregnant woman radiates the image of a full-fleshed, well-nourished femininity whose presence glows of maternal well-being and ripeness. She is commonly encouraged by her family and friends to eat in increased proportions because the accepted consensus is that she is "eating for two." Her circle of loved ones will often assist her in fulfilling her food cravings. It matters not that she fancies strange foods, demands unappealing concoctions, or eats during the most unpredictable and indiscriminate times of the day (Murcott 1988). What matters is that she eats well. However, what happens when she is *unable* to eat for two? What happens when she *cannot eat for even one*?

While such a debilitating illness does not often occur, it happens to pregnant women who suffer from a disease known as *hyperemesis gravidarum* (HG) (Erick 1997; Van de Ven 1997). HG to a pregnant woman is similar to the wasting syndrome of an AIDS sufferer or a cancer chemotherapy patient whose body becomes severely emaciated, dehydrated, and malnourished due to persistent, uncontrollable vomiting and the inability to eat and drink (Grinspoon 1997). A striking difference, however, is that the survivor of HG carries the added responsibility of sustaining another life within her womb. While she perishes from hunger, her baby *in utero* continues to absorb any remains of stored fat, muscle tissue and nutrients from her body in order to survive. Compared to the weight loss endured by those undergoing AIDS or cancer chemotherapy, the HG woman's shedding of pounds is deceptively unsparing as her baby's continual growth and weight-gain disguises the actual body mass she is really losing. In essence, a pregnant woman with hyperemesis does not come anywhere near *eating for two*; she is more accurately *starving for two*.

HG, ITS MEDICALIZATION, AND THE SURVIVORS

Hyperemesis gravidarum is conservatively defined in *The Harvard Guide to Women's Health* (1996) as a debilitating condition of severe nausea and vomiting during pregnancy, resulting in malnutrition, dehydration, and weight loss. While women experience various degrees of HG, the prolonged retching and starvation often trigger the onset of other physically disabling ailments such as, but not limited to, partial paralysis, failed muscle coordination, ruptured esophagus, bloody emesis and/or stool, hemorrhage of the retina, inflamed pancreas, and/or wasting

of muscle tissue. In rare cases, HG has also been associated with coma, temporary blindness, and even death (Hillborn et al. 1999; Tesfaye et al. 1998).

The following personal anecdotes of real women bring into perspective the devastation and symptoms of starvation caused by HG: "Sarah" stated, "... I lost a total of 30 pounds and I was skinny to begin with. I was a walking skeletal with a belly. I looked like death and smelled like poison." "Sofia" said, "With my son [first pregnancy], I just got very ill from the point the sperm met the egg. I lost 30 pounds within the first 2 months, and I stayed in bed the whole 9 months, only getting up to use the restroom." She also observed, "[second pregnancy] I was throwing up first the acid in my stomach, which is yellow, then it's orange because it's the outer layer, and then you get to the green bile which is [from] your intestines. Then once you're past that, you go straight blood."

With her first pregnancy, Sofia was at least able to swallow and digest one burrito as her entire weekly sustenance. By her second pregnancy, however, food was definitely not an option. Sofia explains:

I knew within one week of the conception that I was pregnant. Immediately vomiting and loss of appetite. *I couldn't swallow my own spit* for the first five months of my pregnancy . . . Within the first two weeks of my pregnancy, [I was hospitalized] twice. I would have five days that I could survive at home, then I would get so dehydrated that I'd have to go to the hospital to the ER so that I could get hydrated. I'd stay in the hospital one to two days. They'd get me fully hydrated, and then they'd send me home.

Also, Sofia's attempt at the traditional folk-remedy of soda and crackers resulted in vomiting: "The doctors thought that it was all in my head-thought that I was *bulimic*." The doctors intravenously injected units of fluid into her body in an attempt to increase her caloric intake. She grimaces: "They were feeding me lard. It *smelled* like lard. It *smelled* like grease."

One who physically experiences the starvation and nausea of hyperemesis gravidarum will often encounter psychological and emotional distress. The hormonal changes and mood fluctuations that are often associated with a normal pregnancy inevitably become more severe with the onset of HG (Simpson et al. 2001). In struggling to bear her child, the HG mother must also brace herself through such symptoms as depression, unnatural fatigue, amnesia, apathy, distorted body image, fear, and/or guilt (Erick 1997; Hillborn et al. 1999; Tesfaye et al. 1998). Some even contemplate suicide, as each living moment is excruciatingly taxing and painful:

I wanted to die every waking hour. I thought I was in hell. Doctors told me that I was trying to orally vomit my baby out, that the pregnancy was not wanted. They sent me to psychiatrists claiming that all this was "in my

head." Nobody understood me. My husband even left me. I was all alone with my tortured body, praying to God to give me strength to go on. (Sarah)

I... *just wanted to die every minute that I was awake.* I still consider it a miracle that I and (more importantly) my two healthy children survived. I was *depressed* throughout the pregnancies as well as from not being able to take care of my two-and-a-half year old when I was pregnant with the second. I shudder when I think about it ... (Julia)

