



# Female oncologists in the Middle East and North Africa: progress towards gender equality

Rana Salem,<sup>1</sup> Yolla Haibe,<sup>1</sup> Christelle Dagher,<sup>1</sup> Charelle Salem,<sup>2</sup> Ali Shamseddine,<sup>1</sup> Nizar Bitar,<sup>2</sup> Joseph Makdessi,<sup>3</sup> Sami Khatib,<sup>4</sup> Hamouda Boussem,<sup>5</sup> Farouk Benna,<sup>6</sup> Sana Al Sukhun,<sup>4</sup> Nagi El Saghir,<sup>1</sup> Sally Temraz,<sup>1</sup> Deborah Mukherji<sup>1</sup>

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For numbered affiliations see end of article.

## Correspondence to

Dr Deborah Mukherji,  
Department of Internal Medicine,  
American University of Beirut  
Medical Center, NK Basile  
Cancer Institute, Beirut 1107  
2020, Lebanon; dm25@aub.  
edu.lb

## ABSTRACT

**Background** Female doctors are increasingly choosing oncology as a career while they are still under-represented in leadership positions globally. The European Society of Medical Oncology has recently surveyed its members regarding gender equality in the work place. Limited data are available from the Middle East. The aim of our study was to survey female oncologists practicing in the Middle East to identify common challenges and suggest areas for improvement.

**Methods** A cross-sectional survey was distributed among female participants attending the annual Lebanese Society of Medical Oncology meeting in March 2018, and in the Pan-Arab annual meeting in April 2018. The questionnaire used included questions assessing sociodemographic characteristics, involvement in leadership and academic positions and the impact of career on family life.

**Results** Overall, 88 questionnaires were collected from women practicing all over the Middle East. 59% reported that a male doctor was responsible for the work team; however, 57% covered a managerial or leadership role within their job. 64% of the female oncologists believed that their gender had at least moderate, significant and even major impact on their career. Participants reported that their careers have a considerable impact on their relationship with friends and social networking (49%) and their family and marriage (44%). 58% report having problems with finding balance between work and family, and 50% find barriers to attend international meetings. Several ways to improve were suggested, 56% voted for offering development and leadership training specifically women, 45% suggested implementing a flexible work schedule.

**Conclusion** In what is considered a male dominant environment, gender equality according to female oncologists working in the Middle East, is very comparable to the world data provided. Several strategies have been identified to continue progress in this domain with the aim to improve academic leadership opportunities and work-life balance for all.

## INTRODUCTION

The Middle East and North Africa (MENA) region has some of the lowest rates of women's economic participation in the world.<sup>1</sup> Women in the Arab world are under-represented in governance and

## Key questions

### What is already known about this subject?

► Despite growing numbers of women choosing oncology as a career, data from a recent European Society of Medical Oncology survey have shown that female oncologists remain underrepresented in leadership positions.

### What does this study add?

► This study is the first to give a female perspective regarding gender equality and gender impact on practice in the field of Medical Oncology in the Middle East. In what is considered a male dominant environment, the data presented in this study are very comparable to the world data provided.

### How might this impact on clinical practice?

► We hope that the findings of this study will raise awareness of gender related issues among the global community of oncologists. In particular, access to specific development and leadership training and the implementation flexible working hours were identified as strategies to improve academic leadership opportunities and work-life balance for all.

leadership positions and in general, remain primarily associated with family roles.<sup>2</sup> Despite a prevailing social context in which women are expected to conform to traditional roles, there has been significant progress over the last decade in the promotion of women's education throughout the region.<sup>3</sup> In many countries of the world, including those in the MENA region, female medical students now outnumber their male colleagues. For many reasons including societal and cultural reasons, this gradual change in the gender demographics of medicine has not yet resulted in an increase in women in senior medical or academic leadership positions in the Arab world.<sup>4</sup>

Oncology is a medical specialty attracting growing numbers of female graduates<sup>5</sup>; however, professional societies in Europe

and North America have recognised that women still experience specific challenges in accessing leadership positions in the field and are advocating for gender balance in leadership ranks.<sup>6,7</sup> An initiative by the Women in Oncology group of the European Society of Medical Oncology (ESMO) surveyed female members in 2013 and received 680 replies, a modified version of this survey was administered by the Hellenic Society of Medical Oncology and results presented at the ESMO meeting 2014.<sup>8</sup> The MENA region has several locally active oncology societies and an annual Pan-Arab Cancer Conference organised by the Arab Association Against Cancer. The Jordanian Oncology Society has recently had a female president (2015–2018); however, very few women take up leadership or board member positions in professional medical societies in the region. As far as we are aware, no local or regional medical societies in the MENA region have a specific gender policy governing board membership or gender balance with respect to speakers/moderators at scientific meetings.

