TPM Vol. 33, No. S1, 2026
ISSN: 1972-6325
https://www.tpmap.org/

FROM CLUSTER TO CONTAINMENT: SUICIDE CONTAGION IN PAKISTANI UNIVERSITIES AND A PUBLIC-HEALTH SURVEILLANCE FRAMEWORK FOR PREVENTION

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ABSTRACT

Background: Recent temporally proximate suicide attempts and deaths among university students in Pakistan highlight a recurring challenge for higher-education institutions. While individual clinical vulnerabilities remain central, repeated events within shared academic environments may indicate short-term population risk rather than isolated crises. Conventional responses typically emphasize post-incident counselling and investigation, offering limited mechanisms for preventing recurrence within exposed peer groups.

Conceptual Approach: This paper presents a conceptual public-health framework grounded in behavioural contagion theory and institutional risk-management principles. Instead of attempting to prove a statistically confirmed cluster, the observed pattern is interpreted as consistent with exposure-mediated risk dynamics documented in cohesive social settings. The analysis therefore shifts the preventive focus from explaining individual behaviour to stabilizing risk within a defined community following a sentinel event.

Proposed Framework: We propose a Campus Suicide Early-Warning and Response System (SEWRS) structured around three operational stages: detection, triage, and containment. Detection relies on routinely collected administrative indicators of functional deterioration such as sustained absenteeism, abrupt academic decline, and social withdrawal. Triage introduces proportional supportive outreach and counselling based on severity. Following a suicide attempt, time-limited containment measures, including structured communication, targeted outreach, and temporary academic flexibility, aim to reduce escalation among exposed peers. Governance mechanisms and privacy safeguards are incorporated to ensure non-punitive implementation suitable for resource-limited settings.

Implications: By organizing existing institutional practices into a coordinated preventive process, SEWRS reframes suicide from a solely clinical matter to a campus safety concern amenable to population-level intervention. The framework offers universities a feasible method to act prospectively after sentinel indicators appear, enabling transition from reactive response to anticipatory prevention without requiring extensive new resources.

Keywords: Suicide Contagion; University Student Mental Health; Public-Health Surveillance; Cluster Prevention; Early-Warning System

INTRODUCTION - RECOGNIZING A PATTERN, NOT PROVING ONE

Recent reports describe multiple suicide attempts and deaths among university students in Lahore occurring within a compressed time frame and across separate campuses; these temporally proximate events constitute a signal that merits population-level interpretation rather than purely anecdotal treatment [1-4]. In epidemiological terms, repeated adverse outcomes clustered in a bounded social environment are plausibly consistent with a cluster phenomenon and therefore warrant inquiry into shared exposure and transmission mechanisms [5].

Public-health decision making does not depend solely on statistical confirmation of clustering but on the plausibility of shared risk within a defined population. When an outcome is severe, recurrence uncertain, and preventive intervention low-risk, precautionary action may be justified at the threshold of credible transmission rather than numerical certainty. In such circumstances, the objective is not to prove causation retrospectively but to reduce the probability of repetition prospectively [6].

At present, institutional and public responses in Pakistan frame each event largely as an isolated clinical or familial tragedy, attributing causation to individual depression, family conflict, moral failing, or misconduct [7]. Such individualizing explanations have practical consequences: they orient prevention toward post-event counselling and investigation rather than toward surveillance or population protection. This clinical-case model risks leaving an altered social environment unexamined and the exposed peer network unprotected, particularly in residential, high-stakes academic settings where identification and social modelling are likely to be strong [8].

This paper does not claim to definitively demonstrate that the Lahore sequence constitutes a statistically validated cluster; rather, it argues that the observed pattern is consistent with known mechanisms of behavioural contagion and that this consistency alone justifies consideration of population-level prevention measures. Conceptual papers are judged on logical coherence and evidence synthesis rather than on original patient data; accordingly, this manuscript presents a theory-driven public-health framework grounded in empirical findings from the contagion literature and in principles of outbreak risk management. It therefore combines theoretical exposition with pragmatic, implementable institutional proposals suitable for low-resource university settings.

