# Creating a Framework for Medical Professionalism: An Initial Consensus Statement From an Arab Nation

Sawsan Abdel-Razig, MD, MEHP, FACP
Halah Ibrahim, MD, MEHP, FACP
Hatem Alameri, MD, FRCPc, FCCP
Hossam Hamdy, MBChB, MCh, FRCS, FACS, PhD (Edu)
Khaled Abu Haleeqa, MD, FRCSc
Khalil I. Qayed
Laila O. Obaid, MBBch, LRCP, FRCPI, FRCPC, FAAP,
MSc
Maha Al Fahim, MB, BCh, BAO, CCFP, MSc

Mutairu Ezimokhai, BSc, MBBS, FRCOG, FWACS, FMCOG Nabil D. Sulaiman Saleh Fares, MD, MPH, FRCPC, FACEP, FAAEM Maitha Mohammed Al Darei Nhayan Qassim Shahin Noora Abdulla Omran Al Shamsi Rashed Arif Alnooryani Salama Zayed Al Falahi

# **ABSTRACT**

**Background** Medical professionalism has received increased worldwide attention, yet there is limited information on the applicability and utility of established Western professionalism frameworks in non-Western nations.

**Objective** We developed a locally derived consensus definition of medical professionalism for the United Arab Emirates (UAE), which reflects the cultural and social constructs of the UAE and the Middle East.

**Methods** We used a purposive sample of 14 physicians working in the UAE as clinical and education leaders. This expert panel used qualitative methods, including the world café, nominal group technique, the Delphi method, and an interpretive thematic analysis to develop the consensus statement.

**Results** The expert panel defined 9 attributes of medical professionalism. There was considerable overlap with accepted Western definitions, along with important differences in 3 aspects: (1) the primacy of social justice and societal rights; (2) the role of the physician's personal faith and spirituality in guiding professional practices; and (3) societal expectations for professional attributes of physicians that extend beyond the practice of medicine.

**Conclusions** Professionalism is a social construct influenced by cultural and religious contexts. It is imperative that definitions of professionalism used in the education of physicians in training and in the assessment of practicing physicians be formulated locally and encompass specific competencies relevant to the local, social, and cultural context for medical practice. Our goal was to develop a secular consensus statement that encompasses culture and values relevant to professionalism for the UAE and the Arab region.

# Introduction

For the past 2000 years, the medical community has grappled with the definition of physician professionalism. In Western nations, concepts of humanism and altruism originating from the Hippocratic Oath and Judeo-Christian ethics have formed the basis of professionalism charters for physicians in practice and curricula for trainees. Definitions of professionalism based on these Western concepts have been translated into many languages, endorsed by medical societies in different nations, and adopted worldwide. In contrast, physician professionalism is less well defined in many non-Western nations. In the Arab world, there have been limited attempts to

conceptualize medical professionalism in secular terms, primarily because physician roles and values have been deeply rooted in the principles of Islamic medical ethics.<sup>3</sup>

In recent years, globalization has become a major driving force in many fields, including health care and medical education.<sup>4</sup> As Western educational systems expand internationally, non-Western countries are adopting pivotal concepts and competencies derived from these systems in efforts to improve the quality of education and patient care delivered to their populations.<sup>5,6</sup> Professionalism, however, is inexorably linked to a society's culture and values.<sup>7</sup> Given the limited attempts to define professionalism in the Arab and Muslim society of the Middle East,<sup>8,9</sup> one must consider whether cornerstone values on which Western definitions of professionalism are built may conflict

with the religious and cultural concepts that shape physician and patient health beliefs in the Middle East.

The purpose of this study was to develop a locally derived definition of medical professionalism for the UAE, a nation that reflects the cultural and social constructs of the greater region of the Middle East. An overarching goal was to facilitate enhanced incorporation of this essential competency in the training of future physicians in this region.

# **Methods**

Our study employed a mixed methods approach that included well-studied consensus gathering techniques<sup>10,11</sup> and interpretive thematic analysis<sup>12,13</sup> (FIGURE). A culturally relevant consensus statement on professionalism was operationally defined as (1) a definition of professionalism with at least 90% consensus among study participants, and (2) a definition of professionalism that incorporates relevant social and cultural factors.

