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# Moral stress among Swedish health care workers during the COVID-19 pandemic : a cross-sectional study

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17 **Table A 1. Descriptive table of internal dropout**

Characteristics	All respondents <sup>a</sup> (N = 16 044)	Respondents included in the analysis <sup>b</sup> (N = 8 721)	Respondents excluded from analysis <sup>c</sup> (N = 3 698)
Age, M (SD)	46.2 (11.9)	46.05 (11.7)	52.2 (13.9)
Sex, n (%)			
Female	13 563 (85.4)	7495 (85.9)	3 043 (83.2)
Male	2 276 (14.3)	1226 (14.1)	607 (16.6)
Covid care, n (%)			
Yes	6 986 (43.5)	4230 (48.5)	983 (27)
No	9 058 (56.5)	4491 (51.5)	2 715 (73)
Occupational group, n (%)			
Direct patient care	12 640 (79)	7068 (81.0)	2 694 (73.2)
Indirect patient care <sup>d</sup>	1219 (8)	717 (8.2)	88 (2.4)
Coordinators	82 (1)	596 (6.8)	16 (0.4)
Managers	470 (3)	47 (0.5)	383 (10.4)
Other <sup>e</sup>	1 554 (10)	293 (3.4)	498 (13.5)

18 Note. Group totals differ due to incomplete survey responses.

19 a: All respondents who completed the initial demographical questions in the survey

20 b: Respondents who had experienced morally stressful situations

21 c: Respondents who had not experienced morally stressful situations

22 d: psychologists, dentists/dental nurses, physiotherapists/occupational therapists/dieticians, audiologists/speech therapist, pharmacists,

23 radiology nurses/medical physicist, biomedical scientists/laboratory assistants, and chiropractors

24 e: other which is not specified in the above

25 **Table A 2. Morally stressing situations by involvement in COVID-19 care**

COVID-19 care	To what extent have you experienced situations of moral stress? N (%)					Total N
	Never	Rarely	Occasionally	Often	Very often	
No	2715(32)	2786(33)	2335(27)	599(7)	167(2)	8602
Yes	983(15)	1847(28)	2476(37)	1016(15)	354(5)	6676
<b>Total</b>	3698(24)	4633(30)	4811(31)	1615(11)	521(3)	15278

26

27 **Table A 3. Morally stressing situations by time at workplace and involvement in COVID-19 care**

Months at workplace	COVID-19 care	To what extent have you experienced situations of moral stress? N (%)					Total N
		Never	Rarely	Occasionally	Often	Very often	
<=5	No	184 (36)	142 (28)	146 (29)	30 (6)	8 (2)	510
	Yes	80 (17)	108 (23)	177 (38)	66 (14)	32 (7)	463
6-11	No	238 (31)	236 (31)	215 (28)	53 (7)	21 (3)	763
	Yes	93 (14)	185 (27)	268 (39)	103 (15)	40 (6)	689
12-59	No	942 (30)	1036 (33)	865 (28)	233 (7)	64 (2)	3140
	Yes	365 (14)	723 (28)	945 (36)	427 (16)	146 (6)	2606
60-119	No	448 (30)	502 (34)	400 (27)	110 (7)	33 (2)	1493
	Yes	135 (13)	304 (28)	425 (40)	162 (15)	52 (5)	1078
120-239	No	419 (34)	385 (31)	343 (28)	84 (7)	16 (1)	1247
	Yes	153 (17)	252 (28)	312 (35)	141 (16)	39 (4)	897
>=240	No	317 (34)	331 (35)	215 (23)	57 (6)	14 (2)	934
	Yes	95 (16)	191 (32)	214 (36)	69 (12)	29 (5)	598

28

29 **Table A 4. Morally stressing situations by occupational group and involvement in COVID-19 care**

Age group	COVID-19 care	To what extent have you experienced situations of moral stress? N (%)					Total N
		Never	Rarely	Occasionally	Often	Very often	
<b>Direct patient care</b>	No	1897 (30)	2005 (32)	1777 (28)	454 (7)	134 (2)	6267
	Yes	797 (14)	1569 (27)	2170 (38)	913 (16)	328 (6)	5777
<b>Indirect patient care<sup>a</sup></b>	No	291 (38)	266 (35)	161 (21)	48 (6)	3 (0)	769
	Yes	92 (23)	129 (32)	124 (31)	39 (10)	14 (4)	398
<b>Managers</b>	No	54 (22)	92 (38)	78 (32)	17 (7)	4 (2)	245
	Yes	34 (17)	55 (28)	77 (39)	27 (14)	6 (3)	199
<b>Coordinators</b>	No	13 (26)	17 (34)	13 (26)	5 (10)	2 (4)	50
	Yes	3 (12)	2 (8)	17 (68)	2 (8)	1 (4)	25
<b>Other<sup>b</sup></b>	No	442 (36)	392 (32)	291 (24)	73 (6)	22 (2)	1220
	Yes	56 (22)	87 (34)	80 (31)	29 (11)	5 (2)	257

