SEXUAL MEDICINE REVIEWS REVIEW

Female Sexual Dysfunction Among Muslim Women: Increasing Awareness to Improve Overall Evaluation and Treatment

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ABSTRACT

Introduction: Muslim women are an increasingly underserved population in the United States and worldwide. Diagnosis and treatment of female sexual dysfunction bring unique challenges because of the conservative nature of those practicing the religion. Several cultural and religious codes of conduct affect sexual behavior and the dysfunction that can ensue.

Aim: To assess and describe the types of sexual dysfunction that have been found in Muslim women internationally and encourage a better understanding of their issues to enhance health care delivery.

Methods: A comprehensive review of the literature through Ovid and PubMed was performed in search of articles reviewing female sexual dysfunction, Muslim women, and Islam.

Main Outcome Measures: A brief explanation and review of the interpretations of sexuality within Islam are discussed. The link is made between conservative sexual relations and interpretations and the types of sexual dysfunction experienced. Female sexual dysfunction is explored in relation to how female chastity is extolled and how cultural procedures continue despite the ethical and health concerns related to them.

Results: Most Muslim women experience sexual dysfunction similar to other women, including arousal, desire, and orgasmic disorders related to organic and psychologic factors. Sexual pain disorders might be more prevalent in this population, particularly concerning unconsummated marriage. There are special concerns related to maintaining virginity and preserving the hymen until marriage. Female genital cutting, practiced by some Muslim countries, has potential sexual consequences.

Conclusion: Understanding Islamic views on sexuality and how they can affect sexual dysfunction in Muslim women is critical in opening lines of communication with patients and approaching female sexual dysfunction impartially. Although some issues that arise might introduce ethical dilemmas for the provider, having the cultural competence to address these issues will facilitate improved health care delivery. **Rahman S. Female Sexual Dysfunction Among Muslim Women: Increasing Awareness to Improve Overall Evaluation and Treatment. Sex Med Rev 2018;6:535−547.**

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Key Words: Muslim Women; Female Sexual Dysfunction; Vaginismus; Islam; Hymenoplasty; Dyspareunia

INTRODUCTION

The current changing political and social climate in the United States, particularly with regard to Muslim immigrants and refugees, has brought increasing attention to treating and caring for Muslim patients in America. According to the Pew Research Center, the number of hate crimes against Muslims in America is increasing and Muslims are feeling threatened in the United States, which can affect their access to medical care. This report indicates that 3/4 of Muslim adults (75%) say there is "a lot" of discrimination against Muslims in the United States, which is a view shared by 7 of 10 adults in the public (69%). Nearly 1/4 of Muslims in the United States (23%) believe that discrimination from Islamophobia and xenophobia is the most important problem facing Muslims in the United States today.[1] According to the Institute of Medicine, there are still "quality chasms" that exist for minority groups in the United States owing to the lack of cultural competence by many health care providers and lack of education and understanding of certain underserved and under-represented groups.[2] Muslim women in America compose 1 of these growing groups.

Muslims are followers of Islam, a monotheistic religion that is 1 of the fastest growing religions in the United States, with 1.6 billion followers globally. Muslims are from different cultural

Received August 1, 2017. Accepted February 12, 2018.

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https://doi.org/10.1016/j.sxmr.2018.02.006

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backgrounds and countries that span the globe. The largest population of Muslims is in Indonesia, with more than 160 million followers. Arabic-speaking populations, including those living near the Persian Gulf and in north African countries, constitute 15% of the world's Muslims, and those living in the Indian Subcontinent (Pakistan, India, and Bangladesh) constitute 33% of the world's Muslims. The number of Muslims living in the United States is 4 to 7 million, with nearly half this population (47%) being women.[2] This makes for great diversity in these patients with regard to generational differences, culture, and even religious diversity. American Muslim women have diverse and plural experiences. It can be challenging to provide culturally competent health care to this population of women without relying on media stereotypes of the "oppressed nature" of Muslim women. For example, the 2nd-generation American-born Shi'ite Muslim patient of Pakistani descent who has adopted American culture and has similar sexual experiences as other American women might look different than the Saudi Arabian immigrant who is dressed modestly and is a practicing Sunni Muslim who prefers to see only a female provider with her husband who always accompanies her visits. Generalizations about Muslim women can misguide the health care provider in the diagnosis and treatment of patients.[3]

Some Muslim women who adhere to traditional Islamic values have health care needs that should be accommodated if possible. These include dietary restrictions, desiring female-only providers, special needs during fasting in the holy month of Ramadan, and other hygiene concerns related to prayers that might not be met owing to lack of knowledge by providers. Some studies have found that failure of health care providers in the West to accommodate the customs and practices of traditional Muslim women have led to diminished participation in certain programs such as breast cancer and cervical cancer screening.[3]

An aspect of health care that is particularly overlooked in women in general, but particularly in Muslim women, is that of sexual health and function. Sexual health and function are affected not only by biologic and psychologic factors but also by sociocultural factors that are reflected in religious belief and interpretations through different cultures. Female sexual dysfunction (FSD) should be assessed using the biopsychosocial model that considers the patient's culture, religion, social situation, and personal relationships. However, the provider also should remember the psychologic and neurochemical balance that affects sexual function.[4] For example, for most believers, religion provides a moral compass to follow, and within these rules and guidelines to live by, sexual behavior and attitudes are developed. It has been demonstrated that religious and conservative individuals can have an increased risk for sexual dysfunction but it is uncertain to what extent.[5]

Sexual abuse and intimate partner violence constitute a broader topic that should be addressed. It has been documented that victims of different types of sexual abuse can have altered sexual function. For example, Muslim women might may have specific types of gender-based violence perpetrated against them depending on their original culture and the geopolitical climate of the country of origin, particularly if they recently immigrated or are refugees (ie, "dowry deaths and burnings," rape as a war crime, "acid attacks," "honor killings," etc). These patients, just like any other victims of sexual abuse or intimate partner violence, should be approached in a sensitive manner with appropriate psychosocial support that is needed during the evaluation for sexual dysfunction.[6]

