SAS TAS DASS Study – Winter 2022

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**Statistical Analyses**

The data analyses were performed using the Python libraries Sklearn and Scipy. Internal consistency of the SAS, TAS & DASS surveys were measured with Cronbach’s Alpha Scores. All three scores were all > .8 (TAS-.81, SAS-.87, DASS-.93), conventionally considered very reliable. Numeric SAS, TAS & DASS scores were treated, almost exclusively, as target variables. In these cases, the label variables predictive influence was measured with two-sided Student’s T-Tests, when the labels were binary. When the label variables had > two categories, one-way ANOVAs were used. For the Age and hour\_usage quantitative variables, ordinary least squares regression was employed. The TAS and SAS scores were also transformed into binary categorical target variables using the criteria: TAS positive (≥61), DASS Severe (≥61) & SAS-SV addicted (≥31 for males and ≥33 for females). In these cases, Chi-Squared tests of independence were used. There is precedent for these score thresholds in previous studies. The following label variables were used for predictive influence, both singularly and in tandem.

Age (quantitative)

Nationality:

Sex: Male=1, Female=2

Faculty: theoretical=1, practical=2

Academic Performance: pass=1, good=2, very good=3, excellent=4

Academic year: First grade=1, second grade=2, third grad=3, fourth=4, fifth=5, six=6, postgraduate=7

Marital status: single=1, married=2, divorce=3, widower=4

Environment: urban=1, rural=2, Mountain=3

Place of residence: family=1, friends=2, alone=3, student hostel=4

Income: low=1, middle=2, high=3

Frequency of smartphone change each year: 0-1/ 1-2/ 2-3/ ≥4

Monthly smartphone bill: Very low=1, low=2, Middle=3, high=4.

How many hours use mobile? (quantitative)

How often do you use social media sites: never=1, rarely=2, occasionally=3, frequently=4

Do you pay for attractions offered on social media (e.g., for games, fitness tips etc):

Number of social media platforms a respondent uses.

Use of :

Whatsapp – Y/N

Facebook: Y/N

Instagram: Y/N

Snapchat: Y/N

Twitter: Y/N

Results were as follows: p<.05\*is considered significant, while p<.01\*\* is considered highly significant.

