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Male and Female Emirati Medical Clerks' Perceptions of the Impact of Gender and Mobility on Their Professional Careers

Michelle McLean ^{1,*}  and Susan B. Higgins-Opitz ²

¹ Faculty of Health Sciences & Medicine, Bond University, Gold Coast, QLD 4226, Australia

² College of Health Sciences, University of KwaZulu-Natal, Durban 4041, South Africa; acsb@xsinet.co.za

* Correspondence: mimclean@bond.edu.au; Tel.: +61-7-5595-5536

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Abstract: Background: Medicine has undergone profound changes in terms of the number of women entering the profession with postulated implications of this ‘feminization’ for the profession. The present phenomenological study sought to gain insight into the experiences of final year male and female Emirati medical students (clerks) in terms of the impact of gender on their careers. Methods: Semi-structured interviews were conducted with 24 of the 27 clerks. Interviews were transcribed and analyzed thematically. Findings: There was consensus that the gender profile of medicine in the United Arab Emirates was changing as opportunities emerged for Emirati women to branch into different medical specialties. These opportunities were, however, local or regional due largely to travel restrictions on women. Females would thus receive a less highly regarded board certification than males who were encouraged to specialize abroad. On their return, males would be appointed as consultants or as high-ranking administrators. Participants also acknowledged that like their roles in their society, some medical specialties were ‘gendered’, e.g., surgery (male) and pediatrics and obstetrics and gynecology (female). Conclusion: Although religious and cultural traditions around gender and mobility will influence the professional careers of male and female Emirati medical graduates, the situation is, however, changing.

Keywords: career intentions; Emirati; gender; medical students; mobility; Muslim

“Any situation in which some men prevent others from engaging in the process of inquiry is one of violence; ... to alienate humans from their own decision making is to change them into objects.” —Freire (2005, p. 85)

1. Introduction

In most parts of the world, female medical students now generally outnumber their male counterparts, contributing to an increasing female medical workforce. This so-called ‘feminization’ of the medical profession has been well documented in the UK, Europe and North America, where females account for more than 50% of medical school intakes and practicing physicians (Paik 2000; Searle 2001; Sibbald 2002; Van der Reis 2004; Levinson and Lurie 2004; Reichenbach and Brown 2004; Allen 2005; Heru 2005; Kilminster et al. 2007; Dacre 2008; McKinsty 2008; Riska 2008; Drinkwater et al. 2008; Maiorova et al. 2008; Phillips and Austin 2009; Babaria et al. 2009; Weizblit et al. 2009; Roskovensky et al. 2012; Bleakley 2013; Mudaly and van Wyk 2015; Van Wyk et al. 2016). Although much less has been reported in developing countries, this trend appears similar (Al-Jarallah and Moussa 2003; National Association of Universities and Higher Education Institutions (ANUIES); Breier and Wildschut 2006, 2008; Mudaly and van Wyk 2015; Van Wyk et al. 2016). In Kuwait, for example, female medical post-graduates have outnumbered males since 1993

(Al-Jarallah and Moussa 2003) and in Mexico since 1999 (National Association of Universities and Higher Education Institutions ANUIES). In South Africa between 2002–2005, the number of registered female medical practitioners increased by 24%, while female medical students increased from 51 to 56% (Breier and Wildschut 2008).

In its simplest, context-free sense, ‘feminization’ describes the shift in the numerical composition of medical practitioners in a profession that has long been the domain of males. The implication of this increased female medical workforce has been widely discussed (Searle 2001; Levinson and Lurie 2004; Allen 2005; Heru 2005; Kilminster et al. 2007; Riska 2008; Riska and Novelskaite 2008; Dacre 2008; McKinstry 2008; Maiorova et al. 2008; Weizblit et al. 2009; Mudaly and van Wyk 2015; Van Wyk et al. 2016). Riska (2008) contends that using the term ‘feminization’ to describe an increasingly female medical workforce embodies “*predictions about qualitative changes in the practice of medicine*” (p. 3). She discusses several potential outcomes for the medical profession, including gender differences in terms of how medicine is practiced, deprofessionalization of the profession and the ‘ghettoization’ of women into certain specialties. Although Kilminster et al. (2007) concluded that little evidence exists to suggest that women practice medicine differently from men, Heru (2005) has argued that since female practitioners are reputedly superior in domains such as communication skills and empathy, a more ‘feminized’ medical workforce will restore a culture of humane and caring doctors.

The ‘deprofessionalization’ view of an increasingly feminized medical workforce portends that because of the socialized gender stereotype associating men with power and authority and women with nurturing and powerlessness, the profession’s status will decline as a result of women entering the profession or a specialty in increasing numbers (Haug 1975; Levinson and Lurie 2004). Examples cited are those of the status of medicine in several Eastern European countries, where women have been in the majority for more than 70 years (Barr and Boyle 2001; Riska 2008; Riska and Novelskaite 2008).

Probably the most noticeable outcome of the increased number of women entering the profession is that of gender-dominated specialty niches which Riska (2008) referred to as ‘ghettoization’. These niches are reflective of extensions of biological and stereotyped roles. In Riska and Novelskaite (2008) post-Soviet Lithuania study, gender stereotyping and differential salaries and perceived rewards in specialties has culminated in the horizontal and vertical segregation of male and female physicians into specialties seen to embody prototypical characteristics of each sex. To this end, pediatrics is an extension of motherhood, while surgery requires physical strength and hard work and is therefore better suited to males. Even across other contexts, for one or more reasons (e.g., patient refusal, negative experiences as students (Salter 2007; McLean et al. 2010, 2012), same gender mentoring), a similar segregation has led to a situation today in which obstetricians and gynecologists are generally women and surgeons are predominantly men (Heru 2005; Riska 2008; Wildschut 2010).

Today’s medical students have thus chosen a career in a ‘gendered’ profession (Riska 2008; Mudaly and van Wyk 2015), but a profession in which the gender profile is changing or has already changed in some contexts. One might argue that this trend has been towards a situation that once was, a profession in which women were revered as goddesses of medicine, healers and saints before being deemed inferior and vilified as witches. This then left the profession to become one of prestige dominated by men (Wynn 2000). Irrespective of where students study medicine, it is likely that during their clerkships, which, for many might be their first immersion in the medical ‘culture’, they will surely find themselves in an environment in which ‘gender’ is part of almost every facet of their clinical work, from their relationship with nurses and doctors to their interactions with patients. It is well documented, for example, that females may not choose a surgery specialization, due, in part, to their experiences as students in a discipline that is under male control (Salter 2007; Drinkwater et al. 2008; Babaria et al. 2009, 2011; Wildschut 2010). Similarly, in obstetrics and gynecology (O&G), the increasing number of women refusing to be examined by male students and physicians is often cited as a reason for this specialty becoming almost exclusively serviced by female physicians (Magrane et al. 1994, 1996; Ching et al. 2000; Grasby and Quinlivan 2001; O’Flynn and Rymer 2002; Higham and Steer 2004; Hamilton 2006; Salter 2007; Wildschut 2010).

While these reports of ‘gendered’ student experiences appear to be universal, they reflect largely Western contexts. For the purposes of this study, gender has been defined as “*the socially constructed characteristics of women and men—such as norms, roles and relationships of and between groups of men and women . . . While most people are born either male or female, they are taught appropriate norms and behaviours—including how they should interact with one others of the same or opposite sex within households, communities and work places*” (World Health Organization 2017). Thus, in cultural contexts in which men and women have clearly delineated roles, it is not difficult to imagine that ‘gender’ will be a social construct that will influence how they will ultimately practice medicine. The present study set out to explore how the social construct of ‘gender’ impacts on the experiences and career trajectories (including opportunities to study abroad) of male and female medical students raised in a traditional, gender-segregated Muslim society.

