

ORIGINAL RESEARCH

Challenges in oncology career: are we closing the gender gap? Results of the new ESMO Women for Oncology Committee survey

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Background: Following a European Society for Medical Oncology Women for Oncology (ESMO W4O) survey in 2016 showing severe under-representation of female oncologists in leadership roles, ESMO launched a series of initiatives to address obstacles to gender equity. A follow-up survey in October 2021 investigated progress achieved.

Materials and methods: The W4O questionnaire 2021 expanded on the 2016 survey, with additional questions on the impact of ethnicity, sexual orientation and religion on career development. Results were analysed according to respondent gender and age.

Results: The survey sample was larger than in 2016 ($n = 1473$ versus 482), especially among men. Significantly fewer respondents had managerial or leadership roles than in 2016 (31.8% versus 51.7%). Lack of leadership development for women and unconscious bias were considered more important in 2021 than in 2016. In 2021, more people reported harassment in the workplace than in 2016 (50.3% versus 41.0%). In 2021, ethnicity, sexual orientation and religion were considered to have little or no impact on professional career opportunities, salary setting or related potential pay gap. However, gender had a significant or major impact on career development (25.5% of respondents), especially in respondents ≤ 40 years of age and women. As in 2016, highest ranked initiatives to foster workplace equity were promotion of work–life balance, development and leadership training and flexible working. Significantly more 2021 respondents (mainly women) supported the need for culture and gender equity education at work than in 2016.

Conclusions: Gender remains a major barrier to career progression in oncology and, although some obstacles may have been reduced since 2016, we are a long way from closing the gender gap. Increased reporting of discrimination and inappropriate behaviour in the workplace is a major, priority concern. The W4O 2021 survey findings provide new evidence and highlight the areas for future ESMO interventions to support equity and diversity in oncology career development.

Key words: gender equity, oncology, survey, career, leadership, discrimination, pay gap

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INTRODUCTION

A lack of gender balance in the workplace has far-reaching adverse educational, health, economic and societal consequences,¹ while gender equity and diversity bring opportunities for greater innovation, increased productivity and better decision making.² In medicine, there is evidence that a gender diverse workforce can result in improved

outcomes for patients,²⁻⁴ and may foster more relevant research applicable to a broader population.^{2,4}

Between 2000 and 2012, there was a greater increase in female than in male oncologists,⁵ and female membership of European Society for Medical Oncology (ESMO) rose from 24.9% in 2004 to 35.2% in 2012, 40.5% in 2016 and 49% today. Women for Oncology (W4O) was established in 2013 to explore the challenges facing female oncologists and promote equal access to career development opportunities and access to leadership roles, addressing the needs of the rapidly rising female membership of ESMO. In 2016, a W4O survey of female and male oncologists established that women were under-represented in managerial and leadership roles and identified work and family balance as the most important challenge to career progression.⁶ Regular monitoring studies have been carried out to provide further objective information on gender equity in the oncology workplace.^{7,8} However, research in oncology has consistently shown similar findings,⁸⁻¹¹ and progress towards gender equity in career development in oncology is slow.⁷

Research findings have created the basis for informing the decisions of the ESMO W4O Committee in setting priorities and developing projects to address obstacles to gender equity, and rebalancing gender representation in leadership positions in oncology. A broad range of gender-focused career development initiatives has been launched and W4O has become a hub for facilitating regional and local activities and tackling gender equity issues at grassroot level including raising awareness, leadership and mentorship programmes as well as roundtable social media discussions to shed light on challenges that oncologists face at all career levels.¹²

In the framework of those initiatives, the ESMO W4O Committee continuously monitors the evolution of oncology professionals throughout their career, aiming to identify diverse or changing needs and challenging areas, such as equal access to leadership positions, competing demands of time for clinical, academic and research work, salary reductions and pay gaps. Not only do such efforts raise awareness but also provide evidence for interventions. In such context, in 2021 the ESMO W4O Committee decided to carry out a new survey to gather comparative and new data and explore the possible impact of W4O and other interventions in bridging the gender gap identified in 2016.

In recent years, ESMO has expanded its membership beyond Europe and now includes a substantial number of oncologists across Asia, South America and Africa and so the new survey, carried out in October 2021, was designed to capture the full impact of diversity on career development in today's multinational oncology workforce.

MATERIALS AND METHODS

The W4O 2021 survey questionnaire was based on the one previously used for the survey carried out in 2016, with additional questions related to the impact of ethnicity,

sexual orientation and religion on career development, as well as gender.⁶ Results were analysed according to the gender and age (≤ 40 versus >40 years) of respondents. This age comparison was chosen to correspond with ESMO membership categories, one of which is specifically for oncologists ≤ 40 years of age.

The questionnaire consisted of seven sections: (i) demographics; (ii) household duties; (iii) place of work; (iv) challenges for career progression; (v) diversity's impact on career development and barriers for equality; (vi) inappropriate behaviour experienced in the professional career; (vii) closing the gender gap (Supplementary Material S1).

