

PATTERN OF ACUTE SELF-POISONING REPETITION IN RURAL SRI LANKA

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Objectives: To calculate incidence of acute self-poisoning (ASP) and suicides, repetition rate of ASP. To find out the pattern and associative factors of repeated ASP.

Methods: Demographic and event related details of, ASP admission in 46 hospitals and suicides in 28 police stations of Kurunegala district were collected from January 2011 to December 2013. Demographic details of ASP patients admitted to above hospitals in 2011 were linked with hospital admissions and police records of next year period from the index admission. Records were screened for links with high sensitivity using the computer then did manual matching which would have been much more specific.

Results: There were 16107 ASP incidents and 1078 suicides for the three year period. The annual incidence of ASP, in 2011 and 2012 were 351.9, in 2013 289.2 per 100,000. Suicide rates were 21.8, 20.6 and 24 for 100,000 in 2011, 2012 and 2013 (Table-1). It showed that out of the 5668 ASP patients in the 2011 cohort, 59 had repetitive attempts within one year period of the index admission; one year repetition rate 1% (95% CI 0.008 - 0.013). Majority of them were males, 37 (63%), but sex is not a predictor for repetition (OR 1.5, 95% CI 0.9-2.6, p=0.12). There was no difference in average ages of single and multiple attempters (p=0.2). Fifty had one and nine had two attempts within the year, there were 65 repeated incidents. Six (9%, 95% CI 0.04-0.19) incidents were ended as a death. Average time gap, for non-fatal repetitive attempt was 167 Days (SD 110.6), for fatal repetitive attempt was 110 Days (SD 123.8), and the difference is not significant (p 0.17). In 64% of situations patient had used a different poison, and 52% of situations presented to the same hospital. Eleven links had the same AD. Average distance between Ads of other confirmed links was 40.4 km (SD 23.5, 95% CI 33.8 - 46.9).

Table-1

| | ASP N (incidence/100000) | | Suicide N (incidence/100000) | | Repetition N (deaths) | |
|------|--------------------------|-------------|------------------------------|---------|-----------------------|--------|
| | Male | Female | Male | Female | Male | Female |
| 2011 | 2950(366.4) | 2718(337.6) | 296(36.8) | 56(6.9) | 37 (5) | 22 (1) |
| 2012 | 2949(363.2) | 2767(340.8) | 269(33.1) | 66(8.1) | | |
| 2013 | 2519(308.5) | 2204(269.9) | 335(41.0) | 56(6.9) | | |

Conclusion: One year repetition of ASP was 1%. Current study showed no demographic predictors repetition or specific period to occur. Follow-up of a bigger cohort for longer duration may reveal additional detail.