1.1. Study Context

The United Arab Emirates (UAE) is a relatively young country. In less than half a decade, it has rapidly evolved from a nation of pearl divers and Bedouins to one in which a traditional culture rubs shoulders with modern cities of skyscrapers and engineering masterpieces. UAE society, as is the case for many Muslim countries, is, however, conservative and is described as traditional and patriarchal (Goby and Erogul 2011). Islam teaches that men and women have different biological roles and social responsibilities, with males being the providers, protectors and defenders of females, who are the mothers, nurturers and educators (Alromaihy et al. 2007). Islam also requires that a woman’s purity and image be maintained, a responsibility which begins with her father, brothers, uncles and family and is then transferred to her husband (Barakat 1993). As part of this protectionist value is the religious *hadith* (a narrative originating from the words or deeds of Prophet Muhammad) restricting unaccompanied women from travelling, as this would expose her to numerous risks. If she needs to travel, she must be accompanied by a male companion who is either her husband or a close *mahram* (non-marriageable) relative. Men, on the other hand, are free to travel at liberty (Alromaihy et al. 2007).

Although in Islam men and women are equal in human dignity, this spiritual equality is not always reflected in *Shari’ah* law, where women may have restricted rights when it comes to choosing marriage partners, getting divorced and having custody of their children (Dhami and Sheikh 2000). According to Islam, men and women have equal rights in terms of employment, education and ownership of land and business, but for a woman, her family comes first (Gallant and Pounder 2008). Although the UAE rulers have recognized the value of modernization and promoted education for all its citizens, they have, however, tried to retain the regional cultural integrity and Islamic values by maintaining sex segregation (Schvaneveldt et al. 2005).

In just one generation, many Emirati women have been catapulted from (future) wives, mothers and home-makers with little or no formal education to now accounting for about 70% of tertiary education enrolments, sometimes in fields (e.g., information technology, engineering, medicine) that have traditionally been the domain of men (Ridge 2009; World Economic Forum 2012). With female employment outside the home a relatively new and modern concept in the UAE (Itani et al. 2011), these tertiary education enrolment figures for women have, however, not translated into the employment market. Despite a 548% increase in the number of women entering the labor market in the UAE between 1960 and 2000 (Metcalf 2006), the country’s roots in religious fundamentalism and the need to conform have hindered women from taking certain jobs. A 2003 United Nations Development Programme (UNDP) report concluded that the UAE culture supports “*the development of human capabilities of women but not for their utilization*” (p. 19). This is not surprising considering that gender roles in the Middle East have been shaped by four elements: the centrality of the family (vs. the individual) as the main unit in society, the man as the sole breadwinner, a code of modesty that rests on family dignity and the reputation of women, and the unequal balance of power in the private sphere that is anchored in family laws (United Nations Development Program UNDP; World Bank 2003a, 2003b; Metcalf 2006). In response to this social and religious order, women have navigated the patriarchy and structural and

attitudinal organizational barriers by engaging in business development amongst themselves, such as the Arab Women' Society, a Gulf Co-operative Council organization dedicated to Arab women's business (Metcalf 2006) and have also become entrepreneurs (Goby and Eroglu 2011; Itani et al. 2011; Marmenout and Lirio 2014; Tlaiss 2015). Notwithstanding these activities and despite the UAE setting up a Gender Balance Council with plans to improve maternity leave, the latest 2016 Global Gender Gap report ranks the UAE 124th (out of 144 countries) in terms of gender inequality (World Economic Forum 2016; Arabian Business.com 2016). The highest ranked Middle Eastern country is Qatar (119th).

1.2. The Study in Context

The study was conducted in the Abu Dhabi Emirate. Participants in the study were final year medical students in a medical college established in 1984 to train Emirati doctors. The medium of tuition was English. Although male and female students were segregated (like Emirati society in general), the syllabus was the same. As a result of the socio-cultural context, male students, however, had limited access to female patients during their obstetrics and gynecology rotations (McLean et al. 2010). At the time of the study, students completed two years of medical sciences, two years of an organ system course (mainly problem-based learning; clinical skills training) followed by the two-year Clinical Sciences Course. During this clerkship phase, students spent most of their time in local public hospitals and primary healthcare clinics where they encountered both male and female patients in a gender-segregated healthcare system. Following a year-long internship, many continued with post-graduate studies (residency) locally or abroad. It is more likely that males would specialize abroad while females, because of the requirement for a male chaperone to travel, would generally specialize locally or within the region. The highly regarded (by local authorities and patients) North America Board certifications made Canada and America desirable destinations for specialization and sub-specialization. Prior to 2007, when the college began offering post-graduate programs (e.g., urology, surgery, medicine, dermatology and pediatrics), family medicine had been the only available local residency for most female graduates who were not permitted to travel to study. At the time of the study, the certifying body was the Arab Board (Jordan).

1.3. UAE Patient and Physician Profile

With expatriates accounting for approximately 85% of the UAE population, patient and physician profiles are diverse. The extensive male, semi-skilled labor force originates mainly from Asia and South-East Asia, while the skilled sector comprises professionals from the Middle East as well as from North America, Europe and Asia. To meet the healthcare needs of a growing local and expatriate population, male and, to a lesser extent, female physicians too have had to be recruited (Schiess et al. 2015) from Western countries, the Middle East (e.g., Syria, Jordan, Egypt) and also South-East Asia (e.g., India, Pakistan).

1.4. Research Framework and Questions

In the context of a conservative, patriarchal, gender-segregated but rapidly developing Middle Eastern society, this study set out to gain insight into final year male and female Emirati medical students' experiences and perceptions of how gender has or could influence their career aspirations and ultimately how they might practice medicine. The study has been informed by the discourse relating to the 'feminization' of the medical profession (Heru 2005; Riska 2008), a traditionally 'gendered' profession in which women now generally outnumber men. Cognizance was also taken of Ridgeway (2009) conception of gender as "A multilevel structure, system, or institution of social practices that involves mutually reinforcing processes at the macro-structural, institutional level, the interactional level, and the individual level" (p. 146). Within the context of the present study, 'gender' as a social construct was therefore likely to affect every facet of the lives of Emirati men and women in this study and would certainly impact on how and where they eventually practiced medicine.

The study was also informed by the literature on social groupings in human societies. While such groupings are most commonly structured along sex, class, ethnic, racial or religious lines, with dominance of one group over another often along these same structures (Sidianus et al. 2000, 2006; Levin 2004; Zakrisson 2008), 'gender' is the focus of this study. The social dominance orientation that arises from groupings is a key element of social dominance theory, reflecting a preference for hierarchical group relations in which one group has dominance over another (Pratto et al. 1994; Sidianus and Pratto 1999; Echabe 2010). Social dominance of males over females along gender lines appears to be relatively invariant across cultural, situational and contextual boundaries, including the Middle East (Levin 2004; Sidianus et al. 2000; Pratto et al. 2006; Zakrisson 2008), with exceptions perhaps in situations where women outnumber men (Zakrisson 2008). From Jackman (1994) perspective, however, male dominance is characterized by attempts to control women without rousing hostility because men desire relationships with women, unlike ethnic dominance, which usually involves hostility. Religion often entrenches gender stereotyping in accordance with biological roles, leading to hierarchical gender identities (Pratto et al. 2006). It is thus easy to imagine in Muslim societies, particularly if they are gender-segregated, with men viewed as the protectors of women, how gender inequality might (consciously or unconsciously) exist not only within the family but also in the workplace.

Taking into consideration the social and cultural context of this study, the following questions framed the interviews with the male and female clerks:

- To what extent do female and male medical students perceive a gender-dominated practice of medicine in the UAE?
- To what extent do they perceive this will affect how they will practice medicine following graduation?
- What advantages and disadvantages do they associate with their gender in the practice of medicine in the UAE?

The results of the current study are discussed against a backdrop of traditional Islamic and cultural values associated with being male or female medical students in a gender-segregated society that is undergoing rapid economic development.

