## Supplementary Materials

## Figure S1.








Figure S 1 . Scatter plot of the correlation of variable under UMSM grouping. UMSM= use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness

## Table S1

Table S1. Total variance explained

|  | Initial Eigenvalues |  |  | Extraction Sums of Squared Loadings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Component | Total | \% of Variance | Cumulative $\%$ | Total | \% of Variance | Cumulative |
| 1 | 17.707 | 26.040 | 26.040 | 17.707 | 26.040 | 26.040 |
| 2 | 6.240 | 9.177 | 35.217 | 6.240 | 9.177 | 35.217 |
| 3 | 4.873 | 7.166 | 42.383 | 4.873 | 7.166 | 42.383 |
| 4 | 3.410 | 5.015 | 47.398 | 3.410 | 5.015 | 47.398 |
| 5 | 2.391 | 3.516 | 50.914 | 2.391 | 3.516 | 50.914 |
| 6 | 2.037 | 2.996 | 53.910 | 2.037 | 2.996 | 53.910 |
| 7 | 1.721 | 2.531 | 56.441 | 1.721 | 2.531 | 56.441 |
| 8 | 1.387 | 2.040 | 58.482 | 1.387 | 2.040 | 58.482 |
| 9 | 1.316 | 1.936 | 60.417 | 1.316 | 1.936 | 60.417 |
| 10 | 1.255 | 1.846 | 62.263 | 1.255 | 1.846 | 62.263 |
| 11 | 1.178 | 1.732 | 63.996 | 1.178 | 1.732 | 63.996 |
| 12 | 1.027 | 1.510 | 65.506 | 1.027 | 1.510 | 65.506 |

## Table S2

Table S2. The results of difference analysis on UMSM

| Variable |  | Number | UMSM | t/F | P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Time of viewing short video (daily) |  |  |  |  |  |
|  | within 30 minutes | 168 | $2.99 \pm 0.77$ | $6.682^{* * *}$ | 0.000 |
|  | 30-60 minutes | 163 | $3.08 \pm 0.78$ |  |  |
|  | 1-2 hours | 168 | $3.26 \pm 0.79$ |  |  |
|  | 2 hours and above | 157 | $3.34 \pm 0.82$ |  |  |
| Use time of mobile social media (daily) |  |  |  |  |  |
|  | 2 hours and below | 139 | $2.86 \pm 0.81$ | $10.866^{* * *}$ | 0.000 |
|  | 2-3 hours | 152 | $3.11 \pm 0.75$ |  |  |
|  | 3-5 hours | 167 | $3.29 \pm 0.77$ |  |  |
|  | 5 hours and above | 198 | $3.30 \pm 0.80$ |  |  |

Note. UMSM $=$ use of mobile social-media; ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

There is a significant difference in scores of the use of mobile social media on the time of viewing short video (daily ( $\mathrm{F}=6.682$, $\mathrm{p}<0.000$ ). Further multiple comparisons afterwards found that in terms of the use of mobile social-media, the scores of those whose Time of viewing short video (daily) is less than 30 minutes will be significantly lower than that of people who watch1-2 hours and 2 hours and above, the scores of those who watch 30-60 minutes is significantly lower than that of people who watch12 hours and 2 hours and above.

There is a significant difference in scores of the use of mobile social media due to Use time of mobile social media (daily ( $\mathrm{F}=10.866, \mathrm{p}<0.000 ; \mathrm{F}=2.73, \mathrm{p}<0.043$ ). Further multiple comparisons afterwards found that the subjective well-being of people who used social media for 2 hours or less is higher than that of people who used social media for 5 hours or more.