**Overall SAS score mean+- sd: 35.45+-9.90**

**Overall TAS score mean+- sd: 59.18+-11.58**

**Overall DASS score mean+- sd: 43.80+-25.97**

**N=2615**

**T-Tests (2 sided)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean | Standard Deviation | N= | T= | Degrees of Freedom | p-value | 95% Confidence Interval for difference in means |
| Whatsapp User - SAS | 36.98 | 10.05 | 324 |  |  |  |  |
| Whatsapp Non-user - SAS | 35.23 | 9.86 | 2291 |  |  |  |  |
|  |  |  |  | 2.94 | 416 | .0035\*\* | [0.58, 2.92] |
| Whatsapp User - TAS | 58.42 | 11.85 |  |  |  |  |  |
| Whatsapp Non-user - TAS | 59.30 | 11.54 |  |  |  |  |  |
|  |  |  |  | -1.24 | 414 | .21 NS | [-2.25, 0.5] |
| Whatsapp User(all) - DASS | 42.90 | 27.51 |  |  |  |  |  |
| Whatsapp Non-user(all) DASS | 43.92 | 25.63 |  |  |  |  |  |
|  |  |  |  | -0.63 | 406 | .53 NS | [-4.21, 2.16] |
| Whatsapp User (Oman) - SAS | 37.03 | 9.82 | 241 |  |  |  |  |
| Whatsapp Non-user (Oman)- SAS | 36.86 | 9.14 | 1378 |  |  |  |  |
|  |  |  |  | .25 | 317 | .80 NS | [-1.17, 1.5] |
| Whatsapp User (Oman) - TAS | 58.40 | 11.59 |  |  |  |  |  |
| Whatsapp Non-user (Oman)-TAS | 59.13 | 11.23 |  |  |  |  |  |
|  |  |  |  | -.90 | 324 | .37 NS | [-2.31, 0.86] |
| Whatsapp User (Oman) - DASS | 39.20 | 26.32 |  |  |  |  |  |
| Whatsapp Non-user (Oman)-DASS | 39.80 | 24.14 |  |  |  |  |  |
|  |  |  |  | -0.33 | 315 | .74 NS | [-4.17, 2.98] |
| Whatsapp User (Egypt) - SAS | 36.84 | 10.75 | 83 |  |  |  |  |
| Whatsapp Non-user (Egypt)- SAS | 36.77 | 9.18 | 405 |  |  |  |  |
|  |  |  |  | 0.05 | 108 | .96 NS | [-2.44, 2.58] |
| Whatsapp User (Egypt) - TAS | 58.48 | 12.64 |  |  |  |  |  |
| Whatsapp Non-user (Egypt)-TAS | 60.98 | 10.83 |  |  |  |  |  |
|  |  |  |  | -1.68 | 108 | .095 NS | [-5.45, 0.45] |
| Whatsapp User (Egypt) - DASS | 53.61 | 28.25 |  |  |  |  |  |
| Whatsapp Non-user (Egypt)-DASS | 51.80 | 24.93 |  |  |  |  |  |
|  |  |  |  | 0.54 | 110 | .58 NS | [-4.8, 8.43] |
| IG User (all) - SAS | 36.53 | 9.56 | 1494 |  |  |  |  |
| IG non-user (all) - SAS | 34.01 | 10.16 | 1121 |  |  |  |  |
|  |  |  |  | 6.45 | 2330 | <.0001\*\* | [1.76, 3.29] |
| IG User (all) - TAS | 59.89 | 11.58 |  |  |  |  |  |
| IG non-user (all) - TAS | 58.26 | 11.51 |  |  |  |  |  |
|  |  |  |  | 3.57 | 2420 | .000359\*\* | [0.74, 2.52] |
| IG User (all) - DASS | 43.14 | 25.57 |  |  |  |  |  |
| IG non-user (all) - DASS | 44.67 | 26.25 |  |  |  |  |  |
|  |  |  |  | -1.50 | 2378 | .13 NS | [-3.55, 0.47] |
| IG User (Oman) - SAS | 37.15 | 9.07 | 1110 |  |  |  |  |
| IG non-user (Oman) - SAS | 36.30 | 9.58 | 509 |  |  |  |  |
|  |  |  |  | 1.69 | 938 | .092 NS | [-0.14, 1.84] |
| IG User (Oman) - TAS | 59.65 | 11.25 |  |  |  |  |  |
| IG non-user (Oman) - TAS | 57.65 | 11.25 |  |  |  |  |  |
|  |  |  |  | 3.30 | 986 | .00098\*\* | [0.81, 3.17] |
| IG User (Oman) - DASS | 40.28 | 24.23 |  |  |  |  |  |
| IG non-user (Oman) - DASS | 38.48 | 24.97 |  |  |  |  |  |
|  |  |  |  | 1.36 | 959 | .17 NS | [-0.8, 4.4] |
| IG User (Egypt) - SAS | 37.89 | 9.28 | 188 |  |  |  |  |
| IG non-user (Egypt) - SAS | 36.09 | 9.52 | 300 |  |  |  |  |
|  |  |  |  | 2.07 | 405 | .039 \* | [0.09, 3.52] |
| IG User (Egypt) - TAS | 61.73 | 9.80 |  |  |  |  |  |
| IG non-user (Egypt) - TAS | 59.82 | 11.93 |  |  |  |  |  |
|  |  |  |  | 1.93 | 452 | .054 NS | [-0.04, 3.87] |
| IG User (Egypt) - DASS | 51.88 | 25.50 |  |  |  |  |  |
| IG non-user (Egypt) - DASS | 52.25 | 25.54 |  |  |  |  |  |
|  |  |  |  | -.16 | 398 | .87 NS | [-5.04, 4.3] |
| IG User (Pakistan) - SAS | 31.70 | 11.03 | 196 |  |  |  |  |
| IG non-user (Pakistan) - SAS | 28.26 | 9.42 | 312 |  |  |  |  |
|  |  |  |  | 3.62 | 366 | .00033\*\* | [1.58, 5.32] |
| IG User (Pakistan) - TAS | 59.48 | 14.53 |  |  |  |  |  |
| IG non-user (Pakistan) - TAS | 57.74 | 11.42 |  |  |  |  |  |
|  |  |  |  | 1.42 | 343 | .155 NS | [-0.66, 4.15] |
| IG User (Pakistan) - DASS | 50.94 | 29.35 |  |  |  |  |  |
| IG non-user (Pakistan) - DASS | 47.5 | 26.64 |  |  |  |  |  |
|  |  |  |  | 1.33 | 385 | .183 NS | [-1.64, 8.52] |
| Facebook User (all) - SAS | 37.74 | 8.80 | 388 |  |  |  |  |
| Facebook non-user (all) - SAS | 35.05 | 10.03 | 2227 |  |  |  |  |
|  |  |  |  | 5.44 | 577 | <.0001\*\* | [1.72, 3.66] |
| Facebook User (all) - TAS | 60.09 | 10.67 |  |  |  |  |  |
| Facebook non-user (all) - TAS | 59.03 | 11.72 |  |  |  |  |  |
