SIX

The Female Body in Islamic Law and Medicine: Obstetrics, Gynecology, and Pediatrics

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[6.0] Muslim family law gave women extensive property rights over their biological functions and reproductive faculties. Consummation of the marriage, conception and contraception, sexual fulfillment, pregnancy, breastfeeding, female circumcision, childcare, and fostering of the young child were functions which were subject to remuneration when fulfilled and to compensation when denied.[1]

[6.1] While sexual activity could lead to procreation and child-bearing outside the Islamic marriage, the rights over the body and their remuneration were nonetheless reserved for free Muslim women who were married to Muslim men according to Islamic law. *Dhimmi* women, namely Jewish and Christian, could legally be married to Muslim men and were equally entitled to benefit from these rights. Slave women, available for sexual intercourse with males of the household, did not enjoy the same rights over the body, although in the case of motherhood, they had a different set of rights, including enfranchisement when their children were fathered by their masters. For the majority of women living under Islamic law who were entitled to the full extent of the rights over the body, the existence of these rights meant that they enjoyed almost complete control over their reproductive lives.

[6.2] Elsewhere I have examined not only how the rights over the body were formulated within the *sharīʿa*—the body of Islamic law—but also, using court documents from fifteenth-century Granada, how they fared in reality. I have shown how each of the reproductive activities was dis-

cussed by the jurists in the legal manuals—*fiqh*—how they became enshrined in the form of contracts drawn up by the notaries of Muslim Spain during the twelfth to fifteenth centuries, and how they were interpreted by the jurists in their deliberations over challenges to them in *fatwās*, the requests for judicial opinion from Muslim Spain and North Africa. Rights over the body, like other women's property rights, were publicly and officially asserted through acquisition, could be forgiven in exchange for various considerations, and had to be notarized before the courts. Given the centrality of reproduction to women and society, my aim in this paper is to juxtapose the legal status of the reproductive function to its contemporary medical treatment.

[6.3] It was the task of the physician to enable women to fulfill their reproductive functions and to acquire their property rights in the process. The way in which these rights were represented and dealt with in the Islamic medical sources on gynecology, obstetrics, and pediatrics provides an additional dimension to the question of women's property rights. Any malfunctioning of these biological functions would prevent women from acquiring the relevant property right, so women had an obvious interest in the matter. So did jurists and physicians who were interested in fulfilling their roles as husbands and fathers, in addition to their professional roles.

[6.4] Concerns over the functioning of female reproductive organs and how to care for them and treat their pathologies figure prominently in the medical literature, thus correlating the medical view with the legal provisions relating to the reproductive function to provide better insight into the social perspective on gender relations. The social and legal history of gender relations in the Islamic context, heavily burdened with pre-conceived notions of patriarchal control, may benefit from another dimension: its human scope.

[6.5] Islamic medicine shared many characteristics with Islamic law. Both were literary and scholarly disciplines, expressed in literary form and in the same language, Arabic. While both disciplines concerned themselves with the body, the approach of the medical writers differed because of the physical nature of its preoccupations and methodology, even though socially and culturally they shared a similar background.

[6.6] The medical treatises, or chapters, on gynecology, obstetrics, and pediatrics gave a meticulous view of the female reproductive functions and treatments for the pathologies that interfered with their normal functioning. The medical writer, normally but not always a practicing physician, devoted more time and space to matters of intercourse, breastfeeding, and childcare. The topics were mainly discussed in chapters of the general medical encyclopedic manuals of the tenth and eleventh centuries, but later, numerous specialized monographs on gynecology, obstetrics and pediatrics, intercourse, breastfeeding, and childcare appear.

[6.7] Islamic medicine in general, including its *materia medica*, was inspired by the Greek medical texts which came down to them, and the same was true for gynecology, obstetrics, and pediatrics. Over a period of more than a thousand years, beginning in the fifth century b.c., the Greek works were written down and edited before they reached the Arabs.[2] When the Arabs gained access to these texts and began studying and using them, those dealing with women's diseases, gynecology, were derived from the texts composed by physicians such as Oribasius (325–404), Aetius (502–75), and Paul Aeginatus (625–90). Although these physicians of late Antiquity and the Byzantine period believed that they were writing a version of Hippocratic and Galenic Greek medicine, they were not transmitting any direct translations of Hippocratic writers to the Arabs.[3] Given the length of time separating them from the originals, the variety of sources used, and the nature of the editing and paraphrasing that took place, the Arabic corpus included, at best, a diluted version of Hippocratic gynecology and obstetrics. The two gynecological texts attributed to Hippocrates that are available in Arabic translation today are believed to be pseudo-Hippocratic pieces, actually composed during the Islamic period. One is an Arabic translation of Hippocrates's book, *On Superfoetation*, which focuses on difficulties in intercourse and conception;[4] the other, *Kitāb Ibbuqrāt fī ʿilāj an-nisā'*, is a translation of a Hippocratic compilation containing a mixture of Galenic medicine and Hermetic theory.[5] The second ninth-century treatise in Arabic, *Galen on the Secrets of Women and the Secrets of Men*, which claims to be a translation of Galen by Ishāq b. Hunain, is also believed to be a pseudo-Galen work.[6] In content, it is closer to a *materia medica* book, providing prescriptions for creating desire in women; for inducing or curing lesbianism, homosexuality, or pederasty; for strengthening or loosening the hymen; and the like.[7]

