

Seven, Eight, and Nine: Historical and Halakhic Discussion of the Third Trimester Baby

Nava Pincus
Shuli Roditi-Kulak

Introduction

Rabbinic literature - law, lore, and philosophy – makes use of the science that is available to the Rabbis at the time. This paper will focus on one example of the influence of historical scientific beliefs on Rabbinic thought: the Rabbinic understanding of fetal gestation. Historically, it was ubiquitously believed by Rabbinic scholars that babies that gestated for either seven or nine months could survive to adulthood, while babies of eight months gestation had no chance of survival. This belief of the inviability of an “eight month baby” was maintained not only in the Jewish world, but also across Mediterranean and European cultures. This belief was incorporated into a number of significant *halakhic* rulings that dealt with topics as crucial and wide-ranging as *Hilkhot Shabbat* and *Hilkhot Yibbum*. The advances of

Nava Pincus is a fourth year medical student at the Albert Einstein College of Medicine of Yeshiva University. Shuli Roditi-Kulak graduated from Stern College with a major in Biology and a minor in Business. She is currently a third year medical student at the Albert Einstein College of Medicine of Yeshiva University. The authors thank Dr. Edward Reichman for his helpful input, insights, and inspiration.

medical science in the last few centuries, however, led to the adoption of a completely different understanding of gestation, with the resulting conclusion that the closer to thirty eight weeks a fetus is at birth, the stronger and healthier the baby is and the greater its chance for survival. This current medical view is in direct opposition to the Rabbinic one now embedded in Rabbinic literature and *halakha*.

This paper will focus on three issues relating to the notion of the inviability of an eight month child. First, after defining the terms, it will explore the scientific history of the “eight month baby” and its adoption in Jewish non-*halakhic* sources. Second, it will consider the entrance of this ancient scientific view into *halakhic* discourse. Finally, the paper will document the development of contemporary *halakhic* rulings in response to the current medical views on gestation.

The Scientific History of the Inviabile Eight Month Baby Seven and Eight Months: Defining the Terms

Most ancient sources indicate that the definition of the seventh month of pregnancy was counted from six full months and one day until the completion of the seventh full month. Aristotle, for instance, considered six months and a day to begin the counting of the seventh month.¹ This method of counting continued into the medieval period. Rabbi Solomon b. Isaac (Rashi) comments on Exodus 2:3, “She gave birth to [Moses] after six months and one day,” to explain that Moses was born in the so-called seventh month.

1 George, Sarah. *Human Conception and Fetal Growth: A study in the development of Greek Thought From Presocrates through Aristotle*. (PhD Thesis, University of Pennsylvania, 1982) p. 206.

This method of counting, however, seems to have been challenged by one prominent medieval rabbi. Rabbi Isaac b. Sheshet (Rivash), a 14th century *halakhic* authority, counted an eight month baby as one born after eight full months in gestation. Similarly, for Rivash, a seven month baby is one born after seven full months in gestation.² The fact that the same pre-modern concept was applied to various different stages of gestational development by differing rabbis indicates the flexibility and non-empirical nature of the view.

Gestational Age and the Development of the Eight Month Baby Concept

In modern medicine, gestational age is determined based on the last menstrual cycle of the pregnant mother. This method of counting was not the norm in the ancient world. There are two general theories as to how ancient societies determined the gestational age of a baby. The first is that estimates were based on reports of the timing of conception, which was believed by some in the ancient world to be “felt” by the conceiving woman. The second theory, held by Charles King, argues that infant size was used to determine gestational age.³ As a result of this method of counting, King argues that the “seven” month fetuses refer in actuality to what is called in modern medicine “small for gestational age” (SGA) babies: smaller than usual full-term fetuses whose smaller size reflect a lack of proper nourishment in utero. Technically, SGA babies are “those whose

2 Rivash, Responsa 446.

3 King, Charles. The Eighth-month fetus: Classical sources for a modern superstition: Reply. *Obstetrics and Gynecology*. August 1988, Vol 72 Issue 2 ppg 286-7.

birth weight lies below the tenth percentile for that gestational age.”⁴ Their small size explains why the babies were thought to be premature, but their full-term development explains their higher rate of survival than real eight month babies, who had simply not fully developed. The idea of the eight month baby, for King, arose out of an imprecise measure of fetus age. This thesis may be substantiated by a Hippocratic work that states: “a minority of these seven month fetuses survive, because the manner and timing of their nourishment in the womb was such that these fetuses share all those attributes which even the most mature newborn possess.”⁵ What the ancient world would have called an eighth month fetus, according to King, was a baby that looked larger than the “seven month baby” but smaller than a typical looking full term infant. These eight month babies, although looking larger than the “seven month babies” were, in fact, younger since the seven month babies were truly nine month babies that looked smaller due to improper nourishment. Since the eight month babies were born prematurely, they had a smaller chance of survival.

