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CHAPTER 11 Medical Anthropology in the Middle East and North Africa

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INTRODUCTION

Over the past 50 years, anthropologists working in the Middle East and North Africa (MENA) region have produced a rich corpus of work, including approximately 470 book-length ethnographies, which span from Morocco to Afghanistan and cover a wide range of anthropological topics. Among this significant body of work are 46 books—or nearly 10% of the total corpus—which focus on medical anthropological themes. Topics of interest have ranged widely, from mental illness, drug addiction, and spirit possession (Christensen 2011; Kennedy 1987; Rausch 2001; Rothenberg 2004; Weir 1985; Winkler 2009), to the rapid development of high-tech biomedicine across the region (Good 1993; Lefèvre 2007), including whole industries devoted to assisted reproduction, genetic testing, and organ transplantation (Handy 2012; Inhorn 2003a, 2003b, 2012b; Kahan 2002; Jacob 2012; Raz 2005; Sana 2011; see Inhorn 2014 for a complete list of medical ethnographies).

MENA region medical anthropology is now a vibrant field, which has developed space with the cultural anthropology of the region as a whole. Indeed, most medical anthropologists self-identify as cultural anthropologists, with theoretical and methodological training in the ethnographic tradition. Yet, medical anthropology spans beyond cultural anthropology to encompass numerous interdisciplinary intersections with fields such as global health, science and technology studies, medical history, disability studies, public policy, and the like (Inhorn and Wenzel 2012). Some would argue that medical anthropology has grown into anthropology’s “fifth field,” due to the level...
number of medical anthropological scholars and practitioners. For example, the Society for Medical Anthropology (SMA) of the American Anthropological Association (AAA) now boasts of more than 1,500 members. Furthermore, the European Association for Social Anthropology (EASA) recently welcomed more than 600 medical anthropologists to its first international medical anthropology conference held in 2012 in Tarragona, Spain.

Within the MENA region, numerous medical anthropologists belong to the Reproductive Health Working Group (RHWG) of the Arab World and Turkey: Encircling 14 MENA countries and based in the American University of Beirut’s Faculty of Health Sciences, RHWG is a 25-year-old multidisciplinary network of mostly women scholars, who come from a range of disciplines and work to “disseminate evidence to help to improve health and the operation of health services and systems in the region, focusing largely on reproductive health” (Giacaman et al. 2014). Indeed, as will be seen in this chapter, reproductive health and reproduction more generally constitute a major “prestige zone” (Alu-Lagho 1989) within MENA region medical anthropology. More research has been devoted to the anthropology of reproduction—and particularly in the six disparate MENA nations of Egypt, Israel, Lebanon, Morocco, Palestine, and Sudan—than any other single topic. This is clearly a boon to the anthropological gender and to the understanding of women’s (and, less so, men’s) lives in the region (Inhorn 2012b, 2014). However, it also means that many other salient MENA region health issues are being ignored.

One of the major reasons why the MENA region is ripe for medical anthropological analysis is because of the host of serious public health issues currently facing the region (Moran et al. 2011). These include, inter alia, both old and “new” infectious diseases, including a hepatitis C epidemic in Egypt that is necessitating a new industry of liver transplantation (Pybus et al. 2003); high rates of tobacco consumption and smoking related illnesses, especially among men (Mazik et al. 2004); interrelated regional epidemics of so-called “lifestyle diseases,” including overweight/obesity, diabetes, hypertension, stroke, cardiac disease, and cancer (Morligh et al. 2009); toxic metal pollution, including lead poisoning of children in the region’s major cities (Inhorn et al. 2008); a silent epidemic of HIV/AIDS in some MENA countries, related to issues of IV drug use, unsafe sex, migration, and men’s imprisonment (Griffin and Khoshnood 2010); and war and political violence across the region, which has escalated in the new millennium and which has led to millions of excess deaths, internal displacement and refugeeism, and a medical humanitarian crisis in many MENA countries (Athan 2013; Jabbar 2014; Mowafi 2011). These are just a few of the serious health problems facing the region, none of them sufficiently addressed by medical anthropological scholars.

In the face of these serious health threats, the MENA region has rapidly developed a medical infrastructure, which in some urban areas offers highly sophisticated, tertiary-level biomedical care. Biomedicine (short for “biologically based medicine”) is a European colonial import, which has nonetheless spread rapidly across the MENA region. Countries such as Egypt and Saudi Arabia host scores of medical schools, which produce thousands of medical graduates each year (Inhorn 2003b). Biomedicine is now firmly entrenched in every MENA nation, and some MENA region biomedical sectors, such as the in vitro fertilization (IVF) industry, are among the strongest in the world (Inhorn 2015). Yet, alongside MENA region biomedicine exists a robust tradition of ethnomedicine, dating back more than 3,000 years to the pharaonic period. Indeed, the MENA region boasts of some of the oldest known medical systems in the world, not only pharaionic medicine, but also Greek Tanani (i.e., humoral) medicine and so-called prophetic medicine, which is based in the Islamic scriptures (Inhorn 1994, 2006a). Many contemporary practices of ethnomedicine found widely across the region—including such methods as canyery and cupping, herbal remedies, and healing amulets—date back to these earlier systems of medicine, which were dominant in the MENA region before the period of nineteenth-century British and French colonialism.

