Supplementary Materials

**COVID-19 Vaccine Acceptance is associated with Vaccine Hesitancy, Perceived Risk and Previous Vaccination Experiences**

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Table S1. Risk groups for COVID-19

|  |  |  |
| --- | --- | --- |
|  | n | %\* |
| No | 1.178 | 63.6 |
| 60 aged and older | 23 | 1.2 |
| Presence of chronic disease | 258 | 13.9 |
| Healthcare workers | 387 | 20.9 |
| Pregnant/ puerperant | 30 | 1.6 |
| Job often contacted with people | 29 | 1.6 |

\* Percentages were calculated based on the total number of the participants (N=1853)

Table S2. Sources about COVID-19 vaccine information

|  |  |  |  |
| --- | --- | --- | --- |
|  | All\* | Female | Male |
|  | n (%) | n (%) | n (%) |
| Healthcare workers | 1.283 (69.2) | 881 (47.5) | 402 (21.7) |
| Internet-social media | 895 (48.3) | 561 (30.3) | 334 (18.0) |
| Scientific article | 796 (43.0) | 561 (30.3) | 235 (12.7) |
| Press | 818 (44.1) | 524 (28.3) | 294 (15.9) |

\* Percentages were calculated based on the total number of the participants (N=1853)

Figure S1. Information sources about COVID-19 vaccine (%)

Table S3. Comparison of COVID-19 vaccine acceptance and refusal according to their socio-demographic characteristics

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | COVID-19 vaccine acceptance n (%) n = 927 | COVID-19 vaccine  refusal n (%) n = 926 | X2 | *P* |
| Age |  |  |  |  |
| <30 | 307 (33.1) | 404 (43.6) | 31.743 | <0.001 |
| 31-40 | 250 (27.0) | 252 (27.2) |
| 41-50 | 215 (23.2) | 175 (18.9) |
| >51 | 155 (16.7) | 95 (10.3) |
| Gender |  |  |  |  |
| Female | 536 (57.8) | 666 (71.9) | 40.420 | <0.001 |
| Male | 391 (42.2) | 260 (28.1) |
| Marital status |  |  |  |  |
| Married | 575 (62.0) | 524 (56.6) | 5.682 | 0.018 |
| Single | 352 (38.0) | 402 (43.4) |
| Working status |  |  |  |  |
| Yes | 616 (66.5) | 381 (41.1) | 11.422 | <0.001 |
| No | 311 (33.5) | 545 (58.9) |
| Educational status |  |  |  |  |
| Literate | 7 (0.8) | 6 (0.6) | 30.351 | <0.001 |
| Primary school graduate | 32 (3.5) | 63 (6.8) |
| High school graduate | 89 (9.6) | 92 (9.9) |
| College graduate | 579 (62.5) | 626 (67.6) |
| Post-graduate or more | 220 (23.7) | 139 (15.0) |
| Parent status |  |  |  |  |
| No child | 394 (42.5) | 429 (46.2) | 6.383 | 0.094 |
| 1 child | 158 (17.0) | 153 (16.4) |
| 2 children | 274 (29.6) | 275 (29.6) |
| 3 or more children | 101 (10.9) | 73 (7.8) |
| Place of residence |  |  |  |  |
| Metropolis | 487 (52.5) | 519 (56.0) | 2.849 | 0.418 |
| Province | 229 (24.7) | 220 (23.8) |
| District/ town | 183 (19.7) | 165 (17.8) |
| Village | 28 (3.0) | 22 (2.4) |

Table S4. Reasons for vaccine refusal

|  |  |  |
| --- | --- | --- |
|  | n | % |
| COVID-19 vaccine is not safe | 603 | 65.1 |
| Afraid of the side effects | 574 | 62.0 |
| Concerns of getting infection when they have COVID-19 vaccine | 94 | 10.2 |
| Unlikely to catch corona virus | 16 | 1.7 |
| Corona virus disease is not a serious disease | 31 | 3.3 |
| Short duration of vaccine studies | 4 | 0.4 |
| Mistrust of the vaccine manufacturer | 1 | 0.1 |
| Contradictory information / Misinformation about COVID-19 vaccine | 1 | 0.1 |
| Belief they would survive COVID-19 disease | 2 | 0.2 |

