Supplementary files overview

Perceived barriers to career progression in the headache field: a global web-based cross-sectional survey

Overview:
- Supplementary table 1. Demographics responders
- Supplementary table 2. Demographics responders by workplace
- Supplementary table 3. Career barriers perceived and by workplace
- Supplementary table 4. Academic mentorship
- Supplementary figure 1. Barriers to a career in headache affecting professional recognition by workplace
- Supplementary figure 2. Barriers to a career in headache affecting opportunities in scientific societies by workplace
- Supplementary figure 3. Barriers to a career in headache affecting salary and compensation by workplace
- Supplementary method - Survey career barriers

Supplementary table 1. Demographics responders

| Age  | Women (n=320) | Men (n=259) | Total (n=579) |
|------|---------------|-------------|---------------|
| 18-30| 32 (10.0)     | 13 (5.0)    | 45 (7.8)      |
| Gender | 31-40 | 41-50 | 51-60 | >60 |
|--------|-------|-------|-------|-----|
| Women  | 100 (31.3) | 100 (31.3) | 61 (19.1) | 27 (8.4) |
| Men    | 90 (34.7) | 64 (24.7) | 52 (20.1) | 37 (14.3) |

| Geographic location – birth³ | Africa | Eastern Mediterranean | Europe | North America | South America | South East Asia | Western Pacific |
|-----------------------------|-------|-----------------------|-------|---------------|---------------|---------------|---------------|
| Women                       | 5 (1.6) | 11 (3.4) | 147 (45.9) | 42 (13.1) | 33 (10.3) | 55 (17.2) | 27 (8.4) |
| Men                         | 18 (6.9) | 8 (3.1) | 82 (31.7) | 36 (13.9) | 22 (8.5) | 71 (27.4) | 22 (8.5) |

| Geographic location – workplace | Africa | Eastern Mediterranean | Europe | North America | South America | South East Asia | Western Pacific |
|---------------------------------|-------|----------------------|-------|---------------|---------------|---------------|---------------|
| Women                           | 1 (0.3) | 11 (3.4) | 145 (45.3) | 46 (14.4) | 34 (10.6) | 51 (15.9) | 32 (10.0) |
| Men                             | 17 (6.6) | 7 (2.7) | 81 (31.3) | 37 (14.3) | 21 (8.1) | 70 (27.0) | 26 (10.0) |

| Ethnicity                      | Asian/Pacific islander | Black/African American | Hispanic | White/Caucasian | Multiple ethnicities | Other |
|--------------------------------|------------------------|------------------------|----------|-----------------|----------------------|-------|
| Women                          | 67 (20.9) | 0 (0) | 12 (3.8) | 215 (67.2) | 13 (4.1) | 13 (4.1) |
| Men                            | 88 (34.0) | 14 (5.4) | 11 (4.1) | 125 (48.3) | 2 (0.3) | 19 (7.3) |

| Marital status                 | Divorced/separated | Married/long-term relationship | Single | Widow(er) |
|--------------------------------|-------------------|-------------------------------|--------|-----------|
| Women                          | 21 (6.6) | 248 (77.5) | 46 (14.4) | 5 (1.6) |
| Men                            | 7 (2.7) | 231 (89.2) | 20 (7.7) | 1 (0.4) |

| Children | Yes | 211 (65.9) | 205 (79.2) | 416 (71.8) |

| Education and profession       | specialist | resident/trainee | PhD | MD | Master's degree | Other |
|--------------------------------|------------|-----------------|-----|----|-----------------|-------|
| Women                          | 113 (35.3) | 16 (5.0) | 77 (24.1) | 89 (27.8) | 18 (5.6) | 7 (2.2) |
| Men                            | 119 (45.9) | 18 (6.9) | 43 (16.6) | 58 (22.4) | 15 (5.8) | 6 (2.3) |

| Speciality                     | Neurology | Other |
|--------------------------------|-----------|-------|
| Women                          | 243 (88.4) | 32 (11.6) |
| Men                            | 198 (89.6) | 23 (10.4) |

| Work environment⁶             | own practice | private practice | general hospital | academic hospital | university | scientific public institution | scientific private institution |
|-------------------------------|-------------|------------------|------------------|------------------|------------|-----------------------------|-----------------------------|
| Women                         | 28 (8.8)    | 90 (28.1)        | 86 (26.9)        | 147 (45.9)       | 95 (29.7)  | 28 (8.8)                    | 18 (5.6)                    |
| Men                           | 30 (11.6)   | 76 (29.3)        | 94 (36.3)        | 124 (47.9)       | 75 (29.0)  | 12 (4.6)                    | 9 (3.5)                     |

| Participation in clinical activities | Yes | 305 (95.3) | 251 (96.9) | 556 (96.0) |