A purposive sample of clinical and educational leaders in the UAE was selected to attend a workshop held in February 2014. Criteria used to determine invitees were as follows:

- Sample Size: The number of invitees was limited to a minimum of 10 and a maximum of 20 participants in order to ensure an optimal sample size for the consensus gathering methodologies employed.<sup>11</sup>
- **2.** Educational Role: The final list of invitees represented an equal distribution from the following groups of educational leaders/trainees:

Category 1: Participant with an indirect role in physician education and occupies an academic/ administrative leadership position in physician undergraduate institutions, postgraduate training facilities, or operational/regulatory institutions within the health sector (includes deans of medical schools, medical education policy makers, and higher management of training facilities); Category 2: Participant with a direct role in physician education and holds a leadership position in educational program administration (includes institutional officials, chairpersons of clinical departments, program directors, and core faculty); and Category 3: A trainee participant, and thus a current or recent medical student, intern, or resident.

**3.** Nationality: Approximately 75% of invitees were UAE citizens.

#### What was known and gap

Conceptual frameworks for physician professionalism based on Western cultural norms may have limited applicability in non-Western nations.

#### What is new

A locally consensus derived definition of medical professionalism for an Arab nation.

#### Limitations

Framework is based on single group interaction, limiting the ability to generalize.

#### **Bottom line**

The professionalism framework reflects the cultural and social constructs of the United Arab Emirates and the Middle East.

One week prior to the workshop, all invitees were provided with seminal publications on professionalism, including the Physician Charter on Medical Professionalism, <sup>14</sup> the modern and classic versions of the Hippocratic Oath, <sup>15,16</sup> the World Health Organization Islamic Code of Medical Ethics, <sup>17</sup> and a representative article published from the region. <sup>8</sup> Throughout the workshop, the 2 primary investigators (S.A.R., H.I.) functioned as observers and guides to methodology protocols.

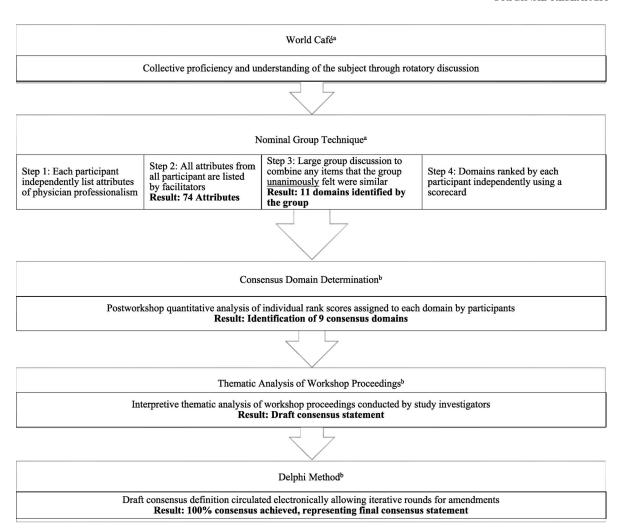
Approval for the study was obtained from the Ethics and Research Committee at the University of Sharjah. All workshop participants provided informed consent and all proceedings were recorded and transcribed.

# **World Café**

After a brief introduction, participants engaged in a world café session, <sup>18</sup> exploring their impressions and understanding of the readings provided. After several rotations of world café, each group summarized the main points that emerged from their discussions to all workshop participants.

# **Nominal Group Technique**

Nominal group technique is a structured procedure to generate ideas, which are discussed by the group and, finally, ranked individually. Participants individually wrote down the attributes of physician professionalism and then shared their ideas with the group. A structured large group discussion took place to generate domains from attributes listed. In the final step, the domains were ranked by each participant independently using a scorecard. Domains ranked by 90% of participants were considered consensus domains and were included in the final definition.



#### FIGURE

#### Summary of Methods

- <sup>a</sup> Methodologies employed during the workshop.
- <sup>b</sup> Methodologies completed after the workshop.