Some investigations have reported that when sexual dysfunction is assessed, interpretation and attitudes of sexual behavior can contribute more than the degree of religiosity. This explains why sexual dysfunction might be diagnosed, for example, in the Catholic patient who attended all-girl schools with a conservative and negative viewpoint about sex and the 2nd-generation Muslim American who was not allowed to date and was instructed to avoid sexual relations until marriage. Specifically, sexual dysfunction in these women is believed to be related to the ideals of waiting until marriage to have sex or being taught that sex is "bad." Although many dysfunctions described in this article can be seen in traditional religious groups of Christian, Jewish, Buddhist, or Hindu origin and many other cultures, this article focuses on Muslim women.[7]

METHODS

An in-depth search of Ovid Medline and PubMed databases and the ISSM website and journals was performed using the key words *female sexual dysfunction* and *Muslim* or *Islam*. An average of 29 articles was found. The search was expanded to identify certain predominately Muslim countries such as Iran, Malaysia, Saudi Arabia, Turkey, Indonesia, India, and Sub-Saharan Africa. Because certain types of sexual dysfunction were more common than others, an emphasis on sexual pain disorders, consequences of female genital cutting (FGC), and issues related to virginity became the focus of this descriptive review of 40 articles. Most articles were retrospective, with small samples being the major weakness in these articles.

RESULTS AND DISCUSSION

Sexuality and Islam

Understanding the interpretations of the teachings of Islam as it is practiced among women with regard to sexuality is vital. The *Holy Qur'an* (the holy book in Islam) and the *Hadith* (teachings from the Prophet Muhammad) guide the moral codes of practicing Muslims. In Muslim countries, *Shari'ah* (Islamic law) governs their way of life. Although there is a great deal of negative association in the media with this term, it is meant to provide Muslims with guidance on how to live a moral and ethical life consistent with the teachings of the *Holy Qur'an* and the *Hadith*. Muslim jurists provide interpretations of these teachings based on the situation, especially with regard to modern-day issues.[8]

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In Islam, modesty in dress is important for men and women. Many times, a Muslim woman can be identified based on her appearance. In the United States, Muslim women might choose to wear modest apparel, such as the commonly seen *hijab*, or headscarf. Fewer individuals might wear the *niqab*, which covers the body and face, making only the eyes visible, or the *abaya*, which covers the whole body. Many women choose these forms of modesty based on their cultural background, their desire to identify with other Muslims, or their belief that they feel more pious, and many see this type of dress as self-liberating. For women in the United States who have the autonomy to make this decision for themselves, they believe that they can avoid being sexualized or objectified by men.[9] In many states, the Islamophobia that emerged in the post-9/11 era has made it even more difficult for Muslim women to wear this type of modest clothing and providers should be aware of this when screening women for violence and abuse.

In most Muslim countries and during religious gatherings and functions in Western countries, social separation of men and women is commonplace to preserve modesty and remove temptation. Sexual relationships are prohibited outside heterosexual marriage. *Zina* is the term used to describe illicit sexual behavior, specifically sexual relations outside the context of marriage, and it is prohibitive or *haram*. The *hadd* punishments (usually flogging, stoning, or other forms of physical punishment), which are associated with *zina*, under Islamic law can be enforced only with 4 witnesses testifying to the illicit act. In premodern Islam, this was almost impossible to prove so these laws and punishments remained for symbolic reasons. Most Muslims would take the stance of "don't ask, don't tell," turning a blind eye to illicit sexual relations to avoid persecution and prosecution. This is still the case in many Muslim countries.[10]

Sexual expression and interpretations also are based on the country of practice and personal interpretation, which could be more progressive for Muslims in Western cultures or in families who interpret the religion more liberally.[11] Sexual satisfaction is encouraged and is a common goal for women and men in Islam. In fact, in Islam, enjoying physical relationships, within the context of marriage, is emphasized and sexual relationships are not viewed for procreative purposes only. There are some periods when sexual intercourse is discouraged, such as during the menstrual cycle, during daylight hours of the holy month of fasting (Ramadan), and for 40 days after childbirth, for example. In traditional cultures and families, premarital relations are strongly opposed, and the chastity of daughters is considered paramount, which is discussed further below. In general, chastity (literally protecting one's genitals) for men and women is encouraged in addition to modesty.[10] However, many women living in the Western world have adapted to the values of the society in which they have been raised through the process of acculturation.

Acculturation is defined as the process of adapting to a new culture or behavior, which usually occurs when an immigrant raised in 1 culture moves to another culture. It usually results in maintaining the core values and beliefs of the immigrant's original culture or the adoption of the new cultural ideals and beliefs.[12] For example, traditional practicing Muslim couples might not have sexually transmitted diseases, whereas Muslim women and men in the United States or other parts of the Western world are more likely to participate in premarital relations and have multiple sexual partners in their lifetime and sometimes extramarital affairs. Acculturation also should be considered when evaluating patients.[13,14] This, of course, also generalizes the morals of the traditional culture. With the expansion of the internet and sexual services and websites internationally, many more traditional or practicing men and women can become involved in deceptive relationships.

Oral sex is considered an acceptable part of foreplay in Islam, although anal sex is prohibited. Masturbation is generally discouraged except for extenuating circumstances, such as wartime or in late-onset marriage to preclude *zina*.[14] Homosexuality also is strictly forbidden in traditional interpretations, although progressive movements have started to promote acceptance in parts of the Western world. In premodern Islamic interpretation, although same-sex attraction and relationships were discouraged, Muslims often implemented the "don't ask, don't tell" rule as with other forms of illicit sexual relations.[10]

Today, a new progressive movement has developed within some Muslim communities to become more inclusive and interpret the *Holy Qur'an* and *Hadith* in a manner that adapts to changing times. A new non-governmental organization founded in 2007, called Muslims for Progressive Values, is a "grassroots, human rights organization that embodies and advocates for the traditional Qur'anic values of social justice, an understanding that informs our positions on women's rights, LGBTQI [lesbian, gay, bisexual, transgender, queer, and intersex life] inclusion, freedom of expression and freedom of and from belief." In addition, they have developed an umbrella organization called the Alliance for Inclusive Muslims that includes 13 countries and 17 cities.[15]