| How many days per week do you see patients | 1 | 2 | 3 | 4 |
|---------------------------------------------|---|---|---|---|
| Women                                       | 11 (3.7) | 21 (7.0) | 33 (11.1) | 50 (16.8) |
| Men                                         | 8 (3.3) | 13 (5.3) | 26 (10.6) | 34 (13.9) |
Breakdown by workplace

| Breakdown by workplace | Europe n=226 | South Asia n=121 | East America n=83 | North America n=58 | Western Pacific n=58 | South America n=55 |
|------------------------|--------------|------------------|-------------------|---------------------|----------------------|-------------------|
| Age                    | 5            | 6                | 5                 | 6                   | 6                    | 5                 |

| How many headache patients per week | <10 | 10-30 | 31-60 | 61-80 | 81-100 | >100 |
|-------------------------------------|-----|-------|------|------|-------|------|
| <10                                 | 58  | (19.9)| 139  | (47.6)| 54    | (18.5)| 232  | (42.7)| 115  | (21.2) |
| 10-30                               | 5   | (16.1)| 67   | (27.3)| 115   | (21.2)| 115   | (21.2) |
| 31-60                               | 67  | (27.3)| 229  | (43.0)| 116   | (21.8)| 229   | (43.0) |
| 61-80                               | 48  | (16.1)| 292  | (55.8)| 161   | (29.9)| 292   | (55.8) |
| 81-100                              | 6   | (2.1) | 17   | (6.3) | 11    | (3.4) | 17    | (6.3) |
| >100                                | 10  | (3.4) | 10   | (3.4) | 10    | (3.4) | 10    | (3.4) |

| How many non-headache patients per week | <10 | 10-30 | 31-60 | 61-80 | 81-100 | >100 |
|-----------------------------------------|-----|-------|------|------|-------|------|
| <10                                     | 69  | (23.2)| 104  | (34.9)| 70    | (23.5)| 68    | (27.9)| 62    | (25.8)| 111   | (20.9) |
| 10-30                                   | 70  | (23.5)| 104  | (34.9)| 70    | (23.5)| 104   | (34.9)| 70    | (23.5)| 104   | (34.9) |
| 31-60                                   | 67  | (23.2)| 104  | (34.9)| 70    | (23.5)| 104   | (34.9)| 70    | (23.5)| 104   | (34.9) |
| 61-80                                   | 62  | (21.8)| 90   | (37.5)| 67    | (27.3)| 90    | (37.5)| 67    | (27.3)| 90    | (37.5) |
| 81-100                                  | 11  | (4.6) | 15    | (5.7) | 6     | (2.1) | 15    | (5.7) | 6     | (2.1) | 15    | (5.7) |
| >100                                    | 9   | (3.4) | 11    | (3.4) | 6     | (2.1) | 11    | (3.4) | 6     | (2.1) | 11    | (3.4) |

Participation in research activities

| Participation in research activities | Yes | No longer | Never |
|--------------------------------------|-----|-----------|-------|
| Yes                                  | 264 | (82.5)    | 480   | (82.9) |
| No longer                            | 216 | (63.4)    | 376   | (64.9) |
| Never                                | 60  | (18.8)    | 124   | (21.4) |

Current professional status research

| Current professional status research 5 | PhD student | Post-doc | Staff member/Attending | Scientific group leader |
|---------------------------------------|-------------|----------|------------------------|------------------------|
| PhD student                           | 47 (18.4)   | 25 (9.8) | 142 (55.6)            | 57 (22.4)             |
| Post-doc                              | 13 (6.5)    | 22 (11.0)| 121 (60.5)           | 63 (31.5)             |
| Staff member/Attending                | 60 (12.2)   | 47 (9.6) | 263 (53.7)           | 120 (24.5)            |
| Scientific group leader               |             |          |                       |                       |

Participation in academic career

| Participation in academic career | Yes | No longer | Never |
|----------------------------------|-----|-----------|-------|
| Yes                              | 219 | (68.4)    | 376   | (64.9) |
| No longer                        | 41  | (12.8)    | 79    | (13.6) |
| Never                            | 60  | (18.8)    | 124   | (21.4) |

Current professional status academia

| Current professional status academia 6 | PhD student/Post-doc | Assistant Professor | Associate Professor | Full Professor | Other |
|---------------------------------------|----------------------|---------------------|--------------------|---------------|-------|
| PhD student/Post-doc                  | 56 (26.9)            | 43 (20.7)           | 50 (24.0)          | 31 (14.9)     | 28    |
| Assistant Professor                   | 24 (16.3)            | 31 (21.1)           | 27 (18.4)          | 40 (27.2)     | 25    |
| Associate Professor                   |                      |                     |                    |               |       |
| Full Professor                        |                      |                     |                    |               |       |
| Other                                |                      |                     |                    |               |       |