# Thematic Analysis and Consensus Statement Composition

Two investigators who had been present during the workshop (S.A.R., H.I.) conducted an interpretative thematic analysis to generate the consensus statement. They independently reviewed recordings and transcripts of the workshop, generated codes for the consensus domains described by participants, and then independently collated these codes into themes. Following independent review, the investigators reviewed the recordings and transcripts together and extracted the themes identified. Common themes identified by both investigators were named and defined. These definitions were then used to draft the consensus definition for medical professionalism. 12,13

# **Delphi Method**

Approval of the final consensus definition formulated by the study investigators was obtained using the Delphi method.<sup>19</sup> Workshop participants received electronic copies of the final consensus definition and were asked to indicate agreement or disagreement with the definition, with the option of proposing changes. Changes proposed were incorporated into the definition with iterative rounds of amended definitions to be circulated until more than 90% consensus on the statement was achieved.

# Results

Of 20 individuals invited to the workshop, 14 attended. Eleven of the participants were UAE

TABLE 1
Summary of Consensus Domains of Professionalism

Domain	Description
Commitment to <i>Ihsan</i> and adherence to ethical practice	Physicians' pursuit of professional practice should derive from an internal sense of duty to pursue <i>lhsan</i> , a sense of social responsibility from the belief that he or she is accountable to a higher being.
Commitment to advocacy	Physicians must advocate for quality health care for all patients, regardless of patient background or status.  Advocacy should encompass duties beyond the patient to include advocacy on behalf of the community, the profession, and the health care system as a whole.
Commitment to communication	Physicians must ensure sufficient communication with the patient, the patient's family, as well as other involved members of the health care team.
Commitment to Itqan and lifelong learning	Physicians' pursuit of <i>Itqan</i> requires precision, meticulousness, and a sense of duty to go beyond what is expected.  Physicians must pursue continuous improvement in an effort to provide complete and "perfect" care to the patient.
Commitment to education	Physicians must contribute to the education of patients and health care team members with a special emphasis placed on the education of the future generation of health providers.
Commitment to empathy and compassion	The patient and the community's interests must supersede those of the physician.  Patients must be treated with empathy and physicians should exhibit care consistent with social and cultural norms.
Commitment to integrity	Physicians must function autonomously and in accordance with their professional duties, while being cognizant of and resisting external pressures that may threaten their ability to uphold personal and professional convictions.
Embodying a sense of responsibility	Physicians must display high regard for social, professional, and legal rules and regulations of the community in which they serve.
Commitment to respect	Physician must display respect toward oneself, the patient, colleagues, the community, and the health care system. Physicians must safeguard the patient's privacy, confidentiality, and autonomy while taking into consideration cultural norms and family values.

citizens. All participants were physicians or physician trainees, and educational roles were evenly distributed with 4 participants representing category 1 (of the previously described categories), 5 representing category 2, and 5 participants from category 3. Participants included 9 men and 5 women, a gender ratio reflective of the UAE physician population.<sup>20</sup>

During a plenary session following the world café, participants acknowledged the origins of medical professionalism in the Middle East as stemming from the Islamic Code of Medical Ethics, but highlighted the importance of developing a secular definition to facilitate the incorporation of these constructs into the multicultural setting of the UAE.

After 6 rounds of the nominal group technique, 74 attributes of medical professionalism were identified: these were collated into 11 major domains. Analysis of individual participant ranking of these domains revealed that 9 of the 11 domains received 90% consensus among participants. Two domains (insightfulness and the physician as role model) were not included in the final consensus definition (TABLE 1).

A consensus statement on medical professionalism was drafted using the thematic analysis and distributed electronically to the workshop participants. Consensus was obtained after 1 round of the Delphi technique. The consensus statement representing the primary outcome of this study is shown in the FIGURE, and is described below.

