Male Infertility, Masculinity, and New Reproductive Technologies in the Arab World

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Introduction

What is the relationship between male infertility and masculinity among Arab men, particularly as new reproductive technologies become increasingly available to populations in the Arab world? In this essay, I attempt to answer this question by exploring the emerging theoretical literature on Middle Eastern masculinities, then turning to my own empirical research on male infertility among Arab men in three disparate settings. As I will argue here, male infertility may threaten Arab masculinities on numerous levels. Yet, in the age of powerful new reproductive technologies to overcome male infertility, the crisis of Arab manhood once posed by male infertility may be waning, in ways to be described in this article.

Infertility is classically defined as the inability to conceive after a year or more of trying, resulting in involuntary childlessness (Sciarra, 1994). On a global level, approximately eight to fourteen percent of all couples experience infertility at some point in their reproductive lives (World Health Organization, 1991). Of this global population of infertile people, it is estimated that between 29.4 and 44.1 million, or more than half the world's infertile population, are Muslim (Serour, 1996). This is due to the large number of Muslim couples living in the so-called infertility belt of sub-Saharan Africa (Leonard, 2002).

Among the world's infertile couples, male factors, involving primarily low sperm count *(oligospermia)*, poor sperm motility *(asthenospermia)*, defects of sperm morphology *(teratospermia)*, and total absence of sperm in the ejaculate *(azoospermia)*, contribute to more than half of all cases (Howards, 1995; Irvine, 1998). Yet, male infertility is a reproductive health and social problem that remains deeply hidden, including in the West. There, studies have shown male infertility to be among the most stigmatizing of all male health conditions (Becker, 2000, 2002; Greil, 1991; Van Balen, Verdurmen, and Ketting, 1995). Such stigmatization is clearly related to issues of sexuality. Male infertility is popularly, although usually mistakenly, conflated with impotency, as both disrupt a man's ability to impregnate a woman and to prove one's virility, paternity, and manhood (Webb and Daniluk, 1999).

Imagining Infertile Arab Masculinities

One of the major reasons that male infertility is important to manhood is that men often deem paternity an important achievement and a major source of their masculine identity (Bledsoe, Guyer, and Lerner, 2000; Guyer, 2000).

Thus, the inability to produce biological offspring may come as a striking blow to men's social identities, with far-reaching implications for the construction of masculinity.

The relatively small body of Western social scientific literature on men and reproduction suggests that male infertility can have these kinds of emasculating effects (Moynihan, 1998; Webb and Daniluk, 1999). Both infertility and its treatment have been reported in the West to result for some men in impaired sexual functioning and dissatisfaction, marital communication and adjustment problems, interpersonal relationship difficulties, and emotional and psychological distress (Abby, Andrews, and Halman, 1991; Daniluk, 1988; Greil, 1997; Greil, Porter, and Leitko, 1990; Nachtigall, Becker and Wozny, 1992; Van Balen and Trimbos-Kemper, 1994). Yet, it is very much an empirical question whether the effects of male infertility on men's sense of masculinity are culturally invariant; the topic has been even less researched in non-Western sites.

Little if any social scientific research has explicitly focused on the subject of male infertility among Arab men; however, there is evidence to suggest that male infertility may pose a crisis of masculinity for men in the Arab world. On the social structural level, men living in pronatalist Arab communities are expected to have children, as reflected in the relatively high marriage and fertility rates across the region (Population Reference Bureau, 2004). Arab men achieve social power in the classic patriarchal, patrilineal, patrilocal, endogamous extended family (Eickelman, 1998; Joseph, 1993, 1994, 2000; Kandiyoti, 1988; Moghadam, 1993) through the birth of children, especially sons, who will perpetuate patrilineal structures into the future (Delaney, 1991; Inhorn, 1996; Obermeyer, 1999; Ouzgane, 1997). "Intimate selving" in Arab families involves expectations of "patriarchal connectivity" (Joseph, 1993, 1994, 1999), whereby men assume patriarchal power in the family not only with advancing age and authority, but through the explicit production of offspring, who they love and nurture, but also dominate and control. Thus, in this region of the world, which "with some truth, is still regarded as one of the seats of patriarchy" (Ghoussoub and Sinclair-Webb, 2000, p. 8), men who do not become family patriarchs through physical and social reproduction may be deemed weak and ineffective (Lindisfarne, 1994), and may be encouraged to divorce or take additional wives in order to contribute to the patrilineage and to prove their masculine virility (Inhorn, 1996).