\* Percentages were calculated based on the number of the participants responding the question (N=926)

Table S5. Participants’ choice of which groups should get priority for vaccination

|  |  |  |
| --- | --- | --- |
|  | n | % |
| Primary school teachers and staff who work in such settings | 422 | 22.8 |
| Workers in high-risk-settings to contact COVID-19 | 1.144 | 61.7 |
| Individuals who have chronic disease in all ages | 1.096 | 59.2 |
| High-risk healthcare professionals who first meet the patient | 1.188 | 64.1 |
| Young people (18-25 years old) | 200 | 10.8 |
| Physically disabled individuals who receive institutional care. mentally disabled individuals and employees who care for them | 533 | 28.8 |
| Older people living in nursing homes | 725 | 39.1 |
| Children | 199 | 10.7 |
| People in jails. prisons and staff who work in such settings | 384 | 20.7 |
| All older people living in their own home | 364 | 19.6 |
| All individuals living in Turkey | 484 | 26.1 |

\* Percentages were calculated based on the total number of the participants (N=1853)

Figure S2. Participants’ choice of which groups think should get priority for vaccination based on gender

Table S6. Comparison of COVID-19 vaccine acceptance and refusal according to vaccination history and the fear of COVID-19

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Acceptance of COVID-19 vaccination n (%) n = 927 | Rejection of COVID-19 vaccination n (%) n = 926 | X2 / t-test | *P* |
| Following vaccination schedule |  |  |  |  |
| Yes | 637 (68.7) | 547 (59.1) | 21.787 | <0.001 |
| No | 70 (7.6) | 115 (12.4) |
| Some/ not knowing | 220 (23.7) | 264 (28.5) |
| Completing child's/children's vaccinations\* |  |  |  |  |
| Yes | 512 (96.1) | 462 (92.8) | 6.581 | 0.039 |
| No | 4 (0.8) | 12 (2.4) |
| Some/ not knowing | 17 (3.2) | 24 (4.8) |
| Getting a seasonal flu shot |  |  |  |  |
| Yes | 30 (3.2) | 10 (1.1) | 16.848 | <0.001 |
| Yes, but bot each year | 775 (83.6) | 828 (89.3) |
| No | 122 (13.2) | 89 (9.6) |
| Experiencing side effects related to vaccination |  |  |  |  |
| Yes | 59 (6.4) | 112 (12.1) | 31.113 | <0.001 |
| No | 693 (74.8) | 589 (63.6) |
| Not remembering | 175 (18.9) | 225 (24.3) |
| Having a coronavirus infection? |  |  |  |  |
| Yes | 108 (11.7) | 118 (12.7) | 0.516 | 0.479 |
| No | 819 (88.3) | 808 (87.3) |
| Contacting with an infected individual |  |  |  |  |
| Yes | 381 (41.1) | 362 (39.1) | 0.777 | 0.394 |
| No | 546 (58.9) | 564 (60.9) |
| VHS, Mean (SD) | 16.73 (4.44) | 21.90 (5.91) | 41.245 | <0.001 |
| Lack of confidence, Mean (SD) | 9.18 (3.22) | 12.46 (4.56) | 52.481 | <0.001 |
| Risks, Mean (SD) | 7.55 (1.84) | 9.45 (1.98) | 3.395 | <0.001 |
| FCV-19S, Mean (SD) | 20.81 (5.19) | 20.14 (5.15) | 0.067 | 0.005 |

\*Percentage calculated based on the number of participants who were parents.