|  |  |  |  | 1.78 | 563 | .076 NS | [-0.11, 2.23] |
| Facebook User (all) - DASS | 50.73 | 25.15 |  |  |  |  |  |
| Facebook non-user (all) - DASS | 42.59 | 25.80 |  |  |  |  |  |
|  |  |  |  | 5.86 | 539 | <.0001\*\* | [5.41, 10.87] |
| Facebook User (Oman) - SAS | 37.0 | 7.95 | 34 |  |  |  |  |
| Facebook non-user (Oman) - SAS | 36.88 | 9.27 | 1585 |  |  |  |  |
|  |  |  |  | .08 | 35 | .933 NS | [-2.69, 2.92] |
| Facebook User (Oman) - TAS | 57.97 | 12.42 |  |  |  |  |  |
| Facebook non-user (Oman) - TAS | 59.04 | 11.26 |  |  |  |  |  |
|  |  |  |  | -0.50 | 34 | .62 NS | [-5.44, 3.29] |
| Facebook User (Oman) - DASS | 42.71 | 25.01 |  |  |  |  |  |
| Facebook non-user (Oman) - DASS | 39.65 | 24.46 |  |  |  |  |  |
|  |  |  |  | 0.71 | 34 | .48 NS | [-5.74, 11.86] |
| Facebook User (Egypt) - SAS | 37.81 | 8.88 | 354 |  |  |  |  |
| Facebook non-user (Egypt) - SAS | 34.07 | 10.39 | 134 |  |  |  |  |
|  |  |  |  | 3.68 | 211 | .0003\*\* | [1.74, 5.74] |
| Facebook User (Egypt) - TAS | 60.29 | 10.49 |  |  |  |  |  |
| Facebook non-user (Egypt) - TAS | 61.25 | 12.88 |  |  |  |  |  |
|  |  |  |  | -.77 | 203 | .441 NS | [-3.41, 1.49] |
| Facebook User (Egypt) - DASS | 51.50 | 25.07 |  |  |  |  |  |
| Facebook non-user (Egypt) - DASS | 53.73 | 26.64 |  |  |  |  |  |
|  |  |  |  | -0.84 | 227 | .40 NS | [-7.47, 3.0] |
| Snapchat User (all) - SAS | 38.39 | 9.00 | 655 |  |  |  |  |
| Snapchat non-user (all) - SAS | 34.47 | 9.99 | 1960 |  |  |  |  |
|  |  |  |  | 9.40 | 1233 | <.0001\*\* | [3.11, 4.75] |
| Snapchat user (all) - TAS | 59.83 | 10.64 |  |  |  |  |  |
| Snapchat non-user (all) - TAS | 58.97 | 11.87 |  |  |  |  |  |
|  |  |  |  | 1.73 | 1239 | .084 NS | [-0.11, 1.83] |
| Snapchat user (all) -DASS | 42.71 | 25.31 |  |  |  |  |  |
| Snapchat non-user (all) - DASS | 44.16 | 26.05 |  |  |  |  |  |
|  |  |  |  | -1.25 | 1151 | .21 NS | [-3.7, 0.82] |
| Snapchat User (Oman) - SAS | 38.30 | 9.08 | 598 |  |  |  |  |
| Snapchat non-user (Oman) - SAS | 36.06 | 9.23 | 1021 |  |  |  |  |
|  |  |  |  | 4.77 | 1267 | <.0001\*\* | [1.32, 3.17] |
| Snapchat user (Oman) - TAS | 59.68 | 10.86 |  |  |  |  |  |
| Snapchat non-user (Oman) - TAS | 58.63 | 11.51 |  |  |  |  |  |
|  |  |  |  | 1.83 | 1309 | .068 NS | [-0.08, 2.17] |
| Snapchat user (Oman) -DASS | 41.39 | 25.00 |  |  |  |  |  |
| Snapchat non-user (Oman) - DASS | 38.72 | 24.12 |  |  |  |  |  |
|  |  |  |  | 2.10 | 1214 | .036\* | [0.18, 5.16] |
| Snapchat User (Egypt) - SAS | 39.35 | 8.16 | 57 |  |  |  |  |
| Snapchat non-user (Egypt) - SAS | 36.45 | 9.57 | 431 |  |  |  |  |
|  |  |  |  | 2.47 | 78 | .016\* | [0.57, 5.24] |
| Snapchat user (Egypt) - TAS | 61.42 | 7.86 |  |  |  |  |  |
| Snapchat non-user (Egypt) - TAS | 60.44 | 11.56 |  |  |  |  |  |
|  |  |  |  | 0.83 | 92 | .41NS | [-1.37, 3.32] |
| Snapchat user (Egypt) -DASS | 56.56 | 24.69 |  |  |  |  |  |
| Snapchat non-user (Egypt) - DASS | 51.52 | 25.57 |  |  |  |  |  |
|  |  |  |  | 1.44 | 73 | .15NS | [-1.93, 12.0] |
| Twitter User (all) - SAS | 36.97 | 9.14 | 603 |  |  |  |  |
| Twitter non-user (all) - SAS | 34.99 | 10.07 | 2012 |  |  |  |  |
|  |  |  |  | 4.54 | 1077 | <.0001\*\* | [1.12, 2.83] |
| Twitter user (all) - TAS | 58.46 | 11.10 |  |  |  |  |  |
| Twitter non-user (all) - TAS | 59.41 | 11.71 |  |  |  |  |  |
|  |  |  |  | -1.82 | 1036 | .069 NS | [-1.97, 0.07] |
| Twitter user (all) -DASS | 41.76 | 25.60 |  |  |  |  |  |
| Twitter non-user (all) - DASS | 44.40 | 25.92 |  |  |  |  |  |
|  |  |  |  | -2.22 | 1001 | .027\* | [-4.98, -0.3] |
| Twitter User (Oman) - SAS | 36.71 | 9.24 | 514 |  |  |  |  |
| Twitter non-user (Oman) - SAS | 36.97 | 9.24 | 1105 |  |  |  |  |
|  |  |  |  | -0.53 | 1001 | .60 NS | [-1.23, 0.71] |
| Twitter user (Oman) - TAS | 57.90 | 10.94 |  |  |  |  |  |
| Twitter non-user (Oman) - TAS | 59.54 | 11.41 |  |  |  |  |  |
|  |  |  |  | -2.77 | 1040 | .006\* | [-2.8, -0.48] |
| Twitter user (Oman) -DASS | 38.87 | 24.60 |  |  |  |  |  |
| Twitter non-user (Oman) - DASS | 40.10 | 24.41 |  |  |  |  |  |
|  |  |  |  | -0.94 | 994 | .35 NS | [-3.8, 1.34] |
| Twitter User (Egypt) - SAS | 40.08 | 7.36 | 73 |  |  |  |  |
| Twitter non-user (Egypt) - SAS | 36.20 | 9.67 | 415 |  |  |  |  |
|  |  |  |  | 3.94 | 121 | .0001\*\* | [1.93, 5.82] |
| Twitter user (Egypt) - TAS | 61.18 | 12.13 |  |  |  |  |  |
