Appendix Table 1. Effect decomposition of total effect of work reduction due to COVID-19 on dental pain (n = 11,403[ab])

| Mediators[c] | TE | NDE | NIE | PM[d] |
|---|---|---|---|---|
| | OR (95% CI[e]) | OR (95% CI[e]) | OR (95% CI[e]) | % (95% CI[e]) |
| Psychological distress: yes | 1.59 (1.39, 1.81) | 1.56 (1.36, 1.78) | 1.015 (1.001, 1.033) | 4.1 (0.2, 8.8) |
| Postponing dental visits: yes | 1.59 (1.39, 1.81) | 1.49 (1.30, 1.71) | 1.07 (1.05, 1.10) | 17.3 (10.9, 25.4) |
| Toothbrushing frequency/time: reduced | 1.58 (1.39, 1.80) | 1.58 (1.39, 1.80) | 0.999 (0.993, 1.000) | -0.3 (-2.3, 0.1) |
| Between-meals eating: increased | 1.58 (1.39, 1.80) | 1.57 (1.37, 1.79) | 1.01 (0.99, 1.03) | 2.8 (-1.5, 8.1) |

Abbreviations: confidence interval, CI; odds ratio, OR; total effect, TE; natural direct effect, NDE; natural indirect effect, NIE; proportion mediated, PM

All models were adjusted for age, sex, residential region (Hokkaido/Tohoku, Kanto, Chubu, Kinki, Chugoku/Shikoku, Kyushu/Okinawa), household income reduction, job loss, educational attainment, household income in 2019, and dental checkup within the year

a People who reported income increment and those who were unemployed at the time of the survey were excluded

b People answered "other" for educational attainment were excluded for convergence in each bootstrap replication

c Each mediator was separately included

d Proportion mediated on a risk difference scale

e Estimated by bootstrap with 1,000 replications

Appendix Table 2. Effect decomposition of total effect of job loss due to COVID-19 on dental pain (n = 11,403[ab])

| Mediators[c] | TE | NDE | NIE | PM[d] |
|---|---|---|---|---|
| | OR (95% CI[e]) | OR (95% CI[e]) | OR (95% CI[e]) | % (95% CI[e]) |
| Psychological distress: yes | 2.10 (1.45, 2.91) | 1.72 (1.10, 2.51) | 1.22 (1.04, 1.55) | 34.3 (8.1, 78.1) |
| Postponing dental visits: yes | 2.24 (1.55, 3.16) | 1.98 (1.34, 2.76) | 1.13 (1.03, 1.36) | 21.3 (5.7, 48.7) |
| Toothbrushing frequency/time: reduced | 2.20 (1.50, 3.06) | 1.98 (1.35, 2.71) | 1.11 (1.01, 1.40) | 18.3 (1.3, 49.1) |
| Between-meals eating: increased | 2.18 (1.49, 2.97) | 2.09 (1.44, 2.89) | 1.04 (0.99, 1.17) | 7.6 (-1.4, 29.2) |

Abbreviations: confidence interval, CI; odds ratio, OR; total effect, TE; natural direct effect, NDE; natural indirect effect, NIE; proportion mediated, PM

All models were adjusted for age, sex, residential region (Hokkaido/Tohoku, Kanto, Chubu, Kinki, Chugoku/Shikoku, Kyushu/Okinawa), household income reduction, work reduction, educational attainment, household income in 2019, and dental checkup within the year

a People who reported income increment and those who were unemployed at the time of the survey were excluded

b People answered "other" for educational attainment were excluded for convergence in each bootstrap replication

c Each mediator was separately included

d Proportion mediated on a risk difference scale

e Estimated by bootstrap with 1,000 replications

Appendix Table 3. Comparison of demographic characteristics between the study respondents and other national surveys

| | Study respondents | National surveys[a] |
|---|---|---|
| | n (%) | % |
| Age (years) | | |
| 15–19 | 1,214 (4.8%) | 6.0% |
| 20–29 | 3,211 (12.6%) | 12.4% |
| 30–39 | 3,767 (14.8%) | 15.3% |
| 40–49 | 4,894 (19.2%) | 18.8% |
| 50–59 | 4,256 (16.7%) | 15.3% |
| 60–69 | 4,243 (16.7%) | 18.3% |
| 70–79 | 3,897 (15.3%) | 13.8% |
| Sex | | |
| Men | 12,673 (49.7%) | 49.6% |
| Women | 12,809 (50.3%) | 50.4% |
| Residential region | | |
| Hokkaido, Tohoku | 2788 (10.9%) | 11.1% |
| Kanto | 9007 (35.4%) | 34.7% |
| Chubu | 4238 (16.6%) | 16.7% |
| Kinki | 4521 (17.7%) | 17.8% |
| Chugoku, Shikoku | 2140 (8.4%) | 8.6% |
| Kyushu | 2788 (10.9%) | 11.0% |
| Educational attainment | | |
| College graduate or more | 12,172 (47.8%) | 17.3% |
| Some college | 5,387 (21.1%) | 12.9% |
| High school or less | 7,861 (30.8%) | 56.8% |
| Other | 62 (0.2%) | 13.1% |
| Household income (thousand JPY) | | |
| ≥6,000 | 7,700 (30.2%) | 34.2% |
| 3,000–5,999 | 7,810 (30.6%) | 32.4% |
| 0–2,999 | 4,698 (18.4%) | 33.3% |
| Do not want to answer | 2,560 (10.0%) | - |
| Do not know | 2,714 (10.7%) | - |
| Employment status | | |
| Employed/self-employed | 15,454 (60.6%) | 63.3% |
| Unemployed | 10,028 (39.4%) | 36.7% |

a Source: Population estimate 2016 for age, sex, and residential region; National census 2010 for educational attainment; and Comprehensive Survey of Living Conditions of People on Health and Welfare 2016 for household income and employment status.