2. Methods

2.1. Participants

After receiving ethical approval for the study, recruitment of final year medical students in the 2007/2008 academic year ($n = 27$) involved scheduling a number of sessions to provide female and male students on the various clinical rotations with a comprehensive explanation of the purpose of the research at a venue of their choice. This was invariably on campus or at a clinical site. Twenty-four of the 27 (89%—15 of the 18 women, 83%; 8 of the 9 men, 89%) students in the cohort consented to participate. Interviews were scheduled between October 2007 and March 2008. A unique code was assigned to each student to ensure anonymity. As UAE nationals, all participants were Muslim. While Arabic was their home language, they had been studying medicine in English for six years and so were relatively fluent.

2.2. The Researchers

At the time of the study, I (MM, Principle Investigator) had been employed at the College as a medical educator working across the six-year curriculum for about one year. Although I was not directly involved with the senior students, I became acquainted with their representatives on the various faculty committees. SBH-O spent a three-month sabbatical at the College during which time many of the interviews were conducted and the initial analysis undertaken.

Although we had worked in a multicultural South African academic setting with Muslim colleagues and students, we were new to undertaking qualitative research in the more conservative

gender-segregated Middle Eastern context. It would therefore be prudent to consider the complexities involved in the cross-cultural and cross-gender interactions (Liamputtong 2010). First, as Anglo-Saxon women interviewing male students, we had to be culturally sensitive to the local customs, i.e., dressing appropriately, refraining from physical contact (e.g., no handshaking) and keeping a reasonable distance during the interviews. As cultural 'outsiders', we also needed to be flexible in terms of allowing students to identify the time and location of the interviews and allowing the students to dictate the pace of the interview. We believe we developed a rapport with the participants by sharing personal stories about our South African students as well as our experiences of working and living in the UAE, a country of which they were very proud.

It was important that we were perceived as 'culturally competent', with a reasonable knowledge of the Emirati socio-cultural context and that we were genuinely interested in understanding what affected their careers as future doctors. We view the overwhelming positive response to recruitment as a reflection of the participants' genuine desire to share their stories and to contribute to research as a way of improving their education. It was my perception that Emirati students have a deep appreciation for education and are therefore highly respectful of academic faculty. Our willingness to learn more about Emirati culture was reciprocated, with participants openly sharing their aspirations, frustrations and even personal dilemmas.

From a personal perspective, this research was invaluable as it provided me with considerable insight into the UAE clinical setting, assisting in my role as a medical educator and academic counsellor. It later led to junior students researching the medical student and female Emirati patient experience in the gender-segregated UAE healthcare system (McLean et al. 2010, 2012).

2.3. Interviews and Analysis

This study was phenomenological in that it sought to explore male and female Emirati clerks' accounts of their experiences as they practiced medicine in a conservative, gender-segregated Muslim society. Semi-structured interviews were conducted in English by the researchers. They lasted about an hour and were digitally recorded. The research questions framed the interviews. Relevant issues raised by participants were explored further during the interviews. At the end of each interview, a summary was made to assist with the preliminary analysis while professional transcription was being undertaken.

As the research questions framed the interviews, data were analysed thematically within this framework (Braun and Clarke 2006). Initial themes and subthemes were identified independently by the two researchers who each read four transcripts (two male and two female participants). Once agreement had been reached in terms of the initial themes, the next level of analysis involved a more inductive approach of linking themes and subthemes. Verbatim quotes were identified at the same time. Regular checking took place as the remaining transcripts were analysed.

3. Findings

3.1. The Practice of Medicine in the UAE: Male- or Female-Dominated?

Only marginally did students perceive that medical practice in the UAE to be still male-dominated. While most clerks recognized that the majority of expatriate doctors were male, except in O&G (largely expatriate females), they identified several reasons for an increasing number of female Emirati residents and doctors. Reasons included there being more female medical students than males, the recent offering of a suite of local post-graduate training opportunities beyond family medicine and the fact that Emirati males are generally sponsored (and encouraged) to pursue both undergraduate and post-graduate medical studies abroad. Certain disciplines were, however, identified as being dominated (numerically but also in terms of the 'culture') by either men or women. To this end, female students identified surgery and orthopedic surgery as disciplines in which a female had to prove her worth before being accepted as a resident. When probed why this might be, both male and female clerks claimed that

because surgery had on-call duties, which would be socially difficult for Emirati females, it remained a specialty for males.

"We are seeing many females, even local females everywhere in every hospital. We are seeing residents, specialists even consultants. Except maybe in Surgery, I can say there is a lack of female surgeons but other specialties they are there, I think" [Female 3]

"According to the specialty. For example in Obs & Gynae, there are females more, but in Surgery, there is a limit of females, more males. And it's becoming, for residents in Internal Medicine, there is becoming more female residents" [Female 13]

"I saw a lot of males [in Surgery] and some of them were like dominating. So, it was a problem and I didn't know how to deal with that. But, with time and what they saw with me, like a hard-working student and enthusiastic, they tried to give me support" [Female 1]

Male students similarly identified O&G and pediatrics being serviced mainly by female physicians. Acknowledging their gender-segregated society, male students reported frequently being refused by female patients or doctors during their O&G rotation, resulting in them having little hands-on experience. The impact of the gender segregation characterizing UAE culture is evidenced by this description of a male clerk during his pediatrics rotation:

"The Pediatrics ward is ... again ... It's a funny ward where you rarely see a male resident. I came across only two male residents while all the rest were females. Usually, you see women gathering in the Pediatrics ward, sitting in the room, chit-chatting. So for a male in our culture, you can imagine a male invading a women's environment! It's like they are sitting with their children and it's like a cultural, I mean, like home" [Male 8]

3.2. Implications of a Changing Physician Gender Profile

3.2.1. As Interns

Within a few months of the study, the clerks would enter their internship where they would be supervised by male and female residents and physicians. Generally, they did not foresee any difficulties, because, as one female pointed out, despite a gender-segregated education system, they were used to dealing with male doctors as this reflected the clinical profile in the hospital and at the medical school. Similarly, male students acknowledged that they had all had contact with female residents (Emirati Nationals) and were comfortable with this.

"I know for example a student doing training at the hospital, elective and so on, and my supervisor was a male and I had not difficulty. I can conduct with them easily and they can help me. So, I don't see any difference between the male and female supervisor" [Female 15]

"I have many experiences with female residents. They were really helping me as a student. Enthusiastic and dedicated to teach me" [Male 7]

Only two female students indicated a gender preference, one for a female supervisor and another for a male supervisor. The latter student who was married with children appeared to have had negative interactions with female clinicians and preferred to work within the professional boundaries of male and female colleagues.

"I feel more comfortable with female doctors. I learn from them a lot, more than from males" [Female 4]

"For female practitioners, the problem is the attitude of the female doctors. Sometimes it is hostile. I think the male-female relationship is more professional, more, uh ... clean" [Female 14]

3.2.2. Beyond Internship

Based on their clinical experiences as clerks, students generally did not foresee any issues in terms of the increasing number of local female residents and doctors. One male student, however, anticipated that he might have to undertake additional after hours on-call duties as female residents and physicians would take maternity leave and would have family responsibilities. In his view, even in Canada, where he had undertaken his external elective, there appeared to be a lack of consideration for male physicians who had families (e.g., no paternity leave).

“The main obstacle I face is the she [the female] will not want to be on call on the week-ends. She will get pregnant if she is married. After pregnancy, delivery, she will take lots of holidays and the work will not move (laughs). This was also for Canada. The females refused to do on-calls so the males had to do. The males also have families and the children want their father to come home, but he has the weekends on call. Many weekends” [Male 2]

3.3. Career Intentions and Medical Practice in the UAE: Gender and Mobility

When students were asked about their ‘gender’ and the practice of medicine in the UAE, the themes identified related to the repercussions of the local cultural context, most specifically in terms of ‘gender’. Their responses are discussed in relation to the restrictions (e.g., travel) on females, gendered roles and responsibilities (e.g., wife and mother) and perceptions of being physically weaker.

