

Supplementary S3

Correlations

Table S8. Correlations between using devices in physicians' private and professional life, and digital literacy and e-Health indicators.

| | | Digital literacy – own skills | | Digital literacy – the need for training | | The impact of the Internet / new technologies on healthcare and modern life | | Recommendatio n of e-Health solutions | | Evaluation of e-Health solutions - the patient | | Evaluation of e- Health solutions - medical facility | |
|-----------------|-----------|----------------------------------|------|--|------|---|------|---|------|---|------|--|------|
| | | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| In private life | | | | | | | | | | | | | |
| computer | often | -0.20 | 0.90 | 0.21 | 0.92 | -0.14 | 1.02 | -0.20 | 0.99 | -0.24 | 0.78 | -0.01 | 0.98 |
| | sometimes | 0.37 | 0.95 | -0.40 | 0.99 | 0.18 | 0.80 | 0.35 | 0.92 | 0.32 | 1.01 | 0.05 | 1.01 |
| | never | 0.18 | 1.46 | -0.52 | 1.49 | 0.52 | 1.27 | 0.42 | 0.81 | 1.80 | 2.04 | -0.36 | 1.27 |
| | N/A | 1.36 | 2.90 | -0.37 | 0.79 | 2.18 | 1.45 | 1.22 | 0.45 | 1.14 | 1.94 | 0.31 | 1.68 |
| tablet | often | -0.42 | 0.82 | -0.09 | 0.73 | -0.37 | 0.73 | -0.40 | 0.93 | -0.55 | 0.57 | -0.05 | 0.84 |
| | sometimes | -0.03 | 0.92 | 0.16 | 1.03 | -0.15 | 0.89 | -0.09 | 0.92 | -0.11 | 0.77 | -0.04 | 0.94 |
| | never | 0.27 | 0.88 | -0.05 | 1.15 | 0.31 | 1.03 | 0.34 | 0.95 | 0.42 | 1.17 | 0.17 | 1.17 |
| | N/A | 0.16 | 1.66 | -0.20 | 0.77 | 0.32 | 1.42 | 0.03 | 1.25 | 0.20 | 1.19 | -0.40 | 0.72 |
| smartphone | often | -0.07 | 0.91 | 0.20 | 0.86 | -0.13 | 0.93 | -0.11 | 0.97 | -0.19 | 0.79 | 0.01 | 0.90 |
| | sometimes | 0.46 | 1.16 | -0.87 | 1.30 | 0.69 | 0.83 | 0.43 | 0.89 | 0.89 | 1.39 | -0.26 | 1.28 |
| | never | 0.19 | 1.21 | -1.26 | 0.80 | 0.49 | 1.16 | 0.60 | 1.18 | 0.97 | 1.36 | -0.04 | 1.39 |
| | N/A | 0.90 | 2.54 | -0.07 | 0.45 | 1.39 | 1.73 | 0.71 | 0.69 | 1.26 | 1.43 | 0.95 | 2.00 |
| e-mail | often | -0.16 | 0.92 | 0.18 | 0.85 | -0.17 | 0.94 | -0.18 | 0.95 | -0.25 | 0.71 | -0.07 | 0.83 |
| | sometimes | 0.36 | 0.82 | -0.24 | 1.23 | 0.20 | 1.02 | 0.23 | 0.97 | 0.07 | 0.92 | 0.30 | 1.15 |
| | never | 0.36 | 1.31 | -1.18 | 0.65 | 0.78 | 0.83 | 0.76 | 0.94 | 1.72 | 1.40 | -0.48 | 1.20 |
| | N/A | 0.46 | 1.85 | -0.12 | 1.23 | 0.93 | 1.07 | 1.05 | 0.58 | 1.34 | 1.31 | 0.59 | 1.95 |