**Competing Medical Systems**

Indeed, the comparison between ethnomedicine and biomedicine as purportedly “competing” medical systems provided an early point of departure for medical anthropological work in the MENA region. Medical anthropology in the MENA region developed in a context where discourses of underdevelopment dominated discussions of the provision and acceptance of, or resistance to, biomedicine in local contexts. As such, it is perhaps not surprising that much of the early medical anthropological work focused on local explanatory models and illness narratives designed to bridge gaps in biomedical and ethnomedical epistemologies (cf. Good et al. 1994; Good and Good 1981, 1982; Kleinman, Eisenberg, and Good 1978). Foundational work included work on ethnopsychiatric phenomena (Bazzouli 1971; Boddy 1988; Czarzynski 1981; El-Islam 1975, 1982; El-Islam et al. 1988; Wazir 1973), and idiomatic expressions of physical and emotional distress, including “fright illnesses” and the somatization of stress (Good and Good 1983; Piskin 1987).

These early studies demonstrated a clear commitment to a meaning-centered approach geared toward understanding the “local moral worlds” (Kleinman and Kleinman 1991:277) of research participants. Still, critiques soon emerged from within the field regarding the epistemological asymmetry of organizing studies around the opposition between health “beliefs” of informants and biomedical “facts” more familiar to researchers and Western readers (Good and Good 1981). Good and Good (1982) argued for a meaning-centered approach to illness that did not seek to reconcile ethno-medical and biomedical categories, but instead emphasized local cultural values, meanings, and norms. Mary-Jo Del Vecchio Good’s (1990) canonical work on the relationship between “popular Islamic physiologies” and Iranian women’s models of fertility and reproduction anticipated the rise of the anthropology of reproduction in the MENA region, which would initially focus on “popular” and “folk” conceptions of the female body and reproduction. Del Vecchio Good’s work emphasized Iranian women’s idiomatic expressions of embodied knowledge, and their syntactic approaches to care-seeking and health maximization. Similarly, Sohier Morsy (1981) observed that medical anthropology’s traditional focus on healing often led researchers to assume a one-to-one relationship between healing practices and expressed medical beliefs without seriously investigating the dynamics of healthcare. These early critiques helped shift the focus of medical anthropology in the MENA region to a recognition of the subjective, meaning-making, and social dimensions of illness and healing (e.g., Boddy 1989; Delaney 1991).

As medical anthropological research in the MENA region continued to expand, researchers such as Good and Del Vecchio Good advanced theories of the somatization of vulnerability and marginalization, particularly among women of lower social and economic status. Studies that followed in this vein embraced multi-causal explanations

Animated by this feminist and post-colonial thrust of research in the region and in anthropology more generally, many earlier studies took up issues connected to women’s marginalization in contravening patriarchal, biomedical, colonial, and religious systems. The two topics to dominate this moment in medical anthropology of the MENA region were female circumcision (Boddy 1989; El Darrar 1982; Graubaum 1996, 2001) and women’s participation in possession rituals and shrine visitation (Bidu 2009; Boddy 1989, 1994; Constantinides 1985; Eckelman 1993; Fernea, Tammes, and Liewey-Davies 1978; Inhorn 1994; Kapchan 1993; Loughnaou 1992; Mernissi 1977). Influential work on female circumcision has focused on social and ontological dimensions of the practice, including sexual initiation and life cycle rites, marriageability, and symbolic representations of the body as open or closed (Boddy 1989; Graubaum 1996, 2001; Lane and Rubinstein 1996; Obermeyer 1999, 2008). Importantly, this work disaggregated the so-called “culturalist” and religious explanations to show the diversity of the practice in historical and colonial contexts (see also Sengers 2003). Furthermore, these researchers cited regional labor migration to Arab Gulf States and exposure to Salafist Islam as significantly altering the nature and prevalence of the practice in migrants’ countries of origin (Graubaum 2001).

Studies of spirit possession and shrine visitation, on the other hand, emphasized the role of Sufism or “popular Islam”—practices and beliefs rooted in orthodox Islam, but also drawing on local cosmologies and spiritual traditions—in diverse settings throughout the MENA region (Bidu 2009; Corell 1998; Diste 2012; Dole 2012; Doumato 2000; Eckelman 1976; Geertz 1971; Gellner 1969; Hoffman 1995). Shrine visitation and spirit possession have been characterized as ways for women to counteract the ill effects of social imbalance, attack by jinn (collective term for spirits capable of causing harm), or barz (dangerous envy; the evil eye) (Amster 2013; Constantinides 1985; Greenwood 1981; Inhorn 1994; Kapchan 1993; MacPhee 2003, 2012). In these cases, women seeking healing must channel, invoke, or come in contact with the barzaka, or spiritual power, of a saint or spirit healer as a form of redress. Healing practices oriented toward spiritual causes may also include prophetic medicine practiced by religious healers at these shrines, and incorporating the use of amulets, prayers, and the wearing or ingestion of inscriptions of Qur’anic verses (Amster 2013; Greenwood 1981; Inhorn 1994; MacPhee 2003, 2012; Spadola 2009).