#### **Attributes of Medical Professionalism**

Commitment to Ihsan and Adherence to Ethical Practice: Ihsan, a concept borne from Islamic principles, denotes the process of taking one's inner faith and displaying it in both deed and action, representing a deeply intimate and personal practice. It connotes a core struggle in striving to reach the best standards of performance in all circumstances and represents excellence, graciousness, and benevolence.21 Ihsan also means "to do beautiful and righteous things," an attribute that covers all human affairs, including one's relationship with God, one's interactions with people, or one's social obligations. Inherent to these dealings are notions of equity and fairness. In accordance with these concepts, physicians' pursuit of professional practice should derive from an internal sense of duty to pursue *Ihsan*, a sense of social responsibility from the belief that he or she is accountable to a higher being. This should be reflected in equitable, nondiscriminatory practices, and a strong resolve to adhere to ethical and moral principles.

Commitment to Advocacy: Physicians must advocate for quality health care for all patients, regardless of patient background or status. This professional duty is in accordance with the physician's responsibility toward promoting the welfare of society. The scope of physician advocacy should encompass duties beyond the patient to include advocacy on behalf of the community, the profession, and the health care system as a whole. Physicians must also serve as advocates for colleagues and for the entire health care team, with a specific emphasis on supporting junior colleagues.

Commitment to Communication: Physicians must recognize the significance of interpersonal communication within their professional role. As such, it is imperative that physicians ensure sufficient communication with the patient, the patient's family, as well as other involved members of the health care team. In this regard, each physician must continually strive to improve his or her interpersonal skills and be mindful of his or her communication practices within the context of a team of health providers. Physicians must appreciate teamwork and intercollaborative practice as a means of improving patient care.

Commitment to Itgan and Lifelong Learning: Itgan is a central concept with roots in Islamic professional ethics.<sup>22</sup> It describes the ongoing effort to achieve a perfect or complete state of being, without flaw or

precision, meticulousness, and a sense of duty to go beyond what is expected. In the context of medical professionalism, these efforts require the physician to pursue continuous improvement in an effort to provide complete and "perfect" care to the patient. This involves the physician's obligation to lifelong learning and continuous practice improvement enabling the provision of evidence-based care. Physicians must demonstrate self-motivation and a willingness to accept feedback and modify practice in the pursuit of Itgan. The physician must be diligent and productive in an effort to improve not only himself or herself, but the system as a whole.

Commitment to Education: Physicians, encompassing the role of healer and possessing a specialized knowledge and skill set, have an exalted standing in society as supported by Islamic scripture.<sup>23</sup> In return, physicians are expected to serve as educational resources to the community. Physicians must contribute to the education of patients and health care team members with a special emphasis placed on the education of the future generation of health providers, and should engage in mentoring activities as part of this responsibility.

Commitment to Empathy and Compassion: The patient and the community's interests must supersede those of the physician. Physicians must be able to engage, identify with, and show compassion for a diverse group of suffering individuals. In accordance with core Islamic principles of charity, giving, and self-sacrifice, altruistic intent must be present in physician dealings with patients. Patients must be treated with empathy and physicians should exhibit care consistent with social and cultural norms.

Commitment to Integrity: Physicians must be honest, transparent, and honorable in all their actions. Integrity is built on accountability to God, the profession, the community, and oneself. Physicians must function autonomously and in accordance with their professional duties, while being cognizant of, and resisting, external pressures that may threaten their ability to uphold personal and professional convictions. Physician's must exhibit self-awareness and abstain from disseminating blame. The physician must place primacy on honoring his or her duties as bestowed upon him by society and religion.<sup>23</sup>

Embodying a Sense of Responsibility: Physicians must display high regard for social, professional, and legal rules and regulations of the community in which they serve. Physicians should feel a sense of defect. The process of pursuing Itaan requires responsibility and ownership toward upholding the

TABLE 2
Summary of Differences Between Western and Arabian Frameworks of Professionalism

Western Definition of Professionalism	Arabian Definition of Professionalism
Professionalism is defined as the social contract between physicians and patients/society.	Professionalism is defined as "higher" obligations, beyond those owed to patients/society.
Attributes of professionalism must inform professional conduct.	Attributes of professionalism must inform both professional and personal conduct.
Primacy is placed on obligations toward safeguarding individual/patient autonomy.	Primacy is placed on obligations toward safeguarding the rights of family, community, and system.

reputation of the medical community reflected in personal attributes, such as discipline, punctuality, reliability, and personal presentation.