Table S7. Mean scores of vaccine hesitancy and the fear of COVID-19

|  |  |  |
| --- | --- | --- |
| Scales and Subscales | Gender | Mean (±SD) |
| VHS Total |  | 19.32 (±5.83) |
|  | Female | 19.63 (±5.95) |
|  | Male | 18.72 (±5.55) |
| VHS lack of confidence |  | 10.82 (±4.27) |
|  | Female | 10.99 (±4.35) |
|  | Male | 10.51 (±4.12) |
| VHS risks |  | 8.50 (±2.13) |
|  | Female | 8.65 (±2.12) |
|  | Male | 8.21 (±2.13) |
| FCV Total |  | 20.47 (±5.18) |
|  | Female | 21.34 (±4.97) |
|  | Male | 18.88 (±5.19) |

Table S8. Comparison of demographics, vaccine hesitancy, and the fear of COVID-19

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | VHS Total Mean (±SD) | Lack of confidence Mean (±SD) | Risks Mean (±SD) | FCV-19S  Mean (±SD) |
| Age\* |  |  |  |  |
| <30 | 21.11 (5.98) | 12.01 (4.50) | 9.10 (2.07) | 20.27 (5.05) |
| 31-40 | 18.51 (5.64) | 10.27 (4.12) | 8.24 (2.12) | 20.54 (5.32) |
| 41-50 | 17.86 (5.68) | 9.86 (4.11) | 8.01 (2.15) | 20.67 (5.26) |
| >51 | 18.09 (4.56) | 10.02 (3.26) | 8.07 (1.88) | 20.64 (5.15) |
| F/ p value | 39.872/ <0.001 (a) > (b), (c), (d) | 32.244/ <0.001 (a) > (b), (c), (d) | 33.446/<0.001 (a) > (b), (c), (d) | 0.667/0.572 |
| Gender |  |  |  |  |
| Female | 19.64 (5.95) | 10.99 (4.34) | 8.66 (2.12) | 21.34 (4.97) |
| Male | 18.72 (5.55) | 10.51 (4.12) | 8.21 (2.13) | 18.88 (5.19) |
| t-test/p value | 3.334/ <0.001 | 2.287/ 0.022 | 4.346/ <0.001 | 9.895/ <0.001 |
| Marital status |  |  |  |  |
| Married | 18.53 (5.65) | 10.30 (4.07) | 8.24 (2.13) | 20.64 (5.22) |
| Single | 20.46 (5.89) | 11.58 (4.45) | 8.88 (2.07) | 20.23 (5.11) |
| t-test/ p value | -7.097/ <0.001 | -6.444/ <0.001 | -9.438/ <0.001 | 1.696/ 0.090 |
| Working status |  |  |  |  |
| Yes | 18.08 (5.32) | 9.94 (3.79) | 8.14 (2.11) | 20.47 (5.28) |
| No | 21.39 (6.04) | 12.30 (4.62) | 9.09 (2.04) | 20.48 (5.01) |
| t-test/ p value | -11.929/ <0.001 | -11.372/ <0.001 | -9.500/ <0.001 | -0.054/0.957 |
| Educational status\* |  |  |  |  |
| Literate | 21.54 (4.16) | 12.15 (4.06) | 9.38 (1.26) | 18.92 (4.75) |
| Primary school graduate | 24.83 (6.24) | 14.81 (4.60) | 10.02 (2.23) | 21.16 (4.01) |
| High school graduate | 20.43 (5.58) | 11.81 (4.45) | 8.61 (1.90) | 20.56 (5.17) |
| College graduate | 19.50 (5.63) | 11.81 (4.45) | 8.61 (2.05) | 20.53 (5.31) |
| Post graduate or more | 16.60 (5.14) | 10.88 (4.14) | 8.99 (3.56) | 20.13 (5.03) |
| F/ p value | 47.415/ <0.001 (a) < (b); (a) > (e) | 43.568/<0.001 (b) > (a), (c), (d), (e) | 31.166/ <0.001 (c) < (b); (c) > (e) | 1.158/0.328 |
| Parent status\* |  |  |  |  |
| No child | 20.27 (5.79) | 11.46 (4.35) | 8.81 (2.08) | 20.30 (5.16) |
| 1 child | 18.26 (5.37) | 10.05 (3.78) | 8.22 (2.15) | 20.68 (5.32) |
| 2 children | 18.69 (5.90) | 10.43 (4.26) | 8.26 (2.17) | 20.74 (5.12) |
| 3 or more children | 18.63 (5.91) | 10.39 (4.38) | 8.25 (2.07) | 20.10 (5.22) |
| F/ p value | 13.935/ <0.001 (a) > (b), (c), (d) | 11.825/<0.001 (a) > (b), (c), (d) | 11.070/ <0.001 (a) > (b), (c), (d) | 1.282/ 0.279 |
| Place of residence\* |  |  |  |  |
| Metropolis | 19.25 (5.87) | 10.79 (4.24) | 8.46 (2.17) | 20.83 (5.07) |
| Province | 19.05 (5.77) | 10.65 (4.27) | 8.40 (2.10) | 19.95 (8.18) |
| District/ town | 19.69 (5.81) | 10.97 (4.28) | 8.72 (2.08) | 20.12 (5.53) |
| Village | 20.32 (5.65) | 11.76 (4.71) | 8.56 (1.90) | 20.47 (5.18) |
| F/ t-test | 1.328/ 0.264 | 1.196/0.310 | 1.717/0.161 | 3.511/0.015 (a) > (b), (c) |

