

Supplementary file 1

Attitude of residents about working during COVID-19 pandemic

1. Gender: Male Female
2. Age:
3. Year of residency: _____
4. Medical specialty:
5. Who you live with? (multiple answers are possible)
 - a) Alone
 - b) Roommate
 - c) Parents
 - d) Partner
 - e) Children
 - f) With people over 65 years of age
 - d) Other
6. Whether you separated from your family during the COVID-19 pandemic?
 - a) Yes
 - b) No
 - c) Periodically
7. Do you work with patients with proven or suspected COVID-19 infection?
 - a) Yes
 - b) No
 - c) Periodically

8. In which health institution you are working?

- a) Clinical hospital center
- b) General hospital
- c) Specialist hospitals
- d) Public health institute
- e) Respiratory center
- f) Community health center
- g) Emergency medicine

9. Country you are working for?

- a) City of Zagreb
- b) Split-Dalmatia
- c) Osijek-Baranja
- d) Primorje-Gorski kotar
- e) Istaria
- f) Vukovar-Srijem
- g) Varaždin
- h) Sisak-Moslavina
- i) Zadar
- j) Brod-Posavina
- k) Krapina-Zagorje
- l) Karlovac
- m) Dubrovnik-Neretva
- n) Bjelovar-Bilogora
- o) Koprivnica-Križevci
- p) Međimurje
- q) Šibenik-Knin

- r) Virovitica-Podravina
- s) Požega-Slavonia
- t) Lika-Senj
- u) Zagreb County

10. Did you change your usual residency working practice during COVID-19 pandemic?

- a) Yes
- b) No
- c) Do not know

11. During COVID-19 pandemic did you work in the workplace that was provided by residency?

- a) Yes
- b) No
- c) Do not know

12. How did you experience the mobilization from the Ministry of Health?

- a) A new challenge in professional life
- b) Obligation
- c) An obligation that is my duty under an employment contract
- d) Fulfilling the Hippocratic Oath
- e) Do not know
- f) Other _____

13. Did you want to stop working during the new situation (resign)?

- a) Yes
- b) No
- c) Do not know

14. Do you have more overtime during the COVID-19 pandemic than before?
- a) Yes
 - b) No
 - c) Do not know
15. Do you think you are more exposed to working with COVID-19 positive patients compared to senior specialist?
- a) Yes
 - b) No
 - c) Do not know
16. Did you have enough personal protective equipment while working in the pandemic?
- a) Yes
 - b) No
 - c) Do not know
17. Do you think that personal protective equipment is distributed according to the real needs of institutions in the Republic of Croatia?
- a) Yes
 - b) No
 - c) Do not know
18. Who was your most significant support during the COVID-19 pandemic? (multiple answers possible)
- a) Family
 - b) Friends
 - c) Colleges

- d) Employer
- e) Nobody
- f) Other_____

19. What do you think could help in a better quality of life in your free time?

- a) Reading
- b) Watching movies or TV shows
- c) Workout
- d) Going to nature
- e) Spending more time with family/partner
- f) None of the above
- g) Other_____

20. The most information about working with COVID-19 positive patients I get from?

- a) Employer
- b) Ministry of Health
- c) WHO
- d) Scientific articles
- e) Media
- f) Other_____

21. During your work in the COVID-19 pandemic, did your employer allow you unhindered access to a psychologist or psychiatrist?

- a) Yes
- b) No
- c) Do not know
- d) Not informed

Please circle the number that suits you best on the scale.

Strongly Disagree Undecided Agree Strongly
disagree agree

22. I am satisfied with my position at work during the COVID-19 pandemic	1	2	3	4	5
23. I am satisfied with working conditions during the COVID-19 pandemic.	1	2	3	4	5
24. My workload was higher during the COVID-19 pandemic	1	2	3	4	5
25. During the COVID-19, pandemic work at my institution was well organized	1	2	3	4	5
26. A potential prolongation of specialization due to work during the COVID-19 pandemic will have a positive impact on my education	1	2	3	4	5
27. I am satisfied with the level of information by the	1	2	3	4	5

employer about COVID-19 infection					
28. I felt safe working with patients with a proven or suspected COVID-19 infection	1	2	3	4	5
29. While working with patients with proven or suspected COVID-19 infection, I had all the necessary personal protective equipment	1	2	3	4	5
30. I am not afraid of getting infected with SARS-CoV-2 virus	1	2	3	4	5

31. I am not afraid that I will infect my loved ones with the SARS-CoV-2 virus	1	2	3	4	5
32. The COVID-19 pandemic makes me feel helplessness	1	2	3	4	5
33. During the COVID-19 pandemic, I did not have symptoms of anxiety more often/more expenses than before	1	2	3	4	5

34. During the COVID-19 pandemic, I did not have symptoms of depression more often/more expenses than before	1	2	3	4	5
35. The level of stress I experience at work during the COVID-19 pandemic is not higher	1	2	3	4	5
36. The level of stress I experience in free time during the COVID-19 pandemic is not higher	1	2	3	4	5

Read the following statements and assess the extent to which work during the COVID-19 pandemic has affected you compared to before.