3.3.1. Restrictions on Women

As a consequence of their social context, several female students identified obstacles, particularly in terms of travel, which had already impacted on their elective plans or would restrict how and where they might practice medicine. Also, for these women, choice was not always in their hands. Some had not been permitted by their families to undertake an external elective abroad and would certainly not be allowed abroad for post-graduate studies. While this situation largely reflects a religious ‘requirement’ of men to protect women, female students suggested that with considerable societal pressure for marriage and motherhood, finding a suitable husband for a daughter or a sister would probably take priority over a woman’s career aspirations.

“As a female, the first obstacle . . . I wanted to go abroad to finish my medical school but my family didn’t agree” [Female 14]

“My family will not accept it that much. My father is supportive and he wants me to go abroad but they still think if a girl wants abroad then she will not get a chance to get married” [Female 8]

“I remember one thing. Maybe in the external elective. Because, uh, I am female and my relatives cannot go with me far away for a long period, for example, to Canada or the US, that’s why this make me choose another country [Malaysia, also largely Muslim]. I went with my family but we, uh, we stayed there around two weeks only” [Female 7]

For one female student, her desire to be independent (i.e., travel with no male chaperone) had culminated in her undertaking an elective in Saudi Arabia, which is a more conservative gender-segregated Muslim country than the UAE. Although Saudi Arabia was not her preference, this was where her family would allow her to travel and study without a male companion, although she was accompanied by other female students:

“For the elective, I get acceptance from Singapore and Malta. My family wouldn’t allow me to go alone, so one of them was going to accompany me. I wanted to do it. I wanted to go alone to see, to experience the situation, more than just go to a specific place. Um, then we had another option to go to Saudi Arabia and my family accepted for me to go with some of my colleagues so I went there as I wanted to go alone [without a male chaperone]” [Female 10].

On the flip side, one female student shied away from being ‘alone’ (meaning with no chaperone), separated from her family, claiming she did not have the “*personality*” to travel and study away from home. While this may be so, taking cognizance of the fact that in the conservative Emirati society, women are generally not allowed to travel alone, it is probable that she was not confident to be alone in a foreign country.

“But maybe this depends on person, personality and stuff, but for example for me, I think it will be difficult to go abroad alone and do my residency. I should have one of my family with me. But for a man, he can manage himself anywhere. Because of my personality I need that person. But because some female students could manage going abroad alone without anybody ... It is not a common thing, for a female to go abroad, but it does happen, not usually” [Female 3].

For male students, a completely different picture emerged. Male clerks readily acknowledged (and verified by their female peers) that personal choice (rather than any social or cultural factor) would dictate where males would study and how they would eventually practice medicine. Males acknowledged that their gender allowed them to pursue any avenue of medicine, except perhaps O&G (because of refusal by female patients). Many openly acknowledged that their female peers would not be permitted to travel abroad to study and so would specialize in the UAE or the region where they would obtain a certification that was less recognized and valued than a North American qualification. As a result, not only would male physicians then be better remunerated than their female peers, but they were also destined for leadership roles on their return or shortly thereafter.

“Our families encourage us [to go abroad]. For females, the families somehow will not encourage. Males will usually sub-specialize. A female will never sub-specialize unless she stays long years outside. All local males or most of them, they sub-specialize in very important sub-specialties but females more general ... Males will be less but they will be given more responsibility. In the hospitals, the leadership will be males ... more highly qualified ... salaries depend on rank ... Males will be qualified by international boards. Females will have Arab Board. Not the same qualification” [Male 2]

3.3.2. Gendered Roles and Responsibilities

As Emiratis generally marry at an early age, several students, females in particular, were already parents. Some lamented the fact that they were away from their families during the week on campus in the hostel. Male and female students acknowledged that for females particularly, it was going to be difficult to be a wife and a mother and have a professional career. At least one female clerk raised the issue of societal perceptions of women in medicine not being able to be a mother as well as a good doctor.

“Second thing. Children. I think medicine is hard work, it takes a lot of time and it’s very difficult I think in imagination [i.e., in my mind] to balance between the home and the work. Very difficult” [Female 4]

“For example, if she wants to be an ICU doctor, Cardiology, Surgery. Some specialties have many on-calls and might interfere with her social [family] life. So, as I can see, many of them will chose the uh, specialties so that they can have more social life [i.e., wife and/or mother]” [Male 4]

“Because they think, for example, I am married, I have a baby, so I think they will think I will not be, uh, as dedicated for my job as a male, which is wrong” [Female 14]

Males’ comments were more likely to reflect gendered societal roles. From their paternalistic and Muslim perspective, protecting women is a man’s responsibility and so women should be honored and not be made to work hard or long hours or be subjected to stress and physical effort.

“There are many advantages [to being a male]. Having on calls, it will be much easier for a male to do it. For females, it will depend on the location. But, mainly it’s, uh being a male on the on-calls and the long working hours. If there are females who are having housework to do, it might be some problem. But for male, the timing is advantage. I can stay for long hours for on calls as well as maybe tough work, stress, stress-related and in, uh, musculo-skeletal [physical] effort” [Male 1]

“We are also concerning about females to enlarge [increase in number]. In our societies, in our families, ladies first sometimes. If there is a work, or something troubling or something, we are focusing—do not make our females so tired. So, now for me, when I saw this girl working the whole night, it’s like, it’s tiring for us, so what about them? It’s a bit difficult” [Male 6]

One male student was of the opinion that Emirati men had a patriotic responsibility to specialize and sub-specialize in fields of medicine that better suited men, largely because of the roles women were expected to assume.

“For us, male doctors, we should have more roles taking the specialties that ... there are sub-specialties that fit us more than females. I don’t know, could be Surgery or Cardiology. The specialties that have more on-call duties because all females decided to stay in the country and do the specialties like Dermatology. That’s OK, but for us, we have to take the action and get the specialties that our country needs” [Male 4]

Both male and female students agreed that once married, a woman’s life and her career (i.e., specialty choice, and even practicing medicine) depended on her spouse, i.e., where he lived and what he would allow.

“If I get married, for example, if he will agree to stay with me [where she does her residency] or will he keep me in Ras Al Khaimah [an emirate]? This is bad! The females here in our culture should follow her husband, not the opposite. In rare cases, you find the husband will follow” [Female 4].

“If one is married, the husband may not be happy with you having many on-calls ... So, some of the females who are married are getting into Family Medicine because Family Medicine has no [on call] duties. Maybe that will affect them more. Maybe she didn’t want to do Family Medicine but because there is no duties, she will go to Family Medicine” [Female 11]

“I think if they get married, they could have a few difficulties, unless the husband is open-minded and willing to help” [Male 7]

3.3.3. Gender Differences in Physical Strength

Interestingly, while several males raised physical strength as a potential obstacle on behalf of their female colleagues, only two female students lamented the limitations of their physical strength:

“The difficulty that I encounter with myself. Sometimes when I encounter a male patient for examination. Sometimes it is difficult, not because he is male and I am a female. Maybe this problem also applies to females (laughs) when they are overweight. Sometimes I cannot examine them. I find it difficult (laughs)” [Female 1]

“Maybe because it is difficult for females to practice Surgery. Because most of the time, the surgeons in the hospital are on call and the surgery may last more than five hours and she has to stand ... ” [Female 3]

4. Discussion

The study coincided with a milestone for Emirati women in terms of the availability of local post-graduate opportunities beyond family medicine. Recognizing the travel constraints of most

Emirati women and the societal expectations of marriage and motherhood, these residencies would allow females to have professional careers whilst managing their expected social and domestic responsibilities. Residencies with few or no on-call duties, e.g., dermatology and ophthalmology were anticipated to be popular choices. Prior to these residency offerings, female Emirati medical graduates not permitted by their fathers, brothers or husbands to travel and study abroad (i.e., the majority) in reality had two professional choices—join the family medicine residency program or leave the profession.