## Table S3

Table S3. The results of difference analysis on SWB

| Variable |  | Number | SWB | t/F | P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Time of viewing short video (daily) |  |  |  |  |  |
|  | within 30 minutes | 168 | $4.36 \pm 0.74$ | 2.089 | 0.100 |
|  | 30-60 minutes | 163 | $4.40 \pm 0.67$ |  |  |
|  | 1-2 hours | 168 | $4.33 \pm 0.79$ |  |  |
|  | 2 hours and above | 157 | $4.21 \pm 0.79$ |  |  |
| Use time of mobile social media (daily) |  |  |  |  |  |
|  | 2 hours and below | 139 | $4.46 \pm 0.75$ | $2.731 *$ | 0.043 |
|  | 2-3 hours | 152 | $4.36 \pm 0.69$ |  |  |
|  | 3-5 hours | 167 | $4.31 \pm 0.76$ |  |  |
|  | 5 hours and above | 198 | $4.23 \pm 0.78$ |  |  |

Note. $\mathrm{SWB}=$ subjective well-being. *Correlation is significant at the .05 level (two tailed).

There is a significant difference in scores of the use of subjective well-being due to different time lengths of the use time of mobile social media (daily) ( $\mathrm{F}=2.73, \mathrm{p}<0.043$ ). Further multiple comparisons afterwards found that the subjective well-being of people who used social media for 2 hours or less is higher than that of people who used social media for 5 hours or more.

## Table S4

Table S4. The results of difference analysis on BP

| Variable |  | Number | BP | t/F | P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Time of viewing short video (daily) |  |  |  |  |  |
|  | within 30 minutes | 168 | $3.28 \pm 0.93$ | $6.358^{* * *}$ | 0.000 |
|  | 30-60 minutes | 163 | $3.28 \pm 0.84$ |  |  |
|  | 1-2 hours | 168 | $3.42 \pm 0.91$ |  |  |
|  | 2 hours and above | 157 | $3.67 \pm 0.96$ |  |  |
| Use time of mobile social media (daily) |  |  |  |  |  |
|  | 2 hours and below | 139 | $3.30 \pm 0.95$ | 1.824 | 0.141 |
|  | 2-3 hours | 152 | $3.34 \pm 0.82$ |  |  |
|  | 3-5 hours | 167 | $3.44 \pm 0.93$ |  |  |
|  | 5 hours and above | 198 | $3.51 \pm 0.96$ |  |  |

Note. BP $=$ boredom proneness. ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

There is a significant difference in scores of boredom proneness on the time of viewing short video (daily) ( $\mathrm{F}=6.358, \mathrm{p}<0.000$ ). In terms of boredom proneness, the scores of people whose the time of viewing short video (daily) is less than 30 minutes, 30-60 minutes, and 1-2 hours are significantly lower than that of people who watch 2 hours and above. Overall, those users who watched short videos for more than 2 hours experience a higher degree of boredom proneness

## Table S5

Table S5. Correlation matrix of various variables in low-level UMSM group

|  | UMSM | SWB | BP |
| :--- | :---: | :---: | :---: |
| UMSM | 1 |  |  |
| SWB | $-.200^{* *}$ | 1 |  |
| BP | 0.090 | $-.446^{* * *}$ | 1 |

Note. $\mathrm{UMSM}=$ use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; ${ }^{* *}$ Correlation is significant at the .01 level (two tailed). ${ }^{* * *}$ Correlation is significant at the . 001 level (two tailed).

In the low-level group of mobile social media usage, SWB and UMSM are significantly negatively correlated, and BP is significantly negatively correlated, while BP and UMSM are not significantly correlated.

## Table S6

Table S6. Correlation matrix of various variables in medium-level UMSM group

|  | UMSM | SWB | BP |
| :--- | :---: | :---: | :---: |
| UMSM | 1 |  |  |
| SWB | -0.052 | 1 |  |
| BP | 0.098 | $-.576^{* * *}$ | 1 |

Note. $\mathrm{UMSM}=$ use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

In the medium-level group of mobile social media use, SWB and UMSM are significantly negatively correlated with BP; while BP and UMSM are not significantly correlated.