	Extremely negative	Partly negative	No effect	Partly positive	Extremely positive
37. Satisfaction with professional life	1	2	3	4	5
38. Quality of work	1	2	3	4	5
39. Collaboration with residents	1	2	3	4	5
40. Collaboration with superiors	1	2	3	4	5
41. Satisfaction with personal life	1	2	3	4	5
42. Relationship with friends	1	2	3	4	5
43. Relationship with family	1	2	3	4	5
44. Financial income	1	2	3	4	5
45. Personal health condition	1	2	3	4	5
46. Health status of family	1	2	3	4	5
47. Personal quality life	1	2	3	4	5
48. Quality of life of family	1	2	3	4	5
49. Amount of free time	1	2	3	4	5
50. Sleep quality	1	2	3	4	5
51. Length of sleep	1	2	3	4	5

Supplementary file 2

Characteristics of residents that responded to the survey (N=728)

Item	Result
Gender, n (%)	
Female	536 (73.6)
Male	192 (26.4)
Age, median (range)	30 (25-54)
Medical specialty, n (%)	
Internal medicine	133 (18.3)
Surgery	79 (10.9)
Pediatrics	78 (10.7)
Anesthesiology	62 (8.5)
Family medicine	50 (6.9)
Radiology	37 (5.1)
Neurology	34 (4.7)
Oncology and hematology	33 (4.5)
Emergency medicine	29 (4)

Obstetrics and gynecology	28 (3.8)
Infectology	27 (3.7)
Ophthalmology	20 (2.7)
Psychiatric	18 (2.5)
Physical medicine and rehabilitation	18 (2.5)
Public health	15 (2.1)
Otorhinolaryngology	14 (1.9)
Urology	13 (1.8)
Microbiology	10 (1.4)
Pathology and cytology	10 (1.4)
Dermatology	10 (1.4)
Transfusion medicine	4 (0.5)
Nuclear medicine	3 (0.4)
Forensic medicine	2 (0.3)
Not written	1 (0.1)
Year of residency, n (%)	
Forth	178 (25.5)
Third	166 (22.8)

Sixth	134 (18.4)
Second	130 (17.9)
Fifth	111 (15.2)
Seventh	3 (0.4)
First	3 (0.4)
Not written	3 (0.4)
Health institution residents are working for, n (%)	
Clinical hospital center	273 (37.5)
General hospital	220 (30.2)
Clinical hospital	88 (12.1)
Community health center	84 (11.5)
Specialist hospitals	23 (3.2)
Public health institute	17 (2.3)
Respiratory center	11 (1.5)
Clinic	7 (1)
Emergency medicine	5 (0.7)
People in the household, n (%)	
Partner	248 (34.1)

More people, including those under 18 years of age	186 (25.5)
Alone	143 (19.6)
Parents	96 (13.2)
More people (age not defined)	40 (5.5)
More people, including those over 65 years of age	11 (1.5)
More people, including those under 18 and over 65	4 (0.5)
Separation from family during the COVID-19 pandemic, n (%)	
Not separated	293 (40.2)
Separated	262 (35.9)
Periodically separated	173 (23.9)
Working with patients with proven or suspect COVID-19, n (%)	
Yes	317 (43.5)
Periodically	225 (30.9)
No	186 (25.5)
Exposure to COVID-19 positive patients compared to senior specialists, n (%)	
More exposed	454 (62.4)
Not more exposed	241 (33.1)
Do not know	33 (4.5)

Sufficiency of the personal protective equipment, n (%)	
Not sufficient	365 (50.1)
Sufficient	316 (43.4)
Do not know	47 (6.5)
Distribution of personal protective equipment, n (%)	
Not properly	404 (55.5)
Do not know	203 (27.9)
Properly	121 (16.6)
Changing of usual residency working practice during COVID-19 pandemic, n (%)	
Yes	677 (93)
No	45 (6.2)
Do not know	6 (0.8)
Working in the workplace that was provided by residency during COVID-19 pandemic, n (%)	
Yes	392 (53.8)
No	323 (44.4)
Do not know	13 (1.8)

Had more overtime during the COVID-19 pandemic, n (%)	
No	405 (55.6)
Yes	281 (38.6)
Do not know	42 (5.8)
Opinion on the mobilization measure adopted by the Ministry of Health, n (%)	
An obligation that is my duty under the employment contract	318 (43.7)
A new challenge in professional life	164 (22.5)
Fulfilling the Hippocratic Oath	97 (13.3)
Coercion	97 (13.3)
Do not know	52 (7.1)
Information source for working with COVID-19 positive patients, n (%)	
Colleagues	256 (35.2)
Scientific articles	218 (29.9)
Media	123 (16.9)
Employer	68 (9.3)
Ministry of Health	36 (4.9)
WHO	22 (3)

Professional societies	3 (0.4)
Other	2 (0.3)
Unhindered access to a psychologist or psychiatrist provided by the employer during COVID-19 pandemic, n (%)	
Not informed	297 (40.8)
No	239 (32.8)
Yes	101 (13.9)
Do not know	91 (12.5)