But what are the implications of male infertility for masculinity per se in the Arab world? As with male infertility, relatively little is known about the social construction of Arab masculinity, which is partly why a recent volume dedicated to this subject has been entitled *Imagined Masculinities* (Ghoussoub and Sinclair-Webb, 2000). Although generations of male social scientists working in the Arab world have reported on this region by talking mainly to men, few of them have studied men as men, a problem that, according to Gutmann (1997), is endemic in social science disciplines such as anthropology. Since the late 1970s, but particularly during the past decade, Middle Eastern gender studies have flourished, as evident in the large number of major anthologies and influential volumes devoted to this subject (e.g., Ahmed, 1992; Beck and Keddie, 1978; Bowen and Early, 1993; Fernea, 1985; Fernea and Bezirgan, 1977; Gocek and Balaghi, 1994; Ilkkaracan, 2000; Joseph, 1999, 2000; Kandiyoti, 1996; Keddie and Baron, 1991; Malti-Douglas, 1991; Mernissi, 1985; Moghadam, 1993, 1994; Sabbah, 1984; Toubia, 1988; Tucker, 1993). However, as rightfully noted by a number of scholars (Ghoussoub and Sinclair-Webb, 2000; Ouzgane, 1997), Middle Eastern gender studies have focused almost exclusively, "sometimes obsessively" (Ouzgane,1997, p. 1), on women, with men's presence in these accounts left implicit. As a result, "There are as yet no significant studies that make Muslim *men* visible as gendered subjects and that show that masculinities (like femininity) have a history and clear defining characteristics that are incomprehensible apart from the totality of gender relations in Muslim cultures" (Ouzgane, 1997, p. 1).

As seen in two recent volumes that devote attention to Arab masculinities (Cornwall and Lindisfarne, 1994; Ghoussoub and Sinclair-Webb, 2000), many of those now working on issues of masculinity and male identity in the Middle East draw theoretical inspiration from the work of R.W. Connell (1987, 1995, 2000), and particularly from his concept of "hegemonic masculinities." Connell focuses on the fact that masculine identities develop through organized social relations and that hegemonic masculinities are produced through unequal power relations *between* men. As he argues, "We must also recognize the *relations* between different kinds of masculinity: relations of alliance, dominance and subordination. These relationships are constructed through practices that exclude and include, that intimidate, exploit, and so on. There is a gender politics within masculinity" (Connell, 1995, p. 37). Thus, for many Middle Eastern scholars-including Deniz Kandiyoti, one of the major theorists of Middle Eastern patriarchy (1988, 1991) and masculinity (1994, 1996)-Connell has opened up the possibility for examining both hegemonic and *subordinate* masculinities, including "the ways in which certain categories of men may experience stigmatization and marginalization" (Kandiyoti, 1994, p. 199).

Most of the social scientific literature to date has exam-

ined the ways in which Middle Eastern men are subordinated by economic impoverishment (Ali, 1996, 2000) or by the hierarchical and often humiliating relationships within all-male institutions such as the military (Kandiyoti, 1994; Peteet, 2000; Sinclair-Webb, 2000). Yet, a repeating theme in the small but growing literature on Arab masculinities is one of homosocial competition between men in the realms of virility and fertility, which are typically conflated (Ali, 1996, 2000, Lindisfarne, 1994; Ouzgane, 1997). According to Ouzgane, a scholar of contemporary Arabic literature, virility emerges as the "essence of Arab masculinity" in the novels of some of the region's most eminent writers (Ouzgane, 1997, p. 3), with men in these stories both distinguishing themselves, and being distinguished from other men, through the fathering of children, and especially sons. If this is, in fact, the case, as much of the literature from this region suggests, then the experience of male infertility for an Arab man can only be "imagined" as an extremely threatening and emasculating condition, particularly in a world where the performance of masculinity is homosocially competitive and men work hard to sustain their public images as "powerful, virile" patriarchs (Ouzgane, 1997, p. 4; see also Delaney, 1991).