[6.8] Monica Green, who has studied the transmission of Greek gynecology to Europe, has shown that some Hippocratic elements of women's diseases did enter Islamic medicine and were manifested in al-Majūsī's work via indirect transmission.[8] Like the Hippocratic corpus, al-Majūsī recommended that women use sexual activity to cure certain gynecological conditions. A small part of Galen's treatise on women's diseases was translated, but the gynecology of his contemporary Soranos was not. Yet the latter's text is believed to have arrived through Paul Aeginatus as part of the next stage of editorial work. In contrast to this trajectory of transmission of medical information, the same was not true for law. Women's physical and reproductive functions that were subject to property rights in Islamic law were not considered property rights in Greek, Roman, or medieval Christian law.

[6.9] For the purpose of direct comparison between Islamic medicine and the legal rulings on the body, I have selected representative sections from medical writings on women's health dealing with gynecology, obstetrics, and pediatrics, including the following: chapters 9 to 18 of Ibn al-Jazzār's

Zād al-Musāfir, which are devoted to women's diseases;[9] chapters 18 and 75 to 78 of al-Zahrāwī's surgical manual;[10] chapters 75 to 89 and verses 899 to 962, respectively, of Ibn Sīna's two short works, *Al-Risāla al-alwāhiya* and *'Urjūza fī'l-tibb*;[11] chapters 40 to 44 of the manual by Ibn Jazlah's (d. circa 1100) which are devoted to diseases of the uterus, breasts, and genitals;[12] the monographs on gynecology, pediatrics, and obstetrics by the Andalusian ᶜArīb b. Saᶜīd al-Qurtūbī and the Egyptian al-Baladī;[13] the writings of al-Kindī, al-Rāzī, and Ibn Wāfid; and prophetic medicine. Not included in this selection is the literature on erotica.[14] Together, these sources provide a representative discussion of what physicians considered normal and how they treated the pathology of women's reproductive organs.

VIRGINITY AND INTERCOURSE [6.10]

Both virginity and intercourse have legal consequences, since each involves a unique position in terms of women's rights. A woman entering her first marriage is presumed to be a virgin, and her status as a virgin is stated in the marriage contract. This condition disappears from subsequent marriage contracts. The absence of virginity in the first marriage is considered a physical defect or *ghayb*, similar to other bodily defects, such as leprosy, and entitles the husband, if indeed his claim is shown to be correct, to request the annulment of the marriage and the return of the dowry (*sadāq*, money) or part of it which he paid to the bride for staying in the marriage. [6.11]

A study of the historical occurrences through the *fatwās* has shown that such cases were not uncommon.[15] Verification was in the hands of midwives, who acquired a legal position as trustworthy witness through their expertise and experience. The outcome was crucial for the young women. A father, who might be aware of physical occurrences that could have caused damage to his daughter's virginity, was given the opportunity to state it in court well ahead of her marriage. The first act of intercourse between bride and groom was therefore more than a mere physical act and equally rich in consequences in terms of property rights. [6.12]

From a legal perspective, once consummation of the marriage had taken place, the wife was theoretically freed from her father's guardianship and his control over her property and entitled to financial support and maintenance (*nafaqa*), both in marriage and in divorce from her husband. The law also stipulated that although consummation, or the first act of intercourse, was sanctioned by marriage, it needed to be dependent on physical maturity; in other words, the virgin girl should be physically capable of sexual activity. Jurists of all schools agreed that the law insisted that girls had to have reached puberty before sexual intercourse was permissible, and intercourse with a minor, even when a marriage [6.13]

agreement had been signed, was not permitted. If the young wife was taken prematurely and without parental consent to her husband's home, compensation was forthcoming.

[6.14] In the medical writings on women's health and reproduction, coitus loomed large, but virginity did not. Physicians addressed coitus in the chapter devoted to conception; they were principally interested in how to achieve conception and maintain a healthy pregnancy, rather than the opposite, how to prevent pregnancy.[16] Medically, virginity did not seem to have had any significance for conception and hence was insignificant to physicians as a subject of treatment. Obviously, the legal view reflected society's concern for morality or the reservation of sexual intercourse for the marriage.

[6.15] The Islamic physician saw conception as depending on the frequency and quality of intercourse for proper sexual functioning. This in turn depended on the emotional and mental environment of the couple. Both males and females were apparently reported to have had difficulties in this area. In this case, both should receive treatment, since intercourse was perceived as being more than just a physical act and reciprocity and mutuality were the keys to successful pregnancy.

