|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Yes** |  | **No** |  | **χ2** | ***df*** | ***p*** | **OR (CI)** |  |
|  | **a*n* =89** | **(%)** | **b*n* = 149** | **(%)** |  |  |  |  |  |
| **Gender** | - |  | - |  | 24.4 | 1 | 0.000 | 3.93 | 2.18–7.13 |
| Male | 54 | 60.7 | 42 | 28.2 | - | - | - | - | - |
| Female | 35 | 39.3 | 107 | 71.8 | - | - | - | - | - |
| **Mean (SD) Age (years)** | 32.4 | 12.5 | 31.0 | 14.6 | - | - | - | - | - |
| **cRace** | - |  | - | - | 3.07 | 3 | 0.380 | - | - |
| Black | 27 | 30.3 | 55 | 36.9 | - | - | - | - | - |
| Asian or Moslem | 4 | 4.5 | 4 | 2.7 | - | - | - | - | - |
| dMixed race | 37 | 41.6 | 66 | 44.3 | - | - | - | - | - |
| White | 16 | 18 | 17 | 11.4 | - | - | - | - | - |
| Not known | 5 | 5.6 | 7 | 4.7 | - | - | - | - | - |
| **Relationship status** | - |  | - | - | 3.72 | 1 | 0.054 | - | - |
| Married or in a relationship | 11 | 12.3 | 33 | 22.1 | - | - | - | - | - |
| Not in a relationship | 78 | 87.6 | 114 | 77.2 | - | - | - | - | - |
| Not Known | 0 | - | 1 | 0.7 | - | - | - | - | - |
| **Have dependents** |  |  |  |  | 3.56 | 1 | 0.059 | - | - |
| No dependents or pregnant | 64 | 71.9 | 91 | 61.1 | - | - | - | - | - |
| Dependents | 23 | 25.8 | 57 | 38.3 | - | - | - | - | - |
| Not known | 2 | 2.2 | 1 | 0.7 | - | - | - | - | - |
| **eCompleted level of education** | - | - | - | - | 1.45 | 2 | 0.484 | - | - |
| Primary school | 33 | 37.1 | 67 | 45 | - | - | - | - | - |
| Secondary school | 41 | 46.1 | 59 | 39.6 | - | - | - | - | - |
| Tertiary school (undergraduate or postgraduate) | 15 | 16.9 | 23 | 15.4 | - | - | - | - | - |
| **fEmployment status** | - | - | - | - | 0.000 | 1 | 0.989 | - | - |
| Employed | 19 | 21.3 | 32 | 21.5 | - | - | - | - | - |
| Unemployed (unemployed, scholar, student) | 68 | 76.4 | 114 | 76.6 | - | - | - | - | - |
| Not known | 2 | 2.2 | 3 | 2 | - | - | - | - | - |
| **gSES** | - |  | - |  | 0.615 | 1 | 0.433 | - | - |
| Low to moderate SES (ZAR0 to ZAR76 800) | 47 | 52.8 | 84 | 56.4 | - | - | - | - | - |
| High SES (ZAR76 801 to ZAR2 547 601) | 35 | 39.3 | 50 | 33.6 | - | - | - | - | - |
| Not known | 7 | 7.9 | 15 | 10.1 | - | - | - | - | - |

|  |
| --- |
| **TABLE 1:** Description and comparison of sample demographic characteristics by CSU. |

Notes: Total sample = 238. Chi-square statistics were calculated for categorical variables: gender, race, having dependents or no dependents, completed level of education, and SES. Mann–Whitney U test was used for between-group analyses of continuous variables with non-normal distribution: Mean age (years).

SES, socio-economic status; OR = Odds Ratio; CI = confidence intervals; SD, standard deviation.

a*n* = 89 patients with chronic substance use; b*n* = 149 other self-harm patients. g*n* = 216; cRace = the term ‘race’ may be offensive in some countries; however, this is an official term used in South Africa. dMixed race = the term ‘mixed race’ may be offensive in some countries; however, this is an official term used in South Africa. ePrimary school = 1st grade to 7th grade in the United States; Secondary school = 8th grade to 12th grade/senior in the United States; Tertiary school = any diploma or university degree after completing Grade 12. fEmployment status = 6 participants who indicated that they were retired were included in the employed category as they qualify to receive old age pension from the state worth 1420 ZAR per month. g15.72 ZAR = 1 US dollar.