Thus, in line with the global trend of a ‘feminizing’ medical profession, the male and female Emirati clerks interviewed in the present study agreed that as a result of female medical students and graduates undertaking local residencies (recently expanded beyond family medicine) due to restrictions on travelling alone and hence unable to study abroad, the face of the medical profession in the UAE would change from one serviced largely by expatriate males to one of female Emirati residents and physicians. There was agreement, however, that the situation was artificially skewed as male Emiratis were encouraged and sponsored (e.g., by the armed forces) to specialize abroad, leaving the women to specialize locally. It is important to note that although many of the males study abroad for several years to complete their residency and then a sub-specialization, often with their families, they almost all return to practice medicine in the UAE.

While recognizing the benefit of the recent local post-graduate offerings, both male and female clerks acknowledged that their career trajectories would, however, remain different. This they attributed to their socio-cultural context in which their gender (with associated expectations and restrictions) was an important consideration. Despite having aspirations of specializing abroad, most of the women were resigned to the fact that this would generally not be possible due to their inability to travel abroad without a chaperone unless permitted by their fathers, brothers or their husbands. If not already married, there was an expectation of they would need to marry soon. Whether married or unmarried, it was unlikely that they would find a chaperone for the duration of their post-graduate studies abroad. For the majority of the women, their professional careers thus rested largely with their immediate male family members or with their spouses. Like their male colleagues, these women were acutely aware of the implications on career trajectories of a local (Arab Board or other) certification compared with a more highly regarded American, Canadian or European board certification. Those returning with a North American Board certification (mostly males) would generally be offered consultant positions, whilst those with a local or Arab Board certification (mostly females) would be appointed at the lower rank of ‘specialist’. According to the students, it would take a locally trained specialist 7–8 years to become a consultant. As several of the males in the present study indicated, if they returned to the UAE with an international sub-specialization, they would move relatively quickly up the professional ladder to be senior consultants or high-ranking administrators.

While Riska (2008) has described a vertical segregation in medicine (presumably with differential remuneration) along gender lines as a global phenomenon, it is likely to be exacerbated in societies where there is a more marked gender-based social dominance as is the case in many Middle Eastern countries. According to Echabe (2010), women in such societies are often relegated to jobs that display supportive behaviors, such as empathy, tenderness and understanding while men are appointed to high status positions involving decision-making, ambition, aggressiveness and assertiveness. Although Islam regards a woman’s role in society as a wife and mother, she is, however, not forbidden to work provided there is a societal need and in positions which ‘fit her nature’. While nursing, teaching and perhaps medicine appear to match these criteria (Badawi 1971), contexts requiring frequent contact with men, such as hotels and hospitals, are likely to be considered unacceptable workplaces for women by traditional fathers or husbands (Gallant 2006). Together with the travel restrictions and the expectation to marry and have children, Emirati women may thus not progress in their careers to the same extent as males. Although mentioned by a few students in the present study, Marmenout and Lirio (2014) female Emirati entrepreneurs reported having to show restraint in terms of their careers and income generation so as not to outshine their husbands. As “*culture is a macroconcept which subsumes religion*” and since “*Culture and, with it, religion are the sources of the gender construct . . . religion is derived from*

culture, and gender is, in turn, derived from both culture and religion" (Raday 2003, p. 665), the context in which this study took place is indeed complex, particularly from an outsider's perspective.

With the relatively rapid economic development of most Middle Eastern countries, the position of women is changing as their societies modernize and as women become increasingly educated. Shaul (2005), in his foreword in the 30th anniversary edition of Paulo Freire's *Pedagogy of the Oppressed*, wrote this about education and freedom—"Education either functions as an instrument that is used to facilitate the integration of the younger generation into the logic of the present system and bring about conformity to it, or it becomes "the practice of freedom," the means by which men and women deal critically and creatively with reality and discover how to participate in the transformation of their world." (p. 34), which is particularly relevant in this context of a Bedouin culture with deep-rooted traditional religious values that is evolving as a result of progress. In a society described as paternalistic with a distinct gender hierarchy along biological roles, education is highly valued amongst females, who now account for almost three-quarters of college enrolments (Ridge 2009; World Economic Forum 2012). For some Emirati women, education may thus serve to liberate them from their socio-cultural shackles, mainly by delaying the age of marriage and motherhood. Heaton (1996) study of women in three Muslim countries (Egypt, Jordan, Indonesia) attests to the impact of an education in this regard: only 10% of women with a post-secondary education were married before the age of 20 (vs. 50% of women with no post-secondary education). A similar picture emerged for women with work experience in young adulthood (Heaton 1996). Schvaneveldt et al. (2005) study of cultural changes in Emirati family life over one generation found that while 93% of the mothers in that study were housewives with little formal education, almost 94% of their daughters (who were generally attending university) wanted professional careers. Compared with the mean age of marriage of their mothers (16.6 years), the ideal age identified by the daughters was 20.2 years, with a strong preference to select their own partner.

The dilemma facing Emirati women in terms of being a wife and mother and desiring a professional medical career has been voiced by women generally as it is they who are more likely to sacrifice their professional aspirations to raise children (Lempp and Searle 2006; Drinkwater et al. 2008; Mudaly and van Wyk 2015). As Allen (2005) pointed out, the career paths of women in medicine are different from their male colleagues: M-shaped, with an early peak, a dip in the middle (child-bearing years) and then the potential to peak later. The evidence also suggests that women do not usually drop out of medicine after childbirth, instead choosing to practice part-time (Allen 2005; McKinstry 2008). Several authors have suggested that with the changing physician profile, the profession should take a fresh look at the ingredients of professional status as well as lifestyle considerations in terms of flexibility of working hours, family leave and part-time training and support (e.g., on-site child care) for female physicians wishing to have a family (Allen 2005; Heru 2005). Today's medical students should therefore be able to choose specializations based on personal choice and not because of societal expectations of the professional strengths and weaknesses of males and females (Reichenbach and Brown 2004; Allen 2005). For Allen (2005), medicine should "... consider some of the entrenched values and attitudes that reinforce the traditional pecking order in medicine and remain a source of implicit discrimination against women ... the most important thing for the medical profession to concentrate on now is how best to use the resources it has and will have in the foreseeable future ... It should be a matter of pride that so many brilliant young women are choosing to enhance the profession, and every effort should be made to throw out old fashioned practices and attitudes that inhibit the contribution they can make both in the early and later stages of their careers" (p. 571). Bleakley (2013) continued this conversation, stating that female doctors entering the profession can "resist and reformulate the current dominant patriarchy rather than reproducing it ... " (p. 59).

Thus, gender, with all its social, religious and political complexities, particularly within the context of a gender-segregated patriarchal society where social dominance still exists, is likely to influence not only the day-to-day practices of male and female Emirati physicians but also their career trajectories. In a society where religion and culture are inextricably linked and one in which gender stereotypes and socialized roles culminate in men as protectors exerting (unconsciously or

consciously) considerable influence over women, the career aspirations of many female medical students might for some remain just that—aspirations. The historical position of Emirati women has, however, changed and continues to change. For Muslim women in the Arab World who have clearly demonstrated a desire to be educated and have professional careers, their challenge lies in their often patriarchal society's traditional beliefs and values about the roles of women. In [Jawad \(1998\)](#) opinion, the persistent lower status of Muslim women (despite documented equality in the *Qur'an*) and their apparent dominance by men can be attributed to several factors, including the reappearance of some pre-Islamic traditions (e.g., treating women as property) and the assimilation of some of the traditions and values of the conquering Turks and Mongols. Reformists have challenged Muslim women's lack of rights and control over their lives, claiming that this has arisen from different and perhaps incorrect interpretations of *Qur'anic* verses that bestow privilege on men over women, thereby reinforcing gender inequality and specific societal roles. In particular, the verse that states that men are 'guardians' (*qawamum*) has been used to entrench the women to roles of obedient wives and mothers and males as their guardians ([Badawi 1971](#)). Muslim women themselves are, however, challenging their status, with several forms of Islamic feminism having emerged ([McDonald 2008](#)) and with an increasing number of female entrepreneurs who have been able to navigate the constraints of their socio-cultural contexts ([Goby and Eroglu 2011](#); [Itani et al. 2011](#); [Marmenout and Lirio 2014](#); [Tlaiss 2015](#)).