| Twitter non-user (Egypt) - TAS | 60.45 | 11.03 |  |  |  |  |  |
|  |  |  |  | 0.48 | 94 | .63 NS | [-2.29, 3.75] |
| Twitter user (Egypt) -DASS | 59.70 | 24.19 |  |  |  |  |  |
| Twitter non-user (Egypt) - DASS | 50.78 | 25.52 |  |  |  |  |  |
|  |  |  |  | 2.88 | 102 | .005\*\* | [2.78, 15.06] |
| Twitter User (Pakistan) - SAS | 31.13 | 9.34 | 16 |  |  |  |  |
| Twitter non-user (Pakistan) - SAS | 29.54 | 10.23 | 492 |  |  |  |  |
|  |  |  |  | 0.67 | 16 | .51 NS | [-3.45, 6.63 |
| Twitter user (Pakistan) - TAS | 64.0 | 8.10 |  |  |  |  |  |
| Twitter non-user (Pakistan) - TAS | 58.23 | 12.82 |  |  |  |  |  |
|  |  |  |  | 2.74 | 18 | .014\* | [1.34, 10.2] |
| Twitter user (Pakistan) -DASS | 52.75 | 28.47 |  |  |  |  |  |
| Twitter non-user (Pakistan) - DASS | 48.70 | 27.73 |  |  |  |  |  |
|  |  |  |  | 0.56 | 16 | .58 NS | [-11.27, 19.38] |
| Male(all) SAS | 33.53 | 10.67 | 705 |  |  |  |  |
| Female (all) SAS | 36.16 | 9.50 | 1911 |  |  |  |  |
|  |  |  |  | -5.75 | 1140 | <.0001\*\* | [-3.52, -1.73] |
| Male(all) TAS | 56.75 | 12.76 |  |  |  |  |  |
| Female (all) TAS | 60.08 | 10.98 |  |  |  |  |  |
|  |  |  |  | -6.13 | 1110 | <.0001\*\* | [-4.39, -2.26] |
| Male(all) DASS | 43.33 | 26.73 |  |  |  |  |  |
| Female (all) DASS | 43.97 | 25.55 |  |  |  |  |  |
|  |  |  |  | -0.54 | 1205 | .59 NS | [-2.92, 1.65] |
| Male(Oman) SAS | 36.32 | 9.55 | 373 |  |  |  |  |
| Female (Oman) SAS | 37.05 | 9.14 | 1246 |  |  |  |  |
|  |  |  |  | -1.31 | 591 | .19 NS | [-1.83, 0.37] |
| Male(Oman) TAS | 56.75 | 12.76 |  |  |  |  |  |
| Female (Oman) TAS | 59.70 | 10.71 |  |  |  |  |  |
|  |  |  |  | -4.06 | 539 | <.0001\*\* | [-4.38, -1.52] |
| Male(Oman) DASS | 38.64 | 24.07 |  |  |  |  |  |
| Female (Oman) DASS | 40.03 | 24.59 |  |  |  |  |  |
|  |  |  |  | -0.97 | 623 | .3 NS | [-4.19, 1.42] |
| Male(Egypt) SAS | 35.31 | 10.00 | 67 |  |  |  |  |
| Female (Egypt) SAS | 37.02 | 9.36 | 421 |  |  |  |  |
|  |  |  |  | -1.31 | 85 | .19 NS | [-4.3, 0.89] |
| Male(Egypt) TAS | 56.30 | 14.12 |  |  |  |  |  |
| Female (Egypt) TAS | 61.24 | 10.51 |  |  |  |  |  |
|  |  |  |  | -2.74 | 78 | .008\*\* | [-8.52, -1.35] |
| Male(Egypt) DASS | 43.88 | 26.84 |  |  |  |  |  |
| Female (Egypt) DASS | 53.42 | 25.06 |  |  |  |  |  |
|  |  |  |  | -2.73 | 85 | .008\*\* | [-16.5, -2.58] |
| Male(Pakistan) SAS | 29.13 | 10.93 | 264 |  |  |  |  |
| Female (Pakistan) SAS | 30.08 | 9.34 | 244 |  |  |  |  |
|  |  |  |  | -1.06 | 503 | .29 NS | [-2.72, 0.82] |
| Male(Pakistan) TAS | 56.92 | 12.46 |  |  |  |  |  |
| Female (Pakistan) TAS | 60.02 | 12.85 |  |  |  |  |  |
|  |  |  |  | -2.75 | 500 | .006\*\* | [-5.3, -0.88] |
| Male(Pakistan) DASS | 49.82 | 28.92 |  |  |  |  |  |
| Female (Pakistan) DASS | 47.75 | 26.42 |  |  |  |  |  |
|  |  |  |  | 0.84 | 506 | .40 NS | [-2.76, 6.89] |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Theoretical (Faculty) SAS | 35.35 | 10.01 | 1221 |  |  |  |  |
| Practical SAS | 35.53 | 9.79 | 1395 |  |  |  |  |
|  |  |  |  | -.469 | 2552 | .64 NS | [-0.94, 0.58] |
| Theoretical TAS | 59.21 | 11.56 |  |  |  |  |  |
| Practical TAS | 59.16 | 11.60 |  |  |  |  |  |
|  |  |  |  | .114 | 2571 | .91 NS | [-0.84, 0.94] |
| Theoretical DASS | 45.05 | 26.33 |  |  |  |  |  |
| Practical DASS | 42.70 | 25.42 |  |  |  |  |  |
|  |  |  |  | 2.31 | 2540 | .02\* | [0.35, 4.34] |
| Marital status - Single SAS | 35.19 | 9.98 | 2125 |  |  |  |  |
| Married SAS | 36.75 | 9.35 | 477 |  |  |  |  |
|  |  |  |  | -3.25 | 739 | .0012 \*\* | [-2.5, -0.62] |
| Marital status - Single TAS | 59.65 | 11.76 |  |  |  |  |  |
| Married TAS | 57.31 | 10.36 |  |  |  |  |  |
|  |  |  |  | 4.34 | 777 | <.0001\*\* | [1.28, 3.39] |
| Marital status - Single DASS | 44.91 | 25.98 |  |  |  |  |  |
| Married DASS | 38.42 | 24.71 |  |  |  |  |  |
|  |  |  |  | 5.13 | 731 | <.0001\*\* | [4.0, 8.97] |
| pay\_attract – Yes SAS | 35.62 | 9.95 | 348 |  |  |  |  |
| pay\_attract – No SAS | 35.42 | 9.89 | 2268 |  |  |  |  |
|  |  |  |  | .353 | 459 | .72 NS | [-0.92, 1.33] |
| pay\_attract – Yes TAS | 60.03 | 13.69 |  |  |  |  |  |
| pay\_attract – No TAS | 59.05 | 11.22 |  |  |  |  |  |
|  |  |  |  | 1.27 | 422 | .204 NS | [-0.53, 2.49] |
| pay\_attract – Yes DASS | 50.5 | 26.53 |  |  |  |  |  |
| pay\_attract – No DASS | 42.77 | 25.62 |  |  |  |  |  |
|  |  |  |  | 5.09 | 452 | <.0001\*\* | [4.75, 10.72] |

