Supplementary Table 1. Symptoms of patients with long COVID.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 　 | Total | Sex |  | Age range (y) |  |
| 　 | Male | Female | *p* | 19-29 | 30-39 | 40-49 | 50-59 | ≥ 60 | *p* |
| **Total** | 745 | 258 | 479 | 191 | 239 | 175 | 77 | 63 |
| **Symptoms of post-COVID** |  |  |  |  |  |  |  |  |  |  |
| Asymptotic | 62 (8.3) | 17 (6.6) | 44 (9.2) | 0.0500 | 16 (8.4) | 19 (7.9) | 12 (6.9) | 7 (9.1) | 8 (12.7) | 0.7570 |
| Fever | 131 (17.6) | 45 (17.4) | 84 (17.5) | 0.2235 | 25 (13.1) | 41 (17.2) | 27 (15.4) | 14 (18.2) | 24 (38.1) | 0.0005\*\*\* |
| Pain | 393 (52.8) | 118 (45.7) | 268 (55.9) | <.0001\*\*\* | 96 (50.3) | 132 (55.2) | 90 (51.4) | 43 (55.8) | 32 (50.8) | 0.2023 |
| Weakness and fatigue | 461 (61.9) | 143 (55.4) | 314 (65.6) | <.0001\*\*\* | 133 (69.6) | 149 (62.3) | 99 (56.6) | 38 (49.4) | 42 (66.7) | 0.5487 |
| ENT symptoms | 78 (10.5) | 25 (9.7) | 52 (10.9) | 0.1715 | 18 (9.4) | 23 (9.6) | 20 (11.4) | 9 (11.7) | 8 (12.7) | 0.5382 |
| Psychiatric symptoms | 173 (23.2) | 61 (23.6) | 110 (23.0) | 0.2300 | 37 (19.4) | 61 (25.5) | 35 (20.0) | 21 (27.3) | 19 (30.2) | 0.2306 |
| Dysgeusia or hyposmia | 115 (15.4) | 27 (10.5) | 87 (18.2) | 0.0002\*\*\* | 29 (15.2) | 37 (15.5) | 28 (16.0) | 9 (11.7) | 12 (19.0) | 0.6487 |
| Pulmonary symptoms | 69 (9.3) | 20 (7.8) | 47 (9.8) | 0.0856 | 29 (15.2) | 23 (9.6) | 9 (5.1) | 4 (5.2) | 4 (6.3) | 0.0664 |
| Cardiovascular symptoms | 52 (7.0) | 16 (6.2) | 36 (7.5) | 0.1713 | 13 (6.8) | 17 (7.1) | 14 (8.0) | 4 (5.2) | 4 (6.3) | 0.7812 |
| Digestive symptoms | 54 (7.2) | 10 (3.9) | 44 (9.2) | 0.0011\*\* | 16 (8.4) | 13 (5.4) | 14 (8.0) | 6 (7.8) | 5 (7.9) | 0.5717 |
| Others | 13 (1.7) | 5 (1.9) | 8 (1.7) | 0.9160 | 0 (0.0) | 3 (1.3) | 5 (2.9) | 2 (2.6) | 3 (4.8) | 0.0406\* |
| **The most severe symptoms** | 　 | 　 | 　 | 0.4172 | 　 | 　 | 　 | 　 | 　 | 0.1737 |
| Fever | 16 (2.1) | 8 (3.1) | 8 (1.7) | 4 (2.1) | 5 (2.1) | 5 (2.9) | 1 (1.3) | 1 (1.6) |
| Pain | 31 (4.2) | 12 (4.7) | 18 (3.8) | 5 (2.6) | 10 (4.2) | 9 (5.1) | 3 (3.9) | 4 (6.3) |
| Weakness and fatigue | 208 (27.9) | 66 (25.6) | 139 (29.0) | 41 (21.5) | 70 (29.3) | 54 (30.9) | 26 (33.8) | 17 (27.0) |
| ENT symptoms | 338 (45.4) | 115 (44.6) | 220 (45.9) | 104 (54.5) | 108 (45.2) | 69 (39.4) | 28 (36.4) | 29 (46.0) |
| Psychiatric symptoms | 8 (1.1) | 4 (1.6) | 4 (0.8) | 0 (0.0) | 2 (0.8) | 3 (1.7) | 1 (1.3) | 2 (3.2) |
| Dysgeusia or hyposmia | 58 (7.8) | 25 (9.7) | 32 (6.7) | 11 (5.8) | 23 (9.6) | 13 (7.4) | 6 (7.8) | 5 (7.9) |
