**Supplementary File**

**Table S1:** Characteristics of schools participating in the study (N= 72).

|  |  |  |  |
| --- | --- | --- | --- |
|  | Control (n=34) mean or % | Experimental(n=38)mean or % | p-Value  |
|  |  |  |  |
| Average Number of employees (mean) | 71.0  | 74.8  | 0.492 |
| Average Number of classrooms (mean) | 14.2 | 14.2 | 0.960  |
| Public sewer system (yes/no) | 79.4 | 89.4 | 0.236 |
| Gini Index per capita income (mean) | 0.5 | 0.5 | 0.693 |
| Internet access (yes/no) | 97.0 | 97.3 | 0.936 |
| Computer Lab (yes/no) | 97.0 | 100.0 | 0.287 |
| Science Lab (yes/no) | 38.2 | 26.3 | 0.279 |
| Library (yes/no) | 50.00 | 44.7 | 0.655 |
| Sport Gymnasium (yes/no) | 50.0 | 63.1 | 0.260 |

Gini Index: Brazilian per capita domestic income index by city

**Table S2:** Model fit statistics for latent class analyses at baseline and follow-up.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  | Final count based on most likely membership  |
| Model | Factor correction | Loglikelihood | AIC | BIC | ssaBIC | VLMR LRT | LMR LR adjusted test | Polydrug users(n,%) | Alcohol users/binge drinkers(n,%) | Abstainers/ Low users (n,%) | Entropy |
| BASELINE |  |  |  |  |  |  |  |  |  |  |  |
| 1 Class | 2.28 | -10307.13 | 20624.26 | 20658.07 | 20642.18 |  |  |  |  |  |  |
| 2 Class | 1.55 | -8394.15 | 16810.31 | 16884.68 | 16849.73 | <0.001 | <0.001 |  |  |  |  |
| 3 Class | 1.36 | -8250.78 | 16535.56 | 16650.50 | 16596.48 | <0.001 | <0.001 | 115 (1.80%) | 1063 (16.65%) | 5205 (81.54%) | 0.893 |
| 4 Class | 1.21 | -8230.20 | 16506.40 | 1.661.91 | 16588.82 | 0.001 | 0.001 |  |  |  |  |
| 5 Class | 11.62 | -8228.38 | 16514.76 | 16710.84 | 16618.69 | 0.554 | 0.558 |  |  |  |  |
| 9 MONTHS |  |  |  |  |  |  |  |  |  |  |  |
| 1 Class | 2.29 | -7693.84 | 15397.69 | 15429.44 | 15413.55 |  |  |  |  |  |  |
| 2 Class | 1.57 | -6308.88 | 12639.75 | 12709.61 | 12674.65 | <0.001 | <0.001 |  |  |  |  |
| 3 Class | 1.41 | -6209.99 | 12453.99 | 12561.94 | 12507.93 | <0.001 | <0.001 | 259 (6.12%) | 1245 (29.42%) | 2727 (64.45%) | 0.851 |
| 4 Class | 1.26 | -6177.48 | 12400.97 | 12547.02 | 12473.94 | 0.0002 | 0.0002 |  |  |  |  |
| 5 Class | 1.23 | -6174.09 | 12406.18 | 12590.33 | 12498.18 | 0.5620 | 0.5670 |  |  |  |  |
| 21 MONTHS |  |  |  |  |  |  |  |  |  |  |  |
| 1 Class | 1.69 | -7638.96 | 15287.92 | 15318.91 | 15303.02 |  |  |  |  |  |  |
| 2 Class | 1.41 | -6254.99 | 12531.99 | 12600.18 | 12565.22 | <0.001 | <0.001 |  |  |  |  |
| 3 Class | 1.25 | -6134.69 | 12303.31 | 12408.75 | 12354.74 | <0.001 | <0.001 | 288 (7.92%) | 780 (21.45%) | 2567 (70.61%) | 0.820 |
| 4 Class | 1.24 | -6116.83 | 12279.66 | 12422.22 | 12349.13 | 0.071 | 0.074 |  |  |  |  |
| 5 Class | 1.12 | -6115.40 | 12288.79 | 12368.55 | 12376.40 | 0.335 | 0.337 |   |   |   |   |

Legend: AIC=Akaike Information Criteria; BIC=Bayesian Information Criteria; ssABIC=sample size adjusted;

VLMR-LRT=Voung-Lo-Mendell-Rubin Likelihood Ratio Test; LMR adjusted = Lo-Mendell-Rubin adjusted; LR test= likelihood ratio

**Figure S1:** Probabilities of substance use in the past 12 months for each latent class at baseline, 9 months and 21 months (N =6391).

**Table S3:** Covariance Convergence

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Alcohol (1)  | Binge (1) | Tabacco (1) | Inhalant (1) | Cannabis (1) | Alcohol (2)  | Binge (2) | Tabacco (2) | Inhalant (2) | Cannabis (2) | Alcohol (3)  | Binge (3) | Tabacco (3) | Inhalant (3) | Cannabis (3) |
| Alcohol (1)  | 0.993 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Binge (1) | 0.983 | 0.989 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tabacco (1) | 0.984 | 0.985 | 0.990 |  |  |  |  |  |  |  |  |  |  |  |  |
| Inhalant (1) | 0.984 | 0.985 | 0.986 | 0.990 |  |  |  |  |  |  |  |  |  |  |  |
| Cannabis (1) | 0.984 | 0.981 | 0.983 | 0.983 | 0.990 |  |  |  |  |  |  |  |  |  |  |
| Alcohol (2)  | 0.653 | 0.649 | 0.650 | 0.650 | 0.650 | 0.658 |  |  |  |  |  |  |  |  |  |
| Binge (2) | 0.650 | 0.645 | 0.647 | 0.647 | 0.647 | 0.650 | 0.655 |  |  |  |  |  |  |  |  |
| Tabacco (2) | 0.651 | 0.647 | 0.648 | 0.648 | 0.648 | 0.651 | 0.652 | 0.656 |  |  |  |  |  |  |  |
| Inhalant (2) | 0.651 | 0.647 | 0.648 | 0.648 | 0.648 | 0.651 | 0.652 | 0.653 | 0.656 |  |  |  |  |  |  |
| Cannabis (2) | 0.652 | 0.648 | 0.649 | 0.649 | 0.649 | 0.653 | 0.651 | 0.652 | 0.652 | 0.657 |  |  |  |  |  |
| Alcohol (3)  | 0.561 | 0.561 | 0.561 | 0.561 | 0.560 | 0.443 | 0.442 | 0.442 | 0.441 | 0.443 | 0.567 |  |  |  |  |
| Binge (3) | 0.558 | 0.558 | 0.557 | 0.558 | 0.557 | 0.440 | 0.440 | 0.440 | 0.439 | 0.441 | 0.563 | 0.564 |  |  |  |
| Tabacco (3) | 0.558 | 0.558 | 0.558 | 0.558 | 0.557 | 0.441 | 0.440 | 0.440 | 0.439 | 0.441 | 0.563 | 0.561 | 0.564 |  |  |
| Inhalant (3) | 0.559 | 0.559 | 0.558 | 0.559 | 0.558 | 0.440 | 0.440 | 0.440 | 0.439 | 0.441 | 0.563 | 0.561 | 0.562 | 0.565 |  |
| Cannabis (3) | 0.557 | 0.557 | 0.557 | 0.557 | 0.557 | 0.440 | 0.439 | 0.439 | 0.439 | 0.440 | 0.562 | 0.559 | 0.560 | 0.560 | 0.563 |