[6.16] Lack of desire was regarded as a major problem in achieving conception, and Ibn Sīna advised patients of both sexes to increase desire for sexual intercourse by taking drugs. He suggested drinks derived from pepper, ginger, and cloves for sexual arousal, but also offered a prescription for producing the reverse, a white water-lily drink that interfered with and shrank the penis. For women who experienced difficulties conceiving, he offered prescriptions for making the uterus soft, flexible, strong, warm, and wet as well as for elevating it and preventing it from protruding.[17]

[6.17] Al-Kindī also recommended drugs that would excite the partners so that they would engage in intercourse resulting in pregnancy, but for good measure, like Ibn Sina, he also included drugs to curb sexual overindulgence.[18] Ibn Jazlah was concerned with male impotence, which, he believed, was caused by lack of desire or lack of secretion of semen. The Toledan pharmacist Ibn Wāfid, d. 1074, provided advice on dealing with problems caused by coitus in cold climates, when the sperm was dry, how to fortify the testicles, how to fix a perforation in the urethra, and in his chapter on the uterus, how to treat hemorrhage and how to provoke menstruation.[19] For those who put their trust in divine intervention, prophetic medicine recommended chanting invocations to help men who were childless.[20]

[6.18] The legal sources also debated intercourse in the theoretical framework of filiation and in determining paternity. From the moment of conception, the unborn child acquired inheritance rights respecting his father's or mother's property in the uterus. If a father died before his child was born, it was necessary to establish the unborn child's relation-

ship to his father.[21] A legal declaration that the wife's pregnancy was visible could be signed by the father, but it was the midwife who was entrusted with testifying that the child had given signs of life.[22] By signing the document, the midwives, whom the law already recognized as expert witnesses in the case of contested virginity, established a requirement for a written document that had to be fulfilled if the child was to inherit from his father, and that others could then inherit from the child, if he died immediately after birth.

BIRTH CONTROL, PREGNANCY AND DELIVERY [6.19]

Beyond consummation, the act of intercourse had wider legal implications for women, since their right to allow or disallow the practice of *coitus interruptus* or *ʿazl* had its implication as a property right. Wives had the option either to permit or to forbid their husbands to practice this as a means of birth control.[23] [6.20]

While all legal schools agreed that the practice itself was authorized and lawful, they also agreed that it could not proceed without the wife's consent. Some of the legal schools, such as the Mālikī and the Shiʿī schools, went further, demanding that a wife be compensated for consenting to *coitus interruptus*. They ruled that a monetary compensation was due but limited it to the duration of the consent, stating that the wife had the right to change her mind, re-open the contract, and withdraw her consent before the end of the period. [6.21]

Islamic law is unique in adopting such a stand on birth control, something which was not shared by any of the other contemporary religiously inspired legislation.[24] Neither Christians in the East and the West, including communities like the Copts who lived in close proximity to Muslims and were aware of Islamic law, nor Jewish communities, permitted the practice of birth control by either a man or woman.[25] [6.22]

For physicians the practice of birth control, not through *coitus interruptus* but in the form of contraceptives or abortifacient means, occupied only a small section.[26] Instead, they devoted much more space on how to achieve pregnancy. Pathologies in the reproductive organs of both men and women prevented conception, and these could be cured with drugs or surgery. Al-Kindī offered "a piece of the lowest part of a worn camel's hoof, pulverized after burning and mixed to be worn as a pessary" as a prescription for the treatment of an ulcer in the uterus .[27] Ibn Sina, who treated women who experienced difficulties conceiving, offered prescriptions for making the uterus soft, flexible, strong, warm, and wet, as well as for elevating it and preventing it from protruding.[28] Ibn Jazlah provided a detailed and comprehensive treatment of gynecological pathologies that prevented conception, including congenital abnormalities, displacement of the uterus, diseases of the lower and upper genital tract, [6.23]

boils, cysts and tumours, cancer in the lower and upper genital tract, and menstrual and pregnancy disorders.

[6.24] Other factors interfering with conception included obstruction of the uterus, obesity, and old age. ᶜArīb b. Saᶜīd gave prescriptions for diseases that could prevent pregnancy and cause sterility by suffocating the womb, although prescriptions intended to enhance the chances of conception were also provided for men.[29] The surgeon al-Zahrāwī understandably advocated a hands-on treatment of difficulties with conception: "When matter arises in the womb from chill or humidity and she is thereby prevented from conceiving and her menses are upset . . . you must cauterize her three times around the navel."[30]

[6.25] Once conception was achieved, the physician needed to concern himself with maintaining a healthy and full-term pregnancy and with ensuring safe and quick delivery. Al-Kindī suggested a concoction of myrobalan and sumac for keeping the fetus in place and another made of the head of salty fish and jasmine for stopping hemorrhage.[31] The physician could use medications recommended in Ibn Sīna's *Urjūza fī 'l-tibb* to treat pregnant women who suffered from indigestion, nausea, vomiting, tiredness, unreasonableness, and food cravings. Ibn Sīna recognized that since the baby was formed from his mother's blood, pregnant woman needed special foods and medications to guarantee that her blood was of the right consistency.[32] In order to facilitate delivery, he recommended a drink made of cooked fenugreek *(ᶜulba)*, dates and butter, leaves of marshmallows *(khims)*, *ᶜanbarī* perfumed with ambergris liqueur, and sea foam *(zubd al-bar)*.[33] The obstetrician could make use of ᶜArīb b. Saᶜīd's account of the signs of an imminent delivery, the means used to facilitate it, care during delivery, and how to receive the baby and guarantee expulsion of the placenta. Ibn Saᶜīd seemed to care greatly about the pregnant woman's diet and how to preserve her health and strength. He explained why miscarriage occurred and how to treat both this and other accidents. He also recommended medications to be used if the placenta did not descend or if insufficient blood was flowing in the aftermath of the delivery.[34]