I'd cry every night... I feel that I'm a very strong individual, but this was no time to be strong. I'd cry every night, telling my husband how it hurt so bad. (Sofia)

A substantial number of HG survivors are also left with no choice but to cease employment and, if needed, temporarily relinquish the custody of their children to a more capable caregiver, such as a relative or a friend. Sofia solemnly recalls that when she was pregnant with her second child, she had to drop out of college where she was a student; she also had to give her mother legal guardianship of her seven-year-old son for the entire pregnancy, "Because I couldn't even cook or clean my own body, I couldn't do it to my own child. *And I wouldn't want him to be subjected to see me the way that I was.*"

Sadly enough, physical disability and the continual and frequent visits to the hospital for vital replenishment often isolate the HG woman from the warmth and comfort of her family and home during a time when she needs support the most.

While general nausea and vomiting, better known as morning sickness, is experienced by 70% to 80% of all pregnancies, only 1-2% is affected by the pernicious emesis and distress associated with hyperemesis gravidarum. Of this HG populace, 5% endure the debilitating symptoms for the entire nine-month period of their infant's gestation (Van de Ven 1997). Statistics taken in 1993 reveal that within one year, 42,000 women in the United States sought the help of a health care professional in an effort to counteract their symptoms of HG. In Britain, a study also shows that two of every one hundred HG mothers will opt for abortion, most likely, as a last resort to terminate their unbearable suffering and not the lives of their often much wanted unborn babies (Erick 1997). Sarah, who aborted against her will, grieves:

Two weeks ago, I terminated my very much wanted pregnancy because of hyperemesis gravidarum. This disease is so disgusting and nightmarish, I don't know how I was able to do it the first time around. *I regret the abortion* but I just have to think about HG and remember the ordeal I went through and don't want to go through again . . . Before my abortion, I was prescribed Diclectin[®] [a Canadian combination of vitamin B₆ and the anti-

histamine, doxylamine], four doses a day. It didn't help. I just wish there was a cure for this disease because *I want my baby back!*

Sofia chose not to abort, even at the strong recommendation of medical professionals and loved ones:

[When] I was five months three weeks pregnant sitting in the UCSD Medical Center for the umpteenth time, I had the chief of staff, my personal ob/gyn was a chief resident, and three other specialists—whether they be the gastro-intestinal specialist and a couple of other ones—there'd be around six or seven other specialists standing around my bed. They all came to the conclusion that I needed to abort . . . I just told them I've survived five months and three weeks, why couldn't I survive two more months?

Other women adamantly refuse to consider abortion on grounds of their moral paradigm.

While many women and infants throughout history have died due to HG, prenatal mothers in industrialized, metropolitan areas are usually spared such a fatal outcome with the assistance of approved medical modalities. Western physicians prescribe anti-emetic pharmaceutical drugs, such as metaclopramide (Reglan[®]), prochlorperazine (Compazine[®]), promethazine (Phenergan[®]), and ondansetron (Zofran[®]), to help mothers keep their nausea at bay and nourish themselves and their fetuses. The drugs, which are also commonly given to AIDS and cancer chemotherapy patients, are taken orally, intravenously, or as rectal suppositories. While the long-term risks to the human child *in utero* remains unknown, the general consensus from the medical establishment is that the risks to the mother and fetus of severe morning sickness warrant possible risks of using these drugs during pregnancy (Carlson et al. 1996). At the very least, the babies who have ingested these medications via the placenta have been born comparatively healthy; none have emerged from the womb with birth defects, as did the infant casualties of thalidomide, the pharmaceutical drug given to mothers in the 1950s to alleviate indications of morning sickness and HG.

Nevertheless, the drugs are not fail proof. According to the Summary of Data on Hyperemesis Gravidarum (Schoenberg 2000), some of the most common antiemetic medications and the safety ratings that were assigned to them by the Food and Drug Administration (FDA) are listed as follows: ten drugs (scopolamine, promethazine, prochlorperazine, chlorpromazine, trimethobenzamide, cisapride, droperidol, coricosteroids, ondansetron, and hydoxyzine) received the rating of C, six drugs (doxylamine, diphenhydramine, cyclizine, meclizine, dimenhydrinate, and metaclopramide) received the rating of B, and one drug (pyridoxine, vitamin B6) received the rating of A. A C-rating means "animal studies show risk but human studies are lacking, or there are no studies in humans

or animals." A B-rating means "animal studies show no risk but human studies are inadequate, or animal studies show some risk but the risk is not supported by human studies." An A-rating signifies "no fetal risk" (Schoenberg 2000). Apparently, all the drugs listed, with the exception of one, a vitamin, are questionable in their safety, posing a potential threat to the fetus. Unsurprisingly, these pharmaceutical drugs threaten the mother, if not the baby, with many side effects and harmful allergic reactions. Sofia recounts her experience with the anti-emetic drugs–prochloperazine, metaclopramide, and promethazine, before she had to suspend her student status at her university due to HG:

Well, the second week [of pregnancy] I was taking all three [medications]. I was sitting in lecture hall, and my body began to convulse. And literally, like an *epileptic seizure*, my tongue was upside down, my back was out of whack, [and I] couldn't control my legs or my arms. My husband conveniently was visiting me that day, and was in lecture hall with me. He had to pick me up and take me to the ER.