| Cognitive dysfunction | 15 (2.0) | 2 (0.8) | 13 (2.7) | 5 (2.6) | 3 (1.3) | 4 (2.3) | 3 (3.9) | 0 (0.0) |
| Pulmonary symptoms | 32 (4.3) | 11 (4.3) | 21 (4.4) | 14 (7.3) | 9 (3.8) | 5 (2.9) | 3 (3.9) | 1 (1.6) |
| Cardiovascular symptoms | 17 (2.3) | 8 (3.1) | 9 (1.9) | 3 (1.6) | 4 (1.7) | 8 (4.6) | 2 (2.6) | 0 (0.0) |
| Digestive symptoms | 12 (1.6) | 3 (1.2) | 9 (1.9) | 4 (2.1) | 3 (1.3) | 2 (1.1) | 2 (2.6) | 1 (1.6) |
| Others | 10 (1.3) | 4 (1.6) | 6 (1.3) | 0 (0.0) | 2 (0.8) | 3 (1.7) | 2 (2.6) | 3 (4.8) |

All values are presented as frequencies (%). P-values were calculated using the chi-square test or Fisher’s exact test. *P* < 0.5\*, *p* < 0.01\*\*, *p* < 0.001\*\*\*

 Supplementary Table 2. Medical use for post-COVID conditions.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Total | sex | Age range (y) |
| 　 | Male | Female | *p* | 19-29 | 30-39 | 40-49 | 50-59 | Over 60 | *p* |
| Total | 745 | 258 | 479 | 191 | 239 | 175 | 77 | 63 |
| **Medical use** | 　 | 　 | 　 |  | 　 | 　 | 　 | 　 | 　 |  |
| Yes | 337 (45.2) | 95 (36.8) | 239 (49.9) | <.0001\*\*\* | 75 (39.3) | 114 (47.7) | 84 (48.0) | 34 (44.2) | 30 (47.6) | <.0001\*\*\* |
| No | 408 (54.8) | 163 (63.2) | 240 (50.1) |  | 116 (60.7) | 125 (52.3) | 91 (52.0) | 43 (55.8) | 33 (52.4) |  |
| **Medical access to WM** | 　 | 　 | 　 | 0.8030 | 　 | 　 | 　 | 　 | 　 | 0.2270 |
| Yes | 286 (84.9) | 81 (85.3) | 202 (84.5) | 59 (78.7) | 99 (86.8) | 75 (89.3) | 27 (79.4) | 26 (86.7) |
| No | 45 (13.4) | 11 (11.6) | 32 (13.4) | 12 (16.0) | 15 (13.2) | 6 (7.1) | 7 (20.6) | 3 (10.0) |
| **WM treatments** | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Radiological examination | 61 (21.3) | 14 (17.3) | 47 (23.3) | 0.0058\*\* | 13 (22.0) | 23 (23.2) | 16 (21.3) | 2 (7.4) | 7 (26.9) | 0.2275 |
| Blood test | 24 (8.4) | 9 (11.1) | 15 (7.4) | 0.8097 | 3 (5.1) | 7 (7.1) | 8 (10.7) | 2 (7.4) | 4 (15.4) | 0.1806 |
| Pharmaceutical therapy | 245 (85.7) | 70 (86.4) | 172 (85.1) | 0.0001\*\*\* | 52 (88.1) | 86 (86.9) | 61 (81.3) | 25 (92.6) | 21 (80.8) | 0.0765 |
| Injection | 56 (19.6) | 17 (21.0) | 39 (19.3) | 0.1373 | 15 (25.4) | 13 (13.1) | 19 (25.3) | 4 (14.8) | 5 (19.2) | 0.0869 |
| Non-pharmaceutical | 26 (9.1) | 8 (9.9) | 17 (8.4) | 0.4165 | 3 (5.1) | 5 (5.1) | 10 (13.3) | 5 (18.5) | 3 (11.5) | 0.0199\* |
| Inpatient care | 3 (1.0) | 2 (2.5) | 1 (0.5) | 0.5672 | 1 (1.7) | 0 (0.0) | 1 (1.3) | 0 (0.0) | 1 (3.8) | 0.4445 |