[6.26] BREASTFEEDING AND CHILDCARE

[6.27] Breastfeeding acquired a specific status as a women's property right simply by virtue of the fact that it was specifically articulated in the Qur'an: "and if you wish to engage a wet nurse you may do so if you pay her an agreed amount as is customary" (2:233).[35] This Qur'anic dictum introduced the notion that breastfeeding was voluntary rather than obligatory and had many consequences. A debate over breastfeeding ensued, which as reflected in *hadīth* collections, Qur'anic commentaries, and a variety of other literary sources, was about the status of a mother's milk. If women

were permitted to sell it, could they be forced to breastfeed their own children?[36] In the end the legal view was that the mother's milk was a commodity and that there was an obligation to pay for breastfeeding; simply put, breastfeeding was a voluntary act. Payment for breastfeeding constituted a separate charge to be paid in addition to the *nafaqa* (financial support for a wife's maintenance) and the *hadāna* (payment for care of a young child), and was to be paid even in extreme cases. Both a separated and a divorced wife, or a related female, were entitled to receive wages comparable to those charged by a wet nurse.

[6.28] Once a direct legal link between breastfeeding and wages had been established, the right to monetary compensation for any kind of breastfeeding, including nursing one's own child, followed automatically. As a result, lactation had to be regarded as a service rendered by the female body. Since breastfeeding could become a source of revenue for a wife, a contract for hiring a wet nurse was devised to conform with the law's requirements.[37] This contract required the husband's signature because he gave up his right to sexual intercourse with his wife during the time that she hired out her body. Unlike breastfeeding, the law never involved itself with the process of childrearing within a marriage, but when separation, divorce, or widowhood occurred, the change in the mother's legal status had implications for the rest of her property rights, including entitling her to payment for caring for her child.[38]

[6.29] The pediatric manuals treat b reastfeeding and childcare in great detail.[39] In addition to the physical qualities of the ideal wet nurse and the consistency, quantity, and quality of her milk, physicians wrote about a large spectrum of childhood diseases and the care that the female caregiver should provide.

[6.30] The wet nurse was required and expected to cooperate closely with the physician and to follow his orders strictly since, said al-Rāzī, childhood diseases were legion. He believed that many young children's diseases were related to the nurse's milk, so the choice of a wet nurse and the care that she was to give to the nursing child were the focus of his attention both in *Liber Ad Mansorem* and in his treatise on pediatrics, *Practica Puerorum, Manual of Pediatrics*.[40] The conditions that he cited include infantile eczema, sneezing, epilepsy, diseases of the eye, sores of the mouth, pustules, paralysis, and birth injuries. Ibn Sīna described the physical attributes of the ideal wet nurse, noting that she should be middle-aged and have a lot of flesh and no wrinkles; be good natured; be of solid body; have large breasts, clear eyes, and a clear head; be free of internal diseases; be strong; and have all body parts intact. Her milk was to be neither too watery nor too thick, white in color, sweet, of good smell, and homogenous when poured. She was to be fed sweet and greasy foods and fresh fish prepared in oil. The ideal caregiver would be able to provide the optimal childcare:

[6.31] The child should be washed with hot water and treated with astringents to purify and solidify his skin. He should not be nursed too long so as not to give him indigestion, but do not deprive him of nourishing for too long either so as to prevent fever. [Permit] no irritation and no disturbance to his sleep, which should be taken in a soft bed put in a shady place. Some tranquillizer should be added to his food if sickness prevents him from sleeping. When he wakes, he should be able to see light, the sky, and the stars. During the day, he should be exposed to different colours in order to train his sight. He should be spoken to in a loud voice so that he learns to talk and should be given honey to suck, and nasal vaporization should be applied to clear his breathing if he is congested. He should not be bled or purged until adolescence.[41]

[6.32] Ibn al-Jazzār required that the ideal caregiver be distinguished from the wet nurse by intellect and spirit: "She is the governess, and she should, like the wet nurse, be somewhat advanced in age and clever, experienced, deferential, versed in education policy, open to friendship, and able to demonstrate logical reasoning about what she should do to put the child to sleep or wake him up."[42]

[6.33] The channels of communication between physicians and female caregivers were always wide open. In his book *Medicine for the Poor and Destitute*, Ibn al-Jazzār discussed menstrual blood retention, advising the physician to ask the woman about the time and length of menstruation and to judge accordingly.[43] Women were told to feel themselves and instructed in how to insert the recommended medications, and the help of intermediary female attendants was solicited.