From that point onward, Sofia was unable to take any medications for her nausea and vomiting. It was not until she was in her sixth month of pregnancy that she was given another, ondansetron. She was discouraged from taking the drug any earlier because the doctors were uncertain of the possible side effects. Another fellow-student and HG survivor, Nora, has also professed to me that if she ever became pregnant again, she would not want to take any medications because they made her feel "drugged out" and "like a zombie" all day.

Because the modern anti-emetic medications have not succeeded in eliminating all symptoms of vomiting and nausea, and fail to stimulate the woman's appetite, mothers with hyperemesis continue to struggle with eating and maintaining (if not gaining) weight. Hence, within the framework of modern medicine, a crucial part of the women's survival relies on intake of liquid nutrition through tubes: intravenously, nasogastrically, or enterally, and often without the use of anesthesia. In certain situations, a gastrostomy tube is required for the purpose of drainage and decompression. Some may suffer from what Sofia calls a "collapsed digestive system." She noted, "[The doctors] were worried that all my organs were going to shut down, because I wasn't using them. I . . . [was having] *bowel movements maybe once every two months* . . . I had no food. I had no intake. I just didn't need to go."

To this day, six years after the birth of her daughter, Sofia is unable to digest a regular meal; unless she divides a single portion into two or three smaller servings, and unless she avoids anything too meaty, greasy, or rich, she will vomit shortly after consuming the food.

Sofia also braved the tortures of having intravenous tubes continually inserted and re-inserted into her body due to life-threatening blood clots that periodically

developed as a result of being fed liquid nutrition. Sofia said that even though the nurses were administering heparin through her IV to achieve anticoagulation, the blood clots continued to recur. She recounts:

I was around seven months pregnant when that one [about the eighth tube inserted] went bad with a blood clot close to my neck. [The doctors] immediately said, "We need to take it out." But they didn't know what they had done inside. There were roots growing all along, all around the tubes inside of my chest because all the scar tissue that had formed. And the doctor, when he was taking it out, was literally *pulling* it–mind you, I had NO ANESTHESIA, and I was in PAIN!

At this point, I could not resist interrupting her to make sure I was hearing correctly, asking: "So he basically *tore your flesh*?"

YES. And when it didn't come out, he had to stick scalpels in through these bottom holes, and try to tear away the scar tissue underneath. Yeah. And my husband had to sit there and tell me everything is "okay–don't worry, it doesn't look that bad." But after the fact, he was like, "I was just trying to give you moral support. That ASSHOLE was tearing you apart and I was watching every minute of it."

Sofia emphasizes that throughout her pregnancy she had "really bad scabs everywhere." She said she looked like a "*druggy*." Just the one surgical procedure left an open, gaping wound "about the size of a quarter" above her chest for nearly a month. Unfortunately, these scars will remain with her for the rest of her life, physically and emotionally.

Sofia is one of many women whose flesh and blood are sacrificed at the price of HG medical treatments. Another hyperemesis sufferer ("Mary") is highlighted in a dietician's case study that explains the woman's struggles with receiving liquid nutrition throughout her pregnancy (Erick 1997). I have paraphrased the case. When Mary was first admitted to the hospital, she was severely malnourished and dehydrated due to HG. The hospital began medical treatments by administering an IV feeding tube for her, but it was unsuccessful due to continued malnutrition. A nasogastric tube followed. Mary vomited three of the tubes in a two-day period, so she refused further replacements. The doctors then tried a different route via a jejunostomy and gastrostomy tube, one for feeding and the other for drainage. This method remained until the time of her delivery. However, for the entire pregnancy, Mary continued to vomit in spite of anti-emesis medications. The smell of the liquid formula used for her enteral feedings also increased her nausea. Mary also continued suffering from insomnia, pancreatitis, increased bloating, abdominal pain, chest pain, thick phlegm, depression, and a distorted body image. Her partner was said to have shown disgust with the presence of the tubes sticking out of her body. Finally, she *threatened suicide* if she was not delivered immediately. A cesarean operation was performed before the expected date of delivery, as well as a permanent sterilization, done at her request. The baby was born relatively healthy at 6.45 pounds.

The story of Mary's struggles to feed herself and her baby through the devastating symptoms of HG cries for empathy and compassion. Though her doctors were most likely sincere in their intentions to keep her sickness under control, and though they succeeded in saving the life of the infant, I wonder if they realize how truly horrific their treatments really were? To what extent did they help Mary and to what extent did they hurt her, physically and psychologically? How much did they contribute to her experience of a healthy and dignified pregnancy, one that every woman deserves? Alternatives are in dire need.

