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Choice of Poison for Intentional Self-Poisoning in Rural Sri Lanka

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Background. Although intentional self-poisoning is a major public health problem in rural parts of the Asia-Pacific region, relatively little is known of its epidemiology. We aimed to determine why Sri Lankan self-poisoning patients choose particular poisons, and whether acts of self-harm with highly dangerous poisons were associated with more premeditation and effort. **Methods.** We interviewed 268 self-poisoning patients presenting to two district general hospitals in rural Sri Lanka. **Results.** Eighty-five percent of patients cited easy availability as the basis for their choice of poison. There was little premeditation: more than 50% ingested the poison less than 30 minutes after deciding to self-harm. Patients had little knowledge about treatment options or lethality of the poison chosen. We found no difference in reasons for choice of poison between people ingesting different poisons, despite marked differences in toxicity, and between people who died and those who survived. **Conclusions.** Poisons were chosen on the basis of availability, often at short notice. There was no evidence that people using highly toxic poisons made a more serious or premeditated attempt. Restrictions on availability of highly toxic poisons in rural communities must be considered in strategies to reduce the number of intentional self-poisoning deaths in the Asia Pacific region.

Keywords Asia-Pacific region; Sri Lanka; Self-poisoning; Pesticide

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INTRODUCTION

Intentional self-poisoning is a major public health problem in the Asia Pacific region, with at least 300,000 deaths a year (1,2). Despite the scale of the problem, relatively little is known about the epidemiology of, or reasons for, fatal self-harm in these communities. The reasons most commonly stated for the large number of self-harm deaths relate to mental illness associated with war, poverty, unmet expectations, and changing or breaking down of local cultures (1,3).

At least part of the problem seems to be the common use of highly toxic poisons, in particular pesticides, for acts of self-harm. Therefore, an alternative hypothesis for the high number of deaths is the increased availability of toxic pesticides in households with the Green revolution. The increase in suicides in Sri Lanka over the last 50 years mirrors the increased use of pesticides in agriculture and self-poisoning (4).

To find out why people chose particular poisons, and whether more thought and effort was put into acts of self-harm with highly toxic poisons, we interviewed patients recruited to a study in Sri Lanka. Because of their differences in case fatality, we were particularly interested to interview patients with pesticide, oleander, and medicine poisoning (case fatality 15%, 8% and <1%) (5). We believe that this information will be useful to guide strategies for reducing fatal self-harm in the region.