| mobile apps | often | -0.24 | 0.94 | 0.30 | 0.87 | -0.40 | 0.77 | -0.25 | 1.04 | -0.37 | 0.70 | 0.08 | 0.87 |
| | sometimes | 0.24 | 0.79 | -0.11 | 1.04 | 0.46 | 1.10 | 0.16 | 0.66 | 0.19 | 0.81 | -0.10 | 1.08 |
| | never | 0.42 | 1.13 | -0.88 | 0.86 | 0.55 | 0.85 | 0.60 | 1.01 | 0.93 | 1.40 | -0.26 | 1.16 |
| | N/A | 0.38 | 1.68 | -0.50 | 0.75 | 0.77 | 1.23 | 0.34 | 1.14 | 0.79 | 1.24 | 0.56 | 1.42 |
| At work | | | | | | | | | | | | | |
| computer | often | -0.12 | 0.89 | 0.10 | 0.98 | -0.15 | 0.93 | -0.09 | 0.97 | -0.18 | 0.79 | 0.02 | 0.95 |
| | sometimes | 0.80 | 1.19 | -0.69 | 0.99 | 0.93 | 0.95 | 0.62 | 0.99 | 1.12 | 1.18 | -0.28 | 1.09 |
| | never | 0.14 | 1.00 | -0.44 | 0.70 | 0.44 | 0.63 | 0.16 | 1.10 | 0.60 | 1.67 | 0.36 | 1.43 |
| | N/A | 4.70 | – | 0.51 | – | 3.85 | – | 1.73 | – | 3.39 | – | -1.62 | – |
| tablet | often | -0.66 | 1.08 | -0.58 | 0.77 | -0.36 | 0.45 | -0.81 | 1.09 | -0.64 | 0.74 | -0.04 | 0.66 |
| | sometimes | -0.97 | 0.74 | 0.06 | 0.71 | -0.47 | 0.68 | 0.12 | 0.45 | 0.05 | 0.84 | 0.51 | 1.33 |
| | never | 0.12 | 0.87 | 0.01 | 1.06 | 0.06 | 0.96 | 0.03 | 0.98 | 0.05 | 1.02 | -0.02 | 1.00 |
| | N/A | 0.07 | 1.31 | 0.12 | 0.79 | 0.04 | 1.34 | 0.09 | 1.15 | -0.06 | 1.01 | -0.14 | 0.85 |
| smartphone | often | -0.22 | 1.00 | 0.24 | 1.05 | -0.32 | 0.86 | -0.26 | 1.06 | -0.31 | 0.80 | 0.02 | 0.84 |
| | sometimes | 0.06 | 0.62 | 0.06 | 0.81 | 0.19 | 1.00 | 0.09 | 0.50 | -0.06 | 0.62 | 0.03 | 1.08 |
| | never | 0.27 | 1.07 | -0.57 | 0.97 | 0.32 | 0.91 | 0.21 | 1.15 | 0.65 | 1.34 | 0.01 | 1.28 |
| | N/A | 0.48 | 1.45 | -0.13 | 0.65 | 0.59 | 1.43 | 0.83 | 0.78 | 0.34 | 1.14 | -0.26 | 0.75 |
| e-mail | often | -0.40 | 0.92 | 0.37 | 0.88 | -0.14 | 1.07 | -0.38 | 1.03 | -0.42 | 0.66 | -0.06 | 0.79 |
| | sometimes | -0.03 | 0.83 | 0.04 | 0.93 | -0.17 | 0.73 | 0.04 | 0.78 | -0.17 | 0.70 | -0.08 | 0.92 |
| | never | 0.25 | 0.96 | -0.49 | 1.04 | 0.24 | 1.04 | 0.18 | 1.07 | 0.50 | 1.24 | 0.21 | 1.26 |
| | N/A | 1.45 | 1.30 | -0.02 | 0.99 | 1.00 | 1.43 | 1.13 | 0.84 | 1.38 | 1.12 | -0.19 | 1.12 |
| mobile apps | often | -0.34 | 0.96 | 0.37 | 1.11 | -0.32 | 0.93 | -0.44 | 1.03 | -0.47 | 0.68 | -0.13 | 0.94 |
| | sometimes | 0.03 | 0.97 | 0.27 | 0.92 | -0.08 | 0.93 | 0.10 | 0.84 | -0.01 | 0.75 | 0.08 | 0.84 |
| | never | 0.09 | 0.89 | -0.47 | 0.85 | 0.19 | 0.91 | 0.09 | 1.02 | 0.25 | 1.24 | -0.03 | 1.18 |