In October 2021, the survey was sent to ESMO members and other oncology organisations, made available online and disseminated through national oncology societies as well as representatives of national initiatives of women in oncology. It was accessible to female and male oncology professionals of all ages, working in a range of clinical and academic environments internationally. It was promoted on the ESMO website, ESMO W4O and ESMO Facebook pages and through ESMO's digital newsletters. The responses were anonymous.

Results are presented overall and by respondent's gender and age (≤ 40 versus >40 years). The differences between women and men or young and older respondents are tested using chi-square tests (for categorical variables) or Mann–Whitney *U* test (for continuous variables). The Cochran–Mantel–Haenszel statistic was also used to address the differences between women and men after controlling for age. All tests were considered significant if *P* value was <0.05 . All statistical analysis was carried out with the software in SAS Version 9.4 (SAS Institute Inc., Cary, NC).

RESULTS

Demographics and professional environment of respondents

A total of 1473 responses were received (69.4% women, 30.3% men). Of respondents, 47.3% were 40 years and under. The majority were based in Europe (64.4%) though there was also a significant number of responses from Asia (16.4%). Most responses were from ESMO members (74.9%). Nearly three-quarters (73.9%) were medical oncologists, with 13.6% clinical/radiation oncologists, and a significant proportion were at early stages of their career (17.8% trainees, 39.9% practising oncology <10 years). Of total respondents, 16.5% lived alone, 34.1% had pre-school children, 27.9% had children at primary school and 27.6% had children at secondary school.

Respondents were almost equally divided between working in a cancer centre (43.6%) and a general hospital (44.1%). Sixty percent of working time was dedicated to clinical care, 10% to research, 5% to teaching, 2% to management and 5% to administration. In only 39.1% of cases, respondents worked in a team led by a woman. There was a similar gender breakdown for heads of department (32.9% female, 67.1% male).

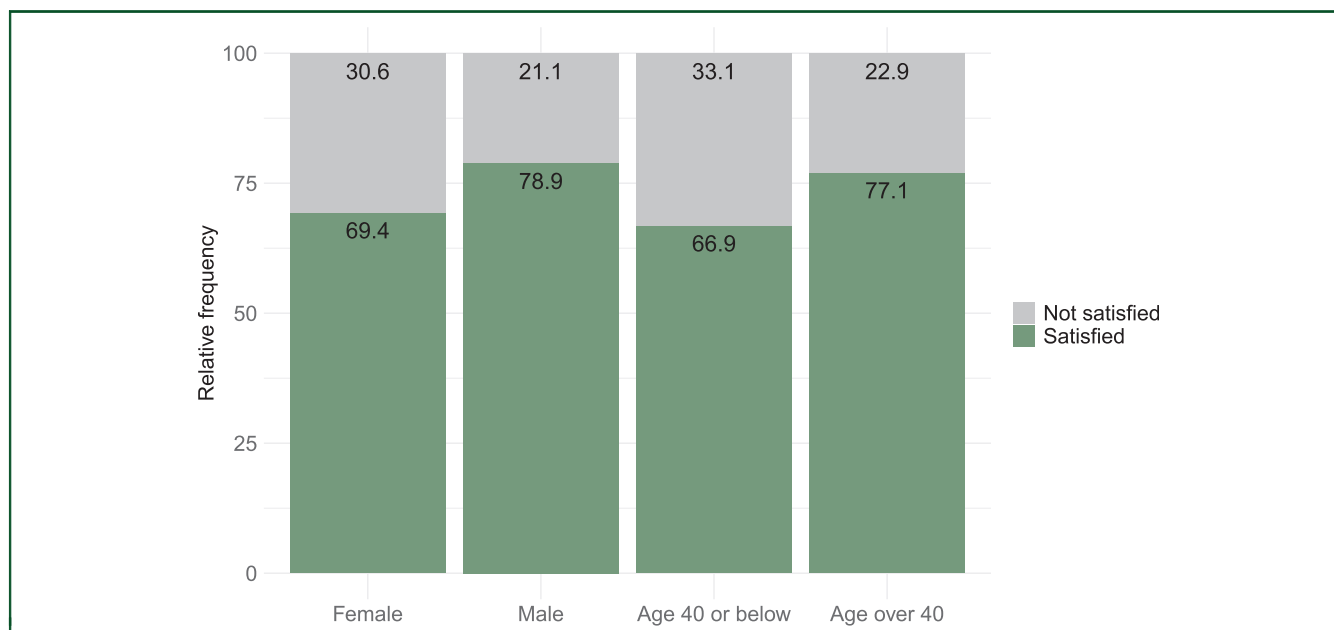


Figure 1. Satisfaction with career progression by gender and age.

Challenges to career progression

Nearly 90% of all 1473 respondents to the survey said that career progression was important, but 27.8% ($n = 409$) were slightly or not at all satisfied with how their career was progressing; this was more frequent among female than male respondents (30.6% $n = 313$ versus 21.1% $n = 94$, respectively) and those aged ≤ 40 years compared to those >40 years (33.1% $n = 231$ versus 22.9% $n = 178$, respectively) (Figure 1). The main obstacles were finding a balance between work and family life (59.5%), managing and organising family commitments (23.9%) and lack of mentors/role models (38.9%).