Commitment to Respect: The physician must display respect toward oneself, the patient, colleagues, the community, and the health care system. This respect must be manifested in the delivery of culturally sensitive care in the physician's interactions with the patient, the work environment, and the community. A physician must safeguard a patient's privacy, confidentiality, and autonomy while taking into consideration cultural norms and family values. The physician must also display self-respect by maintaining appropriate appearance, attire, and behaviors. The physician must respect and maintain appropriate boundaries in physician-patient interactions.

# **Discussion**

This study presents the first secular, consensus definition of medical professionalism from the Middle East. Additionally, it is the first study to report on the de-novo generation of professionalism attributes, rather than the reliance on existing models using a comparative approach as prior studies.8 This approach allows for the identification of attributes conceived and defined within locally relevant contexts that may not be measured when utilizing externally developed instruments. Other strengths of our study include the use of a structured, mixed methods approach used to enhance the internal validity of findings of ineffable constructs such as professionalism. The use of qualitative methods in conjunction with quantitative measures is particularly important to achieve triangulation of constructs, while limiting the final outcome to only those that represent true consensus. Participants represent diverse professional roles and career stages, yet they are characterized as a homogenous cultural/ethnic group with all participants being Muslim, around 80% of the group being Emirati nationals, and the vast majority being of Arab

descent, which is important when considering the cultural relevance of the definition.

Although the resultant definition shares several principles with accepted Western frameworks of professionalism, such as core standards of integrity, respect, and duty,<sup>14</sup> key differences exist in the underlying constructs of these domains. These differences can be summarized with the following observations (TABLE 2):

- The core of physician professional obligations toward patients should stem from inner faith and a sense of accountability beyond that toward society. These ideologies related to divinity do not shape accepted Western definitions of professionalism, where the bounds of professional standards are between society/ patient and physician.
- 2. Professional attributes of physicians are expected to extend beyond their professional status to inform the character and conduct within the physician's personal life. Conversely, Western standards on professionalism demarcate societal expectations to behaviors associated with professional duties, with no anticipatory effects on personal manner or conduct beyond the practice of medicine.
- 3. Primacy is placed on community welfare and social justice, shifting away from the traditional Western emphasis on patient autonomy. The focal point of physician professional practice in the UAE places the utmost importance on social justice and obligations to family, community, and system. In situations where these principles come into conflict, the UAE scale is increasingly tipped toward social justice.

Specific illustrations of the above observations are reflected within the professionalism domains proposed by this study. For example, the weight placed on communal welfare when compared with individual autonomy is demonstrated in the definition of the domain of respect. In alignment with Western views on

this cardinal principle, our definition not only emphasizes the physician's duty to protect the patient's privacy and confidentiality, but an equally important obligation to safeguard the family's rights in the patient's care. This emphasizes an Arab nation's view of the patient as an extension of a family and, in turn, society (reflecting the expected coherence of these relationships). Educators in Taiwan and China have previously described similar attributes in locally derived professionalism frameworks, which also place emphasis on social justice and the harmonization of professional and personal attributes of health professionals.<sup>24,25</sup>

It is noteworthy that participants made a point to emphasize religious tolerance. Accordingly, there is no specific mention of Islamic law, though references to spirituality and faith, such as that garnered from religious belief, are prevalent. Terms such as *Ihsan* and *Itqan*, although derived from religious scripture, embody qualities of humanism and virtue rather than religious doctrine.

Limitations of this study are related to the methods used, which require extensive group interactions. This may have limited the autonomy of individual participants who did not feel comfortable expressing their views in public. Additionally, the relatively small sample required for nominal group technique may limit the generalizability. Finally, our statement is focused on physician professional practice, without the inclusion of other health disciplines. Future studies may be developed to examine the generalizability of this definition to other health care fields.