Because many HG patients have shown that their nausea and vomiting are "linked to the consumption of food," the administration of liquid nutrition via feeding tubes is justified by doctors; it is argued that in sparing HG women from the physical act of smelling, masticating, and swallowing their meals, their nausea and vomiting will decrease (Van de Ven 1997). Unfortunately, in the case of both Sofia and Mary, their vomiting was triggered by the smell of the liquid formula.

The causes of hyperemesis have provoked heated speculation, but no substantial evidence has been discovered or acknowledged within the Western medical hegemony. Some scientists hypothesize the following as factors that often lead to and/or are connected to HG: hormones, increased estrogen level, nutrition, thiamine deficiency, psychological factors (Simpson et al. 2001) and the sex of the child, higher concentration of human chorionic gonadotropin level associated with a female fetus (Askling 1999; Panesar et al. 2001). As none of the factors offer a satisfactory answer, HG remains a perplexing female mystery for the present-day medical establishment. The frustration is mostly felt by women who are survivors of HG, desperately searching for a cure and increased understanding of this harrowing disease:

I have suffered through two pregnancies with this debilitating condition ... In both pregnancies, it started at six weeks and continued until the baby was born. I was induced early both times because I was so sick. I tried everything: hypnosis, homeopathic treatment, acupuncture, sea sick bands, IVs, smelling ginger and lemons, Compazine[®], Reglan[®], Phenergan[®], Atavan[®], Unisom[®], Zofran[®] (to name a few). Nothing worked. I threw up constantly, including a lot of bile and dry heaving, could barely walk and just *wanted to die every minute* ... It is extremely frustrating how little research and ideas exist on the topic, and I feel quite confident that if men could experience the condition, there would be a remedy for it. (Julia)

The medical establishment must begin to realize that even though the HG woman is unable to eat, the only thing she really wants *is* to eat.

The HG sufferer is not simply a lifeless, unfeeling, docile body (Foucault 1995) that robotically pumps vitamins and minerals into her growing child. She is a human being who needs to eat to live. Her ability to savor her meal, to salivate, to masticate, to swallow, to digest, is a primal and essential part of her existence. The woman with hyperemesis needs more than feeding tubes and synthetic liquid nutrition. She craves and requires real food, just like her baby needs a mother, and not a machine.

CANNABIS, PREGNANCY, AND HG

I, too, am a survivor of hyperemesis gravidarum. While I suffered through severe morning sickness my first pregnancy, it was not until my second pregnancy that I experienced the merciless symptoms of life-threatening HG. Within two weeks of my daughter's conception, I became desperately nauseated and vomited throughout the day and night. Every time I attempted to eat or drink *anything*, even water, I would immediately throw it up. Because nothing would stay in my stomach, I lost twenty-one pounds within the first two weeks of hyperemesis, which was over 20% of my normal body weight at the time (105 pounds). I vomited bile of every shade, and soon began retching up blood. I was also bleeding out of my vagina due to the pressures from vomiting, and owing to the fact that my vulva was still weak from two surgeries to remove cervical cancer after my first pregnancy.

I felt so helpless and distraught that I went to the abortion clinic twice, but both times I left without going through with the procedure. My partner and my three-year-old son feared for my life. My son would often ask me, with tears streaming down his face: "Mommy, are you going to die?" Each time, I reassured him that mommy would be okay soon, but he was not convinced. Could I blame him? I felt as if my whole world was falling apart, and that the ones I loved most were being dragged down with me. I tried desperately to function as usual, to work, cook, clean, care for my son, but all of my usual duties had to be sacrificed as I spent my entire day retching into the toilet, where I would often pass out because I had no energy to walk to and from the bathroom.

When I went to an obstetrician in search of help, the options he gave me were the usual: hospitalization, intravenous feedings, and anti-emesis pharmaceutical drugs that had unknown long-term side effects with the potential of affecting my child negatively. Instead, I tried ginger, raspberry tea, soda and crackers, acupressure, meditation, all the recommended home remedies, but nothing worked. Finally, I decided to try medical cannabis. The medical cannabis initiative, The Compassionate Use Act of 1996, which had been passed by the voters of California, permits the legal use of cannabis for the severely ill. If cannabis had been so effective in alleviating the nausea and vomiting for AIDS and cancer chemotherapy patients, then why would it not work for pregnant HG patients? I asked a Harvard physician, Lester Grinspoon, who had been studying the therapeutic properties of cannabis for the past thirty-some years. He said that other women throughout history and in modern times have used cannabis for HG and experienced positive results. With his reassurance, I felt more confident in attempting to remedy my sickness with the herb.

Because I had never smoked before, I first had to learn to take the medicine, but that was a welcome task, seeing that the herb worked wonders. Just one to two little puffs at night, and if needed in the morning, resulted in an entire day of wellness. I went from not eating, not drinking, not functioning, and continually vomiting and bleeding from two orifices to being completely cured. The only HG symptom that persisted was my acute sense of smell, which in the absence of nausea and vomiting was tolerable. Not only did I eat and drink, I consumed food with a hearty and open appetite.