The impact of ethnicity, sexual orientation, religion and gender on professional career is summarised by gender and age in Figure 2. Ethnicity had little or no impact on professional career, career opportunities, salary setting or pay gap. Of respondents, 11% said that ethnicity had a significant or major impact on their professional career, 15.4% said it resulted in fewer career opportunities and 8.8% said that it affected salary setting. Few respondents said that ethnicity contributed to the pay gap in the workplace (7.5%), the pay gap in oncology in their country (12.4%) or the pay gap in general in oncology (18.2%).

A similar lack of effect was reported for all these parameters for sexual orientation (4.8%, 6.3%, 2.7%, 3.8%, 6.3% and 7.8%, respectively) and religion (2.6%, 6.6%, 2.3%, 3.0%, 3.9% and 4.8%, respectively).

In contrast, gender did have a significant or major impact on career development (25.5%), resulted in fewer career opportunities (45.8%) and affected salary setting (27.6%). Gender contributed to the pay gap in the workplace (29.6%), the pay gap in oncology in the respondent's country (36.5%) and the pay gap in general in oncology (36.4%).

Significantly more respondents ≤ 40 years of age said that gender had a major or significant impact on their professional career than those >40 years of age (51.9% versus 44.1%, $P = 0.0002$); similarly, the proportion was higher in female respondents versus male respondents (60.4% versus 19.1%, $P < 0.0001$) (Figure 2). Little or no progress had been made in closing the gender gap since they started working (48.8% versus 32.6%) (Table 1). The differences were strongest in female respondents in these age groups. Among those <40 years, 51.9% of women and 39.1% of men ($P = 0.0004$) felt that no progress had been made. In those >40 years, the gender difference was particularly marked, with 42.5% of women reporting no progress compared to only 14.4% of men.

Gender and discrimination

Women were more likely than men to report discrimination from a senior colleague (56.9% women versus 8.3% men) (Supplementary Figure S1, available at <https://doi.org/10.1016/j.esmooop.2023.100781>) or discrimination from another colleague in general due to gender (31.8% women versus 29.7% men) (Supplementary Figure S2, available at <https://doi.org/10.1016/j.esmooop.2023.100781>). This was independent of age. In addition, gender was also a discriminatory factor in interactions with patients (54.2% women versus 8.6% men) (Supplementary Figure S1, available at <https://doi.org/10.1016/j.esmooop.2023.100781>), independently of age.

Over a third of respondents (38.4%) had at any time experienced harassment in their workplace and 43.2% had witnessed harassment. Women were more likely to have experienced or witnessed harassment than men (49.0% versus 13.9% and 48.7% versus 30.3%, respectively) (Supplementary Figure S3, available at <https://doi.org/10.1016/j.esmooop.2023.100781>).