30 a: psychologists, dentists/dental nurses, physiotherapists/occupational therapists/dieticians, audiologists/speech therapist, pharmacists,  
 31 radiology nurses/medical physicist, biomedical scientists/laboratory assistants, and chiropractors  
 32 b: other which is not specified in the above

33 **Table A 5. Morally stressing situations by workplace and involvement in COVID-19 care**

Workplace	COVID-19 care	To what extent have you experienced situations of moral stress? (%)					Total N
		Never	Rarely	Occasionally	Often	Very often	
<b>ICU</b>	No	21 (26)	20 (25)	29 (36)	7 (9)	3 (4)	80
	Yes	40 (10)	104 (27)	143 (37)	81 (21)	21 (5)	389
	Total	61 (13)	124 (26)	172 (37)	88 (19)	24 (5)	469
<b>Radiology Dept.</b>	No	83 (27)	90 (29)	103 (33)	24 (8)	10 (3)	310
	Yes	51 (11)	112 (25)	177 (39)	80 (18)	32 (7)	452
	Total	134 (18)	202 (27)	280 (37)	104 (14)	42 (6)	762
<b>Palliative Care</b>	No	10 (34)	12 (41)	5 (17)	1 (3)	1 (3)	29
	Yes	15 (23)	29 (45)	19 (29)	2 (3)	0 (0)	65
	Total	25 (27)	41 (44)	24 (26)	3 (3)	1 (1)	94
<b>Municipal Elderly Care</b>	No	877 (28)	991 (32)	915 (30)	240 (8)	76 (2)	3099
	Yes	408 (14)	733 (26)	1088 (39)	421 (15)	166 (6)	2816
	Total	1285 (22)	1724 (29)	2003 (34)	661 (11)	242 (4)	5915

34

35 **Table A 6. Morally stressing situations by age and gender, and involvement in COVID-19 care**

Age group	COVID-19 care	To what extent have you experienced situations of moral stress? N (%)					Total
		Never	Rarely	Occasionally	Often	Very often	
<b>&lt;=19</b>	No	23 (33)	25 (36)	18 (26)	2 (3)	1 (1)	69
	Yes	9 (21)	12 (29)	12 (29)	7 (17)	2 (5)	42
<b>20-29</b>	No	203 (27)	243 (32)	231 (31)	66 (9)	12 (2)	755
	Yes	91 (11)	213 (26)	316 (39)	147 (18)	43 (5)	810
<b>30-39</b>	No	391 (28)	482 (34)	403 (29)	109 (8)	24 (2)	1409
	Yes	160 (11)	351 (25)	517 (37)	273 (20)	94 (7)	1395
<b>40-49</b>	No	590 (29)	658 (32)	579 (29)	156 (8)	46 (2)	2029
	Yes	287 (17)	479 (28)	600 (35)	246 (14)	86 (5)	1698
<b>50-64</b>	No	1371 (35)	1269 (32)	1011 (25)	237 (6)	79 (2)	3967
	Yes	400 (16)	730 (29)	976 (38)	329 (13)	122 (5)	2557
<b>&gt;=65</b>	No	99 (38)	79 (30)	63 (24)	20 (8)	2 (1)	263
	Yes	25 (25)	34 (33)	32 (31)	8 (8)	3 (3)	102
<b>Gender</b>							
<b>Female</b>	No	2252 (31)	2342 (32)	2007 (28)	531 (7)	147 (2)	7279
	Yes	791 (14)	1540 (27)	2125 (38)	879 (16)	312 (6)	5647
<b>Male</b>	No	427 (35)	412 (34)	302 (25)	56 (5)	19 (2)	1216
	Yes	180 (19)	286 (30)	323 (34)	126 (13)	38 (4)	953
<b>Other</b>	No	6 (20)	10 (34)	7 (24)	5 (17)	1 (3)	29
	Yes	4 (27)	2 (13)	5 (33)	3 (20)	1 (7)	15

36

37 **Table A 7. Perceptions of the severity of moral stress in various situations**

Situation	COVID-19 care	The moral stress I experienced was... N (%)			Total N
		None	Moderate	High	
<b>All the alternatives felt wrong but, I had to act/make a decision</b>					
	No	1546 (30)	1958 (38)	1712 (33)	5216
	Yes	1031 (20)	1898 (37)	2216 (43)	5145
	Total	2577 (25)	3856 (37)	3928 (38)	10361
<b>I made or was included in a decision that did not match my moral values</b>					
	No	1565 (30)	1974 (38)	1644 (32)	5183
	Yes	1137 (22)	1900 (37)	2092 (41)	5129
	Total	2702 (26)	3874 (38)	3736 (36)	10312
<b>Others' decisions hindered me from acting in accordance with my moral values</b>					
	No	1269 (25)	1851 (36)	2047 (40)	5167
	Yes	894 (18)	1697 (33)	2515 (49)	5106
	Total	2163 (21)	3548 (35)	4562 (44)	10273
<b>Other circumstances hindered me, such as lack of time or materials and structural resources</b>					
	No	1098 (21)	1740 (34)	2318 (45)	5156
	Yes	557 (11)	1380 (27)	3165 (62)	5102
	Total	1655 (16)	3120 (30)	5483 (53)	10258
<b>Others' decisions hindered me from acting in accordance with my moral values</b>					
	No	1269 (25)	1851 (36)	2047 (40)	5167
	Yes	894 (18)	1697 (33)	2515 (49)	5106
	Total	2163 (21)	3548 (35)	4562 (44)	10273
<b>I took action, but I felt that it was not sufficient according to my moral perceptions</b>					
	No	1172 (23)	1872 (36)	2108 (41)	5152
	Yes	689 (14)	1527 (30)	2880 (57)	5096
	Total	1861 (18)	3399 (33)	4988 (49)	10248