The cannabis worked so miraculously that at first I thought my mind was playing tricks on me, as if I was being deceived by some placebo effect. In order to test, I stopped taking the cannabis three times, and each time the uncontrollable and violent retching returned. Finally, my son, who was three years old at the time, begged me: "Mommy, *please* go take your medicine!" That was when I knew that cannabis is truly an efficacious medicine, and that yes, I could look forward to enjoying a well-nourished and dignified pregnancy.

Not only did the cannabis save my son from not having a mother during the duration of my hyperemesis, it saved the life of my child within my womb. Every day, I am grateful for her bright and vivacious existence. Developmentally, she has proven to be very advanced for her age. She began walking at eight-and-a-half months (norm eleven to thirteen months), and she began expressing herself quite articulately at a year-and-a-half. Her teachers at her children center frequently comment on her maturity and the advancement of her motor, social, and cognitive abilities. I was told by one of her teachers that the university pediatricians who frequent the school to conduct research in child development were also highly impressed by her accelerated abilities. So for my situation, it is safe for me to conclude that my choice to use cannabis as a therapeutic "folk" remedy for my HG symptoms was a positive and beneficial decision with healthful and quite amazing results for my daughter.

And no, I am *not* a "drug addict" as the stigma dictates. As soon as my symptoms of HG passed, I no longer needed to use the cannabis. My Taiwanese medical obstetrician who helped deliver my daughter informed me that since ancient times the Chinese have used cannabis to treat HG, and the smoke that is inhaled does not go to the fetus, but rather directly to the brain of the mother to help counteract her nausea and stimulate her appetite. Studies also confirm that "only rela-

tively small amounts" of the psychoactive cannabinoid ingredient-delta-9-THC "actually cross the placenta barrier to the fetus" (Dreher 1997, p. 160). While medication in the form of pills is easily vomited by one who is susceptible to nausea, smoking/inhaling in this situation is actually a preferred route of administration. The HG mom more accurately and readily gauges the dosage of each treatment according to how she feels each time, unlike pills and suppositories that often leave one feeling "knocked-out" all day. As a result, I am in disbelief at how our government has kept such a valuable medicine from so many ailing women. If I had not experienced the cannabis myself, I would not have believed its truly effective and gentle therapeutic powers.

While I am not one to condone the use of illicit drugs during pregnancy, I strongly believe that in the case of women suffering from HG, an exception must be made in regards to the use of cannabis. In *Mothers and Illicit Drug Use: Transcending the Myths*, Susan Boyd (1999, p. 4) states:

Critical researchers acknowledge that "crime" is a political construct . . . where selective criminalization takes place. In North America the most dangerous drugs are legal. Tobacco and alcohol are more lethal than the more benign drugs, such as marijuana, and both heroin and cocaine. The so-called dangers of illicit drugs are widely depicted by both government and the media. But the real dangers of legal drugs, including alcohol, to-bacco, and pharmaceutical, are viewed differently.

She also emphasizes that of all the illicit drugs, cannabis is the most benign (Boyd 1999).

Personally, I did not appreciate my ability to use this herb until I learned of the extreme suffering experienced by other women with HG while at the hands of the well-intentioned medical community. How can one justify the extreme methods discussed previously as being less criminal than condoning women to use an herb that does not harm the fetus but simply offers the HG mother the chance to eat, drink, function normally, and experience the positive pregnancy she deserves?

Do I dare suggest that the medical hegemony and the pharmaceutical companies are suspect for not prioritizing the best interest of the mothers, but rather, their immense profit margins? For instance, while the cost for cannabis treatment, even at expensive street prices, might not exceed \$400 for the entire duration of one's HG pregnancy, the medical cost of ondansetron, the anti-emetic pharmaceutical drug commonly used by HG women, is sometimes charged at \$600 for each intravenous dose. Hypothetically, even if an HG sufferer took only three doses a day for sixteen weeks (the usual duration of HG, though some experience HG their entire pregnancy), the cost would be more than \$200,000 (Grinspoon 1997, p. 42).

When I share my story with others, the reaction is either one of sincere enthusiasm and curiosity or apprehensive disapproval and skepticism. One HG woman, upon hearing of my self-remedy, instantly said, "*No, no, no . . . I wouldn't trust it.* What about the *side effects?* And besides, maybe your symptoms of HG were not as severe, and that's why you were okay without getting hospital treatment."

It is not surprising that my suffering was belittled and my cure denounced. Most view the use of illicit drugs, especially during pregnancy, to be deviant, threatening, and something to avoid at all costs (Boyd 1999). Murphy and Rosenbaum (1999, p. 1) state, "In modern society the use of illegal drugs during pregnancy is commonly defined as the antithesis of responsible behavior and good health. The two statuses, pregnant woman and drug user, simply do not go together."