**One-way ANOVAs**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Mean | Standard Deviation | N= | F= | p-value  (that ≥ 2 means have a statistically significant difference) |
| Academic Year – 1st SAS | 36.32 | 10.18 | 140 |  |  |
| 2nd year SAS | 36.44 | 9.70 | 318 |  |  |
| 3rd year SAS | 34.26 | 10.20 | 355 |  |  |
| 4th year SAS | 33.95 | 10.25 | 569 |  |  |
| 5th year SAS | 36.63 | 9.45 | 373 |  |  |
| 6th year SAS | 35.92 | 9.77 | 345 |  |  |
| 7th year SAS | 35.90 | 9.48 | 516 |  |  |
|  |  |  |  | 4.99 | <.0001\*\* |
| Academic Year – 1st year TAS | 63.34 | 12.90 |  |  |  |
| 2nd year TAS | 61.07 | 12.80 |  |  |  |
| 3rd year TAS | 59.06 | 12.32 |  |  |  |
| 4th year TAS | 59.52 | 10.47 |  |  |  |
| 5th year TAS | 58.70 | 11.15 |  |  |  |
| 6th year TAS | 58.61 | 11.32 |  |  |  |
| 7th year TAS | 57.32 | 11.13 |  |  |  |
|  |  |  |  | 7.06 | <.0001\*\* |
| Academic Year – 1st year DASS | 46.19 | 25.47 |  |  |  |
| 2nd year DASS | 49.72 | 26.28 |  |  |  |
| 3rd year DASS | 45.49 | 25.97 |  |  |  |
| 4th year DASS | 46.29 | 25.15 |  |  |  |
| 5th year DASS | 43.25 | 26.46 |  |  |  |
| 6th year DASS | 41.46 | 26.01 |  |  |  |
| 7th year DASS | 37.52 | 24.57 |  |  |  |
|  |  |  |  | 9.85 | <.0001\*\* |
| Place of Residence  Family SAS | 35.40 | 9.98 | 1812 |  |  |
| Friend SAS | 36.84 | 9.41 | 104 |  |  |
| Alone SAS | 34.02 | 10.46 | 46 |  |  |
| Hostel SAS | 35.45 | 9.69 | 654 |  |  |
|  |  |  |  | 1.01 | .39 NS |
| Place of Residence  Family TAS | 58.91 | 11.66 |  |  |  |
| Friend TAS | 60.07 | 9.85 |  |  |  |
| Alone TAS | 58.28 | 10.19 |  |  |  |
| Hostel TAS | 59.87 | 11.71 |  |  |  |
|  |  |  |  | 1.40 | .24 NS |
| Place of Residence  Family DASS | 44.11 | 25.86 |  |  |  |
| Friend DASS | 47.56 | 26.31 |  |  |  |
| Alone DASS | 46.13 | 29.30 |  |  |  |
| Hostel DASS | 42.16 | 25.52 |  |  |  |
|  |  |  |  | 1.83 | .14 NS |
| low-income SAS | 34.65 | 10.00 | 401 |  |  |
| middle income SAS | 35.73 | 9.87 | 2038 |  |  |
| high income SAS | 33.97 | 9.77 | 177 |  |  |
|  |  |  |  | 4.14 | .016\* |
| low income TAS | 60.27 | 14.09 |  |  |  |
| middle income TAS | 58.99 | 11.01 |  |  |  |
| high income TAS | 58.99 | 11.66 |  |  |  |
|  |  |  |  | 2.08 | .13 NS |
| low income DASS | 47.98 | 26.48 |  |  |  |
| middle income DASS | 42.76 | 25.57 |  |  |  |
| high income DASS | 46.19 | 26.93 |  |  |  |
|  |  |  |  | 7.65 | .0004\*\* |
| Monthly Smartphone Bill  Very low - SAS | 33.05 | 10.54 | 593 |  |  |
| Low SAS | 34.82 | 9.27 | 737 |  |  |
| Middle SAS | 36.73 | 9.48 | 1082 |  |  |
| High SAS | 37.93 | 10.66 | 204 |  |  |
|  |  |  |  | 23.51 | <.0001\*\* |
| Monthly Smartphone Bill  Very low - TAS | 60.23 | 12.27 |  |  |  |
| Low TAS | 58.45 | 11.24 |  |  |  |
| Middle TAS | 58.93 | 11.00 |  |  |  |
| High TAS | 60.15 | 13.43 |  |  |  |
|  |  |  |  | 3.27 | .02\* |
| Monthly Smartphone Bill  Very low - DASS | 45.42 | 27.81 |  |  |  |
| Low DASS | 42.39 | 26.08 |  |  |  |
| Middle DASS | 43.43 | 24.25 |  |  |  |
| High DASS | 46.13 | 27.34 |  |  |  |
|  |  |  |  | 2.13 | .09 NS |
| Oman SAS | 36.89 | 9.24 | 1619 |  |  |
| Egypt SAS | 36.78 | 9.45 | 489 |  |  |
| Pakistan SAS | 29.59 | 10.20 | 508 |  |  |
|  |  |  |  | 120.76 | <.0001\*\* |
| Oman TAS | 59.02 | 11.29 |  |  |  |
| Egypt TAS | 60.52 | 11.21 |  |  |  |
| Pakistan TAS | 58.41 | 12.73 |  |  |  |
|  |  |  |  | 4.57 | .0104\* |
| Oman DASS | 39.71 | 24.47 |  |  |  |
| Egypt DASS | 52.11 | 25.50 |  |  |  |
| Pakistan DASS | 48.83 | 27.74 |  |  |  |
|  |  |  |  | 57.39 | <.0001\*\* |
| Yearly Smartphone Changes  0-1 SAS | 35.20 | 10.01 | 2188 |  |  |
| 1-2 SAS | 36.90 | 8.56 | 219 |  |  |
| 2-3 SAS | 35.88 | 10.57 | 115 |  |  |
| 4+ SAS | 37.38 | 8.87 | 94 |  |  |
|  |  |  |  | 3.33 | .019\* |
| Yearly Smartphone Changes  0-1 TAS | 59.22 | 11.51 |  |  |  |
| 1-2 TAS | 59.29 | 10.87 |  |  |  |
| 2-3 TAS | 61.32 | 13.54 |  |  |  |
| 4+ TAS | 55.39 | 11.56 |  |  |  |
|  |  |  |  | 4.70 | .003\*\* |
| Yearly Smartphone Changes  0-1 DASS | 43.70 | 26.10 |  |  |  |
| 1-2 DASS | 46.23 | 24.52 |  |  |  |
| 2-3 DASS | 44.02 | 26.19 |  |  |  |
| 4+ DASS | 40.11 | 22.86 |  |  |  |
|  |  |  |  | 1.30 | .27 NS |
| Academic Performance  Pass SAS | 32.96 | 11.63 | 182 |  |  |
| Good SAS | 35.89 | 9.95 | 831 |  |  |
| Very Good SAS | 36.01 | 9.28 | 1207 |  |  |
| Excellent SAS | 33.95 | 10.43 | 396 |  |  |
|  |  |  |  | 8.80 | <.0001\*\* |
| Academic Performance  Pass TAS | 59.86 |  |  |  |  |
| Good TAS | 59.68 |  |  |  |  |
| Very Good TAS | 58.88 |  |  |  |  |
| Excellent TAS | 58.74 |  |  |  |  |
|  |  |  |  | 1.20 | .31 NS |
| Academic Performance  Pass DASS | 51.95 | 29.73 |  |  |  |
| Good DASS | 46.87 | 25.90 |  |  |  |
| Very Good DASS | 41.41 | 24.36 |  |  |  |
| Excellent DASS | 40.88 | 26.96 |  |  |  |
|  |  |  |  | 15.29 | <.0001\*\* |
| Environment Urban SAS | 35.07 | 10.32 | 1600 |  |  |
| Rural SAS | 36.01 | 9.25 | 859 |  |  |
| Mountain SAS | 36.23 | 8.71 | 157 |  |  |
|  |  |  |  | 3.03 | .048\* |
| Environment Urban TAS | 59.45 | 11.67 |  |  |  |
| Rural TAS | 58.62 | 11.59 |  |  |  |
| Mountain TAS | 59.54 | 10.49 |  |  |  |
|  |  |  |  | 1.50 | .22 NS |
| Environment Urban DASS | 43.37 | 26.31 |  |  |  |
| Rural DASS | 45.02 | 25.33 |  |  |  |
| Mountain DASS | 41.45 | 24.05 |  |  |  |
|  |  |  |  | 1.83 | .16 NS |
| Social Media Use Frequency  Never SAS | 28.10 | 10.51 | 94 |  |  |
| Rarely SAS | 29.07 | 9.43 | 251 |  |  |
| Occasionally SAS | 32.85 | 9.00 | 618 |  |  |
| Frequently SAS | 37.81 | 9.37 | 1653 |  |  |
|  |  |  |  | 109.66 | <.0001\*\* |
| Social Media Use Frequency  Never TAS | 62.70 | 14.37 |  |  |  |
| Rarely TAS | 57.0 | 12.30 |  |  |  |
| Occasionally TAS | 57.82 | 10.47 |  |  |  |
| Frequently TAS | 59.82 | 11.59 |  |  |  |
|  |  |  |  | 10.52 | <.0001\*\* |
| Social Media Use Frequency  Never DASS | 47.89 | 27.77 |  |  |  |
| Rarely DASS | 45.33 | 25.83 |  |  |  |
| Occasionally DASS | 41.67 | 24.24 |  |  |  |
| Frequently DASS | 44.12 | 26.31 |  |  |  |
|  |  |  |  | 2.56 | .053 NS |