The aim of this study was to survey a sample of female oncologists in the MENA region attending the Lebanese Society of Medical Oncology (LSMO) 2018 annual meeting and 2018 Pan-Arab Cancer Conference. Whereas our sample may not represent the whole of the regional female oncology workforce, we were interested to gain insights in to the current representation of women in leadership positions and challenges faced specifically by female oncologists in the Arab world.

## MATERIALS AND METHODS

### Study design

Our study was conducted during the annual national LSMO meeting in March 2018, in Beirut, Lebanon and the 18th Annual International Pan-Arab Cancer Conference, in April 2018, in Tunis. Study investigators identified subjects meeting inclusion criteria and asked them to participate. A questionnaire was distributed to the eligible participants who agreed to participate after giving oral consent.

### Study population

All subjects were medical, radiation and surgical female oncologists (in training or currently in practice) from the Arab world. Participants were either attending the LSMO or the Pan-Arab meeting, and willing to participate in the study. Observation, elective or exchange students and guest speakers attending from outside the Arab world were excluded.

### Data collection

After receiving approval from the organisers of both conferences, all eligible participants were approached by trained medical doctors who asked for oral consent. A questionnaire was distributed to the participants during the meetings and was self-administered anonymously (see online supplementary file 1). Completed questionnaires were left in sealed envelopes in a specific box

after completion. The survey consisted of 31 questions in English assessing sociodemographic characteristics such as age, marital status, place of work, hours spent at work in addition to the questions looking for the causes that might interfere and impact the respondents career whether it was related to personal or cultural reasons. Finally, a few questions were asked for opinions on the best ways to address these challenges in the region.

### Statistical analysis

A total of 100 subjects were planned for enrolment, with this sample size being set empirically. Data analysis was performed using the Statistical Package for the Social Sciences software V.22.0. Statistical analysis included frequencies for categorical data and means and SD for continuous data. Descriptive and  $\chi^2$  analyses were used to assess the statistical association between different demographic variables and outcomes of interest for the study.

## RESULTS

### Demographics of respondents

Out of all the female oncologists participating in the two conferences, 140 agreed to take the questionnaires, but only 90 were collected of which two were excluded due to incomplete data. We do not have data regarding the percentage of female oncologists practicing in the MENA region. Participants were from different countries including Lebanon, Egypt, Tunisia, Algeria, Syria, Libya and Morocco. The majority were medical oncologists and younger than 40 years old (69%). 46% of the participants had children and 56% were married. 73% worked in a university hospital while 19% practiced in a general hospital reflecting the demographics of the conference attendees. 16% spent half a day or less working, 49% had a regular working day for at least 8 hours, 23% worked for 9–12 hours a day while only 12% spent more than 12 hours daily at work (table 1).

Working time was mostly dedicated to patient management and clinical care while teaching and research hours were limited. 56% of the female oncologists were married and of these 81% of them had children, noting that 68% of the mothers reported receiving help with childcare from their partners, parents and nannies.

### Involvement in leadership and academic positions

Participants were asked about the teams they worked in, 59% reported that a male doctor was responsible for the work team however 57% covered a managerial or leadership role within their job. This result is particularly significant compared with the ESMO data where 45.5% of females versus 65% of males reported having a managerial position.<sup>6</sup> 64% of the female oncologists believed that their gender had at least moderate, significant and even major impact on their career while only 26% considered gender to have a minor or no impact at all. 54% considered minor to moderate progress in closing the gender gap in the workplace compared with