This stigma, while serving its purposes to discourage careless behavior during pregnancy, is counterproductive in isolated situations that permit the medical use of cannabis by HG sufferers. In the United States and Canada, medical research on cannabis in relation to mothers and their offspring has produced reports that are fear-inducing and negative, often because the pregnant subjects involved use multiple drugs, come from low-income and disadvantaged situations, endure domestic violence, suffer from poor nutrition, and/or have pre-existing psychological disorders (Dreher 1997). However, propaganda and the media often conveniently exclude the latter details, misinforming the public into believing in-accurate and sensationalized perinatal risk factors caused by the side effects of the stigmatized "killer weed." These studies more accurately reveal the results of a dysfunctional lifestyle, and not the actual side effects of cannabis use. They marginalize the herb as a psychoactive, recreational drug rather than a therapeutic agent.

In the book chapter "Cannabis and Pregnancy," Melanie Dreher (1997) writes that much historical and cross-cultural evidence has been uncovered on the therapeutic uses of cannabis during pregnancy, labor, delivery, and nursing. In fact, archeological and written records substantiate that the plant was often used to treat female ailments, such as dysmenorrhea, ease labor, alleviate morning sickness/hyperemesis gravidarum, and/or facilitate childbirth in places such as: Ancient Egypt, Judea, and Assyria (Mathre 1997), ancient China (Grinspoon 1997; Mathre 1997, p. 36), historical Europe (Benet 1975), rural Southeast Asia, specifically Cambodia, Thailand, Laos, and Vietnam (Martin 1975), Jamaica (Dreher 1975), Africa (Du Toit 1980), and colonial and contemporary America (Grinspoon 1997; Mathre 1997; Wright 1862; www. folkmed.ucla.edu). Dreher's anthropological study reconfirms many of the historical and contemporary findings. Conducted in Jamaica amongst Rastafarians who highly esteem cannabis as a sacred herb and therapeutic agent for a wide spectrum of ailments, the researchers in the study were stunned to discover that babies whose mothers

used cannabis throughout their pregnancy (whether or not they had the symptoms of nausea and vomiting) were healthier, more advanced, more alert, and less irritable than infants whose mothers did not use cannabis. What the team revealed through time-consuming, labor-intensive research and observation, Jamaican women knew all along, claiming that (Dreher 1997, p. 164):

smoking and drinking *ganja* [cannabis] was good for the mother and the baby because it relieved the nausea of pregnancy, increased appetite, gave them strength to work, helped them relax and sleep at night, and in general, relieved the "bad feeling" associated with pregnancy.

From personal experience with my own "cannabis baby," I can attest to the validity of these conclusions. Similar to the results of the study, my daughter is "healthier, more advanced, more alert, and less irritable" than other infants her age.

TWO WOMEN'S STORIES OF USING FOLK, ALTERNATIVE MEDICINE

In Winter 2000, when I discovered through various parenting and childbirth websites the pervasiveness of HG, I decided to post a short message in a midwifery Internet site, sharing with others that I had discovered a non-pharmaceutical, natural cure and that anyone interested could contact me at my E-mail address. I felt that unless I shared my experiential knowledge, I would be withholding valuable information from women who could otherwise benefit from this re-discovered ancient folk remedy. Due to its controversial and illicit nature, I purposely posted a message that was vague, suppressing the fact that I was referring to cannabis. Only when I received an electronic-mail query did I reveal to the person the actual name of the herb, along with an option to request more detailed information if they were still interested. Of over fifty people who wrote to me in the following months to learn more about the herbal medicine, two women followed through, deciding to use cannabis medicinally for their hyperemesis. They both had negative experiences with mainstream medical procedures and pharmaceutical drugs during their previous pregnancies and were determined to find alternatives. When they first corresponded with me they were not pregnant, but after months of researching further into the prospect of using cannabis they eventually felt secure enough to conceive, hoping that the herb would work as efficaciously for them as it did for me. Although I did not interview them in the traditional sense, insights into their personal lives and profiles slowly emerged through correspondence.

The first woman, "Gina," is an elementary school teacher living in Southern California. When Gina first E-mailed me, she wrote:

I had HG with my sons, now aged 19 and 17, and I had my most severe HG with my last pregnancy, which ended in a fetal demise at 14 weeks. I want to try again very much for another child (this is my second marriage, and my husband has no children). But I am deathly afraid of the HG... I am so glad you are researching this disease. It is a crime that so many women have to suffer.

The second woman, "Didi," shared similar feelings. In her first correspondence, she wrote:

I would love to hear about a natural cure [other] than [pharmaceutical] medicine. I just lost a baby at 5 months [when] I was on Reglan pump and IV Picc line. I started to feel better, then the baby just died with no reason. I lost another baby two years ago at 13 weeks. Any advice is welcomed . . . My husband does not want to try again because of my condition. I should tell you I do have a 7-year-old son. I was sick with him but not as sick as I get now. I think it is because I am older now too (32-years-old).

The challenges that Gina and Didi faced in considering cannabis as a therapeutic option were similar. The first obstacle was the lack of social and medical support that they felt in considering the use of a stigmatized therapy. Although open-minded, they still experienced feelings of fear and guilt, especially while using cannabis. For instance, although Gina repeatedly stated in many of her correspondences to me that she felt "very comfortable" with the thought of treating her HG with cannabis, her confidence level was soon undermined by others: women on the internet chastised her, her husband discouraged her from relying upon it as the sole medicine, and her obstetrician was "very curt and uninterested" even before she could share with him her newly discovered medical choice. Although Gina lives in California and could logistically use medical cannabis under the protection of the Compassionate Use Act of 1996, she decided that it was best that she kept her "secret remedy" to herself, stating that she was "afraid to say anything," but was "not afraid to do it" in the privacy of her own home.