Male Infertility in the Age of New Reproductive Technologies

Given this theoretical background, I became intrigued by the question of how male infertility relates to masculinity among Arab men, and I decided to explore the question on an empirical level. Over the past 20 years, I have studied infertility in the Middle East, primarily in Egypt and primarily among women seeking infertility therapy (Inhorn, 1994, 1996, 2003a). Viewing the consequences of male infertility almost exclusively through women's eyes, I have shown how wives suffer some of the consequences of their husbands' infertility, in terms of reproductive blame, expectations to seek treatment, conspiracies of silence over male infertility and sexual dysfunction, and marital disruption, including in some cases male-initiated divorce (Inhorn, 2002, 2003b). However, in 1996, I interviewed for the first time more than twenty-five infertile men who were presenting with their wives to Egyptian in vitro fertilization (IVF) centers (Inhorn, 2003a). Through these couple interviews, I was able to imagine for the first time how men *themselves* might feel about their infertility, particularly when long-term treatment had failed to improve their conditions. As I discovered through my conversations with a number of Egyptian husbands, many men had lived for years with knowledge that their sperm were "weak" and incapable of producing a child. "Weakness" was the cultural idiom with which they glossed their male infertility problems, and it seemed that many infertile Egyptian men had taken this idiom to heart, feeling that they were somehow weak, defective, abnormal, and even unworthy as biological progenitors. Not surprisingly, few men in the study had told anyone, including their closest family members, that they suffered from male infertility. Male infertility was described variously as an "embarrassing," "sensitive," and "private" subject for the Egyptian male, who would necessarily feel *ana mish raagil*-"I am not a man"-if others were to know that he was the cause of a given infertility problem.

In addition, many of these infertile Egyptian men had suffered through multiple harrowing infertility therapies. Traditional biomedical therapies to overcome male infertility, which include surgeries for varicoceles (varicose-type dilations of the veins in the testicles) and estrogen-containing hormonal drugs, are widely prescribed by physicians who specialize in men's reproductive and sexual problems in the Arab world (Inhorn, 2003a). However, these therapies have been heavily criticized in the West for being largely unproven, ineffective, and rife with unpleasant side effects, including effeminizing hot flushes, breast enlargement, and fat deposition in the thighs and buttocks (Devroey et al., 1998; Howards, 1995; Kamischke and Nieschlag, 1998). In short, male infertility is often as intransigent to treatment in the Arab world as it is in the West, leading to a condition of irreversible sterility and unwanted side effects for most infertile men and their wives.

However, a new reproductive technology called intracytoplasmic sperm injection (ICSI; pronounced "ik-see"), has promised to change all of this. First developed in Belgium in 1992, ICSI is a variant of IVF that has allowed thousands of severely infertile men to father children with their own sperm. As long as one spermatozoon can be retrieved from an infertile man's body-including through painful testicular biopsies or aspirations-this spermatozoon can be injected directly into the ovum with the aid of a micromanipulator and a high-powered microscope, thereby forcing fertilization to occur (Devroey et al., 1998). Despite its relatively low efficacy rates of less than 25 percent per cycle, ICSI has become widely available in IVF centers in the West, where it has now helped thousands of severely infertile men to father their own biological children.

By 1994, only two years after its discovery, ICSI had arrived in Middle Eastern IVF centers, which, by that time, were flourishing in many Arab countries. Curious about the implications of ICSI for male infertility and masculinity, I decided to return to the Middle East to initiate a new study on male infertility in the era of new reproductive technologies. Locating my study in two busy IVF clinics in Beirut, Lebanon, I spent eight months in 2003 interviewing 220 Lebanese, Syrian, and Lebanese-born Palestinian

men about their childlessness. Of these men, 120 were infertile (based on spermogram results and World Health Organization criteria for male infertility), and 100 were fertile but were married to infertile women. Each man who participated in the study completed a reproductive history interview, as well as a more open-ended ethnographic interview revolving around "the four M's": medical treatment seeking, marriage, morality, and masculinity. The study produced some fascinating findings, especially surrounding the effects of the Lebanese civil war on reproductive disruption (Inhorn, 2004).

In terms of masculinity, however, the findings were rather surprising and unexpected. Most of the men who agreed to participate in my study stated with conviction that male infertility "has nothing to do with manhood," insisting that they had never equated their own infertility with feelings of emasculation. Although some men explained that the general public might view male infertility in this way, they insisted that male infertility is a medical problem-"like any other medical condition"-and thus should not represent a crisis of masculinity, nor a conspiracy of silence.

Indeed, ICSI seems to have given infertile Lebanese men new hope that their male infertility problems can be overcome through technological means. In other words, the arrival of ICSI in Lebanon-and the aggressive advertising of ICSI by many Lebanese IVF clinics-has served to both medicalize and normalize male infertility, leading to increasing openness about this reproductive health problem. For infertile men who have reached Lebanese IVF clinics, many have adopted a medical model of infertility that serves to diminish feelings of impaired masculinity. As a result, many of these men have told their friends and family members that they are trying ICSI at an IVF center. Indeed, families-at least close relatives on both husbands' and wives' sides-are often heavily invested in infertile men's ICSI quests.