**Chi-Squared Tests of Independence**

|  |  |  |
| --- | --- | --- |
|  | SAS addicted | SAS Not addicted |
| TAS Positive | 909 | 361 |
| TAS Negative | 785 | 560 |

Chi- Squared = 49.39 p< .0001\*\*

|  |  |  |
| --- | --- | --- |
|  | SAS addicted | SAS Not addicted |
| DASS Severe | 500 | 179 |
| DASS Not Severe | 1194 | 742 |

Chi- Squared =31.02 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| DASS Severe | 460 | 219 |
| DASS Not Severe | 810 | 1126 |

Chi- Squared =134.04 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| All Whatsapp users | 228 | 96 |
| All Whatsapp non-users | 1466 | 825 |

Chi- Squared =4.79 p=.029\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| All Whatsapp users | 145 | 179 |
| All Whatsapp non-users | 1125 | 1166 |

Chi- Squared =1.98 p=.16 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| All Whatsapp users | 86 | 238 |
| All Whatsapp non-users | 593 | 1698 |

Chi- Squared =.034 p=.85 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Whatsapp users - Oman | 174 | 67 |
| Whatsapp non-users- Oman | 976 | 402 |

Chi- Squared =.12 p=.72 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Whatsapp users - Oman | 110 | 131 |
| Whatsapp non-users- Oman | 654 | 724 |

Chi- Squared =.20 p=.65 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Whatsapp users - Oman | 55 | 186 |
| Whatsapp non-users- Oman | 287 | 1091 |

Chi- Squared =.38 p=.54 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Whatsapp users - Egypt | 54 | 29 |
| Whatsapp non-users- Egypt | 284 | 121 |

Chi- Squared =.61 p=.44 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Whatsapp users - Egypt | 35 | 48 |
| Whatsapp non-users- Egypt | 233 | 172 |

Chi- Squared =5.96 p=.014\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Whatsapp users - Egypt | 31 | 52 |
| Whatsapp non-users- Egypt | 130 | 275 |

Chi- Squared =.64 p=.42 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| All Instagram users | 1035 | 459 |
| All Instagram non-users | 659 | 462 |

Chi- Squared =30.43 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| All Instagram users | 764 | 730 |
| All Instagram non-users | 506 | 615 |

Chi- Squared =8.99 p=.003\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| All Instagram users | 360 | 1134 |
| All Instagram non-users | 319 | 802 |

Chi- Squared =6.11 p<.013\*

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Instagram users - Oman | 800 | 310 |
| Instagram non-users- Oman | 350 | 159 |

Chi- Squared =1.70 p=.19 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Instagram users - Oman | 545 | 565 |
| Instagram non-users- Oman | 219 | 290 |

Chi- Squared =4.92 p=.026\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Instagram users - Oman | 225 | 885 |
| Instagram non-users- Oman | 117 | 392 |

Chi- Squared =1.39 p=.24 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Instagram users - Egypt | 139 | 49 |
| Instagram non-users- Egypt | 199 | 101 |

Chi- Squared =2.79 p=.095 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Instagram users - Egypt | 111 | 77 |
| Instagram non-users- Egypt | 157 | 143 |

Chi- Squared =1.84 p=.175 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Instagram users - Egypt | 59 | 129 |
| Instagram non-users- Egypt | 102 | 198 |

Chi- Squared =.25 p=.617 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Instagram users - Pakistan | 96 | 100 |
| Instagram non-users- Pakistan | 110 | 202 |

Chi- Squared = 8.84 p=.0029\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Instagram users - Pakistan | 108 | 88 |
| Instagram non-users- Pakistan | 130 | 182 |

Chi- Squared = 8.20 p=.0042\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Instagram users - Pakistan | 76 | 120 |
| Instagram non-users- Pakistan | 100 | 212 |

Chi- Squared = 2.12 p=.146 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| All Facebook Users | 289 | 99 |
| All Facebook Nonusers | 1405 | 822 |

Chi- Squared =18.31 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| All Facebook Users | 206 | 182 |
| All Facebook Nonusers | 1064 | 1163 |

Chi- Squared =3.53 p=.06 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| All Facebook Users | 119 | 269 |
| All Facebook Nonusers | 560 | 1667 |

Chi- Squared =4.96 p=.026\*

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Facebook Users - Oman | 27 | 7 |
| Facebook Nonusers - Oman | 1123 | 462 |