Erotica is generally discouraged unless used to treat sexual dysfunction. Prostitution in Islam is *haram* or forbidden. Polygyny, whereby the husband is allowed multiple wives, is still considered a controversial issue. Although the traditional interpretation of the Qur'anic passage would deem polygyny permissible with to up to 4 wives, most modern Muslims view the verse in the context it was revealed (eg, during wartime when widows needed someone to support them). Some Muslim countries have outlawed polygyny.[11]

Owing to modesty and cultural restraints, Muslim women are unlikely to disclose private sexual matters to their health care provider, which makes diagnosis and treatment of sexual problems challenging for the health care professional. Therefore, using a patient-centered approach to health care has been discussed in the medical literature. In such an approach, providers open lines of communication in a non-judgmental manner between provider and

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patient. Having a basic understanding of sexual norms among Muslims will empower the provider and allow the patient to feel open to discuss matters and seek the assistance they need to regain or achieve normal sexual function. As some studies and programs have suggested, an open line of communication through a patient-centered approach to health care and cultural competence will facilitate more effective delivery of health care and a greater understanding of the diagnoses and treatment of sexual dysfunction in women.[16]

Baazeem[17] recently published an article highlighting the difficulties of practicing sexual medicine in the Middle East. These Arabic-speaking countries have a rich culture and many cultural beliefs and practices that are similar to those of other Muslim countries and should be mentioned. He discussed the intense involvement in family and the patriarchal structure of the family that dominates this culture. This in turn can affect health care delivery if family members are heavily involved in health care diagnosis and treatment of the patient. Many families serve as a great support structure for the patient for severe illnesses, but for sensitive issues related to sexual function, patients might not be forthcoming with family members present. Some patients will be seen only if they are accompanied by their husband or mothers, depending on age and issue. This can create complications in attaining an accurate assessment and treatment strategies.

Baazeem[17] also discussed the cultural belief of the concept of the evil eye (*hasad* in Arabic or *nazr* in Urdu or Persian). This belief is prevalent in Middle Eastern and south Asian cultures. The belief is that any negative outcomes or events (related to health, fortune, relationship, etc) that a person must endure is a "direct result of jealousy owing to that person's general good fortunes or specific joyous occurrence." Such belief in black magic and sorcery can affect the patients' belief in organic causes of their illnesses or dysfunction. The physician should not discount this concept but should encourage the patient to work with health care providers to exclude the organic causes. Sometimes the counsel of religious leaders, or sheikhs, is recommended. The lack of education in the Middle East among health care providers and patients also is mentioned as a deterring factor. Many physicians in the Middle East do not believe sexual medicine is a legitimate area of medicine and other medical students or providers do not believe it is appropriate to discuss these topics in mixed company. Lack of knowledge and education among providers and patients forms a substantial barrier.[17]

Specific cultural beliefs by Muslim women should not be used to create stereotypes, but rather to understand how their culture affects their sexuality. The aim of this review article is to assess the types of sexual dysfunction that have been demonstrated in Muslim women internationally and encourage a better understanding of their issues that will lead to more research and treatment protocols for this underserved population of women.

Female Sexual Dysfunction

Approximately 40% of all women in the United States will experience some type of sexual complaint in their lifetime.[18] Sexual complaints differ from actual distress and diagnostic criteria for the types of dysfunction reflect this difference. A weakness of this review is that most studies do not use validated sexual dysfunction questionnaires that reflect personal or interpersonal relationship impairments resulting from sexual complaints. In fact, actual definitions of dysfunction might not be met but diminished function might be assessed depending on the methods used to survey patients. In this review article, classifications of female sexual disorders stem from the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision* (*DSM-IV-TR*)[19] rather than the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (*DSM-5*). These classifications are bit more expansive and descriptive than the newer criteria that generalize some diseases into smaller categories. This is consistent with the recommendations of the International Consultation of Sexual Medicine Committee on Definitions and a recent article on nomenclature by the International Society for the Study of Women's Sexual Health. In that article, the investigators concluded that creating a new nomenclature for the evaluation and treatment of FSD would facilitate a full spectrum of diseases to be identified as opposed to the *DSM-IV-TR* or *DSM-5* criteria that limit diagnostic and treatment modalities for clinicians through the generalization of diseases.[20] Given the already limited data on female dysfunction in Muslim women, the newer nomenclature could not be used.

For this review, *DSM-IV-TR* criteria were used and FSD was divided into 5 categories:

1. Female hypoactive desire disorder is the most common and experienced by 8% to 12% of women and is characterized by decreased or absent sexual interest, initiation, or sensations.
2. Female arousal disorder is characterized by the inability to obtain sexual excitement through an adequate lubrication or swelling response.
3. Female orgasmic disorder is characterized by delayed, infrequent, or decreased intensity of orgasms.
4. Dyspareunia is characterized by genital pain associated with sexual intercourse.
5. Vaginismus is defined by pain with insertion or vaginal penetration, marked by fear or anxiety about intercourse because of pain, and tensing or tightening of pelvic floor muscles during attempted vaginal penetration.[19]

Although sexual dysfunction is seen worldwide, the presenting symptoms and expectations in treatment can vary. Although Muslim women from various countries might experience all types of FSD, the prevalence and approach to care are affected by their cultural and religious beliefs and are addressed here. In addition, the author has chosen to identify specific cultural norms and practices that can affect Muslim women and sexual dysfunction.