38

39 **Table A 8. Perceived causes of the morally stressful situations related to involvement in COVID-19 care**

Perception	COVID-19 care	What caused the morally stressing situations? N (%)			Total N
		Disagree	Partly agree	Agree	
<b>Resource constraints, such as PPE, material, staff, beds</b>					
	No	972 (21)	1232 (26)	2463 (53)	4667
	Yes	457 (10)	931 (20)	3372 (71)	4760
	Total	1429 (15)	2163 (23)	5835 (62)	9427
<b>Clashes between one's own moral values and those of the workplace/other actors</b>					
	No	1395 (30)	1568 (34)	1699 (36)	4662
	Yes	1025 (22)	1590 (33)	2135 (45)	4750
	Total	2420 (26)	3158 (36)	3834 (41)	9412
<b>Being forced to act outside of one's competence</b>					
	No	1847 (40)	1552 (33)	1259 (27)	4658
	Yes	1275 (27)	1513 (32)	1964 (41)	4752
	Total	3122 (33)	3065 (33)	3223 (34)	9410
<b>Cultural, social and political aspects</b>					
	No	2244 (48)	1419 (31)	990 (21)	4653
	Yes	1838 (39)	1557 (33)	1355 (29)	4750
	Total	4082 (43)	2976 (32)	2345 (25)	9403
<b>Leadership and structures in the team</b>					
	No	1441 (31)	1445 (31)	1767 (38)	4653
	Yes	1104 (23)	1482 (31)	2162 (46)	4748
	Total	2545 (27)	2927 (31)	3929 (42)	9401
<b>Colleagues' behaviours and decisions</b>					
	No	1432 (31)	1603 (34)	1619 (35)	4654
	Yes	1170 (25)	1689 (36)	1889 (40)	4748
	Total	2602 (28)	3292 (35)	3508 (37)	9402
<b>Putting own safety before patient care</b>					
	No	1801 (39)	1481 (32)	1363 (29)	4645
	Yes	1140 (24)	1480 (31)	2125 (45)	4745
	Total	2941 (31)	2961 (32)	3488 (37)	9390
<b>The isolation of patients who were hindered in regard to visits and the involvement of relatives</b>					
	No	1640 (35)	1205 (26)	1797 (39)	4642
	Yes	732 (15)	1062 (22)	2949 (62)	4743
	Total	2372 (25)	2267 (24)	4746 (51)	9385
<b>Difficulties related to relatives/intimates being involved in patients' end-of-life care</b>					
	No	2620 (57)	846 (18)	1171 (25)	4637
	Yes	1311 (28)	911 (19)	2520 (53)	4742
	Total	3931 (42)	1757 (19)	3691 (39)	9379

41 **Table A 9. Support that was perceived as available, and helpful regarding dealing with morally stressful**  
 42 **situations related to involvement in COVID-19 care**

Perception	COVID-19 care	What support did you have to deal with the situations? N (%)			Total N
		Disagree	Partly agree	Agree	
<b>It was up to me to solve the situation, find own support and come up with own solutions/ideas</b>					
	No	1015 (23)	1347 (31)	1986 (46)	4348
	Yes	726 (16)	1311 (29)	2547 (56)	4584
	Total	1741 (19)	2658 (30)	4533 (51)	8932
<b>Formal support such as workplace support, reflection groups, end-of-shift talks</b>					
	No	1559 (36)	1337 (31)	1438 (33)	4334
	Yes	1538 (34)	1379 (30)	1667 (36)	4584
	Total	3097 (35)	2716 (30)	3105 (35)	8918
<b>Psychologist/therapist, occupational health care, leadership support</b>					
	No	1896 (44)	1307 (30)	1129 (26)	4332
	Yes	1757 (38)	1294 (28)	1531 (33)	4582
	Total	3653 (41)	2601 (29)	2660 (30)	8914
<b>Informal support</b>					
	No	555 (13)	1023 (24)	2748 (64)	4326
	Yes	318 (7)	865 (19)	3398 (74)	4581
	Total	873 (10)	1888 (21)	6146 (69)	8907

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