Our efforts are a starting point for future work to apply and validate this UAE and Arab region definition of physician professionalism. Larger studies aimed at validating the resultant consensus statement are underway. Our process also can serve as a model for other nations that wish to articulate a definition of professionalism that is congruent with and sensitive to local, cultural, and societal values and beliefs. Additionally, an "international" framework for professionalism must be limited to the subset of professionalism concepts that are relevant and defensible across religious, cultural, ethnic, and social contexts. This may limit cross-national definitions to the globally accepted and relevant constructs of beneficence, non-maleficence, distributive justice, and fairness.

# Conclusion

Although informed by an Islamic perspective, the UAE Consensus Statement on Medical Professionalism represents the first secular consensus definition of medical professionalism for the Arab region. This definition is intended to reflect the social and cultural

underpinnings of the UAE and to serve as a foundation for curricula and policies throughout the country and region.

### References

- MacKenzie CR. Professionalism and medicine. HSS J. 2007;3(2):222–227.
- American Board of Internal Medicine Foundation. The Physician Charter. http://www.abimfoundation.org/ Professionalism/Physician-Charter.aspx. Accessed February 9, 2016.
- Gatrad AR, Sheikh A. Medical ethics and Islam: principles and practice. *Arch Dis Child*. 2001;84(1):72–75.
- 4. Harden RM. International medical education and future directions: a global perspective. *Acad Med*. 2006;81(suppl 12):22–29.
- Ibrahim H, Al Tatari H, Holmboe ES. The transition to competency-based pediatric training in the United Arab Emirates. BMC Med Educ. 2015;15:65.
- 6. Abdel-Razig S, Alameri H. Restructuring graduate medical education to meet the health care needs of Emirati citizens. *J Grad Med Educ*. 2013;5(2):195–200.
- Cruess SR. Professionalism and medicine's social contract with society. Clin Orthop Relat Res. 2006;449:170–176.
- Al-Eraky MM, Chandratilake M. How medical professionalism is conceptualized in Arabian context: A validation study. *Med Teach*. 2012;34(suppl 1):90–95.
- Al-Eraky MM, Donkers J, Wajid G, van Merrienboer JJ. A Delphi study of medical professionalism in Arabian countries: the four-gates model. *Med Teach*. 2014;36(suppl 1):8–16.
- Moore C. Group technique for idea building. In: Beckman L, Rog D, eds. Nominal Group Technique.
   2nd ed. Thousand Oaks, CA: Sage; 1994:10–24.
- 11. Cantrill JA, Sibbald B, Buetow S. The Delphi and nominal group techniques in health services research. *Int J Pharm Pract.* 1996;4(2):67–74.
- 12. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res in Psych*. 2006;3(2):77–101.
- 13. Lynn MR. Determination and quantification of content validity. *Nurs Res.* 1986;35(6):382–385.
- 14. ABIM Foundation. American Board of Internal Medicine, ACP-ASIM Foundation. American College of Physicians-American Society of Internal Medicine, European Federation of Internal Medicine. Medical professionalism in the new millennium: A physician charter. *Ann Intern Med.* 2002;136(3):243–246.
- 15. Miles S. *The Hippocratic Oath and the Ethics of Medicine*. New York, NY: Oxford University Press; 2003.