Didi also had fears in contemplating the use of the herb. When she asked her obstetrician if he could help her research the medicinal benefits of cannabis for pregnant women, he told his nurse to tell Didi that he was "too busy" and that she should do the research on her own. She followed his instruction, investigated the topic, and sent him her findings on the use of cannabis as a viable treatment for HG; in response, he refused further discussion, and sent her "pamphlets on the dangers of drugs" without additional comment. The doctor's callousness and lack of understanding and support deeply angered Didi. She later confided her feelings: "You would think that after everything I went through [losing two chil-

dren due to HG], he would look into it harder with an open mind. This leads me to question . . . When I do find my next doctor [whether] to say nothing at all." Didi became more discouraged when she heard through her "sister's friend's aunt who is a nurse" that "doctors still check for drugs without your consent." In one of her E-mails, she asked me, "This is Michigan–is that possible? Will they send the social workers after me? Or is this a scare tactic?" Although I replied to her that by law, a woman has the right to not sign the consent form, she replied through E-mail with the proof of her findings:

There was this one [woman's story posted on cannabisculture.com] that scared the SHIT out of me-by a woman named Aislinn who used cannabis throughout her pregnancy (recreationally) and they tested her baby for drugs [cannabis only]. Now they are taking her newborn away. What they said was she signed a consent form for treatment. They can test her for whatever they want. But who would think drugs? I am really scared now. I don't want to take any chances of losing my son and my new baby (whenever that happens).

A few weeks after this correspondence, Didi ceased relying on the internet as a source of communicating, opting to use the telephone for the purpose of privacy and legal safety. She reasoned that the few sites that discussed cannabis usage during pregnancy were "shut down" simultaneously and all too "coincidentally," as if the government was censoring data being exchanged over the internet and "making it harder for women" to openly exchange information. Whether this was a valid conclusion or an unfounded hypothesis I am not sure, but of certainty is the element of fear that continued to linger in Didi's consciousness.

According to researchers who have studied the properties of cannabinoids, two factors that are crucial to consider when a person uses a "psychoactive drug" such as cannabis are the "set and setting." Mathre explains in *Cannabis in Medical Practice* that "*set* refers to the mood and expectations of the user and *setting* refers to the environment in which the drug is used" (Mathre 1997, p. 175). Hence, if a person is already sensing "fear, guilt, and paranoia," these same feelings will become more exaggerated after the intake of cannabis, which can prevent the therapeutic properties from taking effect. Possibly, Gina and Didi's fear-laden set and setting took away from the women's abilities to allow the medicine to completely alleviate their symptoms. Gina stated in one of her correspondences:

I started using [the herb] between weeks 5 and 6, when the symptoms started. It helps enormously! I still don't feel wonderful–I still don't have an appetite for food, I have to make myself eat, but at least it stays down,

and I can keep my liquids up . . . I know the nutrition part is really gonna bring this thing together.

Although the cannabis actually helped her achieve the relief that no other pharmaceutical drug had offered, she confessed that she continued to feel "nervous" and "guilty." In order to hide the fact that she was using cannabis for her nausea, she also took Diclectin to explain her relief without exposing her "secret remedy" to her obstetrician. She explained: "Still taking the Diclectin. Doctor said he'll order as much as I need. But it is really the cannabis that is saving me, because some days I am too sick to swallow the pills, so I smoke about two hits, wait a while, then I am able to eat and drink a little." Therefore, even though cannabis provided the true relief, she took the Diclectin to prevent suspicion from her obstetrician. The cannabis she obtained simply did not do much for her. It made her sleep a lot, counteracted her nausea and vomiting only slightly, and made her feel "paranoid and afraid." Its unsatisfactory effects could be traced to a number of possibilities: (1) the particular strain of the cannabis, (2) her psychological and physiological state, the "set," and (3) her environmental situation, the "setting." For the first point, both Gina and I have concluded through sharing our experiences that strains of *Cannabis indica*, while more potent, were less effective for us than *Cannabis sativa* strains in counteracting the nausea and vomiting of HG. Indica seemed to render the patient more vulnerable to paranoia, while sativa alleviated nausea/vomiting without the residual feelings of "getting high." In response to the second and third points: the controversial and illicit nature of the drug, along with the government's unwillingness to conduct further research, make situations even more difficult for women who could truly benefit from comprehensive guidelines and medical endorsement.

Procuring the illicit herb proved to be a challenge for both women. Gina had an easier time in Southern California. Didi had more difficulty acquiring good product in Michigan. It was no surprise to me when she later told me that she was not getting much, if any, relief from her cannabis. By the time I committed the risky and illicit act of sending some higher quality sativa via the mail, it was already too late and she had turned to the hospitalized treatment of HG, where her doctor started her on an intravenous line to receive liquid nutrition and ondansetron to curb her nausea and vomiting.