## Table S7

Table S7. Correlation matrix of various variables in high-level UMSM group

|  | UMSM | SWB | BP |
| :--- | :---: | :---: | :---: |
| UMSM | 1 |  |  |
| SWB | $-.162^{*}$ | 1 |  |
| BP | $.244^{* *}$ | $-.575^{* * *}$ | 1 |

Note. $\mathrm{UMSM}=$ use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; *Correlation is significant at the .05 level (two tailed); ${ }^{* *}$ Correlation is significant at the .01 level (two tailed). ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

In the high-level group of mobile social media use, SWB and UMSM are significantly negatively correlated, and BP is significantly negatively correlated; while BP and UMSM are significantly negatively correlated.

## Table $\mathbf{S 8}$

Table S8. Re-analysis: the results of difference analysis on UMSM


Note. UMSM= use of mobile social-media; *Correlation is significant at the .05 level (two tailed);
**Correlation is significant at the .01 level (two tailed). ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

## Table S9

Table S9. Re-analysis: the results of difference analysis on SWB

| Variable |  | Number | SWB | t/F | P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gender |  |  |  |  |  |
|  | Male | 237 | $4.25 \pm 0.70$ | $-2.948^{* *}$ | 0.003 |
|  | Female | 237 | $4.46 \pm 0.80$ |  |  |
| Age |  |  |  |  |  |
|  | Under 18 | 84 | $4.36 \pm 0.80$ | 1.609 | 0.201 |
|  | Age of 18-24 | 285 | $4.31 \pm 0.77$ |  |  |
|  | Aged 24 and above | 105 | $4.47 \pm 0.70$ |  |  |
| Time of viewing short video (daily) |  |  |  |  |  |
|  | within 30 minutes | 111 | $4.47 \pm 0.78$ | 2.639 | 0.049 |
|  | 30-60 minutes | 107 | $4.41 \pm 0.69$ |  |  |
|  | 1-2 hours | 123 | $4.35 \pm 0.72$ |  |  |
|  | 2 hours and above | 133 | $4.21 \pm 0.82$ |  |  |
| Use time of mobile social media (daily) |  |  |  |  |  |
|  | 2 hours and below | 139 | $4.40 \pm 0.74$ | 2.123 | 0.096 |
|  | 2-3 hours | 152 | $4.44 \pm 0.65$ |  |  |
|  | 3-5 hours | 167 | $4.35 \pm 0.79$ |  |  |
|  | 5 hours and above | 198 | $4.20 \pm 0.85$ |  |  |

Note. $\mathrm{SWB}=$ subjective well-being. ${ }^{* *}$ Correlation is significant at the .01 level (two tailed).

## Table S10

Table S10. Re-analysis: the results of difference analysis on BP

| Variable |  | Number | BP | t/F | P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gender |  |  |  |  |  |
|  | Male | 237 | $3.62 \pm 0.92$ | $4.124^{* * *}$ | 0.000 |
|  | Female | 237 | $3.27 \pm 0.88$ |  |  |
| Age |  |  |  |  |  |
|  | Under 18 | 84 | $3.76 \pm 0.89$ | $11.523^{* * *}$ | 0.000 |
|  | Age of 18-24 | 285 | $3.46 \pm 0.89$ |  |  |
|  | Aged 24 and above | 105 | $3.14 \pm 0.95$ |  |  |
| Time of viewing short video (daily) |  |  |  |  |  |
|  | within 30 minutes | 111 | $3.35 \pm 0.97$ | 1.075 | 0.359 |
|  | 30-60 minutes | 107 | $3.39 \pm 0.83$ |  |  |
|  | 1-2 hours | 123 | $3.47 \pm 0.90$ |  |  |
|  | 2 hours and above | 133 | $3.55 \pm 0.96$ |  |  |
| Use time of mobile social media (daily) |  |  |  |  |  |
|  | 2 hours and below | 139 | $3.31 \pm 0.94$ | $5.004^{* * *}$ | 0.002 |
|  | 2-3 hours | 152 | $3.33 \pm 0.82$ |  |  |
|  | 3-5 hours | 167 | $3.46 \pm 0.87$ |  |  |
|  | 5 hours and above | 198 | $3.73 \pm 1.00$ |  |  |