| Other | 5 (1.7) | 2 (2.5) | 3 (1.5) | 1.0000 | 1 (1.7) | 0 (0.0) | 2 (2.7) | 1 (3.7) | 1 (3.8) | 0.3850 |
| **Satisfaction with WM treatments** | 　 | 　 | 　 | 0.2616 | 　 | 　 | 　 | 　 | 　 | 0.1264 |
| Very satisfied | 19 (6.6) | 6 (7.4) | 13 (6.4) | 5 (8.5) | 7 (7.1) | 7 (9.3) | 0 (0.0) | 0 (0.0) |
| Somewhat satisfied | 75 (26.2) | 15 (18.5) | 58 (28.7) | 16 (27.1) | 31 (31.3) | 22 (29.3) | 3 (11.1) | 3 (11.5) |
| Neutral | 140 (49.0) | 40 (49.4) | 99 (49.0) | 27 (45.8) | 48 (48.5) | 33 (44.0) | 18 (66.7) | 14 (53.8) |
| Somewhat dissatisfied | 48 (16.8) | 19 (23.5) | 29 (14.4) | 11 (18.6) | 12 (12.1) | 11 (14.7) | 5 (18.5) | 9 (34.6) |
| Very dissatisfied | 4 (1.4) | 1 (1.2) | 3 (1.5) | 0 (0.0) | 1 (1.0) | 2 (2.7) | 1 (3.7) | 0 (0.0) |
| **Medical access to KM** | 　 | 　 | 　 | 0.9267 | 　 | 　 | 　 | 　 | 　 | 0.0086\*\*\* |
| Yes | 76 (22.6) | 22 (23.2) | 54 (22.6) | 14 (18.7) | 18 (15.8) | 19 (22.6) | 13 (38.2) | 12 (40.0) |
| No | 260 (77.2) | 73 (76.8) | 184 (77.0) | 61 (81.3) | 96 (84.2) | 64 (76.2) | 21 (61.8) | 18 (60.0) |
| **KM treatments** | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Acupuncture | 24 (31.6) | 7 (31.8) | 17 (31.5) | 0.2794 | 3 (21.4) | 5 (27.8) | 7 (36.8) | 6 (46.2) | 3 (25.0) | 0.0274\* |
| Herbal powder | 24 (31.6) | 6 (27.3) | 18 (33.3) | 0.1331 | 5 (35.7) | 9 (50.0) | 3 (15.8) | 4 (30.8) | 3 (25.0) | 0.5736 |
| Herbal decoction | 39 (51.3) | 12 (54.5) | 27 (50.0) | 0.2383 | 6 (42.9) | 8 (44.4) | 13 (68.4) | 7 (53.8) | 5 (41.7) | 0.0189\* |
| Chunna | 7 (9.2) | 3 (13.6) | 4 (7.4) | 1.0000 | 0 (0.0) | 1 (5.6) | 3 (15.8) | 0 (0.0) | 3 (25.0) | 0.0052\*\*\* |
| Cupping or moxibustion | 7 (9.2) | 3 (13.6) | 4 (7.4) | 1.0000 | 3 (21.4) | 2 (11.1) | 1 (5.3) | 1 (7.7) | 0 (0.0) | 0.8210 |
| Other | 3 (3.9) | 0 (0.0) | 3 (5.6) | 0.2802 | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (7.7) | 2 (16.7) | 0.0031\*\*\* |
| **Satisfaction with KM treatments** | 　 | 　 | 　 | 0.7181 | 　 | 　 | 　 | 　 | 　 | 0.0647 |
| Very satisfied | 5 (6.6) | 2 (9.1) | 3 (5.6) | 0 (0.0) | 3 (16.7) | 1 (5.3) | 1 (7.7) | 0 (0.0) |
| Somewhat satisfied | 28 (36.8) | 10 (45.5) | 18 (33.3) | 8 (57.1) | 7 (38.9) | 9 (47.4) | 2 (15.4) | 2 (16.7) |
| Neutral | 31 (40.8) | 8 (36.4) | 23 (42.6) | 5 (35.7) | 5 (27.8) | 5 (26.3) | 6 (46.2) | 10 (83.3) |
| Somewhat dissatisfied | 11 (14.5) | 2 (9.1) | 9 (16.7) | 1 (7.1) | 3 (16.7) | 4 (21.1) | 3 (23.1) | 0 (0.0) |
| Very dissatisfied | 1 (1.3) | 0 (0.0) | 0 (0.0) | 　 | 　 | 　 | 　 | 　 |
| **Medical access to public center** | 　 | 　 | 　 | 0.2807 | 　 | 　 | 　 | 　 | 　 | <.0001\*\*\* |