Expects to be promoted in further academic career

| Expects to be promoted in further academic career | Yes | No longer | Never |
|--------------------------------------------------|-----|-----------|-------|
| Yes                                              | 126 | (72.4)    | 222   | (59.0) |
| No longer                                        | 45  | (27.6)    | 78    | (41.0) |

Involved in scientific societies

| Involved in scientific societies | Yes | No longer | Never |
|----------------------------------|-----|-----------|-------|
| Yes                              | 259 | (80.9)    | 459   | (79.3) |
| No longer                        | 23  | (7.2)     | 42    | (7.3)  |
| Never                            | 38  | (11.9)    | 78    | (13.5) |

1 Three participants preferred not to disclose their age. 2 One participant reported a non-binary gender identity. As results are separately reported based on gender, we had to exclude this participant to ensure anonymity. 3 Participants with difference in location birth and workplace: n=38 (6.6%). 4 Made exclusive, order specialist, resident, PhD, MD, MSc, Other. 5 Three residents / trainee reported also a PhD degree. 6 Multiple answers possible.

Supplementary table 2. Demographics responders by workplace.
| Age Group | n (%) | n (%) | n (%) | n (%) | n (%) |
|-----------|-------|-------|-------|-------|-------|
| 18-30     | 31 (13.8) | 6 (5.0) | 3 (3.7) | 1 (1.7) | 2 (3.6) |
| 31-40     | 63 (28.1) | 57 (47.1) | 24 (29.3) | 12 (20.7) | 18 (32.7) |
| 41-50     | 64 (28.6) | 27 (22.3) | 18 (22.0) | 25 (43.1) | 17 (30.9) |
| 51-60     | 40 (17.9) | 24 (19.8) | 16 (19.5) | 17 (29.3) | 11 (20.0) |
| >60       | 26 (11.6) | 7 (5.8) | 21 (25.6) | 3 (5.2) | 7 (12.7) |

**Gender**

| Gender | n (%) | n (%) | n (%) | n (%) |
|--------|-------|-------|-------|-------|
| Women  | 145 (64.2) | 51 (42.1) | 46 (55.4) | 32 (55.2) | 34 (61.8) |

**Education**

| Speciality | n (%) | n (%) | n (%) | n (%) | n (%) |
|------------|-------|-------|-------|-------|-------|
| Neurology  | 177 (88.5) | 80 (86.0) | 60 (84.5) | 46 (86.8) | 47 (97.9) |
| Other      | 23 (11.5) | 13 (14.0) | 11 (15.5) | 7 (13.2) | 1 (2.1) |

**Work environment**

| Participation in clinical activities | n (%) | n (%) | n (%) | n (%) | n (%) |
|-------------------------------------|-------|-------|-------|-------|-------|
| Yes                                 | 206 (91.2) | 119 (98.3) | 83 (100.0) | 57 (98.3) | 55 (100.0) |
| No                                  | 19 (8.8) | 3 (1.7) | 2 (1.2) | - | - |

| Participation in research activities | n (%) | n (%) | n (%) | n (%) | n (%) |
|-------------------------------------|-------|-------|-------|-------|-------|
| Yes                                 | 192 (85.0) | 92 (76.0) | 65 (78.3) | 52 (89.7) | 50 (90.9) |
| No                                  | 34 (15.0) | 13 (12.2) | 2 (1.2) | - | - |

**Current professional status**

| Chair | n (%) | n (%) | n (%) | n (%) | n (%) |
|-------|-------|-------|-------|-------|-------|
| Head of Department                  | 27 (13.5) | 4 (4.1) | 12 (14.8) | 4 (7.5) | 5 (9.1) |
| Other                               | - | - | - | - | - |

| Participation in academic career | n (%) | n (%) | n (%) | n (%) | n (%) |
|---------------------------------|-------|-------|-------|-------|-------|
| Yes                             | 140 (61.9) | 69 (57.0) | 63 (75.9) | 41 (70.7) | 34 (61.8) |
| No longer                       | 34 (15.0) | 13 (10.7) | 8 (9.6) | 11 (19.0) | 10 (18.2) |
| Never                           | 52 (23.0) | 39 (32.2) | 12 (14.5) | 6 (10.3) | 11 (20.0) |

| Current professional status academy | n (%) | n (%) | n (%) | n (%) | n (%) |
|-----------------------------------|-------|-------|-------|-------|-------|
| PhD student/Post-doc              | 50 (37.6) | 15 (22.7) | 1 (1.7) | 4 (11.1) | 4 (11.8) |
| Assistant Professor               | 17 (12.8) | 9 (13.6) | 22 (37.9) | 3 (8.3) | 17 (50.0) |
| Associate Professor               | 34 (25.6) | 16 (24.2) | 14 (24.1) | 8 (22.2) | 5 (14.7) |
| Full Professor                    | 15 (11.3) | 16 (24.2) | 15 (25.9) | 18 (50.0) | 3 (8.8) |
| Other                             | 17 (12.8) | 10 (15.2) | 6 (10.3) | 3 (8.3) | 5 (14.7) |