N/A 0.56 1.31 -0.30 0.69 0.54 1.44 0.55 0.97 0.43 1.14 0.15 1.00

The higher the mean value, the lower the digital literacy, the lower the evaluation of the Internet impact, the lower the recommendation, and the lower the evaluation of e-health solutions

Table S9. Correlations between physicians' age, digital literacy and e-Health indicators.

| Indicator | rho | p | N |
|--|--------|--------|-----|
| Digital literacy – own skills | 0.189 | 0.0009 | 307 |
| Digital literacy – the need for training | -0.517 | 0.0000 | 307 |
| The influence of the Internet / new technologies on healthcare and | 0.291 | 0.0000 | 307 |
| Recommendation of e-Health solutions | 0.269 | 0.0000 | 307 |
| Evaluation of e-health solutions - the patient | 0.396 | 0.0000 | 307 |
| Evaluation of e-health solutions - medical facility | -0.150 | 0.0087 | 307 |

Physicians' opinion about online health information (Dr Google)

Table S10. % of patients accessing online health information within a month.

| | N | % | % Cumulative |
|------------------------|-----|-------|--------------|
| < 1% | 12 | 3.9 | 3.9 |
| 1–2% | 19 | 6.2 | 10.1 |
| 3–5% | 52 | 16.9 | 27.0 |
| 6–10% | 43 | 14.0 | 41.0 |
| > 10% | 102 | 33.2 | 74.3 |
| difficult to calculate | 79 | 25.7 | 100.0 |
| Total | 307 | 100.0 | |

Table S11. Physicians' opinion on the overall quality of online health information.

| | N | % | % Cumulative |
|--------------------|-----|-------|--------------|
| reliable | 10 | 3.3 | 3.3 |
| usually reliable | 55 | 17.9 | 21.2 |
| sometimes reliable | 164 | 53.4 | 74.6 |
| unreliable | 57 | 18.6 | 93.2 |
| no opinion | 21 | 6.8 | 100.0 |
| Total | 307 | 100.0 | |

Table S12. Physicians' opinion on patients' health benefits related to online health knowledge.

| | N | % | % Cumulative |
|------------------------------|-----|-------|--------------|
| often | 16 | 5.2 | 5.2 |
| sometimes | 106 | 34.5 | 39.7 |
| seldom | 73 | 23.8 | 63.5 |
| never | 13 | 4.2 | 67.8 |
| I do not have such knowledge | 99 | 32.2 | 100.0 |
| Total | 307 | 100.0 | |

Table S13. Physicians' assessment of patients' use of online health knowledge.

| | N | % | % Cumulative |
|---------------|----------|----------|---------------------|
| very positive | 9 | 2.9 | 2.9 |
| positive | 55 | 17.9 | 20.8 |
| meaningless | 68 | 22.1 | 43.0 |
| negative | 128 | 41.7 | 84.7 |
| very negative | 47 | 15.3 | 100.0 |
| Total | 307 | 100.0 | |

Table S14. Physicians' opinion that the Internet will revolutionize healthcare.

| | N | % | % Cumulative |
|---------------|----------|----------|---------------------|
| rather yes | 116 | 37.8 | 37.8 |
| yes | 123 | 40.1 | 77.9 |
| I do not know | 52 | 16.9 | 94.8 |
| no | 4 | 1.3 | 96.1 |
| rather not | 12 | 3.9 | 100.0 |
| Total | 307 | 100.0 | |

Table S15. Physicians' feelings about new technologies in the modern life.

| | N | % | % Cumulative |
|--------------------------------------|----------|----------|---------------------|
| Fascinates me | 25 | 8.1 | 8.1 |
| I'm interested in this | 72 | 23.5 | 31.6 |
| It's helpful | 176 | 57.3 | 88.9 |
| I have no opinion | 6 | 2.0 | 90.9 |
| I am concerned about this phenomenon | 19 | 6.2 | 97.1 |
| I am terrified of this phenomenon | 9 | 2.9 | 100.0 |
| Total | 307 | 100.0 | |

