

POPULATION ATTRIBUTABLE RISK OF UNINTENTIONAL CHILDHOOD POISONING IN KARACHI PAKISTAN

B. Ahmed¹, Z. Fatmi²

¹Medicine, ²Community Health Sciences, Aga Khan University, Karachi, Pakistan

Introduction: The percentage of unintentional childhood poisoning cases in a given population (population attributable risk) can be calculated; determination of such risk factors associated with potentially modifiable risk factors, are necessary to focus prevention strategies.

Methods: We calculated PARs, using 120 cases with unintentional poisoning and 360 controls in a hospital based matched case control study. The risk factors were accessibility to hazardous chemicals and medicines due to unsafe storage, child behavior reported as hyperactive, storage of kerosene and petroleum in soft drink bottles, low socioeconomic class, less mother education and history of previous poisoning.

Results: The following attributable risks for the indicated risk factors were observed: 12% (95% confidence interval [CI] = 8% - 16%) for both chemicals and medicines stored unsafe, 19% (15% - 23%) for child reported as hyperactive, 40% (38% - 42%) for storage of kerosene and petroleum in soft drink bottles, 48% (42% - 54%) for low socioeconomic status, 38% (32% - 42%) for no formal mothers education and 5.8% (2% - 10%) for history of previous poisoning. 48% of cases of overall study population could be attributed to at least one of the six risk factors. Among girls, this proportion was 23 percent and 43 percent among boys. About half of the unintentional childhood poisoning cases in this Pakistani population could be avoided.

Conclusion: Exposure to potentially modifiable risk indicators explained about half of the cases of unintentional poisoning among children under five years of age in this Pakistani population, indicating the theoretical scope for prevention of the disease.