**Expect to be promoted in further academic career**

| n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
|-------|-------|-------|-------|-------|-------|
| Yes   | 79 (66.4) | 50 (83.3) | 30 (58.8) | 24 (80.0) | 22 (71.0) |
| No    | 170 (75.2) | 80 (66.1) | 75 (90.4) | 48 (82.8) | 54 (98.2) |

**Involved in scientific societies**

| n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
|-------|-------|-------|-------|-------|-------|
| Yes   | 170 (75.2) | 80 (66.1) | 75 (90.4) | 48 (82.8) | 54 (98.2) |
| No    | 22 (9.7) | 9 (7.4) | 5 (6.0) | 3 (5.2) | - |
| Never | 34 (15.0) | 32 (26.4) | 3 (3.6) | 7 (12.1) | 1 (1.8) |

1 Three participants preferred not to disclose their age. 2 Made exclusive, order specialist, resident, PhD, MD, MSc, Other, 3 Three residents / trainee reported also a PhD degree, 4 Multiple answers possible
Supplementary table 3. Career barriers perceived and by workplace.

| Breakdown by Workplace | Europe (n=226) | South Asia (n=121) | East (n=83) | North America (n=58) | Western Pacific (n=58) | South America (n=55) |
|------------------------|---------------|--------------------|-------------|----------------------|------------------------|----------------------|
| Work-life balance      |               |                    |             |                      |                        |                      |
Due to Opportunities international scientific society

Influence family care
- Yes, positively: 45 (19.9), 16 (13.2), 9 (10.8), 9 (15.5), 12 (21.8)
- Yes, negatively: 28 (12.4), 9 (7.4), 9 (10.8), 8 (13.8), 8 (14.5)
- Both: 64 (28.3), 27 (22.3), 35 (42.2), 9 (15.5), 14 (25.5)
- No: 89 (39.4), 69 (57.0), 30 (36.1), 32 (55.2), 21 (28.2)

Professional recognition
Collaborative research impacted by: 4
- Age: 24 (13.0), 6 (7.1), 10 (17.2), 8 (17.0), 5 (10.4)
- Country of birth /education: 24 (13.0), 10 (11.8), 5 (8.6), 7 (14.9), 12 (25.0)
- Ethnicity: 5 (2.7), 3 (3.5), 5 (8.6), 3 (6.4), 1 (2.1)
- Gender: 28 (15.2), 6 (7.1), 16 (27.6), 6 (12.8), 4 (8.3)
- None: 119 (64.7), 63 (74.1), 33 (56.9), 32 (68.1), 33 (68.8)

Research career not taken seriously/and or not welcome as a colleague due to: 2
- Age: 27 (15.0), 7 (9.7), 11 (19.3), 4 (8.5), 11 (23.4)
- Country of birth /education: 26 (14.4), 11 (15.3), 5 (8.8), 3 (6.4), 10 (21.3)
- Ethnicity: 6 (3.3), 3 (4.2), 6 (10.5), 1 (2.1), 2 (4.3)
- Gender: 45 (25.0), 5 (6.9), 18 (31.6), 9 (19.1), 6 (12.8)
- None: 91 (50.6), 51 (70.8), 20 (35.1), 35 (74.5), 25 (53.2)

In my country not the same opportunities academic career due to: 3
- Age: 26 (16.6), 7 (9.5), 20 (30.8), 11 (22.0), 6 (15.0)
- Country of birth /education: 31 (19.7), 11 (14.9), 19 (29.2), 6 (12.0), 13 (32.5)
- Ethnicity: 24 (15.3), 4 (5.4), 28 (43.1), 5 (10.0), 10 (25.0)
- Gender: 53 (33.8), 9 (12.2), 32 (49.2), 10 (20.0), 7 (17.5)
- None: 64 (40.8), 42 (56.8), 21 (32.3), 31 (62.0), 15 (37.5)

In my country not the same opportunities to be invited as public speaker due to: 4
- Age: 36 (23.4), 6 (7.9), 22 (33.8), 10 (20.4), 12 (31.6)
- Country of birth /education: 26 (16.9), 13 (17.1), 17 (26.2), 8 (16.3), 10 (26.3)
- Ethnicity: 21 (13.6), 5 (6.6), 24 (36.9), 5 (10.2), 8 (21.1)
- Gender: 35 (22.7), 7 (9.2), 25 (38.5), 11 (22.4), 6 (15.8)
- None: 92 (59.7), 55 (72.4), 25 (38.5), 33 (67.3), 20 (52.6)