[6.34] The field of gynecology and obstetrics was well developed during the Roman period, as findings from Pompei confirm, but the Muslim surgeon al-Zahrāwī managed to perfect the existing instruments and to invent new ones, such as the vaginal speculum and obstetric forceps, which he shared with the midwife.[44] Nonetheless, he never mentioned gynecological surgical intervention for the purpose of female circumcision nor did he mention Caesarean birth as a procedure, indicating that Islamic physicians did not routinely undertake this operation unless the mother had already died.[45]

[6.35] Looking through their recommendations, it may be concluded that physicians offered a unique discourse on the female body, and one distinct from that offered by the jurists. Intercourse, breastfeeding, and childcare were not singled out for special treatment, as they were in the law, but were treated within a general framework of care. The female body required medical attention if the entire reproductive cycle was to be maintained, but whether expressed thematically or addressed directly, it was not different from the attention given to males if they experienced pathologies. Proper functioning appears to have been the main concern and to have been conceptualized in terms of achieving its biological functions. There is no indication that physicians considered the legal frame-

work of the biological functions that they treated or that knowledge of the law inspired any of the medical writings. At the same time, none of the jurists alluded to either the medical view of these functions or to any medical writing, even though medical treatment could positively or negatively affect any acquisition of rights over the body. The two disciplines do not appear to have shared a mutual awareness of each other.

[6.36] There is a mutual textual ignorance, which means that their respective terminology and themes are different and cannot be verbally approximated. Since there are no cross-references, it also prevents us from exploring whether medical conditions had any tangible effect on the legal aspects of rights over the body. The mutual exclusivity of the two disciplines is somewhat surprising in a civilization where individual males were known to have studied the disciplines of medicine and law together and has given rise to comments from scholars of Islamic medicine.

[6.37] The most notable of the medical writers was the philosopher and jurist Ibn Rushd, whose views of both medicine and the law have been scrupulously studied. Michael Dols could not help but notice that there were no cross-references in his work: "Ibn Rushd, a prominent physician and philosopher, does not mention the various forms of mental illness or their philosophical implications."[46] Réné Dagorn, in a study of the gynecological treatise by the Egyptian al-Baladī, notes that "We are removed from the traditional treatment in the *fiqh* [rules] of *ridā ᶜ* [lactation], which the author repeats one after another, all based on *hadīth* [prophetic tradition]."[47]

[6.38] Other observers, such as Musallam, highlight the cultural interdependence of the two disciplines, regardless of the lack of a textual link: "Because Muslim jurists permitted contraception, it was possible for Arabic physicians to deal with it to the fullest possible extent, limited only by their medical resources and experience."[48] Both Gil'adi, writing on childrearing and breastfeeding, and Berkey, writing on female circumcision, assume a link between the two disciplines, even though no textual reference can be provided. [49]

[6.39] I suggest that the two disciplines' mutual silence regarding each other's practices did not result from a voluntary cultural exclusion or from actual mutual ignorance of each other. Nor did it result from mutual rejection or from a deliberate decision. Rather, it was a matter of literary tradition. Although medicine and law shared numerous literary patterns, the development of their literary styles imposed a disciplinary dichotomy between the two specialities.

[6.40] The exclusion extended to disciplines other than medicine, since references to other than strictly medical and legal sources respectively, observations based on other disciplines, and the admission of knowledge from other disciplines were not permitted. In particular, the dichotomy between the ancient sciences and the "revealed sciences" did not allow secular knowledge, such as medical writings, to be quoted verbally in the

legal manuals. We must assume the existence of a common cultural context for intercourse, breastfeeding, and childcare, even though it cannot be textually demonstrated.

[6.41] None of the writers left us a statement about their personal thoughts and feelings. Beyond these, the questions we would like to ask are numerous: Did property rights have a direct bearing on the medical status of the treatment they received? Did Muslim physicians understand, or care, that these functions were critical to the acquisition of woman's property rights? Were medical decisions influenced by legal concerns and vice versa? Were they mutually inspired? Did the two bodies of knowledge ever come together mutually seeking help when needed? Did they have an impact on the way women's rights were upheld and women's health preserved? Did the two disciplines share a mutual awareness? Were physicians aware of the legal aspects of women's bodies? Were jurists sufficiently knowledgeable about problems, treatments, and cures respecting women's reproductive organs, all of which could affect their property rights?

[6.42] In conclusion, women's property rights over their bodies matched the entire spectrum of property rights given to women in Islamic law. We may say that Islamic medicine offered a unique discourse on the female body, one in which the female body has been conceptualized in terms of achieving its biological functions. The physician was required to provide the medical care that would best facilitate reproduction, although for him this was a single chapter in the bigger framework of looking after human well-being and health. In this respect the medical discourse was similar to that of Islamic law in its universal message: the female body possessed unique qualities but they were merely a component in a universal system of women's—and men's—property rights.

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NOTES

[6n1] 1. . The full spectrum of women's property rights, and the legal context of each, including those respecting the female body, is discussed in great detail and analyzed in my book, *Her Day in Court. Women's Property Rights and Islamic Law in Fifteenth Century Granada* (Cambridge: Harvard University Press, 2007). For the purpose of this paper, I will only briefly summarize the legal rules respecting the reproductive functions in relationship to their therapies and their pathologies as they were dealt with in the Islamic medical writings.

