

Pattern of Deliberate Self-Harm Repetition in Rural Sri Lanka

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Abstract : Introduction: Deliberate self harm (DSH) is a major public health problem globally. Suicide rates of Sri Lanka are being among the highest national rates in the world, since 1950. Previous DSH is the most important independent predictor of repetition. The estimated 1 year non-fatal repeat self-harm rate was 16.3%. Asian countries had considerably lower rate, 10.0%. Objectives: To calculate incidence of deliberate self-poisoning (DSP) and suicides, repetition rate of DSP in Kurunegala District (KD). To determine the pattern of repeated DSP in KD. Methods: Study had two components. In the first component, demographic and event related details of, DSP admission in 46 hospitals and suicides in 28 police stations of KD were collected for 3 years from January 2011. Demographic details of cohort of DSP patients admitted to above hospitals in 2011 were linked with hospital admissions and police records of next two years 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. In the second component, randomly selected DSP patients (n=438), who admitted to main referral centre which receives 60% of DSP cases of the district, were interviewed to assess life-time repetition. Results: There were 16,993 DSP admissions and 1078 suicides for the three year period. Suicide incidences in KD were, 21.6, 20.7 and 24.3 per 100,000 population in 2011, 2012 and 2013. Average male to female ratio for suicide incidences was 5.5. DSP incidences were 205.4, 248.3 and 202.5 per 100,000 population. Male incidences were slightly greater than the female incidences, male: female ratio was 1.1:1. Highest age standardized male and female incidence was reported in 20-24 years age group, 769.6/100,000, and 15-19 years age group 1304.0/100,000. Male to female ratio of the incidence increased with the age. There were 318 (179 male and 139 female) patients attempted DSH within two years. Female repetitive patients were younger compared to the males, $p < 0.0001$, median age: males 28 and females 19 years. 290 (91.2%) had only one repetitive attempt, 24 (7.5%) had two, 3 (0.9%) had three and one (0.3%) had four in that period. One year repetition rate was 5.6 and two year repetition rate was 7.9%. Average intervals between indexed events and first repetitive DSP events were 246.8 (SD:223.4) and 238.5 (SD:207.0) days among males and females. One fifth of first repetitive events occurred within first two weeks in both males and females. Around 50% of males and females had the second event within 28 weeks. Within the first year of the indexed event, around 70% had the second event. First repetitive event was fatal for 28 (8.8%) individuals. Ages of those who died, mean 49.7 years (SD:15.3), were significantly higher compared to those who had non-fatal outcome, $p < 0.0001$. 9.5% had life time history of DSH attempts. Conclusions: Both, DSP and suicide incidences were very high in KD. However, repetition rates were lesser compared regional values. Prevention of repetition alone may not produce significant impact on prevention of DSH.

Keywords : deliberate self-harm, incidence, repetition, Sri Lanka, suicide

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