Although ICSI has served to diminish feelings of hopelessness, despair, and emasculation among at least a subset of treatment-seeking Arab men, it is important to point to wider societal views of male infertility that undoubtedly still affect many Arab men who are infertile. As one Lebanese man who was pursuing ICSI reminded me,

> In Lebanon, yes, male infertility does affect manhood. Men don't want to admit they can't have children. They're not men any more. But this is not the view of people inside treatment. People who are "in" know it is a medical problem. So we don't feel this problem of manhood or womanhood.

In other words, because I was interviewing treatment-seeking men, many of whom had been infertile for years and had accepted their infertility as a God-given medical condition, my sample was probably biased. Furthermore, the majority of Lebanese men in my study were highly educated, with at least a high school diploma and many with advanced degrees. Virtually all of them were literate, and many of them had spent considerable time outside of the country, including in the West. Many of these men had educated, working wives, and thus presented to IVF clinics as "career couples." Presumably higher levels of education and satisfaction with professional careers may have offset the potential effects of emasculation and contributed to men's acceptance of a medical model of male infertility.

Having said this about the men who did agree to speak with me, it is extremely important to say something about those men who did not. Indeed, a significant (although undetermined) percentage of men who were asked by their IVF physicians, clinic staff members, or by me directly to participate in my study refused, outright, to become my informants. On any given day, one, two, or even more men who were asked to participate in my study declined to be interviewed, even after careful description of the benefits of the study and its guarantees of confidentiality. Reasons for refusal, if given, were of three general types: "not in the mood to talk," "not enough time" (even though most men spent hours in the clinic waiting for their wives to complete ICSI procedures), and "this is something confidential" (i.e., a secret not to be shared even in a confidential interview).

This issue of male non-response, first noted by Lloyd (1996) among men in Western infertility studies, may mean many things in Lebanon. According to most of the Lebanese IVF physicians and clinic staff members, non-response in my study was probably due to masculinity issues-namely, the sensitivity and "shyness" of most Lebanese men to reveal their reproductive problems to anyone, including a Western researcher.[1] They argued that male infertility is, on some level for some Lebanese men, deeply humiliating-something to be hidden rather than revealed. In fact, when I first arrived at one of the Lebanese IVF centers and explained my study to the clinic staff members, a nurse predicted bluntly that my study would never succeed because of the stigma and secrecy surrounding this topic. She described how couples with an infertile husband tried to "hide from each other" in the recovery rooms, and would sometimes stay there for hours if they saw an acquaintance who might expose their secret to the outside world. Although her prediction about my study's inherent failure did not come to pass, her point was well taken. At least some men in Lebanese IVF clinics probably refused to speak to me out of feelings of stigma and emasculation. Those who did agree to participate were probably the ones who felt least diminished by their infertility for reasons of education,

supportive wives and family members, and idiosyncracies of personality and resilience. Even so, a number of men in my study did admit to feelings of emasculation and "differentness," and spoke of their "shock," "sadness," and "frustration" over being infertile. As one infertile man who was a pediatrician explained,

> "Manhood. It's really an important factor in society. I know this as a pediatrician. The first thing people ask for at the first baby visit is to check the [male] baby's reproductive organs. They're worried from the first moment of life if [the child has] normal reproductive organs, and if he will have a normal sexual life. It's about his future manhood. It's a strong feeling. And it's a deficiency if you can't have children. I do think people feel this. I would assume they do, because it's a secret kind of thing, male infertility. In my own case, who knows about this [his male infertility problem]? My wife doesn't want anyone to know. So we come here [to the IVF clinic] in secrecy."

Future Directions for Research

Clearly, male infertility is a condition that rebounds on Arab masculinity in important ways. Because neither male infertility nor masculinity have been well studied around the globe, including in the Arab world, the potential for future research in this area is great. This is especially true in the era of the new reproductive technology called ICSI, which has spread around the globe and has reached the flourishing private IVF industry in the Middle East. Because ICSI represents the first real solution to male infertility, it has the potential to overcome infertility among millions of Arab men, with effects on masculinity that are profound.

... men often deem paternity an important achievement and a major source of their masculine identity

Already in Egypt, Lebanon, and in many other Middle Eastern countries, ICSI has helped thousands of men to overcome their male infertility, fathering healthy babies with their own unhealthy sperm. As shown in my studies described above, the emasculation of male infertility evident in Egypt in the mid-1990s is giving way to improved feelings of technological confidence among Lebanese men who are accessing ICSI in the new millennium. In Lebanon, many infertile men in IVF clinics have begun to view male infertility as a simple medical condition that can be overcome through technological means. Thus, the effects of male infertility on manhood are no longer considered as important in light of this new medical-technological solution.