| Yes | 30 (8.9) | 11 (11.6) | 19 (7.9) | 6 (8.0) | 7 (6.1) | 4 (4.8) | 3 (8.8) | 10 (33.3) |
| No | 299 (88.7) | 81 (85.3) | 215 (90.0) | 66 (88.0) | 107 (93.9) | 76 (90.5) | 31 (91.2) | 19 (63.3) |
| **Satisfaction with public center** | 　 | 　 | 　 | 0.2220 | 　 | 　 | 　 | 　 | 　 | 0.4123 |
| Very satisfied | 1 (3.3) | 1 (9.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (25.0) | 0 (0.0) | 0 (0.0) |
| Somewhat satisfied | 8 (26.7) | 3 (27.3) | 5 (26.3) | 2 (33.3) | 3 (42.9) | 0 (0.0) | 1 (33.3) | 2 (20.0) |
| Neutral | 14 (46.7) | 3 (27.3) | 11 (57.9) | 2 (33.3) | 2 (28.6) | 3 (75.0) | 2 (66.7) | 5 (50.0) |
| Somewhat dissatisfied | 7 (23.3) | 4 (36.4) | 3 (15.8) | 2 (33.3) | 2 (28.6) | 0 (0.0) | 0 (0.0) | 3 (30.0) |
| Very dissatisfied | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| **Non-medical institutions (Total response: 543)** | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| None | 129 (23.8) | 58 (27.8) | 69 (21.0) | 0.1630 | 44 (31.4) | 41 (25.9) | 23 (19.2) | 15 (23.1) | 6 (10.0) | 0.2060 |
| Over –the-count | 313 (57.6) | 112 (53.6) | 200 (60.8) | 0.1031 | 79 (56.4) | 92 (58.2) | 76 (63.3) | 28 (43.1) | 38 (63.3) | 0.0110\* |
| Health functional foods | 238 (43.8) | 78 (37.3) | 158 (48.0) | 0.0188\* | 52 (37.1) | 68 (43.0) | 54 (45.0) | 31 (47.7) | 33 (55.0) | 0.0005\*\*\* |
| Folk remedy | 69 (12.7) | 21 (10.0) | 47 (14.3) | 0.1201 | 15 (10.7) | 22 (13.9) | 10 (8.3) | 10 (15.4) | 12 (20.0) | 0.0345\* |
| Other | 2 (0.4) | 2 (1.0) | 0 (0.0) | 0.1589 | 0 (0.0) | 1 (0.6) | 0 (0.0) | 0 (0.0) | 1 (1.7) | 0.2637 |
| **Satisfaction with non-medical institutions** | 　 | 　 | 　 | 0.5610 | 　 | 　 | 　 | 　 | 　 | 0.9588 |
| Very satisfied | 8 (1.5) | 5 (2.4) | 3 (0.9) | 2 (1.4) | 3 (1.9) | 2 (1.7) | 1 (1.5) | 0 (0.0) |
| Somewhat satisfied | 48 (8.8) | 17 (8.1) | 31 (9.4) | 12 (8.6) | 13 (8.2) | 15 (12.5) | 3 (4.6) | 5 (8.3) |
| Neutral | 296 (54.5) | 107 (51.2) | 187 (56.8) | 67 (47.9) | 84 (53.2) | 65 (54.2) | 40 (61.5) | 40 (66.7) |
| Somewhat dissatisfied | 56 (10.3) | 19 (9.1) | 37 (11.2) | 13 (9.3) | 14 (8.9) | 14 (11.7) | 6 (9.2) | 9 (15.0) |
| Very dissatisfied | 7 (1.3) | 3 (1.4) | 3 (0.9) | 2 (1.4) | 3 (1.9) | 1 (0.8) | 1 (1.5) | 0 (0.0) |

All values are presented as frequencies (%). P-values were calculated using the chi-square test or Fisher’s exact test. *P* < 0.5\*, *p* < 0.01\*\*, *p* < 0.001\*\*\*

Supplementary Table 3. Unmet medical needs and reasons for unmet medical needs.