**Table 1** Participant characteristics

Category	Total	%
<b>Age (years)</b>		
<30	20	23
31–40	40	46
41–50	11	12
51–65	16	18
>65	1	1
<b>Profession</b>		
Trainee/resident/fellow	7	8
Medical oncologist	61	68
Surgical oncologist	4	5
Radiation oncology	4	5
Others: pharmacist, psychologist, pharmaceutical company, medical affair management, clinical pharmacist	6	7
Academic researcher/scientist (working at university hospital/academic institution/industry)	6	7
<b>Primary work</b>		
University hospital	64	73
General hospital	17	19
Pharmaceutical/biotechnology/company	5	6
Other: private clinic	1	1
Other: research institute	1	1
<b>Country</b>		
Lebanon	22	25
Egypt	1	1
Tunisia	34	39
Algeria	16	18
Syria	7	8
Libya	6	7
Morocco	2	2
<b>Hours/day dedicated to work</b>		
Half a day or less (<8 hours/day)	14	16
Regular working day (8 hours/day)	43	49
9–12 hours/day	20	23
>12 hours/day	11	12

when they started work while only 28% considered that there has been major and significant progress in this regard. 50% believe that equal opportunities within their workplace regardless of the gender and 67% feel that their organisation actively practices 'equal pay for equal work'.

64% published an article in which they were cited first or corresponding author. 58% and 30% were invited to a national or international meeting, respectively as speakers or chair. 34% and 16% have been a member at

a board level in national and international oncology societies, respectively.

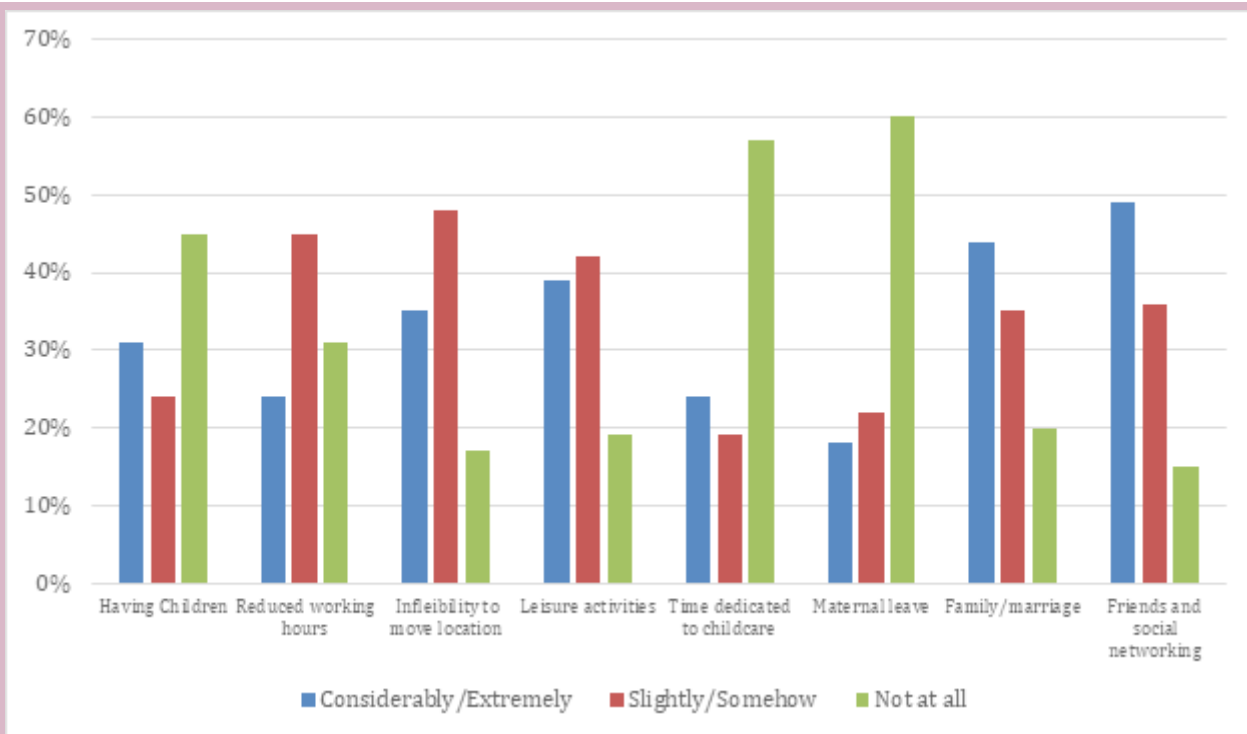
### Impact of career on family life

Being a female oncologist has impact on many personal aspects, choices and decisions, of which our respondents reported a considerable to extreme impact on friends and social networking (49%), family and marriage (46%) and a slightly to somewhat impact on leisure activities (42%), inflexibility to move location (48%) and on decisions to reduce working hours (45%) (figure 1).