5. Conclusions

Like the rest of the world, medicine in the UAE has become 'feminized', largely as a result of the increasing number of women studying at the tertiary level but also due to increasing opportunities for Emirati women to undertake post-graduate studies, which, at the time of the study, was mainly in the region or in the UAE due to travel restrictions. The young women in this study thus found themselves at the forefront of not only a changing profession but also in terms challenging the traditional values of their society. It is thus difficult to imagine, however, how a traditional gender-segregated society can withstand the pressures of modernization as well as the emergence of a generation of highly educated women who have clearly expressed a desire to enter the workforce. As more Emirati women enroll in higher education and become leaders in their respective areas, the 'gender' harness that tethers them to men will gradually loosen. [Schvaneveldt et al. \(2005\)](#) study of mothers and daughters concluded that the Emirati women of the present generation are "*core change agents for social revolution in this rich nation of desert history, oil wells, and traditional family life*" (p. 90) while the entrepreneurial women in [Marmenout and Lirio \(2014\)](#) and [Tlaiss \(2015\)](#) studies worked towards "*fulfilling their personal needs by negotiating the discriminatory cultural values of their societies, and positioning their entrepreneurship careers on the premise and promise that would allow them to meet their socially ascribed roles better*" (p. 576). Most of the female students in the present study were ambitious, with great career aspirations in medicine, but largely saw themselves constrained by societal expectations of marriage and motherhood and their status in society. Through education and persistence, a group of women will emerge who will go on to make their mark in the development of healthcare in the UAE. While some will have had to cope with the dual responsibility of parenthood and a career, they will nevertheless be role models for the next generation of female doctors.

Limitation: As this research involved cross-cultural and cross-gender interviews, limitations should be acknowledged. As female Anglo-Saxon researchers new to the Middle East, it is possible that in the gender-segregated Muslim context, participants may have 'positioned' themselves in terms of what they told us and how they told us. We do not think, however, that this was the case, with participants unreservedly expressing their individual perceptions of what it meant to be a male or a female in Emirati society. Male students were acutely aware of their potentially different career opportunities compared with those of their female colleagues, viewing this as 'normal', in line with their delineated biological roles in a young country that required local doctors. They, however, saw female doctors occupying roles that would allow them to have careers and families.

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Note: In 2010, a female participant provided an update on the status of her colleagues. Of the 15 female participants, six were married, four of whom had children. As Senior House Officers, the women had applied or intended to apply for local residencies as follows: Family Medicine (4), Dermatology (3), Internal Medicine (3), Emergency Medicine (2), Ophthalmology (1) and Radiology (1). After leaving the UAE, I lost contact with this student as she had transferred her residency to Saudi Arabia. Via LinkedIn, I was recently able to track one female and three male participants. The female participant is an Endocrinologist in Dubai, having completed her Internal Medicine specialty and Endocrinology Fellowship in Saudi Arabia. One male is currently a Sports Medicine Doctoral Fellow in France, following the completion of a Physical Medicine and Rehabilitation residency in France. Following completion of their Neurology residencies in Canada, the remaining two males are undertaking sub-specialties in Vascular Neurology and Epileptology in the USA and Canada, respectively.

References

- Al-Jarallah, Khaled F., and Mohamed A. A. Moussa. 2003. Specialty choices of Kuwaiti medical graduates during the last three decades. *Journal of Continuing Education in the Health Professions* 23: 94–100. [CrossRef] [PubMed]
- Allen, Isobel. 2005. Women doctors and their careers: What now? *British Medical Journal* 331: 569–72. [CrossRef] [PubMed]
- Alromaihy, Abdulhamied, Layla Al Bloushi, and Dianne H. Saphiere. 2007. Cultural Detective: Arab Gulf. Available online: <https://www.culturaldetective.com/> (accessed on 4 February 2012).
- National Association of Universities and Higher Education Institutions (ANUIES). 2004. *Annual Estimates of Professions, 1990–2002*. Mexico City: ANUIES.
- Arabian Business.com. 2016. Gulf countries still lagging behind on gender gap reforms. Available online: <http://www.arabianbusiness.com/gulf-countries-still-lagging-behind-on-gender-gap-reforms-650493.html> (accessed on 30 June 2017).
- Babaria, Palav, Sakena Abedin, and Marcella Nunez-Smith. 2009. The effect of gender on the clinical clerkship experiences of female medical students: Results from a qualitative study. *Academic Medicine* 84: 859–56. [CrossRef] [PubMed]
- Babaria, Palav, Susannah Bernheim, and Marcella Nunez-Smith. 2011. Gender and the pre-clinical experiences of female medical students: A taxonomy. *Medical Education* 45: 249–60. [CrossRef] [PubMed]
- Badawi, Jamal A. 1971. The status of women in Islam. Available online: <http://www.jannah.org/sisters/badawistatus.pdf> (accessed on 4 February 2012).
- Barakat, Halim. 1993. *The Arab World: Society, Culture, and State*. Berkeley: University of California Press. Available online: <http://intersci.ss.uci.edu/wiki/eBooks/MidEast/BOOKS/The%20Arab%20World%20Barakat.pdf> (accessed on 4 February 2012).
- Barr, Donald A., and Elizabeth H. Boyle. 2001. Gender and professional purity: Explaining formal and informal work rewards for physicians in Estonia. *Gender and Society* 15: 29–54. [CrossRef]
- Bleakley, Alan. 2013. Gender matters in medical education. *Medical Education* 47: 59–70. [CrossRef] [PubMed]
- Braun, Virginia, and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3: 77–101. Available online: <http://www.tandfonline.com/doi/abs/10.1191/1478088706qp0630a> (accessed on 23 January 2017). [CrossRef]
- Breier, Mignonne, and Angelique Wildschut. 2006. *Doctors in a Divided Society*. Pretoria: Human Sciences Research Council.
- Breier, Mignonne, and Angelique Wildschut. 2008. Changing gender profile of medical schools in South Africa. *South African Medical Journal* 98: 557–60. [PubMed]

