**Table 1 Characteristics of healthcare workers exposed to COVID-19**

**Characteristics**

**All MW**

**No PTSD**

**PTSD**

**P**

**PCL-5<33**

**PCL-5≥33**

**659**

**569**

**90**

**Gender (%)**

**Male**

**62 (9.4)**

**57 (10.0)**

**5 (5.6)**

**0.249**

**Female**

**597 (90.6)**

**512 (90.0)**

**85 (94.4)**

**Age (%)**

**18–30**

**316 (48.0)**

**279 (49.0)**

**37 (41.1)**

**0.19**

**31–40**

**223 (33.8)**

**185 (32.5)**

**38 (42.2)**

**>41**

**120 (18.2)**

**105 (18.5)**

**15 (16.7)**

**Education level (%)**

**College diploma**

**80 (12.1)**

**69 (12.1)**

**11 (12.2)**

**0.979**

**Bachelor**

**509 (77.2)**

**439 (77.2)**

**70 (77.8)**

**Master and above**

**70 (10.6)**

**61 (10.7)**

**9 (10.0)**

**Marital status (%)**

**Unmarried**

**213 (32.3)**

**186 (32.7)**

**27 (30.0)**

**0.388**

**Married**

**425 (64.5)**

**363 (63.8)**

**62 (68.9)**

**Divorced/widowed**

**21 (3.2)**

**20 (3.5)**

**1 (1.1)**

**Occupation (%)**

**Doctor**

**55 (8.3)**

**50 (8.8)**

**5 (5.6)**

**0.263**

**Nurse**

**573 (86.9)**

**490 (86.1)**

**83 (92.2)**

**Non-clinical**

**31 (4.7)**

**29 (5.1)**

**2 (2.2)**

**Position level (%)**

**Unrated**

**34 (5.2)**

**29 (5.1)**

**5 (5.6)**

**0.653**

**Elementary**

**377 (57.2)**

**331 (58.2)**

**46 (51.1)**

**Intermediate**

**221 (33.5)**

**186 (32.7)**

**35 (38.9)**

**Advanced**

**27 (4.1)**

**23 (4.0)**

**4 (4.4)**

**Suffered from chronic diseases (%)**

**No**

**580 (88.0)**

**510 (89.6)**

**70 (77.8)**

**0.002**

**Yes**

**79 (12.0)**

**59 (10.4)**

**20 (22.2)**

**The only child (%)**

**No**

**466 (70.7)**

**408 (71.7)**

**58 (64.4)**

**0.2**

**Yes**

**193 (29.3)**

**161 (28.3)**

**32 (35.6)**

**Time of work during the outbreak**

**30 [15-60]**

**30 [15-60]**

**30 [15.25-60]**

**0.752**

**Experience in fighting other infectious diseases (%)**

**No**

**601 (91.2)**

**519 (91.2)**

**82 (91.1)**

**1**

**Yes**

**58 (8.8)**

**50 (8.8)**

**8 (8.9)**

**Direct care for COVID-19 patients (%)**

**No**

**174 (26.4)**

**151 (26.5)**

**23 (25.6)**

**0.946**

**Yes**

**485 (73.6)**

**418 (73.5)**

**67 (74.4)**

**Occupational exposure without protection (%)**

**No**

**580 (88.0)**

**508 (89.3)**

**72 (80.0)**

**0.019**

**Yes**

**79 (12.0)**

**61 (10.7)**

**18 (20.0)**

**Be infected (%)**

**No**

**633 (96.1)**

**547 (96.1)**

**86 (95.6)**

**1**

**Yes**

**26 (3.9)**

**22 (3.9)**

**4 (4.4)**

**Relatives or friends be infected (%)**

**No**

**235 (35.7)**

**210 (36.9)**

**25 (27.8)**

**0.118**

**Yes**

**424 (64.3)**

**359 (63.1)**

**65 (72.2)**

**Relatives or friends died of COVID-19 (%)**

**No**

**506 (76.8)**

**448 (78.7)**

**58 (64.4)**

**0.004**

**Yes**

**153 (23.2)**

**121 (21.3)**

**32 (35.6)**

**Experienced quarantine (%)**

**No**

**340 (51.6)**

**296 (52.0)**

**44 (48.9)**

**0.661**

**Yes**

**319 (48.4)**

**273 (48.0)**

**46 (51.1)**

**Time of quarantine**

**3 [3.00, 14.00]**

**3 [3.00, 14.00]**

**6 [3.00, 14.00]**

**0.436**

**Experienced social isolation (%)**

**No**

**512 (77.7)**

**458 (80.5)**

**54 (60.0)**

**<0.001**

**Yes**

**147 (22.3)**

**111 (19.5)**

**36 (40.0)**

**Received psychological assistance (%)**

**No**

**563 (85.4)**

**489 (85.9)**

**74 (82.2)**

**0.442**

**Yes**

**96 (14.6)**

**80 (14.1)**

**16 (17.8)**

**Awarded (%)**

**No**

**438 (66.5)**

**371 (65.2)**

**67 (74.4)**

**0.108**

**Yes**

**221 (33.5)**

**198 (34.8)**

**23 (25.6)**