[6n2] 2. . The term "encyclopedic" here refers to the genre which was comprehensive and included all kinds of medical subjects, unlike medical monographs devoted to one subject. This was characteristic of the early Greek and Islamic medical writings. On the encyclopedic genre, see Monica H. Green, "The Transmission of Ancient Theories of Female Physiology and Disease through the Early Middle Ages" (PhD diss., Princeton University, 1985), 81–7.

[6n3] 3. . On the translation of Galen's writings on women's diseases, see Fuat Sezgin, *Geschichte des arabischen Schrifttums*, vol. 3 (Leiden: E. J. Brill, 1967), 113, 127. On the role of the Arabic translation in transmitting Galen's ideas on gynecology to the West, see Green, "The transmission," 71–117, particularly 85–7.

4. . *Kitāb Buqrāt fī habl ᶜ alā habl, Hippocrates: On Superfoetation*, ed. and trans. with an introduction, notes, and glossary by J. N. Mattock, Arabic Technical and Scientific Texts vol. 3 (Cambridge: 1968). [6n4]

5. . Albert Dietrich, *Medicinalia Arabica* (Gottingen: Vandenhoeck and Ruprecht, 1966), 241. On the translations of the Hippocratic corpus to Arabic, see Manfred Ullmann, *Islamic Medicine*, trans. J. Montgomery Watt (Edinburgh: Edinburgh University Press, 1978), 25–35. [6n5]

6. . Martin Levey and Safwat S. Souryal, "Galen's *On the Secrets of Women and Men*: A Contribution to the History of Arabic Pharmacology," *Janus* 55 (1968): 208–19. [6n6]

7. . Ibid., 212. [6n7]

8. . Monica H. Green, "The Transmission," 73–4, 114–15. Green identifies "the triumph of Hippocratic medicine" with al-Majūsī. [6n8]

9. . On Ibn al-Jazzār's *Zād al-Musāfir*, see Gerrit Bos, "Ibn al-Jazzār on Women's Diseases and their Treatment," *Medical History* 37 (1993): 296–312. [6n9]

10. . For the definitive version, with commentary, of Chapter 30 of al-Zahrāwī's surgical manual *Kitāb al Tasrīf*, see M. S. Spink and G. L. Lewis, trans., *Albucasis on Surgery and Instruments* (London: The Welcome Institute of the History of Medicine, 1973). All the following quotations from al-Zahrāwī are to the Spinks edition. Chapter 30 is the title of the entire book and the other chapter numbers refer to heads in this text. For another version containing somewhat different illuminations of the surgical instruments, see Aurora Cano Ledesma, trans., "La aportacion quirurgica de Abī-Qāsim al-Zahrāwī segun el ms. 876 de El-Escorial," *La Ciudad de Dios* 203 (1990): 89–110, 451–84. [6n10]

11. . On gynecology and obstetrics, see Ibn Sīna, *Al-Risāla al-alwāhiyya fī 'l-ᶜ iāllj bi'l-a ᶜ shāb wa'l-nabātāt at-tibbiyya li'l-shaykh al-rā'is Ibn Sīna*, ed. Y. ᶜAbd al-Ghānī ᶜAbd Allah (Beirut: 1991), Chapters 75–89. For the text of Ibn Sīna's *Urjūza fi'l-tibb*, in which he devoted chapters to the care of the pregnant woman and the fetus, to childbirth, to the choice of a wet nurse, and to childcare, see Ibn Sīna, *Poème de la médecine*, trans. Avicenne (a.h. 370–426), with an introduction, notes, and index by H. Jahier and A. Noureddine (Paris: Société d'Edition Belles Lettres, 1956), 70–3. [6n11]

12. . Joseph Salvatore Graziani, *Arabic Medicine in the Eleventh Century as Presented in the Works of Ibn Jazlah,* a revision of the author's dissertation (Karachi: Hamdard Academy, 1980), 96–101. See also, Sharaf al-Dīn Abū ᶜAli Yahya Ibn ᶜIsa b. Jazlah, *Taqwīm al-abdān*, ed. Joseph Salvatore Graziani (Los Angeles: University of California, 1978), Tables 40–4. This work and its author, who converted from Christianity to Islam, are the subject of Joseph Graziani, *Ibn Jazlah's Eleventh Century Tabulated Medical Compendium, Taqwīm al-Abdān* (PhD diss., University of California, 1973); on Ibn Jazlah's life, see 55ff. [6n12]

13. . ᶜ *Arīb Ibn Sa ᶜ īd al-Qurtubī, Kitāb khalq al-janīn wa-tadbīr al-habālā wa'l-mawlūdīn, Le Livre de la Génération du Foetus et le Traitement des Femmes enceintes et des Nouveau-nés,* ed. and annotated by Henri Jahier and Noureddine Abdelkader (Alger: Librairie Ferraris, 1956). On al-Baladī's writings, see Réné Dagorn, "Al-Baladi: Un médecin obstetricien et pediatre à l'époque des premiers Fatimides," *Mélanges de l'Institut dominicain d'études orientales* 9 (1967): 73–118. [6n13]