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The Membrane of Honor: The Hymen and Emergence of Hymenoplasty

The hymen is a Mullerian duct embryologic remnant that can be thin, thick, imperforate, or nearly transparent in some patients, and in a small subset of women with Mullerian agenesis, it can be non-existent. It is a membrane covering the vaginal orifice that can be torn during normal physical activities, such as cycling, horseback riding, tampon use, speculum examinations, and, of course, sexual intercourse. The status of the hymen has been linked to virginity for centuries.[21]

The status of virginity is held in the highest regard in all Muslim countries and various other cultures. A daughter's virginity and chastity are many times equivalent to the honor of the entire family.[22] Failure to prove virginity, through virginity examinations or demonstrating blood-soaked bed sheets the day after marriage consummation, can lead to health and safety risks for the Muslim woman.[23] This can result in danger to the patient, leading to humiliation, ostracism, divorce, violence against the woman, such as stoning, or in the most extreme cases, "honor killings." These honor killings are usually carried out by some member of the family, usually the brother or father, toward the female member of the family, usually for suspected or actual acts that could disrespect or bring dishonor to the family. Sometimes women are victimized for rumored premarital sex, adultery, or even just speaking to a man who would not be accepted in the family. The details of these crimes are beyond the scope of this article, but, in general, these killings are not accepted or ordained in Islam.[24] In September 2000, the United Nations Population Fund estimated that as many as 5,000 women and girls are murdered each year in honor killings by members of their own families. Although honor killings are widely reported in regions throughout the Middle East and South Asia, United Nations Special Rapporteurs on Extrajudicial, Summary and Arbitrary Executions have reported that these crimes against women occur in countries as varied as Bangladesh, Brazil, Ecuador, Egypt, India, Iran, Iraq, Israel, Italy, Jordan, Morocco, Pakistan, Sweden, Turkey, Uganda, and the United Kingdom. There also have been incidents of honor killings reported in the United States and Canada.[25]

Such crimes in the United States and Canada can result from a form of acculturation. Many times, 2nd-generation immigrants have more of a conservative attitude toward sexual experience than those in the country of origin.[26]

The concept of chastity is so ingrained within these cultures and some other Asian and Mediterranean cultures that even Westernized Muslim women who are raised in countries such as the United States seek surgical correction for premarital sex or loss of an intact hymen through rape, exercise, tampon use, or early gynecologic examinations. The misinformed idea of early hymen breakage also precludes many women from seeking gynecologic care when it is needed. Patients who seek hymenal repair span all religions and nationalities. Many conservative Christians or Orthodox Jews also have sought hymen restoration.[27]

Nevertheless, many Muslim women who are involved in premarital sexual relations have high rates of regret that lead them to seek reconstructive surgery. A study in the Netherlands reported that the women surveyed who had lost their virginity before marriage feared they would be expelled from their family (49%), have their marriage annulled (28%), or be killed in the name of "honor" (12%). This can lead to adverse health consequences, including feelings of despair, depression, suicidal ideation, and sexual dysfunction in later years.[28]

Many Muslim countries have women tested for virginity by a medical examiner before marriage or even have forensic clinicians who oversee gynecologic examinations or interventions to ensure the hymen remains intact.[29] Virginity testing is usually performed as a part of crime investigation but also can be requested for social reasons. In his review article, Baazeem[17] reported that in a survey of 118 forensic practitioners who were involved in this testing, 45% performed them purely for social reasons. These physicians also reported that more than half the examinations were performed against the patient's will. The main reasons the examinations were executed were to prove the marriage was not consummated for divorce proceedings, for premarital assessment of some women, or if there was no bleeding during the 1st intercourse. However, studies have shown that 40% to 80% of women do not have any blood loss at 1st intercourse.[30] Such testing has remained practice in many parts of the Middle East despite the potential negative impact on the patient, because some view the test as a mechanism to maintain the family's honor by proving the daughter's virginity.[17]

Many women seek hymenoplasty as a potential "life-saving" procedure. Hymenoplasty is an emerging cosmetic gynecologic surgery that is sought for reconstruction of this membrane. Gynecologists who are contacted for hymen reconstruction around the world are caught in a moral dilemma of choosing between the possible negative consequences for their patient and family for a medically unnecessary procedure or being proponents of a traditional system that continues to uphold the value of female virginity. In some Muslim countries, such as Egypt and Iran, to name a few, doctors who perform these procedures can be prosecuted because it is considered an illegal operation; therefore, these surgeries are often done in private and reported data are limited.[31]

A study in Switzerland found that 2/3 of hospital physicians who responded to a survey were confronted with this issue several times a year (up to 5) and were of Turkish or Arab descent. Most clinicians granted the request but few guidelines were available at the time.[32] Most patients who seek this procedure are of Middle Eastern descent and from Muslim-majority countries.[33]

Goodman[34] reviewed cosmetic gynecologic surgeries and their effect on sexual function and found a paucity of literature on hymenoplasty and the techniques for this corrective surgery. In this review, Goodman reported that most techniques identified in the medical literature used the reapproximation method of hymenal remnants with an absorbable suture. For women without a remnant,

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there was some description of using a graft or exogenous membranous tissue sutured into the introitus days before the wedding night and sometimes using a gelatinous capsule filled with an artificial blood-like substance to mimic bleeding during the wedding night.[34]

Bawany and Padela[33] more recently performed a comprehensive review and described the techniques and the ethical-legal considerations of hymenoplasty, including the ethics from an Islamic legal perspective. In their review, they initially described 4 different methods of performing the procedure. The 1st method was the basic reapproximation technique under general or local anesthesia as described earlier. With minimal complications, antibiotic ointment is used over the suture line postoperatively. The 2nd method was developed for women who underwent the 1st procedure and complained of only minimal bleeding at intercourse and is described as "super-hymenoplasty." This includes further dissection inferior to the hymenal remnants and incising and undermining the tissue under the urethra to create an inner and outer layer by oversewing them. The layers are reapproximated in a manner that leaves a small hole in the hymen, creating almost a partially imperforate hymen that allows for only blood and secretions to pass. Because it is a more extensive surgery, bleeding, discharge, and pain are more common postoperatively.[33] The 3rd method they reviewed is known as the "cerclage" method, developed by Ou et al[35] in Taiwan. They used a 5-0 chromic catgut suture at the 6 o'clock position approximately 3 mm from the hymenal remnant and ran the suture clockwise and then reintroduced another suture at the 6 o'clock position and ran it counterclockwise. Using a 12-mm Hagar dilator, they tied the suture around the dilator to create an annular hymen. There were no pronounced complications or increased pain.[33,35] The 4th surgical technique reviewed was derived from India, in which the investigators described a classic plastic surgeon's technique to hymenal reconstruction. This surgical correction is performed under spinal anesthesia and the investigators created flaps from the anterior vaginal wall epithelium (2.5 cm long × 1 cm wide) and used those flaps to anchor at 2, 5, 8, and 11 o'clock in an overlapping crisscross fashion with 5-0 polyglactin suture. These 11 patients had normal amounts of bleeding, healed well, and were given antibiotics for follow-up.[33,36] Hymenoplasty risks include small risks of bleeding, infection, distortion of hymen, "overvigorous repair" leading to secondary dyspareunia or inhibition of penetration, separations of incisions, and leaving the hymenal ring with additional "defects." Ethical and social complications are considered below, including deception of the male partner and the propagation of this social ideal of virginity that contributes to injustice to women.[34] Taking these findings into consideration, it is generally believed to be a low-risk procedure that can be performed under local, intravenous, or spinal sedation with minimal operating room time (30–90 minutes), and a recovery time of approximately 4 to 6 weeks with standard postoperative instructions of nothing per vagina, avoiding heavy lifting or exertion, and so forth.[33]