Table S16. Opinion about the general quality of online health information.

| | N | % | % Cumulative |
|--------------------|----------|----------|---------------------|
| reliable | 10 | 3.3 | 3.3 |
| usually reliable | 55 | 17.9 | 21.2 |
| sometimes reliable | 164 | 53.4 | 74.6 |
| un reliable | 57 | 18.6 | 93.2 |
| no opinion | 21 | 6.8 | 100.0 |
| Total | 307 | 100.0 | |

Table S17. Opinion on patients' experience of health benefits as a result of access to online health information.

| | N | % | % Cumulative |
|--------------------------------|-----|-------|--------------|
| often | 16 | 5.2 | 5.2 |
| sometimes | 106 | 34.5 | 39.7 |
| seldom | 73 | 23.8 | 63.5 |
| never | 13 | 4.2 | 67.8 |
| I do not have such a knowledge | 99 | 32.2 | 100.0 |
| Total | 307 | 100.0 | |

Table S18. An assessment of patients' use of online health knowledge

| | N | % | % Cumulative |
|---------------|-----|-------|--------------|
| very positive | 9 | 2.9 | 2.9 |
| positive | 55 | 17.9 | 20.8 |
| meaningless | 68 | 22.1 | 43.0 |
| negative | 128 | 41.7 | 84.7 |
| very negative | 47 | 15.3 | 100.0 |
| Total | 307 | 100.0 | |

Dr. Google and indicators

The conducted analyses also showed that respondents working in the diagnostic laboratory had higher digital skills (−0.23) than those not working there (0.01). Physicians employed in the hospital presented a higher need for training (0.16) but hospital personnel (−0.26), not working in a primary healthcare (−0.23), conducting a private practice (−0.44), providing 24/7 medical assistance (−0.54), and working in the diagnostic laboratory (−0.89), rated higher the impact of the Internet and new technologies on healthcare and the modern life. The recommendation of e-Health solutions was also higher among respondents employed in hospitals (−0.30) and physicians not working in primary healthcare (−0.36). The assessment of e-Health solutions in relation to the patient was higher in hospital personnel (−0.32), not working in a primary healthcare (−0.33), and working in a diagnostic laboratory (−0.35). The evaluation of e-health solutions in relation to a medical facility was higher in respondents not working in emergency services (−0.02) and people working in 24-hour medical assistance (−0.37).

Table S19. Correlations between type of workplace, and digital literacy and other e-Health indicators (means)

| Workplace | | Digital competence - skills | | Digital competences - the need for training | | Assessment of the impact of the Internet and new technologies on healthcare and the life of modern man | | Recommendation of e-health solutions | | Evaluation of e-health solutions - patient | | Evaluation of e-health solutions - medical facility | |
|--------------------|-----|-----------------------------|------|---|------|--|------|--------------------------------------|------|--|------|---|------|
| | | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| hospital | no | 0.04 | 1.09 | −0.09 | 1.00 | 0.14 | 1.05 | 0.16 | 1.01 | 0.17 | 1.13 | 0.06 | 1.08 |
| | yes | −0.08 | 0.80 | 0.16 | 0.99 | −0.26 | 0.84 | −0.30 | 0.91 | −0.32 | 0.59 | −0.10 | 0.83 |
| primary healthcare | no | −0.03 | 0.86 | 0.18 | 1.26 | −0.23 | 0.96 | −0.36 | 0.90 | −0.33 | 0.60 | −0.13 | 0.87 |
| | yes | 0.01 | 1.03 | −0.04 | 0.93 | 0.05 | 1.00 | 0.08 | 1.01 | 0.07 | 1.06 | 0.03 | 1.03 |
| private practice | no | 0.01 | 1.04 | −0.03 | 0.96 | 0.09 | 1.05 | 0.04 | 1.01 | 0.05 | 1.06 | 0.00 | 1.04 |
| | yes | −0.06 | 0.81 | 0.14 | 1.16 | −0.44 | 0.56 | −0.19 | 0.91 | −0.23 | 0.60 | 0.00 | 0.82 |

