### Table 2: Main themes and sub-themes of qualitative content analysis

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| **Main Themes** | **Sub-themes** | **No of tweets**  **(n=7145\*)** | **No of GPs (n=196)** | **% of tweets made by female, male GPs (n=86, 110)\*\*** | **% of tweets posted by White, Asian, Black GPs (n=119, 63, 11)\*\*\*** |
| Changes to GP practice (n=1746, 24%) | Changes to practice (negative) | 946 (13%) | 142 (72%) | 64%, 78% | 71%, 75%, 64% |
| Changes to practice (positive or neutral) | 800 (11%) | 132 (67%) | 64%, 78% | 67%, 68%, 55% |
| NHS resources (n=1277, 18%) | Resources, lack of (general) | 118 (2%) | 42 (21%) | 12%, 28% | 18%, 22%, 27% |
| Resources, lack of (PPE) | 521 (7%) | 107 (55%) | 43%, 61% | 52%, 64%, 54% |
| Resources, lack of (testing) | 289 (4%) | 70 (36%) | 34%, 35% | 28%, 46%, 36% |
| Resources, lack of (staff) | 169 (2%) | 64 (33%) | 23%, 39% | 29%, 40%, 18% |
| Resources, lack of (funding, pay) | 141 (2%) | 47 (24%) | 20%, 26% | 20%, 30%, 27% |
| Resources, adequate | 39 (1%) | 26 (13%) | 6%, 19% | 9%, 17%, 27% |
| Direction/Management/Leadership from UK government or leading organizations such as RCGPs and BMA (n=1161, 16%) | Direction, management (positive) | 115 (2%) | 53 (27%) | 19%, 34% | 61%, 62%, 45% |
| Direction, management (negative) | 1046 (15%) | 119 (61%) | 56%, 63% | 26%, 30%, 18% |
| Information (n=1037, 15%) | Misinformation (about or received by GPs) | 564 (8%) | 109 (56%) | 57%, 54% | 54%, 57%, 64% |
| Information use and sharing (among GPs) | 343 (5%) | 89 (45%) | 44%, 45% | 39%, 52%, 64% |
| Information to support GP wellbeing | 130 (2%) | 53 (27%) | 30%, 24% | 23%, 33%, 27% |
| Appreciation of or by GPs (n=1015, 14%) | Appreciation of GPs (negative) | 277 (4%) | 84 (43%) | 41%, 44% | 39%, 52%, 27% |
| Appreciation of GPs (positive) | 188 (3%) | 84 (43%) | 43%, 43% | 42%, 44%, 45% |
| Appreciation of others | 550 (8%) | 111 (57%) | 63%, 52% | 55%, 59%, 73% |
| NHS Work Colleagues (n=686, 10%) | NHS work, colleagues (positive) | 620 (9%) | 119 (61%) | 55%, 54% | 56%, 68%, 64% |
| NHS work, colleagues (negative) | 66 (1%) | 30 (15%) | 10%, 18% | 12%, 17%, 36% |
| Personal GP experiences or emotions (n=613, 9%) | Experience C19 positive test/self-isolation | 151 (2%) | 58 (30%) | 29%, 30% | 22%, 46%, 27% |
| Experience stress/burnout | 98 (1%) | 43 (22%) | 22%, 22% | 21%, 24%, 18% |
| Emotions | 364 (5%) | 103 (53%) | 64%, 43% | 53%, 49%, 55% |
| GP workload (n=552, 8%) | Workload increase | 537 (8%) | 105 (54%) | 45%, 59% | 52%, 57%, 45% |
| Workload decrease | 15 (0.2%) | 13 (7%) | 8%, 5% | 7%, 8%, 0% |
| Colleagues health or wellbeing (n=533, 7%) | Concern about colleague health, wellbeing (depression, burnout, etc.) | 533 (7%) | 120 (61%) | 59%, 62% | 51%, 75%, 91% |
| Risks to GPS (n=481, 7%) | Risks to GPs themselves | 367 (5%) | 89 (45%) | 43%, 46% | 39%, 56%, 37% |
| Risks to GPs families | 45 (1%) | 24 (12%) | 13%, 12% | 9%, 17%, 9% |
| Risks to Black, Asian and minority ethnic GPs | 69 (1%) | 25 (13%) | 12%, 13% | 5%, 36%, 22% |
| Communication/integration/collaboration (n=294, 4%) | Communication (positive) | 208 (3%) | 69 (35%) | 29%, 40% | 34%, 37%, 27% |
| Communication (negative) | 86 (1%) | 44 (22%) | 16%, 27% | 21%, 25%, 18% |
| Self-care of GPs in reference to their wellbeing (n=201, 3%) | Self-care (positive) | 189 (3%) | 65 (33%) | 37%, 30% | 30%, 37%, 36% |
| Self-care (negative) | 12 (0.2%) | 9 (5%) | 3%, 5% | 5%, 3%, 9% |

**\***Some tweets discussed more than one topic and were coded in more than one category.

\*\*Using test of proportions, comparing the % of male tweeting the topic and the % of female -topics of ‘negative changes to practice’ (p=0.028), ‘lack of resources’ (p=0.005), ‘lack of staff’ (p=0.019), ‘PPE’ (p=0.013), ‘adequate resources’ (p<0.001) and ‘positive direction/management’ (p=0.019) were posted more heavily by males than females, whereas experience of ‘emotions’ (p=0.003) were more by females than males.

\*\*\*Using Fisher's exact test significant differences were found in four categories about ‘Risks to BAME GPs’ (p<0.001), ‘Resources lack of (testing)’ (p=0.048), ‘Experience C19’ (p=0.003) and ‘Colleague Health/Wellbeing’ (p=0.001) with a higher proportion of Black and Asian GPs tweeting.