The ethical aspects of this procedure also were reviewed. The American College of Obstetricians and Gynecologists' (ACOG) Committee on Gynecologic Practice in September 2007 issued a Committee Opinion in which they made it clear that, in the absence of credible long-term safety and efficacy data, they did not recommend procedures such as hymenoplasty and believed that they were "untenable" and deceptive. They recommended against procedures such as "revirgination" and the potential ethical issues involved as described earlier.[37]

Other opponents of the procedure in Western societies believe that instead of surgical correction, these communities should be educated on the lack of the direct link between virginal status and rupture of the hymen. In addition, there is the belief that by performing these procedures, the surgeons are perpetuating a long history of sexual disparity in these cultures and deception (as stated by the ACOG). However, surgeons who perform the procedure in the United States and other Western societies should weigh these concerns against the concern that this could be a "life-saving" procedure given the reason these women seek it out.[38]

The Muslim jurists involved in making decisions on the permissibility of this procedure from an ethical standpoint have 2 opinions. (i) It is generally impermissible but acceptable if the hymen was broken accidentally or if women, after engaging in illicit sexual relationships, repented without additional illicit actions. (ii) It is prohibited secondary to the deception it perpetuates. Bawany and Padela[33] commented that Islamic scholars, such as those in Egypt, also realize the procedure has saved lives because there has been a decrease in honor killings in these areas.

Clinical Guidelines for Addressing Hymenoplasty Requests

Understanding the procedure and the cultural and religious implications are paramount for a physician to make informed decisions about the repairs and understanding the patient's perspective. The physician should have an appreciation of the goals of the procedure and, through the use of the methods described by ACOG guidelines on elective surgery, engage with the patient to make a mutual decision while appreciating patient autonomy. The patient also must be counseled and realistically educated on the risks of the procedure. In general, the author recommends that physicians approach the procedure in a nonjudgmental, culturally sensitive manner. By understanding the various types of repair as described earlier, the Western viewpoints on the ethical nature of the elective procedure as described by the ACOG, and the Islamic viewpoint on this procedure and its implications, the physician will have a platform on which to base an open discussion and develop an understanding relationship with the patient. The physician will be able to counsel the patient using communication in the appropriate language, advocate for the patient, and demonstrate empathy for the patient's plight, even if the physician does not believe it to be problematic one. Educating the patient on the lack of correlation between rupture and virginity might be a moot point for the patient, because her fears and anxiety could be deeply rooted in

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her cultural norms and ethics. Explaining the Islamic jurists' perspective to the patient might alleviate her anxiety to some degree and reviewing all the risks of the procedure is critical. Then, an open discussion can occur with the patient and a plan can be developed based on mutual ethics, respect, and understanding. As recommended by the ACOG, when discussing elective surgery, if the physician believes that the surgical procedure would be detrimental to the patient's physical or psychosocial health, he or she might elect to not perform the procedure. If the physician believes it might indeed prevent psychosocial distress or even consider it life-saving, then he or she might elect to perform the procedure after adequate training and counseling.[39]

Dyspareunia, Vaginismus, and the Unconsummated Marriage

Dyspareunia and vaginismus affect Muslim women. Although vulvodynia, endometriosis, and other causes of dyspareunia can affect these women, there is a dearth of data on its influence on Muslim women specifically.

Vaginismus is well documented within the Muslim community in different Muslim countries and the United States. Vaginismus is a condition of involuntary contraction of the pelvic floor muscle group leading to painful and/or impossible vaginal penetration. Vaginismus is a physical disorder separate from disorders of pain, such as vulvodynia, that can cause vaginal spasm and it is a psychologic disorder that is personified by anxiety and fear of penetration. Factors that predispose patients to vaginismus are a history of sexual abuse, fear of pain with intercourse, familial, religious, and cultural taboos, generalized anxiety, and other traumas. A common description by male partners is that they feel they are "hitting a wall."[40] In 1978, Lamont[41] developed a 4-tier classification system for vaginismus to describe the severity based on patient history and observations made during an attempted gynecologic examination. 1st-degree vaginismus was described as a "spasm of the pelvic floor (perineal and levator) that could be relieved with reassurance. In 2nd-degree vaginismus, generalized spasm of the pelvic floor (perineal) is present as a steady state maintained throughout the pelvis despite reassurance. In 3rd-degree vaginismus there is pelvic floor spasm (levator) and elevation of the buttocks to avoid examination. In 4th-degree vaginismus, which is the most severe form of vaginismus, there is complete withdrawal by significant levator and perineal spasm, elevation of the buttocks, adduction of the thighs, and retreat."[41]

Because most women who have vaginismus suffer silently, the true prevalence is difficult to determine. In some clinical settings, it has been found that 5% to 17% of women presenting with sexual complaints have vaginismus as a primary disorder.[40] A study reported that 15% of Muslim women evaluated at a single outpatient location had a primary complaint of FSD with close to half of those (46%) having primary vaginismus within 2 months to 2 years of unconsummated marriage.[42] In the United States, few studies are available and vary among clinical settings that care for a larger population of Muslim women. A major issue with most of these studies is the small sample.