It should be noted that despite the ingenuity of King’s thesis, it has fostered some criticism. Rosemary E. Reiss⁶ rejects King’s explanation, based on her reading of a passage in the Hippocratic treatise *Peri Oktamenou* where the author makes clear that seven month babies are not poorly grown: “Nine month fetuses are born lean... not so the

4 Wikipedia, “Small for Gestational Age”. Reference 1: *small-for-gestational-age infant* at Dorland’s Medical Dictionary

5 Lloyd GER, ed. *Hippocratic Writings*. New York: Harmondsworth, 1978

6 Reiss, Rosemary E. The Eighth-month Fetus: Classical sources for a modern superstition; Reply. *Obstetrics & Gynecology*. Aug 1988. Vol 72-Issue 2 ppg 287.

seven month fetuses which are born fleshed out and nicely plump: they have completed their time in the womb without disease.”⁷

Ancient Explanations

Many ancient theories trying to explain the presumed viability of the seven month baby and the non-viability of the eight month baby exist. In Greek sources, there is a focus on the numerical superiority of the seven month fetus and the physiological inferiority of the eighth month fetus. Jewish sources explain the difference through divine intervention and language games.

The Greeks explained the notion of the viable seven month baby due to the mystical importance of the number seven in ancient times. The number seven was viewed as an integral number to the human life. According to Sarah George, Solon, an Athenian statesman, lawmaker, and lyric poet, who was also listed among the Seven Sages of the ancient world, said that a man’s life was divided into periods of seven.⁸ George also points out that the Hippocratic work *Sevens* “reflects early thinking about the importance of seven in the microcosm and macrocosm... to see seven as a critical number in human physiology was apparently common to all Greek ages.”⁹

It is no wonder that seven would be a critical number in the life of the fetus as well. Anne Ellis Hanson writes that the viability of a seven month fetus “seems based on numerology and the number seven... the number pos-

7 Joly R, ed. Hippocrates. Vol 11. Paris Bude, 1970. p. 170.

8 George, p. 204.

9 George, p. 205.

sessed mystical properties. Hence the seven month child was, among those early born, the one more lucky in its numbers".¹⁰ A seven month child, according to this explanation, lives because of its association with the number seven. The eight month child did not survive because of its lack of association with seven.

The Hippocratic writer of *Fleashes* explains the association of the seven month baby with the number seven: Children born with numbers divisible by seven live; seven months equal two hundred ten days and nine months equals two hundred eighty days, assuming months of exactly thirty days. As both two hundred ten and two hundred eighty are divisible by seven, viability is strengthened. An eight month child, however, would be in gestation for two hundred forty days, which is not divisible by seven. Such a baby, according to the theory, has little support for viability.¹¹

Hanson writes of another Greek explanation for the in-viability of the eighth month fetus. Pregnancy in the Hellenistic world was divided into forty day periods called, in Greek, *tessarakontads*. The sixth *tessarakontad* represented the eighth month of pregnancy during which time the mother became ill with fevers due to her organs being compressed as the fetus grew to birth size.¹² The weight of the baby and its movements were believed to pull and strain the mother's umbilicus causing stress for both mother and child, while the fevers were believed to be a special danger to the fetus and were associated with resulting deformi-

10 Hanson, Ann Ellis. "The Eight Month's Child and the Etiquette of Birth: Obsit Omen!" *Bulletin of the History of Medicine* 61 (1987), p. 590.

11 George, p. 208; Hanson, p. 592

12 Hanson, p. 594

ties such as lameness and blindness if born in the eighth month. If the baby was born during this time, the stress of labor would be too much for the small baby to handle and therefore it would generally die.

This latter explanation is based on observations made by ancient physicians about the activity and illnesses seen in the mother and baby during the eighth month. It is now believed, however, that women do not become ill with fevers during the eighth month any more than during the other months of pregnancy. Fetal size does not generally cause danger to the mother's organs. Additionally, when a baby becomes blind or lame, it is usually due to non-lethal vascular events that occur at any time in utero, not specifically in the eighth month.