For Gina, cannabis was effective enough to keep her out of the hospital. Through experimentation, she found she was able to "autotitrate" (Mathre 1997, p. 146) according to what her body demanded:

I haven't been getting sick in the middle of the night, which is great, because I can get some sleep. The times I have felt sick, I just get up and take a hit, then I'm fine. Sometimes I have to take up to 6 hits a day, 2 in the early morning, 2 in the afternoon, and 2 at night. But usually, it is about 4 hits, 2

in am, 2 in pm. I am no longer worried about it-because the alternatives are to be in the hospital again, or not go through with the pregnancy. The cannabis is really what is saving me-because I am able to eat and drink some, I can still work, although it is far from pleasant.

Unfortunately, in December 2000, I received the sad news that Gina miscarried as in her previous pregnancy. She stated: "The doctor said the fetus appeared to be about 13-14 weeks old, so I do not believe for a second that the cannabis or the Diclectin[®] caused the fetal demise. There's something else going on." She said that her obstetrician was going to follow up with different chromosome and blood tests so that she could see why her body was "rejecting the fetuses." In spite of the tragic ending, Gina wrote to me: "I want to thank you for your support. I still believe in the medicinal value of cannabis for hyperemesis." I mourned Gina's miscarriage not because I had lost a potential candidate to study the use of cannabis for HG, but because she had lost a much-wanted child, a heartbreaking process that many, many mothers with HG too often endure. Fortunately, Didi's baby was birthed in health and wellness.

CONCLUSION

In retrospect, I wonder if my home-based, underground, pilot study on HG and cannabis was more depressing than it was encouraging. While my findings revealed some promise, I am left feeling deeply frustrated by the social and legal impossibilities of engaging in a formal clinical study in present-day America. What grieves me most is the knowledge that women with HG continue to suffer with no medically (and legally) efficacious treatment when I am convinced that we already have the cure. The stories I have been privileged to know have left me with images that continue to haunt me: of Sofia with her thighs dwindled to the width of my thin arms, interchangeably crying and vomiting as she watches the food channel on television because she wants so much to be able to eat, but cannot in the devastation of hyperemesis; of Maria threatening suicide because she is given no choice but to be bound to endless machinery with tubes surgically inserted into her abdomen for feeding and drainage for the sake of keeping her baby alive; of Sarah, whose husband deserted her because she appeared like a "skeletal with a belly," looking like "death," smelling like "poison," and wanting to die every waking hour; of Gina, devastated with the discovery that she had lost a much wanted baby for the second time. These real-life tragedies bombard me with a dispirited, "Why?" Why do HG women continue to suffer, even amidst pharmaceutical and hospitalized treatments that can cost over hundreds of thousand of dollars of insurance money per pregnancy?

Why was I so blessed to have found a cure, one that cost no more than \$90 for the entire duration of my HG? If it were not for the study of Jamaican pregnant

women who used cannabis safely with positive effects on their babies, and if it were not for my Taiwanese obstetrician who reassured me that birthing women in China have commonly used cannabis to alleviate their nausea and vomiting, and if it were not for Dr. Grinspoon at Harvard Medical School, with his extensive research on the medicinal properties of cannabis, who found credibility and value in my anecdote, I would definitely be filled with self-doubt in the face of surrounding fear, persecution, and paranoia. While I should simply let the issue pass, a part of me is unwilling to give up so easily, partially because cannabis is an important, but lost, part of my cultural heritage. Having experienced severe hyperemesis, I can empathize with all the women who also endure its debilitating effects. If one could imagine surviving the nausea and retching of food poisoning combined with vertigo and motion-sickness non-stop for four to nine months straight, night and day, than one could possibly begin fathoming the physical and psychological trauma of living with HG.

In summary, it is relevant to ask: What are the rites and rights of birth offered to a woman with hyperemesis within the realm of modern medicine? The rites are obvious: the ritual of isolation, when the woman is attached to tubes and machines in the hospital, sometimes for the entire nine month duration, torn from her community of family and friends; *the ritual of sacrifice*, when the woman's body, viewed as an "object" rather than a "subject," is poked and prodded, severed and bloodied as she is merely treated as the container who must somehow "produce" the baby, the "product" (Davis-Floyd 1992, pp. 160-161); the ritual of denial, when the woman's incessant and tenacious nausea and vomiting is downplayed as being "all in the head," or accused as a way for her to "vomit out her baby" or disguise her "bulimia" disorder; the ritual of suffering, when the woman is expected to withstand the tortures of highly gruesome medical procedures that involve the surgical cutting and ripping of flesh without anesthesia, bear the pangs of long term starvation, and endure the end result of a "chronically collapsed digestive system"; the ritual of silence, when the woman's voice is not heard, in spite of her cries for help, and her body is not acknowledged, in spite of its emaciation. And finally, within these rites is simply her right to give birth with much medical intervention but no real cure.

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