Unconsummated marriage is when sexual intercourse between a man and woman who are married has not occurred. A review of the literature showed unconsummated marriages to be a significant issue. Data from Turkey, Iran, Saudi Arabia, Malaysia, and India, to name a few, identified the main issues concerning unconsummated marriages. In these cases, there were intense social and familial pressures to accomplish coitus during the wedding night, many times with an unfamiliar man or women, compounded by the idea that in-laws were awaiting consummation to confirm success and await evidence of the bride's virginity.[43] Of Muslim couples who have an unconsummated marriage, male sexual dysfunction must be addressed. In 1 study from Turkey, men who were the partners of women affected by vaginismus had male sexual dysfunction 65% of the time. Most commonly, these men had premature ejaculation (50%) and erectile dysfunction (28%).[44] Most studies have found that vaginismus is the etiology of unconsummated marriages (as high as 81% in 1 study). In addition, erectile dysfunction ($\geq$10%) and premature ejaculation ($\geq$5%) can contribute to or are the cause of unconsummated marriages in the Muslim world.[45]

Male sexual dysfunction results for similar reasons. Psychogenic factors are predominantly involved in the etiology of Muslim men's dysfunction and are beyond the scope of this article. Some studies found performance anxiety was a causative agent. Of course, the mode of marriage, particularly when the marriage was arranged or the couple did meet before the wedding, resulted in more difficulty with consummation.[46] Therefore, culture-specific sex therapy is warranted in the treatment of Muslim men and women.[47]

Vaginismus treatments traditionally include the widespread use of vaginal dilators, pelvic floor physical therapy with or without biofeedback, biofeedback, sex and relationship counseling, psychotherapy, cognitive behavioral therapy, therapist-aided exposure, hypnotherapy, and lubricants. Most studies reported Muslim women responded well to sexual and relationship counseling, cognitive behavioral therapy, and vaginal dilators. Refractory cases have been studied and the use of botulinum toxin has been described. The successful use of Botox (onabotulinumtoxinA; Allergan, Irvine, CA, USA) injections to treat secondary vaginismus was 1st described as a case report in 1997 and later developed by different investigators and is currently used for treatment in the United States and internationally. Intravaginal injection of Botox and bupivacaine in the bulbospongiosum and hymenal remnants under conscious sedation and progressive dilation, indwelling dilator, and additional support with follow-ups were part of the multimodal treatment in 1 review article by Pacik and Geletta.[40] Botox used with counseling, therapy, and vaginal dilation has achieved success in most studies of refractory vaginismus. Couples counseling and treatment of male dysfunction must occur concurrently in most cases.[40,48,49]

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FGC: Brief Review and Impact on Muslim Female Sexual Function

FGC, also known as female circumcision or female genital mutilation, is not considered ordained or accepted by mainstream Muslims and predates the emergence and spread of Islam. Although the moral and ethical considerations of this tradition are beyond the scope of this article, there are Muslim women living in the United States who have had this procedure or have complications from it and it should be understood by the clinician to improve patient care. The main reason young girls undergo this procedure is that it is considered a rite of passage. In some remote communities, it is believed to preserve chastity, ensure marriageability, improve hygiene, improve fertility, and enhance sexual pleasure for men. Practitioners also might believe it originates from religious ideology, but it is more related to the culture of origin.[10,50]

The World Health Organization classifies FGC cutting by the following types:

1. Type I, also known as clitoridectomy or *sunna*, involves removing part of or the entire clitoris and/or the prepuce.
2. Type II, also known as excision, involves removing part of or the entire clitoris and labia minora, with or without excision of the labia majora.
3. Type III, the most severe form, also is called infibulation or pharaonic. It entails removing part of or all the external genitalia and narrowing the vaginal orifice by reapproximating the labia minora and/or labia majora.
4. Type IV is the mildest form and includes any form of other harm done to the genitalia by pricking, piercing, cutting, scraping, or burning.

The most common immediate complications from all types are uncontrolled bleeding and fever. Wound infection, sepsis, and death become more common with severe forms. The most common long-term complications are dysmenorrhea, dyspareunia, recurrent vaginal and urinary tract infections, infertility, cysts, abscesses, keloid formation, difficult labor and delivery, and sexual dysfunction.[50]

Most studies identify that sexual consequences of this procedure are rooted in how the procedure is viewed by the family and the patient. It also is related to whether they have been acculturated in the immigrant societies. Even in infibulated women, the clitoris or remnants of the tissue can be identified buried underneath scar tissue and identified through a defibulation procedure. Therefore, the notion that women who have undergone FGC have no clitoris should not be perpetuated because this is a stereotype that could negatively affect the ability to care for and treat these patients appropriately.[50]

Women who have undergone FGC and who are otherwise healthy with a positive outlook on the procedure without long-term consequences from the mode of the procedure have been found to have healthy sexual relationships. In these women, if they have an optimistic impression of the procedure based on their cultural interpretation, they experience orgasms. When they are conflicted, based on their acculturation, then they might experience decreased desire and orgasm. It is important for the therapist and those working with these women to understand the cultural implications of FGC to better serve them.[51]

FGC is still condoned and practiced by some physicians in the Middle East. As Baazeem[17] pointed out in his review, many physicians who were surveyed in Egypt were unaware of the physical or sexual consequences of FGC. More than half believed there were some benefits to the procedure and some performed the procedure purely for monetary reasons. The factors that seemed to affect their choice to perform the procedure were related to cultural influences and lack of knowledge. Given the immigration patterns in the United States, there have been cases of physicians or other practitioners performing FGC in California, Minnesota, and New York. More recently, despite it being illegal in the United States, in 2017, there were 2 physicians in Michigan charged with performing the banned procedure on 2 7-year-old girls.