As phenomena poorly understood by Western academics and their audiences alike, case studies of these female health practices attempted to negotiate the intricate and uneasy relationship between Western academia and feminism with non-Western contexts and practices (Doumato 2000). For example, the overwhelming focus on women’s health, their genital “mutilation” practices, and women’s involvement in spiritual and supernatural healing were justified as an attempt to reveal Middle Eastern women’s patriarchal oppression and their psychological and somatic “disease” (Nichter 1981). However, work by feminists from within and outside the MENA region pushed for a more critical and contextual approach to these topics. As such, the best studies to emerge in this field eschew “the white man’s burden, medicalized” (Morley 1991), rejecting ideologically laden terms such as “female genital mutilation” in favor of more nuanced and accurate linguistic and analytical approaches that accounted for local variation and dissent (Graubaum 2001: 5). At the same time, medical anthropologists in the MENA region began to see women’s practices of spirit possession, shrine visitation, cures, and fertility rites as sharing common features. Women’s eclectic health-promoting behaviors came to be seen as a “counter hegemonic process” (Boddy 1989: 5), which partially redressed women’s marginalization by patriarchal, biomedical, and orthodox religious structures (Inhorn 1994, 1996). Furthermore, scholars showed that women were highly pragmatic and agentive in their health-seeking behavior, often drawing upon whatever ethnomedical and biomedical resources might be available to them in their local social worlds (Inhorn 1994). In this light, studies that investigated so-called “alternative” or “traditional” healing methods were, in fact, recuperative studies—taking women’s medically symbolic health practices seriously, rather than dismissing them as religiously unorthodox forms of quackery, as was often the case when such practices were discovered by colonial authorities, biomedical practitioners, or male clerics (Doumato 2000).

The Anthropology of Reproduction

Crucially, the foundational work in the anthropology of reproduction in the MENA region emphasized the pragmatism and syncretic practices of both healers and individuals seeking care during pregnancy, conception, and in cases of infertility (cf. Al 2002, Bowen 1993, Fadda 2007; Inhorn 1994, 1996; Delaney 1991; Mahfouf et al. 2002; Obermeyer 1994; Obermeyer and Porter 1991; Yavuz, Rowe, and Griffin 2002). A diverse cast of healers, midwives, religious healers, and biomedical practitioners populate these early studies of women’s medical ecticism in the MENA region. Lay midwives (asmat or qaderi), in particular, were privileged in many early studies, not only because of their extensive knowledge of treatments grounded in herbal, religious, and humoral medicine, but also as primary stakeholders in state healthcare reform and service provision taking place in many MENA countries in the 1970s and 1980s (Bowen 1997; Kraif et al. 1992; Khattab and Porter 1992; Lane 1994; Lane and Melis 1991; Morley 1995; Obermeyer 1993; Zarayk et al. 1995). Lay midwives and birth attendants came to be recognized as invaluable resources for women in their communities, particularly for women who did not have access to, or preferred not to use, biomedical obstetric care. In many areas across the region today, midwives continue to serve multifaceted roles as birth attendants, providers of prenatal and postpartum care, and advisors on issues related to fertility, birth control, and married life (Al 2002; Bowen and Early 2002; Bowen 1998; Obermeyer 1993, 1994; Obermeyer and Porter 1991).

Importantly, medical anthropologists have shown that both midwives and their patients draw upon overlapping and complementary systems of idioms and symbols to understand reproduction and the gendered body. Significantly, many of these models
entail an understanding of the body as open to invasion by jinn, the evil eye, humoral imbalance, or microbical infection (Amster 2013; Boddy 1989; Delaney 1991; Greenwood 1981; Ibhorn 1994, 1996; MacPhee 2012; Önder 2007). Effective resolution of reproductive health problems, therefore, should target any and all possible discursive factors.

This synergistic, syncretic approach to understanding reproductive healthcare has thus proven to be a cornerstone of anthropological studies of reproduction in the region. As Ibhorn (1994, 2003b, 2012a) has noted in the case of infertility, patient narratives encompass humoral, social, spiritual, and even political causes for reproductive difficulties. It is not unlikely that these kinds of narratives are to some degree correlated with social background factors, so that women who articulate them tend to come from lower class backgrounds, as Ibhorn (1994, 1996) discovered in her work in Egypt. Yet, as shown by Nicole Hansen (2006), many of the etiological explanations, as well as the ethnoethnological remedies for infertility found today among the lower social classes in Egypt actually date to much earlier historical periods and may have been regarded as elite medical remedies. In a country such as Egypt, with its extensive medical history extending back to pharaonic antiquity, such ethnoethnological origins provide a fascinating area of scholarly inquiry.

In the contemporary period, these “traditional” explanatory models and healing practices may not be viewed as competing with biomedical explanations. Rather, infertility can be seen to be caused by a complex calculus of factors. Thus, individuals and couples seeking treatment for infertility draw upon a diverse set of practitioners as the logical and effective way to deal with adverse health events. Moreover, the flexibility of participants’ explanatory models reflects a diverse epistemological and cosmological perspective that takes into account human, spiritual, and natural agents (cf. Delaney 1991; Greenwood 1981; Önder 2007). From this perspective, then, resort to medically pluralistic care represents an attempt to diagnose, respond to, and correct the potential conflicts and imbalances that affect reproductive health more generally.