**TABLE 2:**Details of admission required by chronic substance use

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Yes** | | **No** | | **χ2** | **df** | ***p*** | **OR (CI)** |  |  |
|  |
|  | **a*n* = 89** | **(%)** | **b*n* = 149** | **(%)** | **-** | **-** | ***-*** | **-** | **-** | **-** |
| **Time of presentation to ED** | - |  | - |  | 0.205 | 1 | 0.651 | - | - | - |
| Day shift (07:00 to 17:00) | 40 | 44.9 | 63 | -42.3 | - | - | - | - | - | - |
| Night shift or after hours | 46 | 51.7 | 82 | -55 | - | - | - | - | - | - |
| Not known | 3 | 3.4 | 4 | -2.7 | - | - | - | - | - | - |
| **Day of presentation to ED** | - | - | - | - | 1.589 | 1 | 0.207 | - | - | - |
| Weekday | 64 | 71.9 | 94 | -63.1 | - | - | - | - | - | - |
| Weekend day | 25 | 28.1 | 53 | -35.6 | - | - | - | - | - | - |
| Not known | 0 |  | 2 | -1.3 | - | - | - | - | - | - |
| **Referral for hospital admission** | - |  | - |  | - | - | - | - | - |  |
| Treated in casualty and discharged | 31 | 34.8 | 53 | -35.8 | 0.023 | 1 | 0.89 | 1.04 | - | 0.580–1.88 |
| Admitted to short stay medical unit | 21 | 23.6 | 43 | -29.1 | 0.84 | 1 | 0.359 | 1.326 | - | 0.695–2.540 |
| ICU or high care | 6 | 6.7 | 11 | -7.5 | 0.04 | 1 | 0.842 | 1.11 | - | 0.362–3.52 |
| Admitted to long-stay medical or surgical ward | 11 | 12.4 | 6 | -4.1 | 5.76 | 1 | 0.016 | 3.34 | 1.09–10.6 | 1.09–10.6 |
| Admitted to emergency psychiatric unit | 34 | 38.2 | 56 | -37.6 | 0.009 | 1 | 0.924 | 1.027 | 0.576–1.83 | 0.576–1.83 |

Notes: *N* =238; Chi-square statistics were calculated for categorical variables: treated in casualty and discharged; admitted to short stay medical unit; ICU or high care; admitted to long-stay medical or surgical ward; admitted to emergency psychiatric unit; transferred to tertiary psychiatric hospital. Mann-Whitney *U* test was used for between-group analyses of continuous variables with non-normal distribution: Mean number of days spent in each unit.

ED, emergency department; OR, odds ratio; CI, confidence intervals.

a*n* = 89 patients with chronic use of substances; b*n* = 149 of other self-harm patients

**TABLE 3:** Description and comparison of clinical features by chronic substance use

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Yes** | | **No** | | **χ2** | ***df*** | ***p*** | **OR (CI)** | |
|  | **a*n* = 89** | **%** | **b*n* = 149** | **%** | **-** | **-** | ***-*** | **-** | **-** |
| Method of self-harm | - |  | - | - | - | - | - | - | - |
| Self-poison | 57 | 64 | 136 | 91.3 | 26.9 | 1 | 0 | 5.87 | 2.73–12.8 |
| Prescription medication | 32 | 36 | 66 | 44.3 | - | - | - | - | - |
| Non-prescription medication | 10 | 11.2 | 23 | 15.4 | - | - | - | - | -- |
| Ingestion or inhalation of poison | 5 | 5.6 | 14 | 9.4 | - | - | - | - | - |
| Mixed method of self-poisoning | 10 | 11.2 | 33 | 24.3 | - | - | - | - | -- |
| Damage body tissue | 24 | 26.8 | 11 | 7.4 | 16.8 | 1 | 0 | 4.6 | 2.01–10.7 |
| Laceration | 9 | 10.1 | 6 | 4 | - | - | - | - | - |
| Hanging | 9 | 10.1 | 3 | 2 | - | - | - | - | - |
| Asphyxiation | 1 | 1.1 | 0 | -- | - | - | - | - | - |
| Immolation | 1 | 1.1 | 0 | - | - | - | - | - | - |
| Jumped off a height | 2 | 2.2 | 0 | - | - | - | - | - | - |
| Jumped in front of a train | 2 | 2.2 | 2 | 1.3 | - | - | - | - | - |
| Mixed method (i.e. self-poison and damage to body tissue) | 6 | 6.7 | 2 | 1.3 | - | - | - | - | - |
| Not known | 2 | 2.2 | 0 |  | - | - | - | - | - |
| cPierce Suicide Intent Scale (PSIS) | - | - | - | - | 0.037 | 1 | 0.847 | - | - |
| Low to moderate suicide intent | 26 | 29.2 | 60 | 40.3 | - | - | - | - | - |
| High suicide intent | 12 | 13.5 | 30 | 20.1 | - | - | - | - | - |
| Not known | 51 | - | 59 | 39.6 | - | - | - | - | - |
| Received a psychiatric assessment | - | 13.5 | - | - | 49 | 1 | 0 | 8.05 | 4.16–15.7 |
| Yes | 18 | 20.2 | 100 | 67.1 | - | - | - | - | - |
| No | 71 | 79.8 | 49 | 32.9 | - | - | - | - | - |
| History self-harm | - | - | - | - | 7.47 | 1 | 0.006 | 2.51 | 1.22–5.16 |
| History of self-harm | 45 | 50.6 | 44 | 29.5 | - | - | - | - | - |
| No history of self-harm | 20 | 22.5 | 49 | 32.9 | - | - | - | - | - |
| Not known | 24 | 27 | 56 | 37.6 | - | - | - | - | - |
| Impulsive self-harm | - | - | - | - | 8.15 | 1 | 0.004 | - | - |
| Yes | 13 | 14.6 | 43 | 28.9 | - | - | - | - | - |
| No | 76 | 85.4 | 94 | 63.8 | - | - | - | - | - |
| Not known | 6 | 6.7 | 11 | 7.4 | - | - | - | - | - |