Opportunities Scientific Societies

opportunities relevant positions national scientific societies unequal due to: 5
- Age: 34 (18.8), 10 (12.3), 21 (27.3), 8 (16.7), 14 (26.9)
- Country of birth /education: 25 (13.8), 13 (16.0), 18 (23.4), 9 (18.8), 14 (26.9)
- Ethnicity: 27 (14.9), 7 (8.6), 25 (32.5), 5 (10.4), 11 (21.2)
- Gender: 58 (32.0), 11 (13.6), 35 (45.5), 6 (12.5), 13 (25.0)
- None: 95 (52.5), 45 (55.6), 28 (36.4), 28 (58.3), 18 (34.6)

opportunities national scientific society meeting opportunity to be speaker/chair unequal due to:
- Age: 49 (21.7), 27 (22.3), 25 (30.1), 11 (19.0), 14 (25.5)
- Country of birth /education: 28 (12.4), 32 (26.4), 15 (18.1), 12 (20.7), 11 (20.0)
- Ethnicity: 24 (10.6), 4 (3.3), 21 (25.3), 5 (8.6), 5 (9.1)
- Gender: 50 (22.1), 9 (7.4), 34 (41.0), 6 (10.3), 11 (20.0)
- None: 130 (57.5), 67 (55.4), 27 (32.5), 33 (67.3), 24 (43.6)

opportunities relevant positions international scientific societies unequal due to: 6
- Age: 37 (20.6), 7 (8.6), 17 (23.3), 6 (12.8), 10 (19.6)
- Country of birth /education: 66 (36.7), 31 (38.3), 29 (39.7), 19 (40.4), 34 (66.7)
- Ethnicity: 37 (20.6), 12 (14.8), 19 (26.0), 6 (12.8), 12 (23.5)
- Gender: 60 (33.3), 7 (8.6), 27 (37.0), 7 (14.9), 11 (21.6)
- None: 76 (42.2), 40 (49.4), 21 (28.8), 22 (46.8), 9 (17.6)

opportunities international scientific society meetings opportunity to be speaker/chair unequal due to:
- Age: 38 (16.8), 21 (17.4), 26 (31.3), 10 (17.2), 9 (16.4)
- Country of birth /education: 63 (27.9), 57 (47.1), 27 (32.5), 21 (36.2), 34 (61.8)
- Ethnicity: 30 (13.3), 22 (18.2), 19 (22.9), 11 (19.0), 11 (20.0)
- Gender: 56 (24.8), 7 (5.8), 29 (34.9), 7 (12.1), 7 (12.7)
- None: 107 (47.3), 47 (38.8), 21 (25.3), 24 (41.4), 13 (23.6)
In international scientific meetings not everyone has the same opportunities to participate in conferences due to

| Countries           | Total  |
|---------------------|--------|
| Europe              | 11     |
| South East Asia     | 8      |
| North America       | 25     |
| Western Pacific     | 3      |
| South America       | 3      |

Country of birth /education

| Countries           | Total  |
|---------------------|--------|
| Europe              | 11     |
| South East Asia     | 8      |
| North America       | 25     |
| Western Pacific     | 3      |
| South America       | 3      |

Ethnicity

| Countries           | Total  |
|---------------------|--------|
| Europe              | 11     |
| South East Asia     | 8      |
| North America       | 25     |
| Western Pacific     | 3      |
| South America       | 3      |

Gender

| Countries           | Total  |
|---------------------|--------|
| Europe              | 11     |
| South East Asia     | 8      |
| North America       | 25     |
| Western Pacific     | 3      |
| South America       | 3      |

None

| Countries           | Total  |
|---------------------|--------|
| Europe              | 11     |
| South East Asia     | 8      |
| North America       | 25     |
| Western Pacific     | 3      |
| South America       | 3      |

Currently or past mentor has

| Women | Men | Total |
|-------|-----|-------|
| 31 (13.7) | 21 (17.4) | 19 (22.9) | 6 (10.3) | 10 (18.2) |
| 55 (24.3) | 44 (36.4) | 24 (28.9) | 18 (31.0) | 29 (52.7) |
| 27 (11.9) | 21 (17.4) | 18 (21.7) | 8 (13.8) | 11 (20.0) |
| 4 (2.0) | 5 (4.1) | 24 (28.9) | 4 (6.9) | 10 (18.2) |
| 122 (54.0) | 54 (44.6) | 27 (32.5) | 25 (43.1) | 13 (23.6) |

At scientific meetings/conferences people do not pay the same attention to speakers because of

| Countries           | Total  |
|---------------------|--------|
| Europe              | 11     |
| South East Asia     | 8      |
| North America       | 25     |
| Western Pacific     | 3      |
| South America       | 3      |