Many researchers have also found that education and socio-economic milieu are important factors influencing Middle Eastern women’s (and men’s) access to reproductive healthcare (Ali 2002; Ibhorn 1994, 2003a, 2003b; Joseph 2013; Maffi 2012; Rinker 2013). Studies of women’s reproductive health in rural and resource-poor communities show that both maternal morbidity and mortality are negative health outcomes resulting from financial vulnerability and limited biomedical infrastructure (Bowen 1993; Joseph 2013; Macklouf et al. 2002; Zayek et al. 1996; Zayek 2001). Such studies more generally connect negative health outcomes to social suffering and other forms of distress. However, influential studies have also found that even the most marginalized and vulnerable individuals in the MENA region may exercise a high degree of pragmatism and determination in seeking and obtaining biomedical care, often at great personal and financial expense (cf. Ibhorn 2003a, 2012a; Ibhorn and Van Balen 2002).

Still, it would be a mistake to fall into the trap of romanticizing women’s resistance (Abu-Lughod 1990), or overestimating the resources available to vulnerable and marginalized populations. Increasingly, feminist studies of reproductive health in the MENA region have focused on the many underlying “arenas of constraint” (Ibhorn 2003a), which face women seeking healthcare for their families. In one particularly cogent critique of the interlocking systems of oppression brought about by patriarchal, biomedical, state, and religious authorities, Myntti (1988) identifies the ways that economic and religious power influence health outcomes in an increasingly stratified Yemeni community. While emphasizing the polyvalency and dynamism of medical pluralism, Myntti argues that the commodification of Western biomedical contributes to the stratification of the northern Yemeni village where she conducted her study. According to Myntti, the alama in her study not only represent “an informal fraternity of elite men” (1988: 515), but also promote the consumption of biomedical along with other luxury commodities through conspicuous consumption practices. In this sense, then, hegemonic medical, religious, and patriarchal structures directly influence an entire community’s healthcare-seeking practices and attitudes.

An important body of scholarship has taken up these issues of hegemony and commodification, bringing to light the social, economic, and power dimensions of women’s access to reproductive healthcare (Ibhorn 1996; Ibhorn and Van Balen 2002; Lane, Madura Jok, and El Moosly 1998; Morsy 1999b; Macklouf et al. 2002; Obreny 1993; Obreny and Potter 1991). Importantly, these studies advance a critique of the structural violence implicit in neoliberal healthcare reforms, which have proliferated throughout the region since the end of the twentieth century. Importantly, the privatization of biomedical facilities in many MENA countries, in addition to the deferment of treatment costs to patients, has contributed to the inability of middle and lower-income patients to access reproductive healthcare. For example, among Egyptian women seeking IVF to overcome their infertility, numerous arenas of constraint—social, structural, ideological, and practical—limit and sometimes curtail access to IVF, which is primarily provided in the private medical sector. Such lack of access is especially true among lower-class infertile women, who must rely on Egypt’s few state-subsidized IVF clinics, where care is more affordable. Yet, as shown by Ibhorn (2003a), even elite Egyptian couples may face numerous arenas of constraint in their efforts to create a “baby of the tubes.”

With the increasing medicalization of reproductive healthcare in the MENA region, the state has been able to exert greater control over the availability, legality, and standardization of certain procedures and services, particularly pertaining to contraception, abortion, and assisted reproduction. The ratification of the consensus that emerged from the 1994 International Conference on Population and Development (ICPD), which was held in Cairo, was crucial in solidifying concerns of Islamic states regarding abortion, birth control, and assisted reproduction (Ali 2002; Bowen 1997). This document continues to serve as a touchstone for lawmakers in Muslim-majority countries in the MENA region, and has been used to justify or prohibit the availability of certain reproductive and sexual health services throughout the region. The transnational nature of the ICPD has allowed for negotiation and dissent on an international stage, while enabling the solidification of international standards and “best practices” regarding family planning.

The Biotechnological Turn: Infertility and Assisted Reproduction

Importantly, the ICPD was one of the first instances where the “right” to reproduction and the ability to start a family was articulated (Ibhorn 2009b). This framing of reproductive “rights” has had particular significance for the management of infertility in the region, where local moral, religious, and nationalist discourses justify the right to
infertility treatment (Clarke 2009; Goudsin 2008, 2011, 2013; Inhorn 2009c; Shalev and Goudsin 2006). Medical anthropological studies of infertility and its treatment have thus blossomed in the post-ICPD era, with many studies focusing specifically on the subjectivities of infertile couples living in pronatalist MENA societies (Goudsin 2018; Inhorn 1994, 2004, 2012; Inhorn and Birenbaum-Carmeli 2008; Hashiloni-Dolev 2006a; Hashiloni-Dolev and Raz 2010; Kahn 2000; Kananeth 2002; Teman 2010; Yuval-Davis 1997). These studies of infertility in the MENA region have highlighted the ways in which childlessness leads to new subjectivities and socialities. These include the conjugal bonds that childless husbands and wives may form with one another (Inhorn 1996, 2012), as well as the negative social consequences affecting infertile individuals’ relationships with their families and communities (Inhorn 1996, 2003a, 2012b).