Atallah et al[12] provided specific recommendations for engaging with patients after FGC:

1. Providers should approach FGC-affected populations in a sensitive and professional manner. Education on FGC should be integrated in postgraduate health professions training curricula and CME.
2. FGC classification and counseling discussions should be documented in the medical records. Efforts should be made to limit attendants in the room to those directly involved with the care of the patient, ensuring privacy and patient confidentiality.
3. Comprehensive care for the FGC-affected women should also encompass reproductive, sexual health and psychosocial counseling.
4. Address language barriers by incorporating trained medical interpreters and visual aids/diagrams. The woman's partner/spouse may play an important role in decision making.
5. An adult woman desiring elective vulvar genital modification of prior FGC should undergo a detailed history and physical examination using culturally appropriate terminology.
6. Engage in community partnerships with FGC-affected communities and social service agencies that build trust, enhance community health literacy, and dispel fears while addressing: gender equity, economic empowerment, intimate partner violence, and stigma reduction.
7. Evidence based clinical and ethical guidelines on the care of women with FGC should be developed that incorporate validated measures and quality improvement metrics.
8. The performance of primary FGC among minors is illegal. Discussions on the legal ramifications of performing FGC on minors should be incorporated in patient counseling and education. Reporting to appropriate child welfare protection services is mandatory when a minor has recently been subjected to FGC or is at risk for undergoing the procedure.

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9. Consensus does not yet exist on what constitutes reinfibulation, and in what settings it can be condoned when requested by an adult woman. Future efforts must aim to further classify distinguishing informed *adult* requests from partial reinfibulation for cosmetic/aesthetic reasons and hymenoplasty as distinct from primary FGC on minors.
10. Women's empowerment through education and economic gain will influence women's reproductive health choices and healthy behavior, and accelerate progress towards eventual abandonment of FGC.[12]

FSD: Arousal, Desire, and Orgasmic Disorders

Barriers to analysis of FSD with hypoactive sexual desire and arousal, lubrication, and orgasmic disorders within Muslim countries exist just as they do within Western populations. It is widely understood that most FSDs do not exist in a vacuum and are usually associated with at least 1 type simultaneously. Some studies have demonstrated that, in Muslim countries, sexual problems are the 2nd leading cause of divorce.[52] The Pfizer-funded Global Study of Sexual Attitudes, Beliefs, and Behaviors studied 29 countries and 13,618 men and women 40 to 80 years old. In this study, only 19% of all women reported experiencing sexual problems and discussing them with their doctors. A breakdown demonstrated 12% of Turkish women and 37% of Malaysian women vs 20% of women in the United States reported sexual disorders. Only 8% to 10% of women worldwide stated in this report that they were even asked about sexual health. Identifying prevalence rates and risk factors of other forms of sexual dysfunction will increase awareness of the topic and eventually render appropriate treatment options for patients.[53]

Sidi et al[54] studied prevalence rates of FSD in a primary care setting in Malaysia for 230 patients 18 to 70 years old. They found overall rates with the Female Sexual Function Index (FSFI) to be 29.6%. Most women experienced lack of orgasm (60.9%), low sexual arousal (50.4%), and sexual pain (67.8%). Older age, having more children, being married to an older husband, marriage longer than 14 years, and higher academic status were risk factors. A follow-up study was performed in a university hospital-based primary care in Malaysia of 163 patients by Ishak et al.[55] The prevalence rates were similar at 25.8% of women expressing FSD. Most women in this study had desire problems (39.3%) followed by lubrication problems (21.5%), orgasm problems (21.5%), and pain (16.6%). Advancing age was a major risk factor as were the others listed earlier. In Saudi Arabia, Attaky et al[56] reported a prevalence rate of female sexual dissatisfaction of 34.5%. Diminished desire was a main issue (31.8%), followed by diminished genital sensation (20.9%), orgasmic disorder (16.4%), diminished lubrication (12.7%), and sexual pain (7.3%). All types of dysfunction were more common in the group older than 41 years. Aslan et al[52] surveyed more than 1,000 women at a university hospital in Istanbul, Turkey using the FSFI. Low sexual function was reported in 43.4% of women, with desire and arousal domains being most affected, followed by orgasm and pain issues. Increasing age was the most important risk factor. The studies reviewed in the medical literature evaluated overall prevalence rates of sexual dysfunction for women in different countries including Indonesia, Iran, and India. These women, usually in outpatient clinical settings, mainly had arousal and desire disorders, with orgasmic and pain disorders being present in slightly smaller numbers. The prevalence of low sexual function in women was found to significantly increase with age, length of marriage, decreasing amount of intercourse, more children, higher academic status, or having an older husband (age > 42 years).[52,54,55]

Some medical conditions that are more common in Muslim countries also can contribute to FSD. For example, the prevalence of polycystic ovary syndrome is seen in larger numbers among South Asian or Iranian women. The infertility associated with polycystic ovary syndrome is believed to increase FSD rates, possibly related to the diminished desire related to inability to procreate in more conservative cultures.[57]

Treatment options for desire disorders range from psychologic therapy such as sex therapy (sensate focus), cognitive behavioral therapy, and mindfulness-based therapy to medical options such as flibanserin or hormonal options such as testosterone. The key to psychologic therapy in this group is to approach these patients in a culturally sensitive manner to overcome inherent biases. Arousal disorders also need to be addressed within the context of culture and religion as do stressors. Orgasmic disorders can be treated with methods such as directed masturbation or use of sexual enhancement products. Within Muslim communities, this has to be encouraged and addressed because it is considered forbidden by some jurists, as mentioned earlier. A comprehensive review of treatment options for non−pain-related FSDs was recently published by Kingsberg et al[58] and is an excellent review of the topic.

Additional Clinical Guidelines for FSD in Muslim Women

There have been several articles that highlight different mechanisms to approach culturally distinct patient populations in a competent manner.

From the author's experience and perspective, relinquishing stereotypical images of the "oppressed" Muslim women is imperative. As discussed earlier, the experiences of Muslim women are diverse and plural. Given the xenophobia that has developed during the post-9/11 era, Muslim women are aware of the possible discrimination by health care providers and might not be inclined to discuss their sexual issues with the provider if they feel judged or misunderstood. In addition, having a female provider available for the assessment and possible treatment is usually necessary. Understanding and discussing the patient's view on sex will help identify the extent of acculturation. Where did she receive her sexual education, if any? What are her growing concerns? Is her

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partner with her? Does she participate in heterosexual or same-sex relationships? Has she ever experienced sexual abuse or misconduct? If unconsummated marriage or vaginismus is an issue, reassuring the patient that other women have this form of dysfunction and reiterating that successful relations with treatment is possible are very empowering for the patient. Acknowledging differences in culture and understanding religious interpretations place many patients at ease.