|  |  |  |  |
| --- | --- | --- | --- |
| 　 | Total | sex | Age range (y) |
| 　 | Male | Female | *p* | 19–29　 | 　30–39 | 　40–49 | 50–59　 | ≥ 60　 | *p* |
| Total | 745 | 258 | 479 | 191 | 239 | 175 | 77 | 63 |
| **Medical unmet needs** | 　 | 　 | 　 | 0.2476 | 　 | 　 | 　 | 　 | 　 | 0.6518 |
| Yes | 242 (32.5) | 77 (29.8) | 163 (34.0) | 54 (28.3) | 81 (33.9) | 57 (32.6) | 27 (35.1) | 23 (36.5) |
| No | 503 (67.5) | 181 (70.2) | 316 (66.0) | 137 (71.7) | 158 (66.1) | 118 (67.4) | 50 (64.9) | 40 (63.5) |
| **Reasons for medical unmet needs** | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 | 　 |
| Burden of cost  | 53 (7.1) | 20 (7.8) | 32 (6.7) | 0.8307 | 11 (5.8) | 15 (6.3) | 10 (5.7) | 9 (11.7) | 8 (12.7) | 0.1162 |
| Difficulty in finding time for treatment | 150 (20.1) | 45 (17.4) | 104 (21.7) | 0.0107\* | 37 (19.4) | 53 (22.2) | 36 (20.6) | 14 (18.2) | 10 (15.9) | 0.5875 |
| Transportation and distance | 21 (2.8) | 11 (4.3) | 10 (2.1) | 0.2388 | 4 (2.1) | 7 (2.9) | 5 (2.9) | 2 (2.6) | 3 (4.8) | 0.8226 |
| Mobility impairment | 11 (1.5) | 5 (1.9) | 6 (1.3) | 0.7622 | 2 (1.0) | 3 (1.3) | 3 (1.7) | 0 (0.0) | 3 (4.8) | 0.1781 |
| Insufficient information | 77 (10.3) | 24 (9.3) | 53 (11.1) | 0.1081 | 18 (9.4) | 28 (11.7) | 17 (9.7) | 8 (10.4) | 6 (9.5) | 0.9082 |
| Congestion at medical institutions | 35 (4.7) | 15 (5.8) | 19 (4.0) | 0.6101 | 7 (3.7) | 10 (4.2) | 8 (4.6) | 6 (7.8) | 4 (6.3) | 0.4381 |
| Refusal of services | 10 (1.3) | 1 (0.4) | 9 (1.9) | 0.0583 | 3 (1.6) | 3 (1.3) | 2 (1.1) | 1 (1.3) | 1 (1.6) | 0.9990 |
| Others | 17 (2.3) | 4 (1.6) | 12 (2.5) | 0.2213 | 6 (3.1) | 4 (1.7) | 3 (1.7) | 1 (1.3) | 3 (4.8) | 0.5920 |

All values are presented as frequencies (%). P-values were calculated using the chi-square test or Fisher’s exact test. *P* < 0.5\*, *p* < 0.01\*\*, *p* < 0.001\*\*\*