| | | | | | | | | | | | | | |
|------------|-----|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| family | no | 0.00 | 1.00 | 0.01 | 0.99 | -0.01 | 1.00 | 0.00 | 1.01 | 0.01 | 1.00 | 0.00 | 1.00 |
| practice | yes | -0.10 | 0.87 | -0.72 | 1.31 | 0.59 | 1.04 | 0.13 | 0.40 | -0.62 | 0.64 | 0.25 | 1.02 |
| ambulance | no | -0.01 | 1.00 | 0.00 | 1.00 | 0.01 | 1.00 | 0.01 | 1.00 | 0.00 | 1.00 | -0.02 | 0.99 |
| | yes | 0.89 | 0.00 | -0.64 | 0.00 | -1.10 | 0.00 | -1.33 | 0.00 | -0.36 | 0.00 | 2.34 | 0.00 |
| 24/7 | no | 0.03 | 1.01 | 0.00 | 1.01 | 0.03 | 1.00 | 0.01 | 1.02 | 0.00 | 0.98 | 0.02 | 1.03 |
| medical | yes | -0.44 | 0.80 | 0.03 | 0.79 | -0.54 | 0.76 | -0.11 | 0.63 | 0.01 | 1.34 | -0.37 | 0.21 |
| assistance | no | 0.01 | 1.01 | -0.01 | 1.01 | 0.03 | 1.00 | 0.00 | 1.01 | 0.01 | 1.01 | 0.01 | 1.01 |
| diagnostic | yes | -0.23 | 0.21 | 0.40 | 0.57 | -0.89 | 0.31 | 0.13 | 0.37 | -0.35 | 0.35 | -0.19 | 0.72 |
| laboratory | | | | | | | | | | | | | |

Table S20. Correlations between type of workplace, and digital literacy and other e-Health indicators (t-test)

| Workplace | | Digital competence - skills | Digital competences - the need for training | Assessment of the impact of the Internet and new technologies on healthcare and the life of modern man | Recommendation of e-health solutions | Evaluation of e-health solutions - patient | Evaluation of e-health solutions - medical facility |
|-------------------------|---|-----------------------------|---|--|--------------------------------------|--|---|
| hospital | t | 1.129 | -2.080 | 3.663 | 3.970 | 5.100 | 1.443 |
| | p | 0.2599 | 0.0383 | 0.0003 | 0.0001 | 0.0000 | 0.1501 |
| primary healthcare | t | -0.230 | 1.231 | -1.970 | -3.020 | -3.863 | -1.175 |
| | p | 0.8183 | 0.2223 | 0.0498 | 0.0027 | 0.0002 | 0.2430 |
| private practice | t | 0.545 | -1.105 | 5.279 | 1.532 | 1.900 | -0.033 |
| | p | 0.5869 | 0.2699 | 0.0000 | 0.1265 | 0.0584 | 0.9741 |
| family practice | t | 0.211 | 1.442 | -1.191 | -0.257 | 1.252 | -0.506 |
| | p | 0.8334 | 0.1503 | 0.2345 | 0.7976 | 0.2114 | 0.6133 |
| ambulance | t | -1.258 | 0.914 | 1.557 | 1.891 | 0.509 | -3.369 |
| | p | 0.2095 | 0.3612 | 0.1204 | 0.0595 | 0.6110 | 0.0009 |
| 24/7 medical assistance | t | 1.911 | -0.110 | 2.387 | 0.751 | -0.036 | 5.014 |
| | p | 0.0569 | 0.9126 | 0.0176 | 0.4605 | 0.9716 | 0.0000 |
| diagnostic laboratory | t | 2.600 | -1.224 | 7.818 | -1.010 | 2.730 | 0.566 |
| | p | 0.0160 | 0.2219 | 0.0000 | 0.3324 | 0.0176 | 0.5717 |

t-Student's t-test