One of the earliest Jewish traditions about seven month babies is found in Pseudo-Philo, where he writes: "And I gave him Isaac and formed him in the womb of her that bore him and commanded that it should restore him quickly and render him unto me in the seventh month. And for this cause every women that bringeth forth in the seventh month, her child shall live, because upon him did I call my glory."¹³ Pseudo-Philo believed that the viability of seven month babies was established by divine decree when God decided to bring Isaac into the world in the seventh month. Because of Isaac's early birth, every child born in the seventh month is believed to have a divinely backed viability.

Genesis Rabbah (XIV, 2) also discusses the viability of the seventh month baby. "Rabbi Abbahu was asked: 'How

13 Pseudo-Philo, *Liber Antiquitatum Biblicarum*, tr. M.R. James, *The Biblical Antiquities of Philo* (New York, 1971), XXIII, 8, cited in Van der Horst, Pieter. "Seven Month's Children in Jewish and Christian Literature from Antiquity," *The Jewish World in Early Christianity* (Gottington, 1990), pp. 233-247.

do we know that when the fetus is fully developed at seven months it is viable?’ ‘From your own [language] I will prove it to you,’ replied he: ‘Live, seven – Go, eight’.” In greek, *zito* means “live;” moreover, the letter *zeta* has the numerical value seven. If born in the seventh month, the child lives. “Go” euphemistically means “die.” In Greek *ito means* “go;” it is also associated with the letter *eta*, pronounced ita, which has the numerical value of eight. Rabbi Abbahu seems to believe in an inherent connection between language and the natural world. The fact that the Rabbis infer this ancient “fact” from the Greek language suggests that the belief itself may have been imported into Rabbinic discourse via Greek sources.

Ancient Doubts

Although the inviability of the eight month fetus and viability of the seven month fetus was widely accepted in the ancient world, not everyone was so certain that eight month babies were doomed to death. In the Hippocratic *Eight Month's Child* the writer was aware that many seven month babies did not survive and many eight month babies did. “The longer the baby was in utero,” the writer argued, “the greater chance it had for surviving. Ideally, babies should be delivered after a full nine months.”¹⁴ Soranus, a Greek physician and chief representative of the school of physicians known as “Methodists,” also observed the greater chance of survival for babies who were in utero longer.¹⁵ Aristotle too writes uncertainly about the viability

14 Hippocrates. *Eight Month Child* ed. Hermann Grensmann, *Hippokrates: über Achtmanatskinder; über das Siebenmonatskind*, (Berlin, 1968) 5, 90.12-16 p.92

15 Hanson 594

of the eight month child. He writes: "Other animals have a single period (of gestation), but with man there are several. Children are born at seven months and ten months and at intermediate times, and indeed eight months babies live, though less often than others."¹⁶

In modern times, the gestational age and months of pregnancy are not calculated from the time of conception of the fetus, but rather from the time of maturation of the unfertilized ovum or egg. The maturation process is assumed to begin fourteen days prior to conception and coincides with the first day of the mother's last menstrual period. A complete gestational term is considered to be forty weeks, which equals roughly nine complete months. Modern studies have further shown that the safest time for a baby to be delivered is between thirty nine and forty one weeks gestational age, and the farther one moves in either direction from that point, the greater risks there are to the health of the fetus.

Modern studies have not found there to be a greater risk for a child born in the eighth month compared to the seventh, and to the contrary, the earlier a child is born the greater are the changes of increased morbidity and mortality. In ancient times, both a child born in the seventh month and one born in the eighth had little to no chance for survival mostly due to respiratory distress secondary to the incomplete maturation of the child's lungs. However, with the gifts of modern science and medicine a baby now born any time after twenty four weeks (roughly five and one half months) is considered to be viable and has a chance of living a normal life.

16 George, p. 206 n. 5

Though modern medical thought discredits the notion of a nonviable eight month baby, there are populations in India and Germany – and in the Orthodox Jewish world – who still hold on to the notion.¹⁷

Eight Month Babies in Pre-Modern *Halakhic* Literature

Discussion of the eight month baby comes up in two specific *halakhic* contexts in rabbinic literature, regarding *Hilkhot Shabbat* and *Hilkhot Yibbum*.

The Babylonian Talmud, Shabbat 135a states that one can disregard Sabbath law in order to prepare a seven month or a nine month male child for his circumcision, but that Sabbath law cannot be disregarded for an eight month child.

