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Individual characteristics and factors associated with people who purchase pesticides from shops for self-poisoning in rural in Sri Lanka – case-control and comparative studies.

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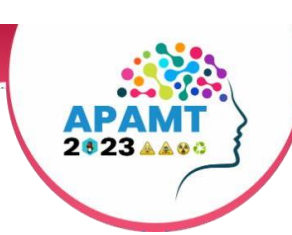
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Aim and objectives:

We aimed to investigate the characteristics of such individuals and factors associated with purchasing pesticides from shops for self-poisoning in Sri Lanka.

Methodology:

First, we conducted a case-control study. Cases (n=50) were survivors of self-poisoning with pesticides who ingested the pesticides after purchasing them from a shop (non-fatal shop cases) compared with controls (n=200) - legitimated customers who bought pesticides but did not use them for self-harm. Then we carried out two comparative studies; 1) same non-fatal shop cases (n=50) compared with non-fatal domestic cases (n=192) were survivors who accessed pesticides from their house or nearby environment.



2) fatal shop cases (n=50) were individuals who died after ingesting pesticides they purchased for the act compared with fatal domestic cases (n=102) were patients who died after ingesting pesticides they accessed at house or nearby environment. Logistic regression analysis was used to assess the differences among groups.

Results:

In the case-control study, alcohol intoxication (adjusted odds ratios [AOR] 36.5, 95% confidence intervals [CI] 1.7-783.4) and being a non-farmer AOR 13.3, 95% CI 1.8-99.6 were the main distinguishing factors when purchasing pesticides for self-poisoning. Data from comparative studies indicate that 20.7% and 32.9% of individuals who used pesticides for attempted suicides and completed suicides had purchased them from shops, respectively. Being a non-farmer was the main distinguishing characteristic of shop cases: adjusted odds ratios (AOR) 9.0, 95% confidence intervals (CI) 3.5-23.2 for non-fatal shop cases, and AOR 4.0, 95% CI 1.5-10.6 for fatal shop cases. Non-fatal shop cases also had higher suicide (AOR 3.9, CI 1.6-9.3), and ingested large quantities of pesticides (AOR 3.3, CI 1.4-7.6) than non-fatal domestic cases.

Conclusions:

Sales restrictions to prevent alcohol-intoxicated persons and non-farmers purchasing pesticides for self-poisoning may be effective. A high suicide intent of individuals who purchase pesticides for the event explains the high proportion of such fatal cases. This makes the prevention implications difficult to spell out, however, may be of value for clinicians to assess pesticide poisoning cases in hospitals.