Current or past mentor has

| Women | Men | Total |
|-------|-----|-------|
| 8 (4.8) | 27 (29.0) | 2 (3.7) | 7 (16.3) | 5 (11.4) |
| 15 (8.9) | 4 (1.3) | 6 (11.1) | 2 (4.7) | 6 (13.6) |
| 15 (8.9) | 1 (1.0) | 5 (9.3) | 5 (11.6) | 6 (13.6) |
| 11 (6.5) | 5 (5.4) | 1 (1.9) | 3 (7.0) | 6 (13.6) |
| 4 (2.4) | 1 (1.1) | 1 (1.9) | 1 (2.3) | 2 (4.5) |
| 2 (1.2) | 1 (1.1) | - | - | 3 (6.8) |
| 3 (1.8) | - | 8 (14.8) | 2 (4.7) | 2 (4.5) |
| 24 (14.3) | 3 (3.2) | 12 (22.2) | 3 (7.0) | 7 (15.9) |
| None | 108 (64.3) | 51 (54.8) | 32 (59.3) | 27 (62.8) | 25 (56.8) |

Receive compensation from private practices

| Women | Men | Total |
|-------|-----|-------|
| 179 (79.2) | 97 (80.2) | 59 (71.1) | 47 (81.0) | 45 (81.8) |

Funding

Receive salary/grant

| Women | Men | Total |
|-------|-----|-------|
| 8 (4.8) | 27 (29.0) | 2 (3.7) | 7 (16.3) | 5 (11.4) |
| 15 (8.9) | 4 (1.3) | 6 (11.1) | 2 (4.7) | 6 (13.6) |
| 15 (8.9) | 1 (1.0) | 5 (9.3) | 5 (11.6) | 6 (13.6) |
| 11 (6.5) | 5 (5.4) | 1 (1.9) | 3 (7.0) | 6 (13.6) |
| 4 (2.4) | 1 (1.1) | 1 (1.9) | 1 (2.3) | 2 (4.5) |
| 2 (1.2) | 1 (1.1) | - | - | 3 (6.8) |
| 3 (1.8) | - | 8 (14.8) | 2 (4.7) | 2 (4.5) |
| 24 (14.3) | 3 (3.2) | 12 (22.2) | 3 (7.0) | 7 (15.9) |
| None | 108 (64.3) | 51 (54.8) | 32 (59.3) | 27 (62.8) | 25 (56.8) |

Compensation from private practices impacted by

| Women | Men | Total |
|-------|-----|-------|
| 89 (78.1) | 97 (80.2) | 59 (71.1) | 47 (81.0) | 45 (81.8) |

Women

| Age | Missing |
|-----|---------|
| 16 (21.6) | 13 (22.8) | 4 (13.3) | 2 (8.3) | 6 (20.7) |
| 10 (13.5) | 7 (12.3) | 3 (10.0) | 2 (8.3) | 5 (17.2) |
| 7 (9.5) | 17 (29.8) | 5 (16.7) | 1 (4.2) | 8 (27.6) |
| 3 (4.1) | 6 (10.5) | 3 (10.0) | 3 (12.5) | 5 (17.2) |
| 2 (2.7) | 1 (1.8) | 2 (6.7) | - | 5 (17.2) |
| - | 2 (3.5) | 1 (3.3) | 1 (4.2) | - |
| 5 (4.5) | 7 (12.3) | 3 (10.0) | 5 (20.8) | 8 (27.6) |
| 8 (10.8) | 2 (3.5) | 3 (10.0) | 3 (12.5) | 4 (13.8) |
| 40 (54.1) | 22 (38.6) | 14 (46.7) | 14 (58.3) | 6 (20.7) |
| None of the above | 140 (70.4) | 89 (78.1) | 50 (63.3) | 29 (56.9) | 35 (66.0) |

Contact with patients negatively influenced by

| Women | Men | Total |
|-------|-----|-------|
| 34 (17.1) | 11 (9.6) | 9 (11.4) | 10 (19.6) | 9 (17.0) |
| 14 (7.0) | 13 (11.4) | 6 (7.6) | 12 (23.5) | 5 (9.4) |
| 4 (2.0) | 3 (2.6) | 11 (13.9) | 7 (13.7) | - |
| 24 (12.1) | 8 (7.0) | 21 (26.6) | 11 (21.6) | 7 (13.2) |

Clinical practice

| Women | Men | Total |
|-------|-----|-------|
| 35 (66.0) | 25 (56.9) | 29 (56.9) | 35 (66.0) | 36 (61.8) |

Missing n=29 (8 Europe, 7 South East Asia, 7 North America, 5 Western Pacific, 2 South America), Missing n=48 (12 Europe, 20 South East Asia, 8 North America, 5 Western Pacific, 3 South America), Missing n=37 (17 Europe, 8 South East Asia, 6 North America, 2 Western Pacific, 4 South America), Missing n=41 (20 Europe, 6 South East Asia, 6 North America, 3 Western Pacific, 6 South America), Missing n=27 (11 Europe, 8 South East Asia, 3 North America, 3 Western Pacific, 2 South America), Missing n=34 (12 Europe, 8 South East Asia, 7 North America, 4 Western Pacific, 3 South America), Missing n=25 (11 Europe, 4 South East Asia, 5 North America, 4 Western Pacific, 1 South America), Missing n=55 (24 Europe, 8 South East Asia, 13 North America, 6 Western Pacific, 4 South America), Missing n=24 (7 Europe, 5 South East Asia, 4 North America, 6 Western Pacific, 2 South America).