Having said this, it is extremely important to point out that ICSI will remain out of reach of many infertile men in Arab countries. Not only is the technology expensive - between U.S. $2,000-$5,000 for one trial of ICSI in most Middle Eastern IVF centers - but the globalization of ICSI has been uneven in the Arab world. For example, whereas Lebanon has approximately 15 IVF centers for a population of 3 to 4 million, neighboring Syria has only a handful of IVF centers, leading hundreds of infertile Syrian men to cross the border each year in pursuit of ICSI in Lebanon.

Similarly, Arab men in the Western diaspora often choose to return to the Middle East to search for affordable ICSI. In the U.S., a single cycle of ICSI can cost between $10,000-$20,000, and is usually not covered by health insurance. In my ongoing study of male infertility in the Arab-American community of southeastern Michigan - home to the second largest diasporic population (estimated at 200,000 to 300,000) of Arabs outside of the Middle Eastern region (Hassoun, 1999; Hudson et al., 1999) - I am finding that many infertile Arab immigrant men are poor political and economic refugees from Iraq, Lebanon, and Yemen. Almost all of them have come to the U.S. over the past ten years, have variable English-speaking skills, and are employed in working-class service jobs (mostly in restaurants and gas stations) without health insurance benefits. As a result, they have few economic resources to pursue diagnosis and treatment for male infertility, and particularly ICSI, which is usually presented as the "only hope" to overcome their infertility. This fact is very demoralizing to this population of recent Arab immigrant men, who often ask whether ICSI can be performed effectively in the Middle East and whether it is less costly there. Clearly, future studies of male infertility among Arab men need to examine the ways in which the actual costs of ICSI services - including accessibility to non-elites by virtue of partial state subsidization (as is being tried in some clinics in Egypt) or partial insurance coverage (as is being tried among some professional syndicates in Lebanon) - affects infertile Arab men's sense of hope for these technologies, as well as their feelings of masculinity.

Indeed, in my current Arab-American study, diminished masculinity seems to be more pronounced for recent immigrant men than among the men I interviewed in Lebanon. Perhaps economic and social marginalization in the U.S., coupled with a male infertility diagnosis, leads to synergistic feelings of emasculation. Furthermore, many of the men in my Arab-American study are newly diagnosed cases, who have yet to come to terms with the meaning of male infertility in their lives. Perhaps in my current study I am beginning to capture some of the secret feelings of emasculation that were beyond my reach in Lebanon, due to the high non-

response rates of infertile men. Perhaps, too, in a U.S. setting, where childlessness is considered socially acceptable, if not always desirable, non-response rates are lower, because Arab men feel more comfortable speaking with a researcher about their infertility, including their feelings of lost manhood. Perhaps over time, as more Arab-American men of diverse backgrounds and acculturation levels participate in my study, I will be able to assess how Middle Eastern masculinities can change in a diasporic Western setting, where the very definition of manhood, at least in the society as a whole, may be less bound to the achievement of patriarchal fatherhood (Van Balen and Inhorn 2002). Do Arab-American men, especially those who are second- or third generation immigrants, continue to equate fertility with manhood? Or do they forge new meanings of manhood in a society where paternity and fatherhood may no longer be the essence of masculinity? These are research questions that I hope my study will eventually answer.

In conclusion, my study of male infertility and masculinity among diverse groups of Arab men is, to my knowledge, the first of its kind. But it is a study that I hope will be repeated by other researchers in diverse Middle Eastern settings. Together, such studies can make a significant contribution to the social scientific and public health knowledge of male infertility as an important reproductive health issue in the Arab world. Furthermore, investigation of this topic is timely, given the exciting possibilities afforded by the newest new reproductive technology, ICSI, which has made its way to the Middle East. There, gender studies are also shifting from an almost exclusive focus on women to a new interest in Middle Eastern men as men, whose masculinity is molded in particular, culturally regnant ways. Thus, studying male infertility in the era of ICSI will contribute in unique ways to the emerging field of masculinity studies in the Middle East, and will help to bring this once intractable, potentially emasculating, and still hidden condition from behind its veil of secrecy.

END NOTES

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Although I was initially reluctant, as a female researcher, to conduct a study exclusively on male infertility in the Arab world, Arab male colleagues convinced me that it might be easier for an Arab man to speak about his reproductive troubles with a female researcher than with a male, given the homosocial competition over fertility/virility described in this article. Also, my American nationality may have affected my ability to speak with some Lebanese and Syrian men during the U.S. invasion of Iraq. I have written about this in a forthcoming article on "Privacy, Privatization, and the Politics of Patronage: Ethnographic Challenges to Penetrating the Secret World of Middle Eastern, Hospital-Based In Vitro Fertilization" (Social Science & Medicine, in press).

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