- Ching, Susanne L., Elena A. Gates, and Patricia A. Robertson. 2000. Factors influencing obstetrics and gynecology patients' decisions towards medical student involvement in the outpatient setting. *American Journal of Obstetrics and Gynecology* 182: 1429–32. [CrossRef] [PubMed]
- Dacre, Jane. 2008. Are there too many female medical graduates? *British Medical Journal* 336: 749. [CrossRef] [PubMed]
- Dhami, Sangeeta, and Aziz Sheikh. 2000. The Muslim family: Predicament and promise. *Western Journal of Medicine* 173: 352–56. Available online: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1071164/> (accessed on 23 March 2017). [CrossRef] [PubMed]
- Drinkwater, Jess, Mary Patricia Tully, and Tim Dornan. 2008. The effect on gender on medical students' aspirations: A qualitative study. *Medical Education* 42: 420–26. [CrossRef] [PubMed]
- Echabe, Agustin E. 2010. Role identities versus social identities: Masculinity, femininity, instrumentality and communality. *Asian Journal of Social Psychology* 13: 30–43. [CrossRef]
- Freire, Paulo. 2005. *Pedagogy of the Oppressed*, 30th anniversary ed. Translated by Myra Bergman Ramos. New York: Continuum International.
- Gallant, Monica. 2006. Five Case Studies of Emirati Working Women in Dubai—Their Personal Experiences and Insights. Ph.D. dissertation, University of Southern Queensland, Toowoomba, QLD, Australia. Available online: <https://eprints.usq.edu.au/1425/> (accessed on 23 March 2017).
- Gallant, Monica, and James A. Pounder. 2008. The employment of female nationals in the United Arab Emirates (UAE): An analysis of opportunities and barriers. *Education, Business and Society: Contemporary Middle Eastern Issues* 1: 26–33. [CrossRef]
- Goby, Valerie P, and Murat S. Eroglu. 2011. Female entrepreneurship in the United Arab Emirates: Legislative encouragement and cultural constraints. *Women's Studies International Forum* 34: 329–34. [CrossRef]
- Grasby, Devika, and Julia A. Quinlivan. 2001. Attitudes of patients towards the involvement of medical students in their intrapartum obstetric care. *Australian and New Zealand Journal of Obstetrics and Gynaecology* 41: 91–96. [CrossRef] [PubMed]
- Hamilton, Alexander J. 2006. "GAMMS". Go away, male medical student. *Student British Medical Journal (Student)* 14: 112–13. Available online: <http://student.bmj.com/student/view-article.html?id=sbmj0603112> (accessed on 4 February 2012).
- Haug, Marie R. 1975. The deprofessionalization of everyone. *Sociological Focus* 8: 197–213. Available online: <http://www.tandfonline.com/doi/abs/10.1080/00380237.1975.10570899?journalCode=usfo20> (accessed on 17 October 2009). [CrossRef]
- Heaton, Tim B. 1996. Socioeconomic and familial status of women associated with age at first marriage in three Islamic societies. *Journal of Comparative Family Studies* 24: 41–58.
- Heru, Alison M. 2005. Pink-collar medicine: Women and the future of medicine. *Gender Issues* 22: 20–34. [CrossRef]
- Higham, Jenny, and Philip J. Steer. 2004. Gender gap in undergraduate experience and performance in obstetrics and gynaecology: Analysis of clinical experience logs. *British Medical Journal* 328: 141–43. [CrossRef] [PubMed]
- Itani, Hanifa, Yusuf M. Sidani, and Imad Baalbaki. 2011. United Arab Emirates female entrepreneurs: Motivations and frustrations. *Diversity and Inclusions* 30: 409–24. Available online: <http://www.emeraldinsight.com/doi/full/10.1108/02610151111150654> (accessed on 15 June 2017). [CrossRef]
- Jackman, Mary R. 1994. *The Velvet Glove: Paternalism and Conflict in Gender, Class, and Race Relations*. Berkeley: University of California Press.
- Jawad, Haifaa A. 1998. *The Rights of Women in Islam: An Authentic Approach*. New York: St. Martin's Press.
- Kilminster, Sue, Julia Downes, Brendan Gough, Deborah Murdoch-Eaton, and Trudie Roberts. 2007. Women in medicine—Is there a problem? A literature review of the changing gender composition, structures and occupational cultures in medicine. *Medical Education* 41: 39–49. [CrossRef] [PubMed]
- Lempp, Heidi, and Clive Searle. 2006. Medical students' perceptions in relation to ethnicity and gender: A qualitative study. *BMC Medical Education* 6: 17. Available online: <http://www.biomedcentral.com/1472-6920/6/17> (accessed on 4 February 2012). [CrossRef] [PubMed]
- Levin, Shana. 2004. Perceived group status differences and effects of gender, ethnicity, and religion on social dominance orientation. *Political Psychology* 25: 31–48. Available online: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9221.2004.00355.x/full> (accessed on 15 June 2017). [CrossRef]

- Levinson, Wendy, and Nicole Lurie. 2004. When most doctors are women: What lies ahead? *Annals of Internal Medicine* 141: 471–74. Available online: <http://annals.org/aim/article/717826/when-most-doctors-women-what-lies-ahead> (accessed on 4 February 2012). [CrossRef] [PubMed]
- Liamputtong, Pranee. 2010. *Performing Qualitative Cross-Cultural Research*. Cambridge: Cambridge University Press.
- Magrane, Diane, Jane Gannon, and C. T. Miller. 1994. Obstetric patients who select and those who refuse medical students' participation in their care. *Academic Medicine* 69: 1004–6. Available online: http://journals.lww.com/academicmedicine/Abstract/1994/12000/Obstetric_patients_who_select_and_those_who_refuse.23.aspx (accessed on 17 October 2009). [CrossRef] [PubMed]
- Magrane, Diane, Jane Gannon, and C. T. Miller. 1996. Student doctors and women in labor: Attitudes and expectations. *Obstetrics & Gynecology* 88: 298–302. Available online: <http://www.sciencedirect.com/science/article/pii/S0029784496001913> (accessed on 17 October 2009).
- Maiorova, Tanja, Fred Stevens, Jouke van der Zee, Beppie Boode, and Albert Scherpier. 2008. Shortage in general practice despite the feminisation of the medical workforce: A seeming paradox? A cohort study. *BMC Health Services Research* 8: 262. Available online: <http://www.biomedcentral.com/1472-6963/8/262> (accessed on 17 October 2009). [CrossRef] [PubMed]
- Marmenout, Katty, and Pamela Lirio. 2014. Local female talent retention in the Gulf: Emirati women bending with the wind. *International Journal of Human Resource Management* 25: 144–66. [CrossRef]
- McDonald, Laura Z. 2008. Islam and feminisms: An Iranian case-study. *Feminist Theory* 9: 347–54. Available online: <http://journals.sagepub.com/doi/abs/10.1177/1464700108095857> (accessed on 15 June 2017). [CrossRef]
- McKinstry, Brian. 2008. Are there too many female medical graduates? *British Medical Journal* 336: 748. Available online: <http://www.bmj.com/content/336/7647/748> (accessed on 17 October 2009). [CrossRef] [PubMed]
- McLean, Michelle, Salma Al Ahbabi, Mouza Al Ameri, Muneera Al Mansoori, Fatima Al Yahyaei, and Roos Bernsen. 2010. Muslim women and medical students in the clinical encounter: A United Arab Emirates study. *Medical Education* 44: 306–15. Available online: <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2923.2009.03599.x/abstract> (accessed on 4 February 2012). [CrossRef] [PubMed]
- McLean, Michelle, Fatima Al Yahyaei, Muneera Al Mansoori, Mouza Al Ameri, Salma Al Ahbabi, and Roos Bernsen. 2012. Muslim women's physician preference: Beyond Obstetrics and Gynecology. *Health Care for Women International* 33: 849–76. Available online: <http://www.tandfonline.com/doi/abs/10.1080/07399332.2011.645963> (accessed on 15 January 2013).
- Metcalfe, Beverly D. 2006. Exploring cultural dimensions of gender and management in the Middle East. *Thunderbird International Business Review* 48: 93–107. Available online: <http://onlinelibrary.wiley.com/doi/10.1002/tie.20087/abstract> (accessed on 17 October 2008). [CrossRef]
- Mudaly, Ronicka, and Jacqueline van Wyk. 2015. 'Pink collar' medicine: Medical students navigating the gendered landscape of a South African medical school. *South African Journal of Higher Education* 29: 229–43. Available online: <https://journals.co.za/content/high/29/4/EJC182447> (accessed on 15 January 2017).
- O'Flynn, Norma, and Janice Rymer. 2002. Women's attitudes to the sex of medical students in a gynaecology clinic: Cross sectional survey. *British Medical Journal* 325: 683–84. Available online: <http://www.bmj.com/content/325/7366/683.long> (accessed on 17 October 2008).
- Paik, Jodi E. 2000. The feminization of medicine. *Journal of the American Medical Association* 283: 666. [CrossRef] [PubMed]
- Phillips, Susan P., and Emily B. Austin. 2009. The feminization of medicine and population health. *Journal of the American Medical Association* 301: 863–64. Available online: <http://jamanetwork.com/journals/jama/fullarticle/1152830> (accessed on 4 February 2012). [CrossRef] [PubMed]
- Pratto, Felicia, Jim Sidanius, Lisa M. Stallworth, and Bertram F. Malle. 1994. Social-dominance orientation as an intergroup construct. *Journal of Personality and Social Psychology* 67: 741–63. Available online: <http://psycnet.apa.org/?&fa=main.doiLanding&doi=10.1037/0022-3514.67.4.741> (accessed on 17 October 2008). [CrossRef]
- Pratto, Felicia, Jim Sidanius, and Shana Levin. 2006. Social dominance theory and dynamics of intergroup relations: Taking stock and looking forward. *European Review of Social Psychology* 17: 271–320. Available online: <http://www.tandfonline.com/doi/full/10.1080/10463280601055772> (accessed on 17 October 2008). [CrossRef]
- Raday, Francis. 2003. Culture, religion, and gender. *International Journal of Constitutional Law* 1: 663–715. [CrossRef]

