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Author/s:

Vijayakumar, L;Armstrong, G

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Surveillance for self-harm: an urgent need in low-income and middle-income countries



Low-income and middle-income countries (LMICs) account for around 75% of the estimated 800 000 annual deaths by suicide globally.¹ There is an imperative to obtain better self-harm (both fatal and non-fatal) data from LMICs to inform prevention strategies and the allocation of scarce resources. Hospital-based self-harm surveillance systems are recommended by WHO as a crucial source of epidemiological data.² Such systems have additional value in LMICs, where the prevalence, methods of, and risk factors for self-harm can vary from those in high-income countries.

In *The Lancet Psychiatry*, the excellent paper by Duleeka Knipe and colleagues³ shows the importance of a hospital-based self-harm surveillance system in a rural area of Sri Lanka. This paper provides estimates of the risk of repeat self-harm (3.1%, 95% CI 2.4–3.9) and suicide (0.6%, 0.4–1.1) in individuals within 12 months of presentation to hospital after a previous self-harm episode. These results contrast with a systematic review and meta-analysis by Carroll and colleagues,⁴ which was predominantly based on research from HICs and reported a substantially higher risk of repeat non-fatal (16.3%, 95% CI 15.1–17.7) and fatal (1.6%, 1.2–2.4) self-harm at 12 months, and that the risk of repeat non-fatal self-harm was considerably lower across the few studies in Asia (10.0%, 7.3–13.6).

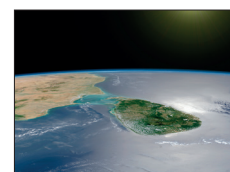
Consequently, the authors posit that repeat self-harm might be lower in LMICs than in HICs.³ If this is true, why? Possible explanations are diverse and multifaceted⁵ and include a higher case-fatality rate at first episode in LMICs, thus removing high-risk patients from the pool; a lengthier hospital stay after self-harm in LMICs, allowing high-risk patients to be monitored for longer; and a typically younger age profile of individuals who self-harm in LMIC populations, with evidence indicating that repeat self-harm is more frequent in cohorts with an older average age.⁴

Moreover, important aetiological differences might have a role. Psychiatric disorders are thought to be more common in people who self-harm in developed countries compared with developing countries.⁶ In south Asia, for example, greater emphasis is given to sociocultural and socioeconomic factors, along with

factors such as impulsivity, alcohol use, shame, and social, interpersonal, and family-based stressors, which might have a greater role in this region than in high-income settings.⁷ The implication of these differences is that perhaps there is less chronicity of self-harm behaviour in settings where psychiatric disorders have a somewhat reduced role and in which situational stressors and impulsivity are emphasised.

Notwithstanding the importance of this discussion, we lack sufficient evidence to make firm claims about the prevalence of repeated self-harm in LMICs. We also cannot ascertain whether these findings concern Asian countries only rather than LMICs more broadly—eg, lower levels of repeat self-harm have also been observed in the high-income country Taiwan.⁸ The study by Knipe and colleagues³ was done in one rural farming area of a single South Asian country, in which there is a preponderance of pesticide and other poisoning as the main method of self-harm. Further interrogation of this phenomenon could investigate whether the incidence of repeat self-harm in LMICs is higher when other self-harm methods (eg, hanging) are more common or in more urban settings across other Asian and non-Asian LMICs. Fleischmann and colleagues⁹ followed a cohort of people who presented to hospital after a suicide attempt in urban centres across five LMICs in south-east Asia, South America, and the Middle East, and observed that 20.0% previously attempted suicide and, in the non-intervention arm of the study, 2.2% died by suicide within 18 months. Such findings emphasise that repeat self-harm undoubtedly remains an important issue in some LMIC settings.

Methodologically, estimates of repeat self-harm based on hospital-based surveillance systems might be affected by differences across LMICs in terms of the proportion of hospital presentations following self-harm. A study¹⁰ estimated the proportion of people in eight LMICs who accessed medical attention after a suicide attempt to be as high as 88.0% in Chennai (India), 56.0% in Colombo (Sri Lanka), and as low as 22.0% in Hanoi (Vietnam).¹⁰ To obtain better data, a comprehensive surveillance system could use supplementary data sources, for example, primary care clinics and a range of other community informants appropriate to the setting.



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Although Knipe and colleagues³ draw on their findings to suggest a focus on suicide prevention efforts in those who self-harm might be somewhat less important in LMICs compared with HICs, we would urge some caution. More data from a greater number of surveillance systems are urgently needed to better understand self-harm patterns across different LMIC settings.

**Lakshmi Vijayakumar, Gregory Armstrong*
Sneha/Voluntary Health Services, Chennai 600085, India (LV);
and University of Melbourne, Melbourne, VIC, Australia (GA)
lakshmi@vijayakumars.com

We declare no competing interests.

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