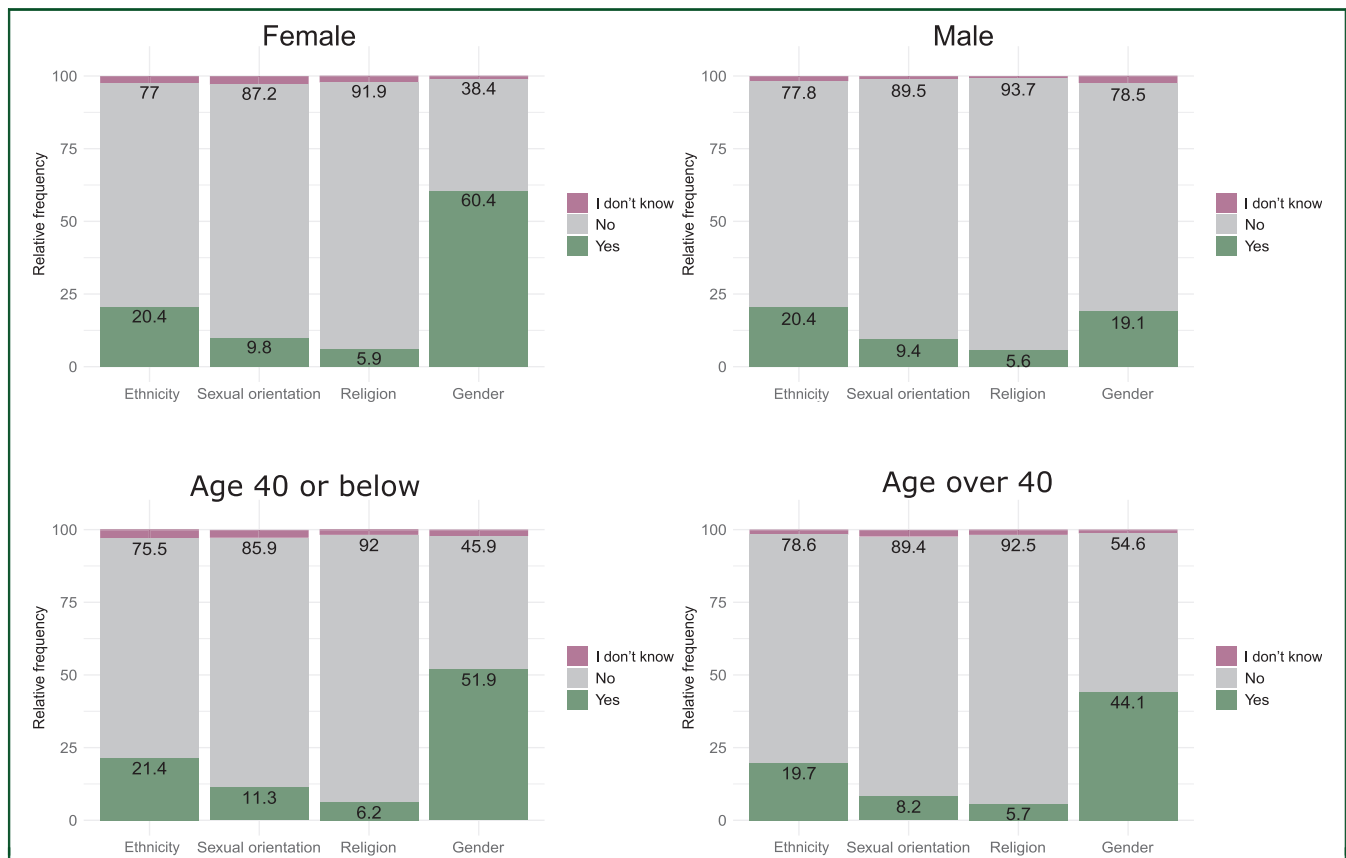


Figure 2. Impact of ethnicity, sexual orientation, religion and gender on professional career by gender (top) and age (bottom).

1016/j.esmooop.2023.100781). This was independent of age. Experiences or witnesses of inappropriate behaviours were mainly inappropriate sexual advances (67.8%) and generalised sexist remarks (21.9%). Over three-quarters of respondents (77.9%) had not reported the harassment they experienced or witnessed, mainly because they did not think anything would be done (36%), they did not think it was important enough (27.6%) or they feared reprisal (20.2%).

Gender and family life

Among the respondents who answered that they have children, females were more likely than males to be the primary child caretaker in both those aged ≤ 40 and > 40 years (25.1% versus 7.2% and 31.0% versus 6.6%, respectively). In both age groups, women were also more likely than men to do housekeeping (41.3% versus 24.3% and 36.6% versus 10.1%, respectively) and prepare meals (48.1% versus 33.7% and 51.4% versus 14.1%, respectively). There were non-significant differences between female and male respondents aged ≤ 40 years for doing household administration (47.2% versus 49.7%) but, in those > 40 years, women were significantly more likely than men to do household administration (47.6% versus 36.5%).

Significantly more female than male respondents reported that parental leave and difficulties in coming back to work were obstacles to career progression (5.2% versus 1.6%), especially in the age group > 40 years. Social

pressure related to cultural gender prejudice about family and domestic responsibilities was also significantly more of an obstacle for women than men (12.6% versus 2.0%), as were lack of support from family (4.6% versus 2.0%) and not being perceived adequate to cover a leadership position (18.7% versus 13.1%). In contrast, significantly more male than female respondents said that financial constraints were an obstacle to career progression (20.7% versus 14.2%).

Significant differences in the impact of career progression on family life for women and men were also reported. Significantly more women than men said that career progression very much or extremely impacted their parental leave (27.4% versus 11.3%, $P < 0.0001$), time dedicated to childcare (48.3% versus 21.3%, $P < 0.0001$) and leisure activities (42.4% versus 31.4%, $P < 0.0005$). Significantly more women than men said that having children very much or extremely impacted career progression (33.6% versus 13.8%, $P < 0.0001$).

Gender and pay gap

Significantly more female respondents reported a gender pay gap than men, especially in those > 40 years (≤ 40 years—35.8% versus 13.0%; > 40 years—40.5% versus 8.7%). Significantly more women than men thought that gender had a major or significant impact on their professional career (33.7% versus 6.5%, $P < 0.0001$), and significantly more women than men said that gender, ethnicity