- Reichenbach, Laura, and Hilary Brown. 2004. Gender and academic medicine: impacts on the health workforce. *British Medical Journal* 329: 792–95. [CrossRef] [PubMed]
- Ridge, Natasha. 2009. *The Hidden Gender Gap in Education in the UAE*. Dubai: Dubai School of Government Policy Brief. Available online: <http://www.mbrsg.ae/getattachment/2dee9885-631c-40a2-9e5f-d5c292a80e01/The-Hidden-Gender-Gap-in-Education-in-the-UAE> (accessed on 7 September 2017).
- Ridgeway, Cecilia L. 2009. Framed before we know it. How gender shapes social relations. *Gender and Society* 23: 145–60. Available online: <http://journals.sagepub.com/doi/abs/10.1177/0891243208330313> (accessed on 4 February 2012). [CrossRef]
- Riska, Elianna. 2008. The feminization thesis: Discourses on gender and medicine. *Nordic Journal of Feminist and Gender Research* 16: 3–18. [CrossRef]
- Riska, Elianna, and Aurelija Novelskaite. 2008. Gendered careers in post-Soviet society: Views on professional qualifications in Surgery and Pediatrics. *Gender Issues* 25: 229–45. [CrossRef]
- Roskovensky, Lindsay B., Douglas Grbic, and David Matthew. 2012. The changing gender composition of US medical school applicants and matriculants. *Analysis in Brief* 12: 1–2. Available online: https://www.aamc.org/download/277026/data/aibvol12_no1.pdf (accessed on 23 March 2014).
- Salter, Alan. 2007. Gender and choosing a specialty. *Student British Medical Journal* 15: 313–15. [CrossRef]
- Schiess, Noline, Halah Ibrahim, Sami Shaban, Maria N. Perez, and Satish C. Nair. 2015. Career choices and primary care in the United Arab Emirates. *Journal of Graduate Medical Education* 7: 663–66. Available online: <http://www.jgme.org/doi/10.4300/JGME-D-14-00780.1?code=gmed-site> (accessed on 14 June 2017). [CrossRef] [PubMed]
- Schvaneveldt, Paul L., Jennifer L. Kerpelman, and Jay D. Schvaneveldt. 2005. Generational and cultural changes in family life in the United Arab Emirates: A comparison of mothers and daughters. *Journal of Comparative Family Studies* 36: 77–91.
- Searle, Judy. 2001. Women and medicine—A new paradigm. *Medical Education* 35: 718–19. Available online: <http://onlinelibrary.wiley.com/doi/10.1046/j.1365-2923.2001.00975.x/full#references> (accessed on 4 February 2012). [CrossRef] [PubMed]
- Shaull, Richard. 2005. Foreword. In *Pedagogy of the Oppressed*, 30th anniversary ed. Translated by Myra Bergman Ramos. New York: Continuum International, pp. 29–34.
- Sibbald, Barbara. 2002. Feminization of medicine—People say it is a bad thing. *Canadian Medical Journal Association* 167: 914. Available online: <http://www.cmaj.ca/content/167/8/914.full> (accessed on 4 February 2012).
- Sidianus, Jim, and Felicia Pratto. 1999. *Social Dominance: An Intergroup Theory of Social Hierarchy and Oppression*. Cambridge: Cambridge University Press.
- Sidianus, Jim, Shana Levin, James Liu, and Felicia Pratto. 2000. Social dominance orientation, anti-egalitarianism and the political psychology of gender: An extension and cross-cultural replication. *European Journal of Social Psychology* 30: 41–67. Available online: [http://onlinelibrary.wiley.com/doi/10.1002/\(SICI\)1099-0992\(200001/02\)30:1%3C41::AID-EJSP976%3E3.0.CO;2-O/epdf](http://onlinelibrary.wiley.com/doi/10.1002/(SICI)1099-0992(200001/02)30:1%3C41::AID-EJSP976%3E3.0.CO;2-O/epdf) (accessed on 17 October 2008). [CrossRef]
- Sidianus, Jim, Stacey Sinclair, and Felicia Pratto. 2006. Social dominance orientation, gender, and increasing educational exposure. *Journal of Applied Social Psychology* 36: 1640–53. Available online: <http://onlinelibrary.wiley.com/doi/10.1111/j.0021-9029.2006.00074.x/full> (accessed on 17 October 2008). [CrossRef]
- Tlaiss, Hayfaa A. 2015. Entrepreneurial motivations of women: Evidence from the United Arab Emirates. *International Small Business Journal* 33: 562–81. Available online: <http://journals.sagepub.com/doi/pdf/10.1177/0266242613496662> (accessed on 30 June 2017). [CrossRef]
- United Nations Development Program (UNDP). 2003. *Arab Human Development Report*. New York: United Nations Publication.
- Van der Reis, Leo. 2004. Causes and effects of a changed gender ratio in medicine. *Medical Teacher* 26: 506–9. Available online: <http://www.tandfonline.com/doi/ref/10.1080/01421590412331285405> (accessed on 4 February 2012). [CrossRef] [PubMed]
- Van Wyk, Jacqueline M., Soornarain S. Naidoo, Kogie Moodley, and Susan B. Higgins-Opitz. 2016. Perceptions of final-year medical students towards the impact of gender on their training and future practice. *Advances in Medical Education and Practice* 6: 541–50. [CrossRef] [PubMed]
- Weizblit, Natalie, Jason Noble, and Mark O. Baerlocher. 2009. The feminization of Canadian medicine and its impact upon doctor productivity. *Medical Education* 43: 442–48. [CrossRef] [PubMed]

- Wildschut, Angelique. 2010. Exploring internal segregation in the South African medical profession. *Journal of Workplace Learning* 2: 53–66. Available online: <http://www.emeraldinsight.com/doi/full/10.1108/13665621011012852> (accessed on 30 June 2017). [CrossRef]
- World Bank. 2003a. *Gender and Development in the Middle East and North Africa: Women in the Public Sphere*. Washington: World Bank.
- World Bank. 2003b. *Trade, Investment and Development in the Middle East and North Africa*. Washington: World Bank.
- World Economic Forum. 2012. Global Gender Gap Report. Available online: <http://www.weforum.org/reports/global-gender-gap-report-2012> (accessed on 30 June 2017).
- World Economic Forum. 2016. Global Gender Gap Report. Available online: http://www3.weforum.org/docs/GGGR16/WEF_Global_Gender_Gap_Report_2016.pdf (accessed on 30 June 2017).
- World Health Organization. 2017. Gender, equity and human rights. Gender. Available online: <http://www.who.int/gender-equity-rights/understanding/gender-definition/en/> (accessed on 4 September 2017).
- Wynn, Rhonda. 2000. Saints and sinners: Women and the practice of medicine throughout the ages. *Journal of the American Medical Association* 283: 668–69. [CrossRef] [PubMed]
- Zakrisson, Ingrid. 2008. Gender difference in social dominance orientation: Gender invariance may be situation invariance. *Sex Roles* 59: 254–63. [CrossRef]



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