- 16. Lasagna L. Would Hippocrates rewrite his oath? After 2,000 years, the Greek pledge traditionally taken by doctors is falling into disuse. A professor of medicine here stresses the need for a new declaration of ethics. The New York Times. 1964;11:40–43. http://www.nytimes.com/1964/06/28/would-hippocrates-rewrite-his-oath-after-2000-years-the-greek-pledge-traditionally-taken-by-doctors-is-falling-into-disuse-a-pro.html?\_r=0. Accessed February 9, 2016.
- 17. World Health Organization. Islamic code of medical and health ethics. 2005. http://applications.emro.who.int/docs/EM\_RC52\_7\_en.pdf. Accessed February 9, 2016.
- 18. Anderson L. Use the world café concept to create an interactive learning environment. *Educ Prim Care*. 2011;22(5):337–338.
- 19. Dalkey NC. The Delphi method: an experimental study of group opinion. 1969. https://www.rand.org/content/dam/rand/pubs/research\_memoranda/2005/RM5888. pdf. Accessed February 9, 2016.
- Hannawi S, Al Salmi I. Health workforce in the United Arab Emirates: analytic point of view. *Int J Health Plan Manag.* 2014;29(4):332–341.
- 21. Parray T. The qur'anic text on ihsan (perfection/ excellence) the third dimension of din(religion). *Ham Islam*. 2012;35(3):35–55.
- 22. Shuriye AO, Ismail AF, Dahalan AB, eds. Ethics of Engineering Education. 1st ed. Perpustakaan Negara, Malaysia: International Islamic University Malaysia Press; 2009. http://irep.iium.edu.my/1249/1/Ethics\_of\_ Engineering\_Education.pdf. Accessed February 9, 2016.
- 23. Arawi TA. The Muslim physician and the ethics of medicine. *JIMA*. 2010;42(3):111–116.
- 24. Ho MJ, Yu KH, Pan H, Norris JL, Liang YS, Li JN, et al. A tale of two cities: understanding the differences in medical professionalism between two Chinese cultural contexts. *Acad Med.* 2014;89(6):944–950.
- 25. Ho MJ, Yu KH, Hirsh D, Huang TS, Yang PC. Does one size fit all? Building a framework for medical professionalism. *Acad Med.* 2011;86(11):1407–1414.



Sawsan Abdel-Razig, MD, MEHP, FACP, is Adjunct Assistant Professor of Medicine, Division of General Internal Medicine, New York University School of Medicine; Halah Ibrahim, MD, MEHP, FACP, is Founding Designated Institutional Official, Tawan Hospital, Abu Dhabi, United Arab Emirates; Hatem Alameri, MD, FRCPc, FCCP, is Adjunct Associate Professor of Medicine, College of Medicine, United Arab Emirates University; Hossam Hamdy, MBChB, MCh, FRCS, FACS, PhD (Edu), is Professor of Surgery and Medical Education, College of Medicine, Qatar University, Doha, Qatar; Khaled Abu Haleeqa, MD, FRCSc, is Consultant, Ophthalmology, Mafraq Hospital, Abu Dhabi, United Arab Emirates; Khalil I. Qayed is Consultant, Training & Development, Ministry of Health, Dubai, United Arab Emirates; Laila O. Obaid, MBBch, LRCP, FRCPI, FRCPC, FAAP, MSc, is Consultant, Pediatrics and Neonatologist, and Pediatrics Program Director, Mafraq Hospital; Maha Al Fahim, MB, BCh, BAO, CCFP, MSc, is Consultant, Family Medicine, Ambulatory Healthcare Services & Family Medicine, and Residency Program Director, Sheikh Khalifa Medical City, Abu Dhabi, United Arab Emirates; Mutairu Ezimokhai, BSc, MBBS, FRCOG, FWACS, FMCOG, is Assistant Dean for Education, College of Medicine, United Arab Emirates University; Nabil D. Sulaiman is Associate Professor, Head of Department, Family and Community Medicine, University of Sharjah; Saleh Fares, MD, MPH, FRCPC, FACEP, FAAEM, is Head, Emergency Department, Zayed Military Hospital, Abu Dhabi, United Arab Emirates; Maitha Mohammed Al Darei is Emergency Medicine Specialist and Medical Director in Ambulance Section, Emergency & Public Safety Department, Abu Dhabi Police; Nhayan Qassim Shahin is a Medical Student, University of Sharjah; Noora Abdulla Omran Al Shamsi is a Medical Student, University of Sharjah; Rashed Arif Alnooryani is a Medical Student, University of Sharjah; and Salama Zayed Al Falahi is a Nephrology Fellow, Sheikh Khalifa Medical City.

Funding: The authors report no external funding source for this study.

Conflict of interest: The authors declare they have no competing interests.

Corresponding author: Sawsan Abdel-Razig, MD, MEHP, FACP, Master of Education in the Health Professions Program, Johns Hopkins University School of Education, The Education Building, 2800 North Charles Street, Baltimore, MD 21218, sabdelr5@jhu.edu

Received July 6, 2015; revision received October 25, 2015; accepted November 3, 2015.