\*ANOVA test

Table S9. Mean scores of items of vaccine hesitancy scale

|  |  |  |  |
| --- | --- | --- | --- |
| **Sub-scales** | **Mean±SD** | **Items** | **Mean±SD** |
| Lack of confidence | 10.82 (±4.27) | 1.Childhood vaccines are important for my child’s health | 1.65 (±0.80) |
| 2.Getting vaccines is a good way to protect my child/children from disease | 1.73 (±0.82) |
| 3.Childhood vaccines are effective | 1.67 (±0.78) |
| 4.Having my child vaccinated is important for the health of others in my community | 1.78 (±0.92) |
| 6.The information I receive about vaccines from the vaccine program is reliable and trustworthy | 2.09 (±0.90) |
| 7.Generally I do what my doctor or health care provider recommends about vaccines for my child/children | 1.90 (±0.85) |
| Risks | 8.50 (±2.13) | 5.All childhood vaccines offered by the government program in my community are beneficial | 1.94 (±0.89) |
| 8.New vaccines carry more risks than older vaccines | 3.08 (±0.92) |
| 9.I am concerned about serious adverse effects of vaccines | 3.47 (±0.96) |

SD: Standard deviation

Table S10. Perceived risk of coronavirus disease

|  |  |  |
| --- | --- | --- |
|  | **Items** | **Mean±SD** |
| Perceived risk of COVID-19 | 1. How worried are you personally about the following issues at present? -Coronavirus/COVID-19? | 4.46 (±1.64) |
| 2. How likely do you think it is that you will be directly and personally affected by the following in the next 6 months? - Catching the coronavirus/COVID-19 | 4.76 (±1.56) |
| 3. How likely do you think it is that your friends and family in the country you are currently living in will be directly affected by the following in the next 6 months? - Catching the coronavirus/COVID-19 | 5.12 (±1.42) |
| 4. How much do you agree or disagree with the following statements? - The coronavirus/COVID-19 will NOT affect very many people in the country I’m currently living in | 1.97 (±0.99) |
| 5. How much do you agree or disagree with the following statements? - I will probably get sick with the coronavirus/ COVID-19 | 3.37 (±0.95) |
| 6. How much do you agree or disagree with the following statements? - Getting sick with the coronavirus/COVID-19 can be serious | 3.88 (±0.98) |
| Fear of COVID-19 | 1. I am most afraid of Corona | 3.20 (±1.12) |
| 2. It makes me uncomfortable to think about Corona | 3.38 (±1.16) |
| 3. My hands become clammy when I think about Corona | 2.16 (±1.04) |
| 4. I am afraid of losing my life because of Corona | 2.92 (±1.19) |
| 5. When I watch news and stories about Corona on social media, I become nervous or anxious. | 3.19 (±1.19) |
| 6. I cannot sleep because I’m worrying about getting Corona. | 3.11 (±1.20) |
| 7. My heart races or palpitates when I think about getting Corona. | 2.52 (±1.10) |

SD: Standard deviation