**Frequency of obtaining COVID-19 related information**

**Rarely**

**164 (24.9)**

**133 (23.4)**

**31 (34.4)**

**0.057**

**Sometimes**

**235 (35.7)**

**210 (36.9)**

**25 (27.8)**

**Always**

**260 (39.5)**

**226 (39.7)**

**34 (37.8)**

**Job satisfaction (%)**

**dissatisfied**

**111 (16.8)**

**79 (13.9)**

**32 (35.6)**

**<0.001**

**Average**

**353 (53.6)**

**304 (53.4)**

**49 (54.4)**

**Satisfied**

**195 (29.6)**

**186 (32.7)**

**9 (10.0)**

**Department (%)**

**Outpatient /emergency**

**101 (15.3)**

**80 (14.1)**

**21 (23.3)**

**0.027**

**ICU**

**48 (7.3)**

**37 (6.5)**

**11 (12.2)**

**Infection ward**

**100 (15.2)**

**86 (15.1)**

**14 (15.6)**

**Isolation ward**

**155 (23.5)**

**137 (24.1)**

**18 (20.0)**

**Mobile cabin hospital**

**255 (38.7)**

**229 (40.2)**

**26 (28.9)**

**Work experience (median [IQR])**

**8 [4.00, 15.00]**

**8 [4.00, 15.00]**

**9 [5.00, 15.00]**

**0.555**

**APGAR**

**8 [5.00, 10.00]**

**8 [5.00, 10.00]**

**5 [4.00, 8.00]**

**<0.001**

**Table2. Scores of each dimension of PTSD (median [IQR])**

**Dimensions**

**Scores**

**No PTSD**

**PTSD**

**P**

**PCL-5<33**

**PCL-5≥33**

**Intrusion**

**0.80 [0.40, 1.20]**

**0.80 [0.40, 1.20]**

**1.60 [1.40, 2.00]**

**<0.001**

**Avoidance**

**0.50 [0.00, 1.00]**

**0.00 [0.00, 1.00]**

**2.00 [1.00, 2.00]**

**<0.001**

**Negative affect**

**1.00 [0.25, 1.25]**

**0.75 [0.25, 1.00]**

**2.00 [1.25, 2.00]**

**<0.001**

**Anhedonia**

**1.00 [0.00, 1.67]**

**1.00 [0.00, 1.33]**

**2.00 [2.00, 2.67]**

**<0.001**

**Dysphoric arousal**

**1.00 [0.25, 1.50]**

**1.00 [0.00, 1.25]**

**2.00 [1.75, 2.50]**

**<0.001**

**Anxious arousal**

**1.00 [0.00, 2.00]**

**1.00 [0.00, 1.00]**

**2.00 [2.00, 2.50]**

**<0.001**

**PCL-5 total**

**18.00 [8.00, 26.00]**

**15.00 [7.00, 22.00]**

**37.00 [35.00, 41.00]**

**<0.001**

**Table 3. The impact of PTSD on healthcare workers**

**Characteristics**

**All MW**

**No PTSD**

**PTSD**

**P**

**PCL-5<33**

**PCL-5≥33**

**Seek psychological assistance**

**Need**

**580 (88.0)**

**530 (93.1)**

**50 (55.6)**

**<0.001**

**Not need**

**79 (12.0)**

**39 (6.9)**

**40 (44.4)**

**Sleeping time (%)**

**<5 h**

**56 (8.5)**

**41 (7.2)**

**15 (16.7)**

**0.007**

**6-8 h**

**544 (82.5)**

**474 (83.3)**

**70 (77.8)**

**> 8 h**

**59 (9.0)**

**54 (9.5)**

**5 (5.6)**

**Frequency of feeling of loneliness (%)**

**Rarely**

**348 (52.8)**

**332 (58.3)**

**16 (17.8)**

**<0.001**

**Sometimes**

**245 (37.2)**

**201 (35.3)**

**44 (48.9)**

**Often**

**66 (10.0)**

**36 (6.3)**

**30 (33.3)**

**Intention to resign (%)**

**No**

**422 (64.0)**

**387 (68.0)**

**35 (38.9)**

**<0.001**

**Yes**

**237 (36.0)**

**182 (32.0)**

**55 (61.1)**

**Panic**

**4.00 [2-5]**

**4.00 [2-5]**

**5.00 [5-7]**

**<0.001**

**Quality of life**

**20 [18.00, 22.00]**

**20 [18.00, 23.00]**

**18 [16.00, 19.00]**

**<0.001**

**Table 4. Factors associated with PTSD**

**Predictive factors**

**OR**

**95%CI**

**P**

**Suffering from chronic diseases**

**Yes**

**2.19**

**1.11-4.24**

**0.02**

**Experience of social isolation**

**Yes**

**2.38**

**1.37-4.13**

**0.002**

**Frequency of obtaining COVID-19 related information**

**Sometimes**

**0.51**

**0.26-0.98**

**0.04**

**Department**

**Mobile cabin hospital**

**0.46**

**0.23-0.94**

**0.03**

**APGAR**

**Good function of family**

**0.27**

**0.16-0.46**

**<0.001**

**Job Satisfaction**

**Dissatisfied**

**4.92**

**1.30-6.23**

**0.012**