14. . Arabic treatises on erotica, significant as they were to the Latin writings of medieval Europe and to the study of sexuality, lie outside the spectrum of this study. For a comparative study on the art of love, see Danielle Jacquart and Claude Thomasset, *Sexuality and Medicine in the Middle Ages*, trans. Matthew Adamson (Cambridge: Polity Press, 1988), 122–38. [6n14]

15. . Amalia Zomeño Rogriguez, *Do te y Matrimonio en al-Andalus y el Norte de África: Estudio sobre la jurisprudencia Islámica medieval* (Madrid: Consejo Superior de Investigaciones Científicas, 2000), 90–4. [6n15]

16. . As an exception to the preoccupation with assuring pregnancy, Musallam has traced to a single early origin (al-Rāzī, d. 925) the instructions, repeated in later sources, for a whole range of herbal remedies that women could use to prevent preg- [6n16]

nancy; see Musallam, *Sex and Society in Islam: Birth Control before the Nineteenth Century* (Cambridge: Cambridge University Press, 1983) 60–88.

[6n17] 17. . Ibn Sīna, *Al-Risāla*, Chapters 84, 85.

[6n18] 18. . Al-Kindī, *The Medical Formulary, or Aqrabadhin of al-Kindī*, trans. with a study of its materia medica by Martin Levey (Madison: University of Wisconsin Press, 1966), 84–5, 188.

[6n19] 19. . Camilo Alvarez de Morales y Ruiz-Matas, *El Libro de la Almohada de Ibn Wâfid de Toledo: Recetario medico Arabe de siglo XI* (Toledo: 1980), 249–59. In his *Kitāb al-wisād*, Ibn Wāfid gave nineteen different prescriptions for increasing the chances of conception by addressing the performance of the distinct parts of the body participating in the act.

[6n20] 20. . Batool Ispahany, trans. *Islamic Medical Wisdom: The ibb al-Ā'imma*, ed. Andrew J. Newman. (London: The Muhammadi Trust, 1991), 171; on chanting invocations as a remedy for difficulty in childbirth, 43, 83, 120.

[6n21] 21. . On the rights of children in the womb, see Noel J. Coulson, *Succession in the Muslim Family* (Cambridge: Cambridge University Press, 1971), 204–10.

[6n22] 22. . See Maria Arcas Campoy, "El testimonio de las mujeres en el derecho maliki," *Homenaje al Prof. Jacinto Bosch Vila*, 2 vols. (Granada: Departamento de Estudios Semitícos, Universidad de Grenada, 1991), 1: 473–79. On the requirement to verify the identity of the woman for whom the notary is drawing up a contract, see Emile Tyan, *Le notariat et le régime de la preuve par écrit dans la pratique du droit musulman*, 2nd ed. (Beyrouth: Hariss Impr. St. Paul, 1959), 56.

[6n23] 23. . Birth control in Islamic law and medicine is treated in Basim Musallam, *Sex and Society in Islam: Birth Control before the Nineteenth Century*. (Cambridge: Cambridge University Press, 1983). The following discussion of this subject uses his findings. On the legal provisions for birth control, see 28–38.

[6n24] 24. . While pioneering in its comprehensiveness, Musallam was not the first to draw attention to the law's positive view of birth control. G. H. Bousquet suggested in 1950 that voluntary limitation to reproduction goes hand in hand with Islamic theology and law and that it should become the official ideology of reproduction in Islamic societies; see G. H. Bousquet, "L'Islam et la limitation volontaire des naissances," *Population* 5: 1 (1950): 121–28. This approach of using the law as a tool for legitimation for planned parenthood has now been adopted by Muslim scientists; see Abdel Rahim Omran, *Family Planning in the Legacy of Islam* (Routledge, 1992).

[6n25] 25. . Maryann Shenoda, "Regulating Sex: A Brief Survey of Medieval Copto-Arabic Canons," *Across the Religious Divide. Women, Property, and Law in the Wider Mediterranean (ca. 1300–1800)*, ed. J. G. Sperling and S. K. Wray (Routledge, 2010), 33. On its absence in Jewish gynecological texts, see Ron Barkai, *A History of Jewish Gynaecological Texts in the Middle* Ages (Leiden: E. J. Brill, 1998).

[6n26] 26. . As an exception to the preoccupation with assuring pregnancy, Musallam has traced to a single early origin (al-Rāzī, d. 925) the instructions, repeated in later sources, for a whole range of herbal remedies that women could use to prevent pregnancy; see Musallam, *Sex and Society*, 60–88. Instructions for men regarding the prevention of pregnancy are less frequent.

[6n27] 27. . Al-Kindī, *The Medical Formulary*, 84–5, item 66.

[6n28] 28. . Ibn Sīna, *Al-Risāla*, Chapters 84, 85.

[6n29] 29. . ᶜArīb b. Saʿīd, who was not a physician but a court employee, provides a wider discussion than is found in previous sources of both the theory and the practice of achieving conception; see ᶜArīb b. Saʿīd al-Qurtūbī ᶜArīb, "On the Uterus, Its Aspects, the Diseases that Prevent Pregnancies, How to Find Out if a Woman Can Conceive," in *Kitāb khalq al-janīn*, 26–7.