Supplementary table 4. Academic mentorship.
Critiqued my scientific work\(^2\) & 121 (57.9) & 92 (56.1) & 213 (57.1) \\
Fostered my career\(^3\) & 168 (83.2) & 143 (87.7) & 311 (85.2) \\
Promoted participation in external professional activities & 159 (75.4) & 139 (84.2) & 298 (79.3) \\
Facilitated participation in chairing conference & 106 (50.2) & 98 (59.4) & 204 (54.3) \\
Facilitated participation in invited manuscripts & 139 (65.9) & 115 (69.7) & 254 (67.6) \\
Used my work to advance their own career instead of mine & 59 (28.0) & 58 (35.2) & 117 (31.1) \\

| Sex of current/past mentors was | Women | Men | Both |
|--------------------------------|-------|-----|------|
| Women                          | 42 (19.9) | 19 (11.5) | 61 (16.2) |
| Men                            | 87 (41.2) | 109 (66.1) | 196 (52.1) |
| Both                           | 75 (35.5) | 37 (22.4) | 112 (29.8) |

\(^1\) missing n=20 (12 men, 8 women), \(^2\) missing n=3 (1 men, 2 women), \(^3\) missing n=11 (2 men, 9 women).

Supplementary figure 1. Barriers to a career in headache affecting professional recognition by workplace. Country is used to indicate country of birth and/or education.
Supplementary figure 2. Barriers to a career in headache affecting opportunities in scientific societies by workplace. Country is used to indicate country of birth and/or education.
Supplementary figure 3. Barriers to a career in headache affecting salary and compensation by workplace. Country is used to indicate country of birth and/or education.
Supplementary method:

Questionnaire for Survey career barriers

1) Age (years)
   - 18-30
   - 31-40
   - 41-50
   - 51-60
   - >60
   - Prefer not to say

2) Sex
   - Female
   - Male
   - Non-binary

3) Geographic location - birth
   - Europe
   - North America
   - South America
   - Eastern Mediterranean
   - Africa
   - Western Pacific
   - South East Asia

4) Geographic location - working place
   - Europe
   - North America
   - South America
   - Eastern Mediterranean
   - Africa
   - Western Pacific
   - South East Asia

5) Which race/ethnicity best describes you
   - American Indian or Alaskan Native
   - Asian / Pacific Islander
   - Black / African American
   - Hispanic
   - White / Caucasian
   - Multiple ethnicity
   - Other, please specify ....

6) Marital status
   - Single
   - Married / long-term relationship
   - Divorced
   - Widow(er)
7) Do you have children
   • Yes, please specify number ....
   • No

8) Professional education level (check all that apply)
   • MD
   • Resident / Trainee
   • Specialist
   • Master’s degree
   • PhD
   • Other than MD (psychologist, biologist, dentistry, physiotherapist, nurse - please specify ....

9) Specialty, if MD (check all that apply - if not MD go to question 10)
   • Neurology
   • Internal medicine
   • Pain medicine
   • Pharmacology
   • General medicine / GP
   • Other, please specify ....

10) Work environment (check all that apply)
    • Own practice
    • Private practice
    • General hospital
    • Academic hospital
    • University
    • Scientific public institution
    • Scientific private institution
    • Other, please specify ....

11) My family care responsibilities have affected my career
    • Yes, negatively
    • Yes, positively
    • Yes, both negatively and positively
    • No

12) I participate in clinical activities (if No, go to question 18)
    • Yes
    • No

13) Current professional status
    • GP
    • Resident
    • Consultant / Attending
    • Chief Consultant / Division Chair
    • Head of Department
    • Other
14) How many days per week on average do you see patients?
   - 1
   - 2
   - 3
   - 4
   - 5
   - 6

15) How many headache patients do you see or supervise per week?
   - <10
   - 10-30
   - 30-60
   - 60-80
   - 80-100
   - >100

16) How many other patients do you see or supervise per week?
   - <10
   - 10-30
   - 30-60
   - 60-80
   - 80-100
   - >100

17) I think that one or more of my conditions among the following negatively influences my dealing with patients (check all that apply)
   - Gender
   - Ethnicity
   - Country of birth / education
   - Age
   - None of the above (no negative influences)

18) I participate in research activities (if No please state why in Comment’s box (e.g. never had the chance, was involved but career evolved in a different way, not interested) and then go to question 22)
   - Yes
   - No

19) Current professional status
   - PhD student
   - Post-doc
   - Staff member / Attending
   - Scientific group leader