Several obstacles and challenges to career progression for female oncologists were identified in descending order of frequency: finding a balance between work and family (58%), barriers to travel to attend international meetings (50%), financial constraints related to lower salaries (38%), difficulty to spend time abroad/at different institutions for research fellowship (33%), managing and organising family commitments (30%), maternity leave and difficulties in coming back to work (17%), men perceived as natural leaders while women perceived more as team members and supporters (17%) and cultural gender prejudice due to misconceptions about family and domestic responsibilities of women (14%).

11% considered no barriers that prevent reaching gender parity in the oncology field while other respondents attributed gender inequality in the workplace to multiple factors: societal pressures (49%), lack of work-life balance (38%), unconscious bias among managers (30%), unclear career paths (19%), lack of female professionals' self-esteem (16%), lack of talent and leadership development for women (14%), lack of role models (10%) and finally the lack of qualified incoming talent (9%).

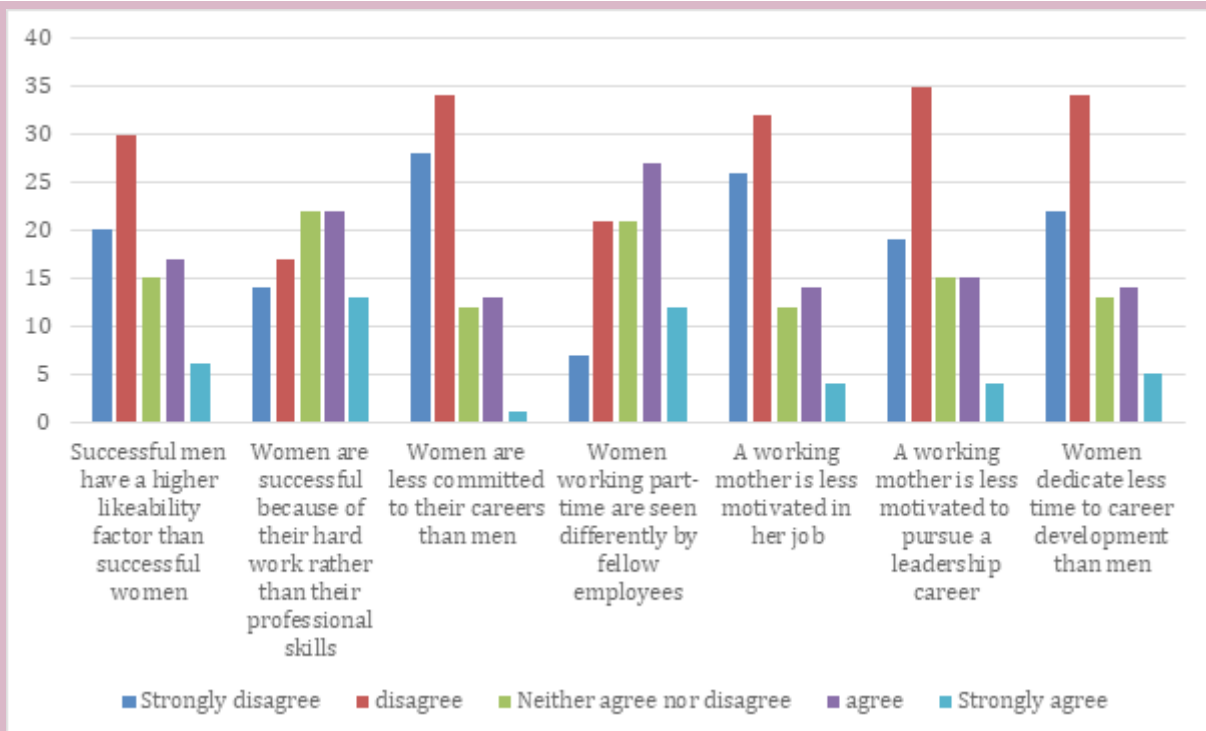
For this reason and in order to enforce the benefits of gender diversity, the majority agreed on the need to promote work-life balance (eg, work-life policies equally for men and women) (56%), development and leadership training of women (eg, mentorship and development programmes) (45%), offer and support flexible work (eg, offering childcare options and mentoring for women going through transitions) (43%), visible leadership commitment towards gender equality (eg, symbolic actions by top management) (32%), build awareness on the benefits of gender diversity among managers (eg, workshops on gender equality) (32%), promote role models (eg, involving women leaders to display possible career paths) (27%), seeks ways to remove unconscious bias in decision making (eg, workshop on understanding of unconscious bias) (25%), support women's integration into the value chain (eg, developing partnerships with gender parity-focused societies) (23%) and transparent career paths and salary structures (22%) while only three participants see no need for any of the mentioned efforts (figure 2).