[6n30] 30. . Al-Zahrāwī, *Kitāb al-Tasrīf*, 110–11.

[6n31] 31. . Al-Kindī, *The Medical Formulary*, 88–9, item 71; 190–91, item 187.

[6n32] 32. . Ibn Sīna, *Poème de la médecine*, 69–72.

[6n33] 33. . Ibn Sīna, *Al-Risāla*, 95–6.

[6n34] 34. . ᶜArīb b. Saʿīd, "On the Uterus."

35. . See the discussion in Avner Gil'adi, *Infants, Parents and Wet Nurses: Medieval Islamic Views on Breastfeeding and their Social Implications* (Leiden: E. J. Brill, 1999), 13–22. [6n35]

36. . Gil'adi, *Infants*, 13–41, 68–106. See Judith E. Tucker, "Review of Gil'adi's *Infants*," *Journal of the Economic and Social History of the Orient* 34.1 (2002): 162–65; Mohammed Hocine Benkheira, "Donner le sein, c'est comme donner le jour: La doctrine de l'allaitement dans le sunnisme médiéval," *Studia Islamica* 92 (2001): 5–52; and Mohammed Hocine Benkheira, "Le commerce conjugale gate-t-il le lait maternel? Sexualité, médecine et droit dans le sunnisme ancien," *Arabica* 30.1 (2003): 1–78. [6n36]

37. . On breastfeeding as a labor contract respecting women's wage labor, see *Her Day in Court*, Chapter 7. [6n37]

38. . Recently there has been a growing interest in the institution of the *adāna*, though none of the authors looked at it as a property right issue. See Mahdi Zahraa and Normi A. Malek, "The Concept of Custody in Islamic Law," *Arab Law Quarterly* 13. 2 (1998), 155–77. R. el-Hour, "Algunas reflexiones acerca de la custodia en la escuela mālikí," *Miscelánea de estudios árabes y hebraicos* 53 (2004): 143–53. [6n38]

39. . The minute details provided in the Islamic pediatric manuals have allowed Gila'di to identify differences in the treatment given to male and female youngsters, treatments that favoured a male child over a female; see Avner Gil'adi, "Gender Differences in Child Rearing and Education: Some Preliminary Observations with Reference to Medieval Muslim Thought," *Al-Qantara* 16 (1995): 291–308. See also Avner Gil'adi, "saghīr," in *EI2*. [6n39]

40. . Al-Rāzī, "Liber Ad Almansorem: Chapters on Prenatal Care and Management of the Newborn: The First Treatise on Pediatrics," trans. with commentary by Samual X. Radbill, MD, in *American Journal of Diseases of Children* 122.5 (1971): 369–76. If indeed an independent treatise, this publication's twenty-four chapters of al-Rāzī's pediatrics manual represent another monograph of its genre in Arabic. [6n40]

41. . Ibn Sīna, *Poème de la médecine*, 72–3. [6n41]

42. . Ibn al-Jazzār al-Qayrawānī (d. a.h. 369/a.d. 980), *Kitāb siyāsat al-ibyān watadbīrihim*, ed. Muammad al-abib al-Hīla (Beirut: 1984), 57. [6n42]

43. . Gerrit Bos, "Ibn al-Jazzār on Medicine for the Poor and Destitute," *Journal of the American Oriental Society* 118.3 (1998): 370. [6n43]

44. . On the Roman gynecological tools, see Ralph Jackson, *Doctors and Diseases in the Roman Empire* (Norman, OK: University of Oklahoma Press, 1988), 92–3; and Lawrence J. Bliquez, "Gynecology in Pompeii," in *Ancient Medicine in Its Socio-Cultural Context: Papers Read at the Congress Held at Leiden University, 13–15 April 1992*, ed. Ph. J. van der Eijk, H. F. J. Horstmanshoff, and P. H. Schrijvers, 2 vols (Amsterdam: Rodopi, 1995), 1: 209–23. On the innovative nature of al-Zahrāwī's instruments, see his *Kitāb al-Tasrīf*, trans. Spink and Lewis, *Albucasis*, ix. [6n44]

45. . There are studies of Caesarean section that treat Greek and European medical sources, but there is little information about the practice in Islam. See T. W. Arnold, "The Caesarian Section in an Arabic Manuscript Dated 707 A.D.," in *A Volume of Oriental Studies Presented to E .G. Browne*, ed. T. W. Arnold and R. A. Nicholson, (Cambridge: Cambridge University Press, 1922), 6–8. Arnold concludes that the manuscript was drawn by a Christian, probably a Byzantine artist. [6n45]

46. . Michael W. Dols, *Majnūn: The Madman in Medieval Islamic Society*, ed. Diana E. Immisch (Oxford: Clarendon Press, 1992), 438. Dols, much like the other scholars quoted here, did not thoroughly investigate the issue. [6n46]

47. . Réné Dagorn, "Al-Baladi," 85. [6n47]

48. . Musallam, *Sex and Society*, 12. [6n48]

49. . Gil'adi, *Infants*, 41–68; Avner Gil'adi, *Children of Islam: Concepts of Childhood in Medieval Muslim Society* (New York: St. Martin's Press, 1992). [6n49]