Table 1. Closing the gender gap by gender and age in 2021

	Gender				P value ^a	Age (years)				P value ^a
	Female		Male			≤40		>40		
	n	%	n	%		n	%	n	%	
What approach should be taken in the oncology field in order to foster gender equality in the workplace ^b										
Promote work–life balance	567	55.5	268	60.1	0.1009	419	60.1	418	53.9	0.016
Development and leadership training	431	42.2	136	30.5	<0.0001	267	38.3	301	38.8	0.85
Offer and support flexible work	377	36.9	155	34.8	0.434	296	42.5	239	30.8	<0.0001
Transparent career paths and salary structures	316	30.9	126	28.3	0.305	202	29.0	241	31.1	0.39
Progress made in closing the gender gap in the oncology field compared to when you started working					<0.0001					0.0006
No progress	139	13.6	26	5.8		113	16.2	53	6.8	
Minor progress	345	33.8	80	17.9		227	32.6	200	25.8	
Moderate progress	305	29.8	114	25.6		179	25.7	241	31.1	
Significant progress	112	11.0	110	24.7		53	7.6	169	21.8	
Major progress	26	2.5	47	10.5		21	3.0	53	6.3	
I don't know	95	9.3	69	15.5		104	14.9	60	7.7	
Which of the following programmes should ESMO implement to foster gender equality in oncology ^b										
Mentorship programme for female oncologists	543	53.1	156	35.0	<0.0001	331	47.5	369	47.6	0.98
Scholarship to learn from leaders in the field	251	24.6	94	21.1	0.148	182	26.1	164	21.1	0.024
Flexible educational/fellowship programmes	415	40.6	186	41.7	0.694	322	46.2	282	36.3	0.0001
Family-friendly facilities at oncology events	269	26.3	153	34.3	0.0019	217	31.1	205	26.4	0.046
Online professional career development tools	277	27.1	94	21.1	0.0145	178	25.5	196	25.3	0.90

^aP value from a chi-square test for categorical variables or a U test by Mann–Whitney for continuous ones.

^bMore than one answer possible.

and sexual orientation had an impact on pay gap in oncology in their country (45.5% versus 15.9%, 14.1% versus 8.3% and 7.0% versus 4.7%, respectively).

Barriers to gender parity

The main barriers for gender parity were lack of work–life balance (54.3%), lack of leadership development for women (32.7%), unconscious bias (34.5%), societal pressures (31.9%) and lack of role models (20.6%). Compared with male respondents and irrespective of age (≤40 versus >40 years), female respondents were significantly more likely to report lack of female professionals' self-confidence and lack of leadership development for women as barriers for gender parity (Figure 3).

Fostering gender equity

Approaches for fostering gender equity in the workplace supported by respondents included promoting work–life balance (56.8%), development and leadership training (38.6%), offering and supporting flexible working (36.3%) and transparent career paths and salary structure (30.1%). Female respondents were significantly more likely than

male respondents to support development and leadership training (42.2% versus 30.5%) and the promotion of education on culture and gender equality at work for all workers (22.5% versus 15.5%) (Table 1). In terms of progress in closing the gender gap in oncology, 40.3% (47.4% women, 23.7% men) said that minor or no progress had been made since they started working (Table 1).

Among the proposed ESMO interventions to foster gender equity in oncology, respondents preferred the implementation of programmes including mentorship for female oncologists (47.5% overall, 53.1% women, 35.0% men, $P < 0.0001$), flexible education/fellowship programmes (41.0% overall, 40.6% women, 41.7% men), family-friendly facilities at oncology events (28.7% overall, 26.3% women, 34.3% men), online professional career development tools (25.4% overall, 27.1% women, 21.1% men) and scholarships to learn from leaders in the field (23.5% overall, 24.6% women, 21.1% men) (Table 1). Overall, 19.4% of respondents favoured quotas for women in ESMO committees, faculties and events, significantly more frequently in female than male respondents (23.1% versus 11.0%). The difference between women and men for the need for development and leadership training was irrespective of age. In respondents ≤40