Given the high prevalence of infertility—and particularly male infertility—across the MENA region (Inhorn 2009a, 2012b), assisted reproductive technologies (ARTs), including IVF, are in significant demand, despite the high costs associated with ART services (see especially Clarke 2009; Inhorn 2005b, 2007, 2009c, 2012b; Nachtragel 2006; Serour 2008). Today, every single MENA nation has at least one IVF clinic, and most countries now have many (Inhorn 2018). For example, Turkey—the only MENA country other than Israel to offer state-subsidized IVF cycles to all of its citizens—leads the way with more than 110 IVF clinics (Girgin 2013). Neighboring Iran has more than 70 IVF clinics, and is the only Muslim country in the world to officially promote the use of donor technologies (i.e., egg, sperm, and embryo donation), as well as surrogacy (Abbaszadeghvar et al. 2008; Inhorn and Tremayne 2012). Indeed, many MENA states rely on religious bioethical edicts to determine the permissibility of ARTS, meaning that individuals seeking ARTS are placed in a complex relationship with representatives of the state, religion, and biomedical institutions (Clarke 2009; Inhorn 2012b; Inhorn and Tremayne 2012). In the Muslim-majority countries, access to the full array of ARTS is determined by a Sunni-versus-Shia dividing line. Namely, Shia Muslims in Iran and Lebanon are permitted by religious authorities (and, in the case of Iran, the state) to access third-party reproductive assistance, including donor gametes and surrogacy (Tremayne 2009, 2012). However, across the Sunni Muslim world, from Morocco through the Arab Gulf, third-party reproductive assistance is strictly prohibited, usually by fatwā, or authoritative religious opinions, but sometimes also by law (Inhorn 2006a, 2015).

These religious and legal bans are playing out in interesting ways, particularly in the movements of infertile couples across national borders in search of assisted reproductive technologies. Shia-dominated Iran and Lebanon are becoming the emerging hubs of the so-called “reproductive tourism,” receiving hundreds of infertile Sunni Muslim and Middle Eastern Christian couples who are searching for donor gametes, and to a lesser extent, gestational surrogates (Inhorn 2012b). Similarly, Sunni Muslim couples in Turkey are heading to neighboring Cyprus to access donor gametes—a form of reproductive tourism that has been officially outlawed by the Turkish state, even though this restrictive law is impossible to enforce (Girgin 2010, 2011, 2012, 2018).

Another interesting case is the United Arab Emirates (UAE), which has been successful in enacting one of the most stringent ART laws in the world. Called Federal Law No. 11, this UAE legislation prevents all forms of third-party reproductive assistance from being performed in IVF clinics within the country. This law applies not only to Muslim Emiratis, but also to the many non-Muslim reproductive travelers who are being lured to Dubai as an emerging regional medical tourism hub (Inhorn 2015; on regional medical travel, see also Kangas 2002, 2007, 2010a, 2010b, 2011). Inhorn (2015) has explored the new transnational phenomenon of reproductive tourism to the UAE, showing that infertile couples from many parts of the Middle East, Africa, Asia, and Europe are flocking there in their quests for conception. Dubai—the Middle East’s most self-consciously global city—has managed to fashion itself as a regional “techno-hub,” now hosting the Middle East’s only “medi-city” (i.e., Dubai Health Care City, or DHCC), with more than 100 medical facilities and more than 3,000 clinicians. Through the development of a unique brand of “medical cosmopolitanism”—namely, clinical care delivered across national, ethnic, religious, linguistic, and cultural boundaries by staff from many countries catering to an international clientele—the UAE has become an alluring destination for reproductive “exiles,” or infertile couples forced to flee from places where IVF services are either absent or otherwise of poor quality and inaccessible. The sheer variety of reasons motivating reproductive travel to the UAE, and the many areas of constraint travelers face along the way, belies the accuracy of the term “reproductive tourism,” especially when the UAE’s own restrictive gamete donation and surrogacy law forces some reproductive travelers to leave the country in their search for these reproductive services.

Such reproductive tourism—especially when undertaken for the purposes of gamete donation and surrogacy—emphasizes the role of the state and religion in attempting to regulate ARTS, with varying levels of enforcement, but with real consequences for both IVF patients and practitioners. Interestingly, within the MENA region, one of the most salient examples of the convergence of ART law and religion is found in the state of Israel, which is the world’s largest supplier of ARTS per capita (Birenbaum-Carmeli and Carmeli 2018; Kahn 2000). Today, Israeli women are the world’s heaviest consumers of ARTS, with nearly 4% of all Israeli babies born annually as a result of IVF and related technologies. For this reason, Israel has been dubbed the “world capital of IVF” (Kraft 2011). Israel might also be considered the “anthropological capital” of ART research, as at least 15 medical anthropologists focus on Israeli uses of ARTS, surrogacy, and related eugenics technologies (Birenbaum-Carmeli 2004, 2007; Canyon 2006; Dobriner 2012a, 2012b; Goldberg 2009; Haybron 2006; Haskel 2010; Ivy 2010a, 2010b; Kahn 2000, 2002, 2006, 2010; Kananeth 2002; Nahman 2006, 2011, 2013; Prinsnaak 2006, 2007; Serour 2010, Shalev and Goudsin 2006; Veresan 2010; and Weisberg 2008).