Note. $\mathrm{BP}=$ boredom proneness. ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

## Table S11

Table S11. Re-analysis: correlation between variables

|  | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 SWB | 2.95 | 0.77 | 1 |  |  |  |  |  |  |  |  |
| 2 UMSM | 4.35 | 0.76 | $-0.390^{* * *}$ | 1 |  |  |  |  |  |  |  |
| 3 viscosity | 3.28 | 0.93 | $-0.253^{* * *}$ | $0.786^{* * *}$ | 1 |  |  |  |  |  |  |
| increase |  |  |  |  |  |  |  |  |  |  |  |

Note. UMSM= use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; ${ }^{* * *}$ Correlation is significant at the 0.001 level (two tailed).

## Table S12

Table S12. Re-analysis: correlation matrix of various variables in low-level UMSM group

|  | UMSM | SWB | BP |
| :--- | :---: | :---: | :---: |
| UMSM | 1 |  |  |
| SWB | $-.200^{* *}$ | 1 |  |
| BP | 0.090 | $-.446^{* * *}$ | 1 |

Note. UMSM= use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; ${ }^{* *}$ Correlation is significant at the .01 level (two tailed). $* * *$ Correlation is significant at the .001 level (two tailed).

## Table S13

Table S13. Re-analysis: correlation matrix of various variables in medium-level UMSM group

|  | UMSM | SWB | BP |
| :--- | :---: | :---: | :---: |
| UMSM | 1 |  |  |
| SWB | -0.016 | 1 |  |
| BP | 0.082 | $-.542^{* * *}$ | 1 |

Note. UMSM= use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; ${ }^{* * *}$ Correlation is significant at the .001 level (two tailed).

## Table S14

Table S14. Re-analysis: correlation matrix of various variables in high-level UMSM group

|  | UMSM | SWB | BP |
| :--- | :---: | :---: | :---: |
| UMSM | 1 |  |  |
| SWB | $-.217^{*}$ | 1 |  |
| BP | $.238^{*}$ | $-.662^{* * *}$ | 1 |

Note. UMSM= use of mobile social-media; $\mathrm{SWB}=$ subjective well-being; $\mathrm{BP}=$ boredom proneness; *Correlation is significant at the .05 level (two tailed); ***Correlation is significant at the .001 level (two tailed).

## Table S15

Table S15. Re-analysis: regression analysis of use of mobile social-media and SWB

| Dependent <br> variable | Independent <br> variable | R | $\mathrm{R}^{2}$ | $\triangle \mathrm{R}^{2}$ | F | $\beta$ | Beta | t |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SWB | Physiological <br> damage | 0.351 | 0.123 | 0.121 | 66.278 | -0.154 | -0.187 | $-3.296^{* *}$ |
|  | Omisson <br> anxiety <br> guilt | 0.386 | 0.149 | 0.146 | 41.305 | -0.138 | -0.175 | $-3.100^{* *}$ |
|  | 0.397 | 0.157 | 0.152 | 29.286 | -0.069 | -0.109 | $-2.148^{*}$ |  |

Note. SWB $=$ subjective well-being; *Correlation is significant at the .05 level (two tailed);
**Correlation is significant at the .01 level (two tailed).

## Table S16

Table S16. Re-analysis: the test of mediating effect of use of mobile social-media, boredom proneness and SWB

| Mediator | Effect | Effect size | Effect ratio | Boot SE | BootCI LL | BootCI UL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boredom | Total effect | $-0.3840^{* * *}$ |  | 0.0417 | -0.4659 | -0.3021 |
|  | Direct effect | $-0.1397^{* * *}$ |  | 0.0402 | -0.2187 | -0.0607 |
|  | Indirect effect | $-0.2443^{* * *}$ | $63.63 \%$ | 0.0344 | -0.3147 | -0.1797 |

Note. BP $=$ boredom proneness; $* * *$ Correlation is significant at the .001 level (two tailed).