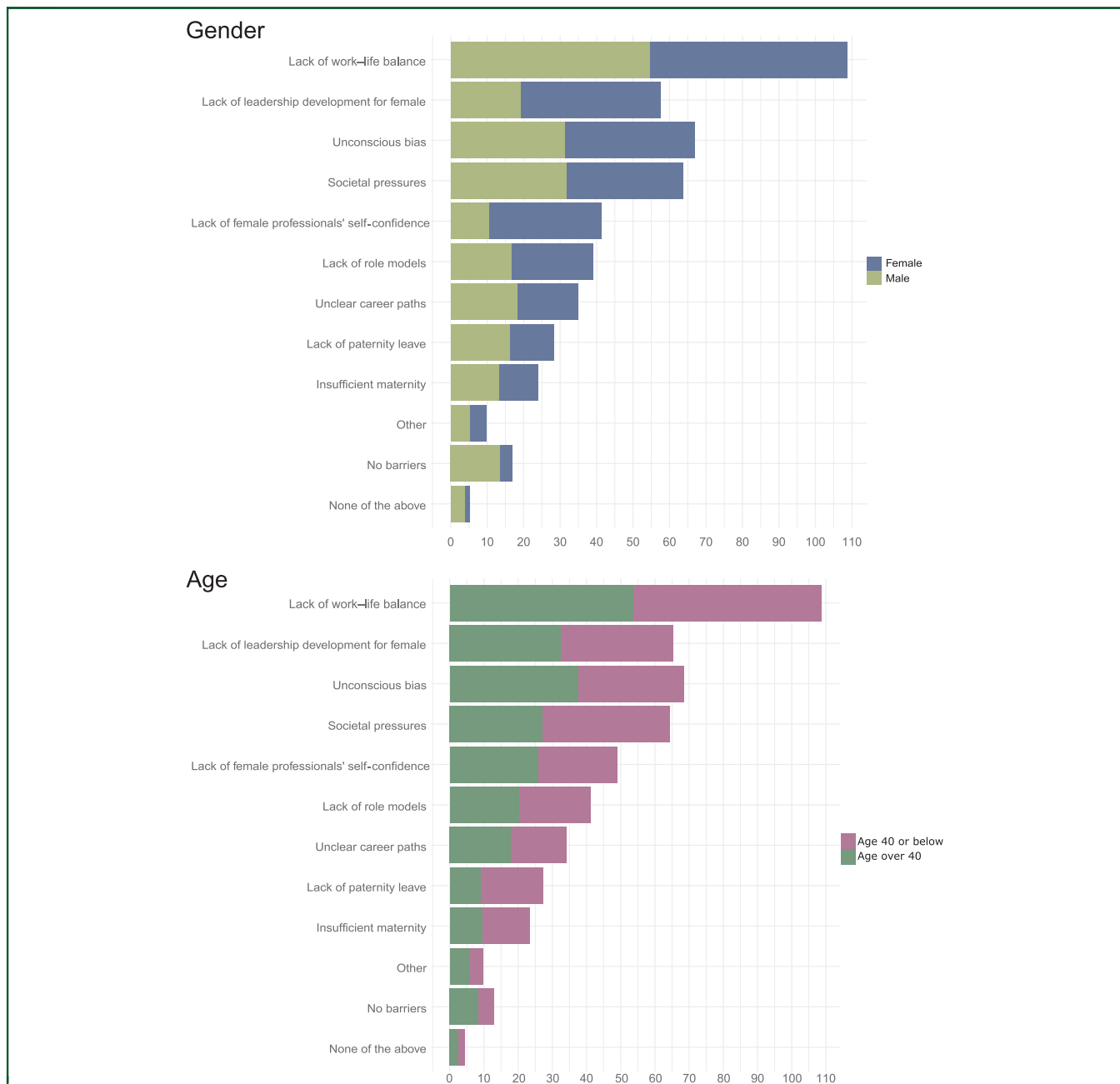


Figure 3. Main barriers for gender parity on career development, by gender and age.

years, the need for promotion of education on culture and gender equity at work for all workers was recognised equally by female and male respondents while, in those >40 years, significantly more women than men reported this need (23.7% versus 13.7%).

Comparison between 2021 and 2016

In the 2021 survey, there was a larger overall population of respondents ($n = 1473$ versus $n = 482$) and a significantly higher proportion were male ($n = 446/1473$; 30.4% versus $n = 103/482$; 23.0%) or worked in non-European countries (33.6% versus 28.4%) (Table 2). Significantly fewer respondents worked in an academic/research field (2.1% versus 49.7%, $P < 0.0001$), and significantly more in a

cancer centre (42.7% versus 17.0%) or in a general hospital (43.2% versus 21.6%).

Significantly fewer respondents in 2021 had managerial or leadership roles than in 2016 ($n = 258/1473$; 31.8% versus 249/482; 51.7%) (Table 2).

Some of the challenges to career progression in 2021 were less of a barrier than in 2016 (Table 2), including travel to attend meetings (10.6% versus 18.8%, $P = 0.0001$), difficulty spending time abroad/another institute for research fellowships (24.2% versus 31.0%, $P = 0.0177$), maternity leave and difficulties coming back to work (5.2% versus 13.7%, $P < 0.0001$), financial constraints (14.2% versus 26.1%, $P < 0.0001$), social pressure related to cultural gender prejudice about family and domestic responsibilities

Table 2. Comparison between 2016 and 2021

	2016		2021		P value ^a
	n	%	n	%	
<i>n</i>	482		1473		0.0025
Gender					
Female	345	77.0	1022	69.6	
Male	103	23.0	446	30.4	
Missing	34				
Area of practice					0.0498
Europe	285	71.6	977	66.4	
Other	113	28.4	494	33.6	
Missing	84		2		
Place of work					<0.0001
Academic/research field	237	49.7	31	2.1	
Cancer centre	81	17.0	642	42.7	
General hospital	103	21.6	650	43.2	
Private	27	5.7	112	7.5	
Other	29	6.1	69	4.6	
Managerial or leadership roles					<0.0001
Yes	249	51.7	258	31.8	
No	233	48.3	1215	68.2	
Missing			661		
Main barriers for gender parity ^b					
Lack of leadership development for women	71	16.9	481	32.7	<0.0001
Unconscious bias	115	27.5	508	34.5	0.0068
What approach should be taken in the oncology field in order to foster gender equality in the workplace ^b					
Promote work–life balance	205	49.9	837	56.8	0.012
Development and leadership training	167	40.6	568	38.6	0.45
Offer and support flexible work	165	40.2	535	36.3	0.16
Promote education on culture and gender equality at work for all workers	41	10.0	302	20.5	<0.0001
Seek ways to remove unconscious bias in decision making	95	23.1	423	28.7	0.025
Visible leadership commitment towards diversity	100	24.3	223	15.1	<0.0001
Only females					
<i>n</i>	345		1022		
Obstacles/challenges in career progression ^b					
Barriers to travel to attend international meetings	62	18.8	90	10.6	0.0001
Difficulty to spend time abroad/another institute for research fellowship	102	31.0	206	24.2	0.018
Maternity leave and difficulties in coming back to work	45	13.7	44	5.2	<0.0001
Financial constraints	86	26.1	121	14.2	<0.0001
Social pressure related to cultural gender prejudice about family and domestic responsibilities	74	22.5	107	12.6	<0.0001
Not being perceived adequate to cover a leadership position	131	39.8	159	18.7	<0.0001