According to Birenbaum-Carmeli, who is one of Israeli’s leading ART scholars, the success of the Israeli IVF industry is attributable to three major forces. The first is Israeli pronatalism (cf. Birenbaum-Carmeli and Carmeli 2010; Kahn 2000; Kananeth 2002). In the context of the biblical command to “be fruitful and multiply,” as well as the holocaust trauma and the Israeli nation-building project, the right to parenthood has been defined in Israel as part of the “basic law” of human dignity and liberty (Hashiloni-Dolev 2006a; Goudsin 2011; Kahn 2000; Kananeth 2002; Shalev and Goudsin 2006; Yuval-Davis 1997). Religious authorities, too, have supported these policies, as ARTS have facilitated family formation, including within traditional ultraorthodox communities (Dobriner 2012a, 2012b; Kahn 2002, 2006; Ivy 2010b). The second factor is state subsidization. Universal, publicly funded ARTS are offered to women of all marital statuses, sexual orientations, ethnic backgrounds (including Israeli Arabs), and financial, medical, or psychological situations, until the age of 45 or until the birth of two children with a present partner. When donor eggs are used, the women’s age limit rises to 44
RELIGION AND BIOETHICS

While MENA states differ in their interpretation of the permissibility of these practices, the emergence of these new reproductive technologies points to the ways in which physicians, religious authorities, and lawmakers must negotiate the fast-paced changes in the biotechnological realm. While states have the authority to declare a procedure or technology legal or illegal, citizens, physicians, and religious officials play a crucial role in lobbying for the permissibility of emerging biotechnologies and medical procedures.

Sherine Hamdawy’s (2012) study of the controversy surrounding organ transplantation in Egypt showcases the diversity of opinions regarding the practice, and the emotionally charged nature of the debate. Egyptian muftis and ulama have constituted a central role in many patients’ care-seeking itineraries. Patients and their families have sought fatwas to justify their recourse to organ transplantation, in the same way that infertile couples have sought fatwas for controversial ARTs, including sperm and egg donation (Clarke 2009; Ithorn 2011, 2012). The consensus among religious authorities regarding the permissibility of certain medical practices can thus provide pressure and justifications for the legalization of these treatments.

Religious exegetical work influences state regulation of medical treatments in large part due to the interconnection of religion with the state. In many countries throughout the MENA region, national governments embrace religious institutions (Sunni, Shia, or Jewish) as integral elements of the state legal apparatus (Fischer 2008). State bioethical regulatory committees, in large part, draw on religious jurisprudential and bioethical scholarship when deciding the permissibility or impermissibility of certain medical and bodily practices. This is not, however, to imply a one-to-one relationship between religious and state opinions. On the contrary, in both Muslim and Jewish contexts, varying interpretations of religious texts and traditions flourish, contributing to what Baber Johannsen (1999) calls "the legitimacy of dissent" (Johannsen 1999: 37 quoted in Sing 2008: 114) in these exegetical traditions. Thus, religious and legal norms production is based on a dynamic process of debate, dissent, and legitimation (Brockopp and Ithch 2008; Davis 1994; Ithch 2008; Sing 2008; Zohar 1997).

Contrary to reductionist critics who posit religion—and especially Islam—as an "irrational break on scientific advances" (Brockopp 2008: 10), religious bioethical debates throughout the MENA region rely on sophisticated knowledge of current biomedical advances. Bioethical scholarship must therefore balance the primacy of religious textual interpretation (to be found, in the Muslim context, in the Qur’an and hadith, or sayings of the Prophet) with the proliferation of biotechnological practices. As a result, much religious bioethical debate in the region has focused on emerging technologies, including organ transplantation, euthanasia, new forms of abortion, and end-of-life care (Krawitz 2003; Bowen 2003; Brockopp 2003; Brockopp 2003a; Clarfield et al. 2003; Patel, Arozullah, and Moosa 2011; Zohar 2006). Based on this topical focus, it is clear that bioethical committees are centrally concerned with the role of biotechnology in reconfiguring the "shifting borders of life" (Krawitz 2003: 194) and their meanings. In Jewish, Christian, and Muslim contexts in the MENA region, bioethical discourse relies on sacred texts, which in turn draw upon Galenic, Hippocratic, and Aristotelian models of health, healing, and the human body (cf. Brockopp and Ithch 2008; Mitchell n.d.; Pellegrino and Faden 1999; Rosner, Birich, and Brayer 2000).