Notes:Total sample = 238. Chi-square statistics were calculated for categorical variables: method of self-harm, level of suicidal intent, and whether or not a psychiatric assessment was received, previous attempt of self-harm, and impulsive act.

OR, odds ratio; CI, confidence intervals.

a*n* = 89; b*n* = 149. cLow to moderate suicide intent = a PSIS of 11 or lower; high suicide intent = PSIS score of 12 or more.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Model** | **Predictor** | **Outcome** | **B (SE)** |  | **Wald *X2*** | ***p*** | **OR (CI)** | |
| 1 | Gender | CSU | 2.12 | 0.470 | 20.4 | 0.000 | 8.33 | 3.19–20.9 |
|  | Age | - | -0.009 | 0.018 | 0.216 | 0.642 | 0.991 | 0.956–1.03 |
|  | SES | - | 0.443 | 0.461 | 0.922 | 0.337 | 1.56 | 0.630–3.85 |
|  | Dependents | - | 0.467 | 0.498 | 0.880 | 0.348 | 1.60 | 0.601–4.23 |
|  | History of self-harm | - | 1.31 | 0.482 | 0.739 | 0.007 | 3.71 | 1.44–9.54 |
|  | Impulsive self-harm | - | 1.07 | 0.519 | 4.27 | 0.039 | 2.92 | 1.06–8.08 |
| 2 | CSU | Self-poison versus damage to bodily tissue | 1.49 | 0.470 | 10.1 | 0.001 | 4.45 | 1.77–11.2 |
| 3 | CSU | 1PSIS | -0.126 | 0.577 | 0.047 | 0.828 | 0.882 | 0.285–2.73 |
| 4 | CSU | Psychiatric referral | 0.133 | 0.508 | 0.068 | 0.794 | 1.14 | 0.422–3.09 |
| 5 | CSU | Impulsive act | -0.711 | 0.390 | 3.32 | 0.068 | 0.491 | 0.229–1.06 |
| 6 | CSU | ED and Discharge versus long stay medical ward | -0.171 | 0.311 | 0.301 | 0.583 | 0.843 | 0.458–1.55 |

**TABLE 4:**Binary logistical regression analysis: Summary of predictors in each model.

Notes: Model 1: Gender, age, SES, having dependents, previous self-harm and impulsive self-harm predict CSU.

Model 2: CSU predict the method of self-harm, while controlling for gender, age and SES.

Model 3: CSU predict suicidal intent, while controlling for gender, age, previous self-harm and SES.

Model 4: CSU predict referral for psychiatric assessment, while controlling for gender, age, SES and suicidal intent.

Model 5: CSU predict impulsive self-harm, while controlling for gender, age and SES.

Model 6: CSU predict being treated in the ED and discharged or referral to hospital, while controlling for gender, age and SES.

OR, odds ratio; CI, confidence intervals; CSU, chronic substance use; SES, socio-economic status; ED, emergency department; PSIS, Pierce Suicidal Intent Scale.

1Low to moderate suicide intent = a PSIS of 11 or lower; high suicide intent = PSIS score of 12 or more