Continued

Table 2. Continued

	2016		2021		P value ^a
	n	%	n	%	
Experienced any type of harassment in your workplace					0.0046
Yes	125	41.0	501	50.3	
No	180	59.0	496	49.8	
Prefer not to say	24		25		
Missing	16				

^aP value of the difference between 2016 and 2021.

^bMore than one answer possible.

(12.6% versus 22.5%, $P < 0.0001$) and not perceived adequate to cover a leadership position (18.7% versus 39.2%, $P < 0.0001$). Among the main barriers for gender parity, only lack of leadership development for women (32.7% versus 16.9%, $P < 0.0001$) and unconscious bias (34.5% versus 27.5%, $P = 0.0068$) were perceived as more important in 2021 than in 2016.

Though not statistically significantly different, there appears to have been less impact of gender on professional career in 2021 than in 2016 (66.1% versus 82.1%).

There has been a significant increase in people reporting harassment in the workplace since 2016 (50.3% versus 41.0%) (Table 2).

In terms of approaches needed in oncology to foster gender equity in the workplace, the highest ranked steps remained promotion of work–life balance, development and leadership training and offering and supporting flexible working, though there was a statistically significant difference in responses for 2021 compared to 2016 only for promotion of work–life balance ($P = 0.012$) (Table 2).

Significantly more respondents in 2021 than in 2016 supported promotion of education on culture and gender equity at work for all workers (20.5% versus 10.0%), and this increase was seen in both female (22.7% versus 9.8%) and male (15.5% versus 10.6%) respondents, though it was not significant in the latter. Seeking ways to remove unconscious bias in decision making also gained support in 2021 (28.7% versus 23.1%), though this was mainly due to a significant increase among female respondents (29.5% versus 22.7%). The increase in male respondents was not significant (26.9% versus 24.5%).

There was a significant reduction in support for visible leadership commitment towards diversity (e.g. symbolic actions by top management) in 2021 (15.1% versus 24.3%), and this was reflected across responses from both female and male respondents.

DISCUSSION

The 2021 survey on the challenges facing oncology professionals in their career development prompted a much larger response, especially among male oncologists, than in 2016. We believe this reflects ESMO’s extensive activities in recent years to raise awareness of the gender gap in

oncology and its strategies for change. However, the results of the survey show that gender remains the main obstacle to career development, as highlighted by responses from both female and male oncology professionals, and we are still a long way from closing the gender gap.

The significant reduction in the proportion of respondents in managerial or leadership roles between 2016 and 2021 is surprising but may be related to the self-selection of those who chose to take the survey and may not be representative of the oncology workforce in general.

Among other important findings of the 2021 survey is the fact that over a quarter of respondents were dissatisfied with the way in which their career was progressing, especially women aged 40 years or under. As also reported in 2016, the main challenge for career progression was the difficulty in balancing work and family life. However, among female respondents, nearly all obstacles reported in 2016 were significantly less relevant in 2021, including managing family commitments, travel to attend international meetings, difficulty spending time abroad/another research institute for a research fellowship, maternity leave and difficulties coming back to work and financial constraints. These are gratifying improvements in the light of ESMO initiatives to address these obstacles, not just for female members but in response to all member needs in an inclusive way which values diversity. Such initiatives include: (i) W4O activities to increase awareness of gender-related issues through publications and dissemination of objective information at the annual W4O Forum, the W4O web page, social media, virtual networking opportunities; (ii) W4O acting as a hub for local initiatives (<https://www.esmo.org/career-development/women-for-oncology/w4o-hub>)—providing advice for setting them up and facilitating collaboration among them (in 2021, W4O held the first meeting of representatives of national/regional initiatives for women working in oncology); (iii) expansion of the ESMO Oncology fellowship offer (<https://www.esmo.org/career-development/oncology-fellowships>), with an increase in number and variety of opportunities to better reflect the evolution of the oncology field (e.g. introduction of a clinician-scientist fellowship); (iv) establishment of the ESMO Resilience Task Force (<https://www.esmo.org/career-development/resilience-task-force>); (v) ESMO educational events both in person and virtually; (vi) travel grants to make access to meetings easier for many oncologists, together with free childcare services at the ESMO Congress 2019.