Thus, much bioethical and jurisprudential scholarship in the region shares its lineage with the systems that predated "modern" biomedicine in the region. The basis of bioethics in classical medical traditions is of particular importance in both Jewish and Islamic debates surrounding contraception, abortion, fetal reduction, and stem cell research. Specifically, religious gestational models—based in Aristotelian and Hippocratic traditions—form the foundation of Islamic bioethical debate. This is in large part because the personhood of the fetus is of central concern when determining the permissibility or impermissibility of the practices involving fetuses and embryonic material (Bowen 2003; Brockopp 2003; Hashiloni-Dolev 2006a; Hashiloni-Dolev 2007; Mousalam 1983; Zohar 2001). According to some religious jurists in the region, once "enrollment"—or the animation of the fetus by divine and human spirit—takes place, the fetus enters the community of believers and is endowed with certain human rights (cf. Bowen 2003; Katz 2003). However, as Hashiloni-Dolev has pointed out, not all religious or personal interpretations of this process accord the fetus full personhood before birth (Hashiloni-Dolev 2007). Moreover, in cases of fetal abnormalities or congenital birth defects, interested parties may strategically engage with rhetorics of harm, benefit, and quality of life to justify reduction in contexts where it might otherwise be prohibited (Al Aqeel 2007; Amanesh 2007; Brockopp 2003a, 2003b; Hashiloni-Dolev 2006a, 2006b, 2007; Hashiloni-Dolev and Raz 2010; Ithorn 2015; Kahn 2000; Zohar 2006).

In addition to regulating the permissibility of biotechnological practices, religious bioethical committees also debate the nature of kinship and relatedness. Concepts of blood and milk kinship are particularly important when deciding the permissibility of adoption, fosterage, surogacy, and gamete donation. These concepts of relatedness not only circumscribe potential marriage options for offspring, but can also greatly influence the life prospects of children born from such arrangements. As Kahn (2000) has shown in the case of Israel, children who are considered "illegitimate" because their parents are unknown may be labeled "marranos" and thus be unable to marry fellow Jews. Similarly, Jamila Burgach's (2002) powerful ethnography of child abandonment
and secret adoption in Morocco reveals the impact of Islamic proscriptions against legal adoption for both children and parents. In both Jewish and Muslim contexts, the centrality of descent in determining kinship and marriageability severely limits the ability of childless couples to adopt abandoned or orphaned children or to receive gamete donations (see also Clarke 2009; Inhorn 2003b, 2006a, 2006b, 2012b; Teman 2010).

**FUTURE DIRECTIONS**

While religious and bioethical frameworks have illustrated the important ideological considerations and constraints influencing women’s and men’s experiences of their sexual and reproductive lives, it is arguable that much medical anthropological scholarship in the region has tended to privilege religious explanations for individual practices to the detriment of other critical and theoretical approaches. This focus on Islam as an explanatory framework has limited the extent to which medical anthropological work in the MENA region has been in conversation with medical anthropological theory, including new critical global health studies, more broadly (Biehl and Petryna 2013; Farver et al. 2013; Good et al. 2010; Inhorn and Wentz 2012; Lock and Nguyen 2010). This is not, however, to suggest that anthropological work rooted in the region of the Muslim Middle East is incompatible with other anthropological work on sexuality, reproduction, and the body. On the contrary, the changing political landscape of many countries in the region in the wake of the Arab Spring provides scholars with a unique opportunity to interpret and interrogate sovereignty, the state, and biopolitics, particularly as everyday actors in the MENA region may embody these concepts.

Medical anthropologists working in the MENA region are uniquely poised to contribute to the rich field of inquiry surrounding the role of the state and humanitarian intervention in subject formation (cf. Briggs and Martini Briggs 2004; Fassin 2008, 2011; Foucault 1977; Foucault et al. 1991; Gabiam 2012). The changing face of the state and increased importance of supranational and humanitarian governance calls for a more critical engagement with how these macro-structures influence the intimate and embodied lives of individuals throughout the region. Importantly, individuals have begun to articulate demands and rights in new ways, appealing not only to the state and more conventional forms of sovereign power, but also positioning themselves as worthy recipients of humanitarian assistance. In this light, the work of Vinh-Kim Nguyen (2010), Didier Fassin (2008, 2011), and Paul Farmer (2001, 2004) and his colleagues (Farmer, Seney, and Radner 2010; Farmer et al. 2013) may prove particularly instructive for research inquiries into these topics, particularly as they relate to the delivery of medical services. Indeed, civil unrest and violence throughout the MENA region has contributed to growing refugee populations, which pose unique problems for governance and service delivery. These trends have suggestive implications for explorations of medical humanitarians, self-making, and bare life (Agamben 1995), grounded in nuanced ethno-graphic work. Particularly innovative work in this area would respond to Morpurgo’s (1981) early call for a political-economy of health approach in the MENA region, by drawing on materialist and class-based analyses for understanding the intimate effects of and embodied practices imbricated with these transnational processes (cf. Murphey 2012).

Still, the impressive body of MENA region medical anthropological research described in the preceding text—much of it concerned with reproduction, religion, and bioethics—has proven to be a promising springboard from which a number of
been missing from anthropological discussions of reproduction. Two notable exceptions are Pardis Mahdavi’s unique books, *Passionate Uprising* (2008), on youth sexuality in Iran, as well as her most recent, *Girlslink* (2011), on trafficking and prostitution in the UAE.