Chi- Squared =.81 p=.369 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Facebook Users - Oman | 13 | 21 |
| Facebook Nonusers - Oman | 751 | 834 |

Chi- Squared =.78 p=.38 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Facebook Users - Oman | 11 | 23 |
| Facebook Nonusers - Oman | 331 | 1254 |

Chi- Squared =1.98 p=.16 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Facebook Users - Egypt | 262 | 92 |
| Facebook Nonusers - Egypt | 76 | 58 |

Chi- Squared =12.86 p=.0003\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Facebook Users - Egypt | 193 | 161 |
| Facebook Nonusers - Egypt | 75 | 59 |

Chi- Squared =.034 p=.852 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Facebook Users - Egypt | 108 | 246 |
| Facebook Nonusers - Egypt | 53 | 81 |

Chi- Squared =3.20 p=.074 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| All Twitter users | 434 | 169 |
| All Twitter nonusers | 1260 | 752 |

Chi- Squared =17.37 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| All Twitter users | 296 | 307 |
| All Twitter nonusers | 974 | 1038 |

Chi- Squared =.06 p=.81 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| All Twitter users | 145 | 458 |
| All Twitter nonusers | 534 | 1478 |

Chi- Squared =1.37 p=.24 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Twitter users - Oman | 360 | 154 |
| Twitter nonusers-Oman | 790 | 315 |

Chi- Squared =.29 p=.59 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Twitter users - Oman | 232 | 282 |
| Twitter nonusers-Oman | 532 | 573 |

Chi- Squared =1.16 p=.28 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Twitter users - Oman | 108 | 406 |
| Twitter nonusers-Oman | 234 | 871 |

Chi- Squared =.0001 p=.92 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Twitter users - Egypt | 62 | 11 |
| Twitter nonusers- Egypt | 276 | 139 |

Chi- Squared =9.05 p=.003\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Twitter users - Egypt | 50 | 23 |
| Twitter nonusers- Egypt | 218 | 197 |

Chi- Squared =5.76 p=.016\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Twitter users - Egypt | 29 | 44 |
| Twitter nonusers- Egypt | 132 | 283 |

Chi- Squared =1.42 p=.23 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Twitter users - Pakistan | 12 | 4 |
| Twitter nonusers- Pakistan | 194 | 298 |

Chi- Squared =6.72 p=.0095\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Twitter users - Pakistan | 14 | 2 |
| Twitter nonusers- Pakistan | 224 | 268 |

Chi- Squared =9.34 p=.002\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Twitter users - Pakistan | 8 | 8 |
| Twitter nonusers- Pakistan | 168 | 324 |

Chi- Squared =1.09 p=.30 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| All Snapchat users | 500 | 155 |
| All Snapchat nonusers | 1194 | 766 |

Chi- Squared =50.47 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| All Snapchat users | 320 | 335 |
| All Snapchat nonusers | 950 | 1010 |

Chi- Squared =.016 p=.90 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| All Snapchat users | 166 | 489 |
| All Snapchat nonusers | 513 | 1447 |

Chi- Squared =.14 p=.71 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Snapchat users -Oman | 454 | 144 |
| Snapchat nonusers -Oman | 696 | 325 |

Chi- Squared =10.64 p=.001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Snapchat users -Oman | 283 | 315 |
| Snapchat nonusers -Oman | 481 | 540 |

Chi- Squared =.001 p=.97 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Snapchat users -Oman | 147 | 451 |
| Snapchat nonusers -Oman | 195 | 826 |

Chi- Squared =6.48 p=.011\*

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Snapchat users -Egypt | 46 | 11 |
| Snapchat nonusers - Egypt | 292 | 139 |

Chi- Squared =3.38 p=.066 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Snapchat users - Egypt | 37 | 20 |
| Snapchat nonusers - Egypt | 231 | 200 |

Chi- Squared =2.17 p=.14 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Snapchat users - Egypt | 19 | 38 |
| Snapchat nonusers - Egypt | 142 | 289 |

Chi- Squared =0.0 p=1.0 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| All Male | 439 | 265 |
| All Female | 1255 | 656 |

Chi- Squared =2.33 p=.31 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| All Male | 291 | 413 |
| All Female | 979 | 932 |

Chi- Squared =19.77 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| All Male | 194 | 510 |
| All Female | 485 | 1426 |

Chi- Squared =1.16 p=.28 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Male - Oman | 280 | 293 |
| Female - Oman | 870 | 376 |

Chi- Squared =3.59 p=.058 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Male - Oman | 158 | 215 |
| Female - Oman | 606 | 640 |

Chi- Squared =4.29 p=.038\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Male - Oman | 81 | 292 |
| Female - Oman | 261 | 985 |

Chi- Squared =.061 p=.81 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Male - Egypt | 47 | 20 |
| Female - Egypt | 291 | 130 |

Chi- Squared =.0007 p=.98 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Male - Egypt | 25 | 42 |
| Female - Egypt | 243 | 178 |

Chi- Squared =8.92 p=.003\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Male - Egypt | 15 | 52 |
| Female - Egypt | 146 | 275 |

Chi- Squared =3.41 p=.065 NS

|  |  |  |
| --- | --- | --- |
|  | SAS Addicted | SAS Not addicted |
| Male - Pakistan | 112 | 152 |
| Female - Pakistan | 94 | 150 |

Chi- Squared =.65 p=.42 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Male - Pakistan | 108 | 156 |
| Female - Pakistan | 130 | 114 |

Chi- Squared =7.30 p=.007\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Male - Pakistan | 98 | 166 |
| Female - Pakistan | 78 | 166 |

Chi- Squared =1.27 p=.26 NS

|  |  |  |
| --- | --- | --- |
|  | SAS addicted | SAS Not addicted |
| Theoretical Faculty | 913 | 482 |
| Practical | 781 | 439 |

Chi-Squared = .52 p = .47 NS

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Theoretical Faculty | 538 | 682 |
| Practical | 597 | 798 |

Chi-Squared = .40 p = .53 NS

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS Not severe |
| Theoretical Faculty | 316 | 904 |
| Practical | 315 | 1080 |

Chi-Squared = 3.74 p = .053 NS

|  |  |  |
| --- | --- | --- |
|  | SAS addicted | SAS Not addicted |
| Academic Year  1st | 100 | 40 |
| 2nd | 210 | 108 |
| 3rd | 216 | 139 |
| 4th | 313 | 256 |
| 5th | 266 | 107 |
| 6th | 234 | 111 |
| 7th | 355 | 160 |