**Figure 1** Impact of the career on personal aspects, choices and decisions.

We asked a question about experience of sexual harassment and 14 respondents reported encountering unwanted sexual comments, attention, or advances by a superior or colleague.

Several programme specifically dedicated to female professionals were advised to be implemented to support the professional career development of female oncologists and were the following: network of female



**Figure 2** Agreement on generalised statements.



oncologists (55%), dedicated seats for women in LSMO committees (42%), mentorship programme (35%), soft-skills training (communication, management, etc) (33%), online professional career development tools (31%), bonus for re-entering workplace after maternity leave (28%), set up quotas for female representation (26%).

## DISCUSSION

### Comparison with previously published data

The results of an ESMO survey reported by Banerjee *et al*<sup>6</sup> were relatively comparable to our study representing the MENA region. Both studies document that some women report being viewed as a team member and not as leaders, and having difficulties balancing between their social lives, their family needs and their careers. However, some of the variables presented did not have similar results, for example, in our study 54% of females reported having a managerial position when only 45.5% did in the ESMO survey. Also, in our survey 64% of females considered that their gender had a moderate to major impact on their careers when only 36.6% of females in the ESMO survey reported that. 64% of respondents had published an article as first or corresponding author. We do not have data from other sources around the world specifically regarding the contribution of female oncologists to clinical research. The Unesco's Women in Science data show that less than 30% of the world's researchers are women.<sup>9</sup>

### Study limitations

Our sample of 88 female oncologists does not represent all the females' oncologists in the MENA region due to the small sample size among other reasons. 73% of our participants worked in university hospitals when only 19% worked in general hospitals (since most physicians invited to attend international and national conferences practice in university hospitals). A study performed in Switzerland showed that after they graduate, female physicians rarely get jobs in university hospitals, where most of the practicing physicians are usually men.<sup>10</sup>

Leading to the conclusion that most practicing female oncologists were not invited to attend these meetings and therefore couldn't be reached to fill out the survey.

### Suggestions to improve gender balance

At the end of the questionnaire women were given the chance to share their thoughts on new ways to improve gender inequality in our population. Most of them suggested having a network of female oncologists for support and capacity building; some would've liked to set up a certain quota for female representation in university departments, others proposed having a dedicated seat for a female oncologist in LSMO. Online professional career development tools can be very helpful especially for working mothers who are looking for self-improvement tools without having to be further absent from their homes and families.

## CONCLUSION

Traditionally, the Middle-East has been thought of as a male dominant environment, where we would expect less gender equality compared with other parts of the world. Our study, regarding female oncologists in the MENA region and their view about gender equality in their work environment had very comparable results to the world data provided by the study conducted by ESMO. Women are being more involved in leadership positions but still struggle to balance between family and career. When comparing medicine to other fields in the region such as politics we can safely say women in medicine are achieving milestones and are being recognised as leaders in their fields.

### Select comments by participants, edited for syntax

- ▶ Women work more than men with less recognition by the society.
- ▶ The women responsible for my team created the department of medical oncology in the city of Bourj Bou Arirgy (Algeria) 7 years ago with dedication to medical and scientific work.
- ▶ I wish all the success for this work and any other motivated work in the Arab world.
- ▶ The Lebanese society still thinks that men should treat cancer since it is a fatal disease and men are perceived to be more powerful in this underdeveloped country.
- ▶ This is a very important survey, I hope it will give a good result.
- ▶ If you want a woman to succeed, you need to provide her with the appropriate emotional and financial support.

### Author affiliations

<sup>1</sup>Department of Internal Medicine, American University of Beirut Medical Center, NK Basile Cancer Institute, Beirut, Lebanon

<sup>2</sup>Faculte des Sciences Medicales, Universite Libanaise, Dekwaneh, Lebanon

<sup>3</sup>Faculty of Medicine and Medical Sciences, University of Balamand, El-Koura, Lebanon

<sup>4</sup>Jordanian Oncology Society, Amman, Jordan

<sup>5</sup>Universite de Tunis, Tunis, Tunisia

<sup>6</sup>Institut Salah-Azaiz, Tunis, Tunisia

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