In general, MENA anthropologists are far behind in their scholarship on sexuality. This is especially egregious in the era of HIV/AIDS. Although countries such as Iran and Afghanistan are in the midst of their own HIV epidemics, much of it drug-related (Griffith and Khoshnood 2010; Razzaghi et al. 2006; Rahbar et al. 2004), there is not a single ethnography on HIV/AIDS or its impact across the MENA region. As HIV/AIDS continues to represent a global crisis, human-rights-based approaches to demanding diagnostic and treatment access will likely become increasingly prominent in the MENA region, despite the high degree of stigma associated with the condition in the region (El Feki 2013). Related work has emphasized the role of structural violence in influencing individuals’ vulnerability to the disease (Lane et al. 2004; Obermeyer and Osborn 2007).

Ethnographic work on HIV/AIDS, as well as emergency contraception and abortion, would have important implications for the study of sexual and reproductive health, especially in conflict settings across the region. Emergency contraception, abortion, and the spread of sexually transmitted infections, including HIV/AIDS, become increasingly important in these contexts, where the prevalence of sexual assault during armed conflicts begs further investigation. In the face of the continued Israeli-Palestinian conflict, US-led wars in Afghanistan and Iraq, the civil war in Syria, and the proliferation of political violence in the aftermath of the 2011 revolutions, medical anthropology in the MENA region will be forced to contend with the impact of violent conflict on physical, mental, reproductive, and sexual health, as well as death and dying (Kressel et al. 2013). In this light, the nascent body of ethnographic work on medical humanitarianism in the MENA region will be of increasing importance (Anshah 2013; Fassin 2008, 2011; Ghabham 2012; Gottlieb, Flc., and Davidovitch 2012; Willen 2011). Furthermore, Inhorn (2012b) has been taking a closer look at the impact of war on men’s reproductive health. In Lebanon, for example, the long-term civil war greatly impacted reproductive health, decreasing the fertility of both men and women. Similarly, in a study focusing on Arab Muslim immigrants to the United States, many of whom are resettled refugees from Middle Eastern war zones, Inhorn (forthcoming) shows that war and torture can lead to significant post-war reproductive health impairments. Yet, Arab refugees who live in poverty in resettlement communities often lack access to even the most basic reproductive healthcare services. This is true of the nearly 80,000 Iraqis, mostly Shia Muslims, who were resettled in the United States following the First Gulf War, and the 85,000 Iraqi nationals who have reportedly come to the United States as refugees from the US-led war in Iraq (in the period 2007–2013). Such reproductive health disparities and problems of access to affordable reproductive healthcare are likely to continue, as thousands of Syrian refugees with severe physical, mental, and reproductive health problems begin to enter the United States in the second decade of the new millennium.

In addition to current, acute issues of war and health, the MENA region faces many other public health challenges, including epidemics of smoking, obesity, chronic diseases, cancer, pollution, and deadly radioactive substances and chemical weapons, which are among the unfortunate legacies of war (Inhorn 2008; Inhorn and Kobeissi 2006). Mental health issues, including post-traumatic stress disorder, are also emerging under situations of chronic violence and stress. Yet, with a few notable exceptions (Dabagh 2005; Mostafa 2008; Trainer 2010, 2012), medical anthropologists have yet to tackle any of these subjects.

In short, the opportunities for medical anthropology research in the MENA region seem boundless. As shown in this chapter, a significant body of wonderful scholarship on healing, reproduction, biotechnologies, and biotech has led to a growing number of medical ethnographies, comprising one-tenth of the entire anthropological corpus. Yet, as we have also attempted to show, new medical problems and potentialities are constantly emerging across the MENA region. As a result, the only conclusion to be reached is that there is much more medical anthropological research to be done, in a region rich with hope, but also rife with human suffering.

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**Glossary of Acronyms**

AAA American Anthropological Association
AIDS Acquired immune deficiency syndrome
ARTS Assisted reproductive technologies
EASA European Association for Social Anthropology
HAV Human immunodeficiency virus
ICPD International Conference on Population and Development
IVF In vitro fertilization
MENA Middle East and North Africa
RHVG Reproductive Health Working Group
SMA Society for Medical Anthropology
UAE United Arab Emirates

**References**


CHAPTER 12
From Rural Development to Environmental Anthropology

Nicholas S. Hopkins

The Middle Eastern countryside has undergone many changes from the high colonial period to the present as different governments have tried to promote agricultural growth. This chapter examines some of those changes from the point of view of rural development and environmental adaptation, and our time frame is from the 1970s onward.

However, first let us specify the meaning of our terms. “Rural” can have a variety of referents. Of course, it contrasts with “urban,” city-based, although the dividing line is very fluid. Rural and urban do not figure as two independent domains living side by side, but are intimately interconnected and interrelated. The focus of “rural” is on food production systems that require the space and resources found outside the cities. “Rural development” refers to the deliberate policy of leaders and governments, overwhelmingly urban-based, to enhance production and improve living circumstances in the rural areas. It is more than just a policy of growth aimed at replenishing government budgets, but implies growth with benefits for the rural population. It involves, in principle, not just economic growth but better distribution so that poverty would be reduced, health would be improved, and education generalized. However, alongside the deliberate government policy, there is always the action of individuals and groups (Hopkins and Westergaard 1998).

Furthermore, any population relates to its environment, drawing on its resources, and utilizing its space. Anthropology deals with this under the heading of ecological adaptation. Development leads to positive or negative changes in this adaptation, and this can feed back to the environment itself. Development may upset the balance of...