The passage continues, arguing that not only can Sabbath law not be disregarded for an eight month child, but just as a rock has the legal status of *muktza* and may not be carried on the Sabbath, so too this baby may not be carried on the Sabbath. The baby may therefore not even be nursed on the Sabbath, unless the stored up milk causes the mother's breasts unbearable physical pain.

The issue of the survivability of an eight month baby is discussed again in relation to *yibbum*. *Yibbum* is the biblical commandment for a man to marry the wife of his deceased childless brother. The Babylonian Talmud¹⁸ describes the scenario where a woman becomes widowed after having given birth to an eighth month baby. The question arises as to whether the woman is still considered childless in such a case. The passage concludes that a baby born in month

17 R. Reiss and A. Ash, "The Eight Month Fetus: Classical sources for a modern superstition," *Obstetrics and Gynecology*. 71:2 (February 1988), pp. 270-273.

18 *Yevamot* 80b

eight of gestation is not viable and, therefore, the widow is still considered “childless” and does perform *yibbum*.

It is important to note that one school of medieval commentary, Tosafot¹⁹, attempts to mitigate the definition of an eight month baby by arguing that fetal months cannot be measured with accuracy and because of that inaccuracy, in most cases, one would be allowed to break the Sabbath to prepare a newborn for his circumcision. This is because one could make the case that the baby’s true date of conception was miscalculated and the baby is in fact a seven or a nine month baby.

Ultimately, Tosafot²⁰ limits the possibility of an eight month baby to two scenarios. The first is when the parents are sure of the baby’s gestational age because they only had marital relations one time. The second situation is when the baby is born in what is thought to be the eight month, and lacks the developmental markers of grown hair and finger nails (if the baby did have grown hair and fingernails then he is classified as being a seven month, fully matured baby that stayed in the womb longer). In either case, the baby is taken to be an eight month baby, with the resulting *halakhic* ramifications.

Rabbi Joseph Caro (16th century), in his *Shulkhan Arukh*,²¹ in part adopts Tosafot’s consideration. He rules that one can only desecrate the Sabbath for a seven month baby, nine month baby or eight month baby with hair and finger nails – gestational markers which indicate the child is not necessarily doomed to die.

19 *Yevamot* 80A

20 *Shabbat* 135a

21 *Shulkhan Arukh*, 330:8-11

The concept of the eight month baby continues to be incorporated in halakhic literature as late as the 20th century, when Rabbi Israel Meir Kagan rules in his *Mishnah Berurah* that an eight month baby will “surely die.”²²

Contemporary Responses

With the knowledge and acceptance of modern medicine, contemporary Rabbis were forced to account for the conflict between the pre-modern acceptance of the inviability of eight month babies and the modern fact that such babies survive. Three major solutions to this problem have been suggested in the past century.

In the *Chazon Ish*, Rabbi Abraham Isaiah Karelitz, noting that in the twentieth century many babies born in their eighth month live full lives even without medical intervention, concludes that by some means human physiology has changed. This change in nature makes the *halakhot* of the eight month baby no longer applicable.²³

A different solution is offered by Rabbi Isaac Jacob Weiss. Observing that babies born in the eighth month of gestation survive and live normal lives, Rabbi Weiss explains that despite the inherent inviability of eight month babies, modern medicine can cause an “eight month” baby to survive nonetheless.²⁴

Finally, a similar line of reasoning is employed by Rabbi Shlomo Zalman Auerbach. Rabbi Auerbach, who, as quoted in *Shmirat Shabbat Kehilkhata*, maintains not that human physiology has changed, but that medical knowl-

22 *Mishnah Brurah*, 330, 28

23 *Hazon Ish, Yoreh Deah*, 155:4

24 *Minbat Isaac*, 4:123:19

edge has changed. Hospitals today are more advanced and better able to save an eighth month baby.²⁵ Therefore, today we must save a child that can be saved. Rabbi Auerbach believes this ruling is consistent with the teachings of the Talmud, which has always held that any baby that can be saved should be saved.

Conclusion

It is an imperative value in Jewish teaching that one does not change *halakha* simply based on a changing world culture. Torah values are considered timeless and truthful, no matter how modern culture seems to evolve. While this principle is true, we can see from the study of the eighth month baby that our sages were not reluctant to face the fact that certain parts of Jewish tradition were based on the known scientific information of a finite moment in time. As a result of this knowledge the sages worked to find ways to reconcile *halakhic* ideas with modern science, while still keeping true to the everlasting nature of the Torah's values.

25 *Shmirat Shabbat Kehilkhatah*, 36:12, n. 24