Walton et al[59] provided some guiding questions that can facilitate a culturally competent assessment of Muslim women:

1. What are the specific beliefs of Muslim women that may affect health care, specifically health care provider evaluation and treatment?
2. What actions by the health care provider or the environment of the clinic would the Muslim woman consider offensive and prevent her from accessing medical evaluation and treatment?
3. What environment does the Muslim woman believe to be the most conducive to healing? Are there any behaviors (high risk) that may be harmful to a Muslim female that are generally practiced by Muslim women?
4. Are there specific practices in the Islamic religion regarding healing and what effect, if any, does this have on the Muslim females' decision to access and follow through with medical evaluation and treatment?
5. Are there any specific beliefs regarding the use of physical touch or gender preference that would be unacceptable for therapeutic purposes for the Muslim female?[59]

The author has discussed in detail the underlying beliefs on sexuality and sex that would answer many of these questions.

Atallah et al[12] outlined the following guidelines that can be used for Muslim women during the time of evaluation:

1. Evaluate patients and their partners in the context of culture.
2. Evaluate distressing sexual symptoms regardless of whether they are recognized dysfunction.
3. Develop culturally sensitive assessment instruments.
4. Conduct a culturally sensitive interview that acknowledge cultural factors and language barriers and include agreement on what language and style would feel most comfortable for the client and couple.
5. Assess heterosexual couples presenting with unconsummated marriage for the presence of female (vaginismus) or male sexual difficulties (premature ejaculation) and impact on each other.
6. Develop culturally and religiously sensitive assessment skills.
7. Suspend preconceptions about clients' race/ethnicity/gender/sexuality and that of their family members.[12]

Sexual Education and Discussion

Sexual education is paramount in Muslim societies but unfortunately is not always addressed. In modern Muslim countries, sex is considered a taboo topic, particularly in mixed company. This was not the case in premodern Islamic civilizations or even during what is considered the Golden Age of Islam (8th to 13th centuries during early Islamic rule and expansion). In fact, during these times, erotic literature and books describing sexual techniques and sexual health were more common, such as *The Perfumed Garden of Sensual Delight* by Muhammad Ibn Muhammad al-Nafzawi, which was a 15th-century Arabic sexual and erotica manual, and the *Book on the Etiquette of Marriage* by al-Ghazali, a 12th-century scholar. With the rise of Islamic revivalism in the post-Western colonization era, the concept of sexuality in the Muslim world changed and sexual education in Muslim countries is not as prevalent and has more of a standard scientific approach (eg, merely discussing differences in male and female bodies). Similar to conservative viewpoints in rural parts of the United States, parents and teachers do not want to discuss sexual relations for fear of promoting premarital sex.[10]

With a growing number of Muslims in the United States, more Muslims are participating in premarital sexual relationships. A recent survey from the University of Windsor found that young Muslims are having sex at high rates. Of the 403 Muslims 17 to 35 years old who were surveyed, more than half reported having had sexual intercourse. Approximately 2/3 of the surveyed Muslims in Canada and the United States who had sex had done so before marriage. They reported that their greatest source of sexual education was through media outlets and the internet. In addition, data released by Google in 2015 showed an increase in visitation of pornographic sites by Muslim-majority countries, which can be an unhealthy mechanism to provide sexual education. Some research has found that lack of sexual knowledge and belief in sexual myths leads to feelings of sexual guilt.[60] Sexual guilt and negative feelings about being sexual can lead to overall dissatisfaction with sexual relations and possible dysfunction. Thus, sexual education obtained through unhealthy sources can affect sexual function.[58]

The pervasiveness of patriarchy and sexual double standards are endemic in all cultures. With the recent #MeToo movement in the United States emerging from sexual harassment claims against prominent political and Hollywood figures, these disparities within the infrastructure of our society were highlighted and are prevalent across all cultures, religions, and socioeconomic groups. There are systemic problems within all societies that contribute to harassment, violence, and sexual interpretations, whether it is the rape of an Anglo-American college student and the lack of prosecution of her perpetrator or the honor killing of a Pakistani student believed to be involved in premarital sex. Although this patriarchy and disparities cross-culturally can contribute to FSD for all women, regardless of religion, the author's discussions and theories are reflective of Muslim women. It is not Islam, but the interpretations of the religion, by mainly male scholars, that have continued the patriarchal and sometimes misogynistic views on sex and female sexuality. Increasing the number of female scholars has initiated discussions and reinterpretations of laws that could be more palatable to

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women in the current century.[10] Until open discussion and new egalitarian interpretations that evolve with modern times are developed to address issues, such as premarital consensual sexual relations, some of the underlying constructs that contribute to sexual dysfunction in these women will continue.

CONCLUSION

Muslim women are at risk for FSD, like most women around the globe. Their views on sexuality and sexual relations affect the type of sexual dysfunction they experience. The emphasis on a woman's chastity that is seen in some Islamic traditions places them in unique circumstances when they have been acculturated to Western values. This has contributed to the rise in cosmetic gynecologic surgeries, such as hymenoplasty, which places some physicians at risk and places others in ethical dilemmas. Some cultural traditions such as FGC, depending on how this procedure is viewed by the community and the patient, can have a negative impact on female sexual function. In addition, genito-pelvic pain disorders such as vaginismus are associated with traditional views on sexuality and therefore are seen in larger numbers among some Muslim women. A drawback of most studies on FSD in Muslim women is the small sample of patients evaluated in the studies, which is undoubtedly related to patient and provider discomfort in discussing this issue. Improving cultural competence and having a patient-centered approach to Muslim women with sexual dysfunction will not only improve health care delivery and treatment but also increase awareness and allow for more research on these topics because there is a paucity of data on this subject. This will ultimately help to eliminate some sexual issues that plague Muslim women.

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Conflicts of Interest: None.

Funding: None.

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