20) I think that my being sought for participation in collaborative research, given comparable scientific expertise, has been negatively affected by (check all that apply)
   - Gender
   - Ethnicity
   - Country of birth / education
21) I feel that my career was sometimes not taken seriously and/or that I was not welcome as a colleague because of (check all that apply)
- Gender
- Ethnicity
- Country of birth / education
- Age
- I have never experienced this situation

22) I am/was involved in Scientific Societies (if Never, please state why in Comment’s box (e.g. never had the chance, too time-consuming, not interested) and then go to question 25)
- Yes
- Not currently, but have previously been involved
- Never

23) I think that in my country not everyone has the same opportunities to access relevant positions in national Scientific Societies because of (check all that apply)
- Gender
- Ethnicity
- Country of birth / education
- Age
- None of the above (same opportunities for everyone)

24) I think that not everyone has the same opportunities to access relevant positions in International Scientific Societies because of (check all that apply)
- Gender
- Ethnicity
- Country of birth / education
- Age
- None of the above (same opportunities for everyone)

25) I think that in National Scientific Meetings in my country not everyone has the same opportunities to be appointed as speakers/chairs because of (check all that apply)
- Gender
- Ethnicity
- Country of birth / education
- Age
- None of the above (same opportunities for everyone)

26) I think that in International Scientific Meetings not everyone has the same opportunities to participate in conferences because of (check all that apply)
- Gender
- Ethnicity
- Country of birth / education
- Age
- None of the above (same opportunities for everyone)
27) I think that in International Scientific Meetings not everyone has the same opportunities to be appointed as speakers/chairs because of (check all that apply)
   - Gender
   - Ethnicity
   - Country of birth / education
   - Age
   - None of the above (same opportunities for everyone)

28) I think that in scientific meetings/conferences people do not pay the same attention to speakers because of (check all that apply)
   - Gender
   - Ethnicity
   - Country of birth / education
   - Age
   - None of the above (same attention for everyone)

29) I am/was involved in an academic career (if No longer or Never involved, please state why in the Comments box (e.g. never had the chance, was involved but career evolved in a different way, not interested. If No longer involved, go to question 31; if Never involved go to question 42)
   - Yes
   - No longer involved
   - Never involved

30) I am still involved with the current professional status
   - PhD student / post-doc
   - Assistant Professor
   - Associate Professor
   - Full Professor
   - Other, please specify ….

31) Do you currently have a mentor, or have you had one in the past? (if No go to question 40)
   - Yes
   - No

32) Some of my current/past mentors have critiqued my scientific work
   - Yes
   - No

33) Some of my current/past mentors have actively advised and fostered my career
   - Yes
   - No

34) Some of my current/past mentors have promoted my participation in external professional activities
   - Yes
   - No

35) Some of my current/past mentors have facilitated my participation in chairing a conference
   - Yes
   - No
36) Some of my current/past mentors have facilitated my participation in invited manuscripts
   • Yes
   • No

37) Some of my current/past mentors have used my work to advance his/her own career, rather than mine
   • Yes
   • No

38) The sex of my current/past mentors was
   • Female
   • Male
   • Both

39) I am expecting to be promoted in my further academic career
   • Yes
   • No

40) I think that in my country not everyone receives the same opportunities to achieve an academic career because of (check all that apply)
   • Gender
   • Ethnicity
   • Country of birth / education
   • Age
   • None of the above (same opportunities for everyone)

41) I think that in my country not everyone receives the same opportunities to be invited as a public speaker because of (check all that apply)
   • Gender
   • Ethnicity
   • Country of birth / education
   • Age
   • None of the above (same opportunities for everyone)

42) I receive a salary/grant (if No go to question 44)
   • Yes
   • No

43) I believe that my salary/grant amount is influenced by (check all that apply)
   • Gender - positively influenced
   • Gender - negatively influenced
   • Ethnicity - positively influenced
   • Ethnicity - negatively influenced
   • Country of birth / education - positively influenced
   • Country of birth / education - negatively influenced
   • Age - positively influenced
   • Age - negatively influenced
   • None of the above (no influences)
44) I receive compensation from private practice/activities, including fees from companies (if No please state why in Comment’s box (e.g. not interested/qualified for private practice, not allowed to have a private practice, not enough time to dedicate to private practice) and then go to question 46)
   - Yes
   - No

45) I think that my compensations from private practice are influenced by (check all that apply)
   - Gender - positively influenced
   - Gender - negatively influenced
   - Ethnicity - positively influenced
   - Ethnicity - negatively influenced
   - Country of birth / education - positively influenced
   - Country of birth / education - negatively influenced
   - Age - positively influenced
   - Age - negatively influenced
   - Time I can dedicate to private practice - negatively influenced
   - Too few requests - negatively influenced

46) If you have any other comments to add, please do so.