In due consideration of the variety of backgrounds and needs of the professionals who make up the ESMO membership base (from 160 countries), ESMO felt it was important to expand the range of potential diversity issues addressed in the 2021 survey, including additional aspects, such as ethnicity and others, which could have an impact on the professional career of oncologists. It is interesting to see that ethnicity, sexual orientation and religion were not considered to have an impact on professional career or salary. The finding that gender remains the most important factor, especially among female respondents, with little

change in perceptions of its significance between 2016 and 2021, underlines the importance of the W4O Committee and supports the necessity for ESMO to continue focusing on gender in devising career development strategies.

ESMO, together with many other professional societies in medicine, is striving for gender equity, and our results together with those of other medical specialties/societies could form the basis for interventions.^{3,13-17}

It is disappointing to see that almost twice as many respondents in 2021 reported that a lack of leadership development for female oncologists was a barrier to equity, compared to 2016. This is reinforced in the 2021 survey by the fact that significantly more women than men report the need for development and leadership training, whatever their age. Possible changes in the proportion of respondents from certain regions in 2021 compared to 2016 may have contributed to these findings. ESMO recognises the importance of role models and leadership development programmes to address this issue, and has introduced (i) the ESMO Leaders Generation Programme (<https://www.esmo.org/career-development/leaders-generation-programme>); (ii) the ESMO Virtual Mentorship Programme whose format makes it easier for participants to balance work and family life; (iii) ESMO Young Oncologists Committee (YOC) and the W4O mentorships on specific topics such as work–life balance and leadership skills, and more generally about career opportunities; (iv) mentorship sessions at ESMO congresses. In addition to reinforcing the existing programmes, ESMO intends to foster initiatives and training at local and regional level as a way to facilitate leadership development.

We noted that among respondents in 2021 very limited time seemed to be spent in research and teaching, 10% and 5%, respectively, possibly related to lack of advancement in academic career or even lack of opportunities. However, significantly fewer respondents in the current survey worked in an academic/research field compared to 2016 (2.1% versus 49.7%, $P < 0.0001$), and this is most likely reflected in the responses regarding how working time was spent. ESMO will also continue to reinforce initiatives to promote work–life balance and education on culture and gender equity—two approaches for which there was increased support in the 2021 survey, compared to 2016.

The issue of discrimination and inappropriate behaviour is of grave concern, particularly in view of the significant increase in the level of harassment reported in 2021 compared to 2016, with a much larger survey sample of oncologists in 2021 than in the previous survey. As in 2016, respondents had encountered unwanted sexual comments and behaviour in the workplace. They had also experienced gender-related discrimination from patients, senior colleagues and other colleagues. These findings reflect a concerning reality of today's oncology workplace. The fact that less than one in five people who experienced or witnessed harassment reported it, mainly because they did not think anything would be done or because of fear of reprisal, is a

serious indictment of our systems of governance which needs to be urgently addressed. The W4O Committee aims to monitor all aspects of gender equity and diversity in oncology and the survey results shape our activities, our plans for action and our proposals for relevant changes within the society. The finding about the increase in the number of reports of harassment will be further investigated in a dedicated study going forward.

Limitations of the survey include the fact that the sampling method was not systematic which could result in sampling bias, decreasing the generalizability of results. This was addressed by the large sample size involving almost three times more respondents than in 2016.

ESMO is not alone in recognising and endeavouring to address lack of gender equity in medicine. In its 2021 policy action paper on closing the leadership gap in health care, the World Health Organization (WHO) outlined four action areas in its framework to support female leadership: build the foundation for equality, address social norms and stereotypes, address workplace systems and cultures and enable women to achieve.³ In March 2022, ASCO and City Cancer Challenge Foundation (C/Can) announced their Leadership Program for Women in Oncology.¹⁷ The programme seeks to address the specific challenges and barriers faced by women leaders in oncology and aims to strengthen leadership mindsets and skills of women.

In the UK, the Athena Scientific Women's Academic Network (SWAN) charter is widely used to advance the careers of women in science, technology, engineering, mathematics and medicine and address gender challenges in higher education.¹⁵ Similar programmes are in use in other countries, including Science in Australia Gender Equity (SAGE) in Australia and the Dimensions Charter in Canada.

The importance of equity and diversity in the global health workplace is not in doubt, and nowhere more so than in oncology. Gender equity at all levels of the oncology career pathway, and in medicine overall, will bring better patient care and outcomes, greater productivity, less risk of discrimination and harassment and a more satisfied and sustainable workforce.²⁻⁴ Together with the other W4O research on the representation of women in leadership roles, the findings of the W4O 2021 survey provide new evidence that could serve as a basis for ESMO strategies and appropriate interventions to support career development for all oncologists, whatever their gender, and ensure equal access to leadership roles, thus shaping the future direction of the profession and optimisation of patient care.

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