ChiSq = 41.43 p<.0001\*\*

|  |  |  |
| --- | --- | --- |
|  | TAS Positive | TAS Negative |
| Academic Year  1st | 80 | 60 |
| 2nd | 182 | 136 |
| 3rd | 176 | 179 |
| 4th | 278 | 291 |
| 5th | 168 | 205 |
| 6th | 167 | 178 |
| 7th | 219 | 296 |

ChiSq = 23.23 p=.0007\*\*

|  |  |  |
| --- | --- | --- |
|  | DASS Severe | DASS not Severe |
| Academic Year  1st | 43 | 97 |
| 2nd | 104 | 214 |
| 3rd | 91 | 264 |
| 4th | 166 | 403 |
| 5th | 95 | 278 |
| 6th | 85 | 260 |
| 7th | 95 | 420 |

ChiSq = 27.73 p=.00011\*\*

**OLS Regression Tests**

SAS\_total ~ Age

R-squared: 0.003

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 32.01 | 1.261 | 25.396 | <.0001\*\* | [29.541,34.485] |
| Age | .1522 | .055 | 2.758 | .006\*\* | [.044,.260] |

Chart, scatter chart

Description automatically generated

TAS\_total ~Age

R-squared: 0.017

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 68.98 | 1.464 | 47.116 | <.0001\*\* | [66.111,71.853] |
| Age | -0.4338 | .064 | -6.77 | <.0001\*\* | [-.559, -.308] |

Chart, scatter chart

Description automatically generated

DASS\_score ~Age

R-squared: 0.019

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 66.52 | 3.269 | 20.354 | <.0001\*\* | [60.119,72.937] |
| Age | -1.007 | .143 | -7.038 | <.0001\*\* | [-1.287, -0.726] |

Chart, scatter chart

Description automatically generated

SAS\_total ~ hour\_usage

R-squared: .096

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 30.9703 | 0.326 | 95.033 | <.0001\*\* | [30.331,31.609] |
| Hour\_usage | 0.7097 | 0.043 | 16.648 | <.0001\*\* | [0.626, 0.793] |

Chart, scatter chart

Description automatically generated

TAS\_total ~ hour\_usage

R-squared: .010

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 57.52 | .399 | 144.168 | <.0001\*\* | [56.73 58.30] |
| Hour\_usage | .2632 | .052 | 5.046 | <.0001\*\* | [.161, .365] |

Chart, scatter chart

Description automatically generated

DASS\_score ~ hour\_usage

R-squared: 0.001

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 42.9384 | .0.896 | 47.942 | <.0001\*\* | [41.182,44.695] |
| Hour\_usage | 0.1359 | 0.117 | 1.160 | 0.246 NS | [-0.094,0.366] |

Chart, scatter chart

Description automatically generated

TAS\_total ~ SAS\_total

R-squared: 0.050

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 49.88 | .821 | 60.75 | <.0001\*\* | [48.27, 51.49] |
| SAS\_total | .2625 | .022 | 11.768 | <.0001\*\* | [.219, 306] |

Chart, scatter chart

Description automatically generated

DASS\_score ~ SAS\_total

R-squared: 0.083

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | 17.0814 | 1.802 | 9.480 | <.0001\*\* | [13.548,20.615] |
| SAS\_total | 0.7536 | 0.049 | 15.392 | <.0001\*\* | [0.658,0.850] |

Chart, scatter chart

Description automatically generated

DASS\_score ~ TAS\_total

R-squared: 0.153

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | coefficient | Std error | t | P>|t| | 95% CI |
| const | -7.9662 | 2.425 | -3.284 | .001\*\* | [-12.722,3.210] |
| TAS\_total | 0.8745 | 0.040 | 21.745 | <.0001\*\* | [0.796,0.953] |

Chart, scatter chart

Description automatically generated

Although R-squared values were low for the nine OLS Regressions that were run, there were many definite underlying relationships.

|  |  |  |  |
| --- | --- | --- | --- |
| Dependent | Predictor | Pos/neg/NS | Slope of prediction/regression line |
| SAS | age | + | .1522 SAS pts/additional year |
| TAS | age | - | .4338 TAS pt decrease/additional year |
| DASS | age | - | 1.007 DASS score decrease/additional year |
| SAS | hour\_usage | + | .7097 SAS pts/additional hour of weekly use |
| TAS | hour\_usage | + | .2632 TAS pts/additional hour of weekly use |
| DASS | hour\_usage | Not significant |  |
| TAS | SAS | + | .2625 additional TAS pts/ additional SAS pt |
| DASS | SAS | + | .7536 additional DASS pts/ additional SAS pt |
| DASS | TASS | + | .8745 additional DASS pts/additional TAS pt |

**Mutivariate Linear Regression Tests**

SAS\_total ~ (Age + Sex + Marital Status + Nationality)

|  |  |
| --- | --- |
| Feature/Label | Feature Importance Score |
| Age | .339 |
| Sex | .064 Least |
| Marital status | .104 |
| Nationality | .492 Greatest |

TAS\_total ~ (Age + hours\_usage + platform\_count + Sex + Marital Status + Nationality)

|  |  |
| --- | --- |
| Feature/Label | Feature Importance Score |
| Age | .380 |
| Hours of use/week | .413 Greatest |
| Number of social media platforms used | .108 |
| Sex | .035 |
| Marital status | .032 |
| Nationality | .031 Least |

DASS\_score ~ (Age + hours\_usage + platform\_count + Sex + Marital Status + Nationality)

|  |  |
| --- | --- |
| Feature/Label | Feature Importance Score |
| Age | .347 |
| Hours of use/week | .388 Greatest |
| Number of social media platforms used | .120 |
| Sex | .041 |
| Marital status | .030 Least |
| Nationality | .073 |

Multivariate Regressions were run for the three numerical target variables, SAS Total, TAS Total & DASS score. Six of the predictor variables were used for the TAS total and DASS scores. Hours of usage and number of social media platforms were not used for the SAS total because of redundancy. A cross validated Random Forest Regressor with five folds was used for each model. Feature importance scores for all the predictor variables are listed in the tables above.