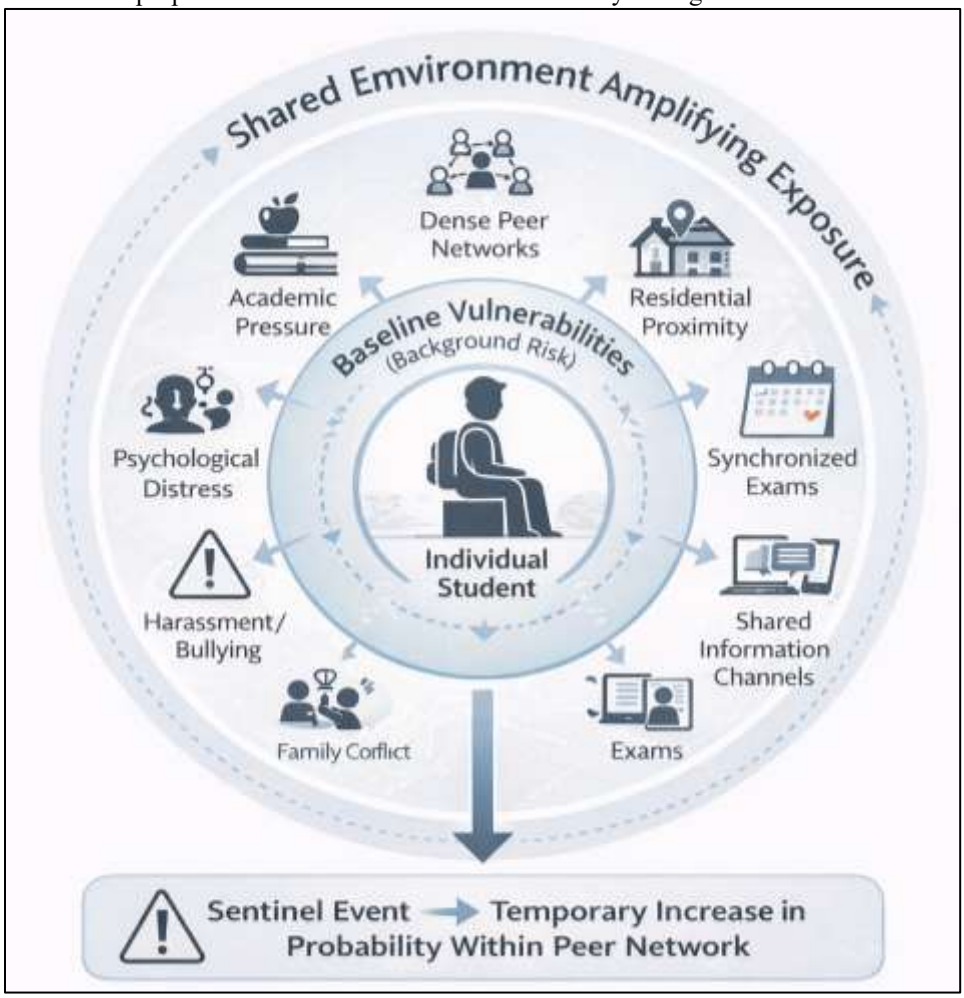

Figure 1. Conceptual illustration of how baseline vulnerabilities and shared university environments interact to produce short-term exposure risk within peer networks following a sentinel event

Anticipating common objections, three clarifications are essential. First, not all temporally proximate suicides imply contagion, shared structural stressors may produce clustered outcomes without direct imitation. Second, the proposed response prioritizes non-punitive, privacy-preserving measures and is designed to minimize false-positive harms. Third, surveillance here means the systematic use of existing administrative indicators to trigger supportive outreach, not intrusive monitoring of private communications [9].

On this basis, the paper contends that student suicides in Pakistani universities exhibit characteristics consistent with contagion-driven clustering and thus merit a surveillance-and-containment approach analogous in operational logic (though not literal mechanism) to outbreak control. The next section articulates the conceptual foundations that justify this shift in preventive orientation. The framework is not specific to Lahore and is intended to apply to any higher-education setting where temporally proximate student suicides occur within cohesive peer networks.

3 SUICIDE AS A POPULATION PHENOMENON (CONCEPTUAL FOUNDATION)

Suicidal behaviour has traditionally been examined within clinical psychiatry as the outcome of individual vulnerability, typically involving mood disorders, acute stressors, or impaired coping capacity. Contemporary research, however, indicates that suicidal acts may also display population-level dynamics when individuals are embedded within tightly connected social environments. Exposure to suicidal behaviour can alter perceived behavioural options during crisis, increasing the probability of imitation independently of underlying psychiatric prevalence [10]. The phenomenon therefore reflects not only individual susceptibility but also social transmission processes. Classical sociological theory recognized suicide as socially patterned, and contemporary contagion research refines this observation by describing mechanisms through which behaviour becomes cognitively available within peer networks.

3.1 Mechanisms of behavioural contagion

Behavioural contagion operates through several interacting pathways. Social modelling provides a behavioural script during distress, particularly when the observed individual occupies a similar social role [11]. Among university students, shared academic trajectories and evaluative pressures increase the perceived relevance of another student's coping behaviour. The act becomes interpretable as a response available within the same situational constraints rather than an unrelated personal event.

Identification strengthens this effect. Young adults are more likely to internalize behaviour demonstrated by peers of comparable age, status, and aspiration [12]. The psychological distance between observer and actor narrows, making behavioural transfer cognitively plausible. This does not imply deliberate imitation; rather, the behaviour becomes conceivable within the observer's own decision space.

Normalization follows repeated exposure. When suicide occurs within a community, discussion and shared interpretation may weaken prior behavioural prohibitions [13]. The act transitions from unimaginable to imaginable, particularly when framed as a reaction to pressures experienced collectively. The shift is subtle and typically unintended, arising from meaning-making rather than encouragement.

Cognitive availability completes the process. During acute distress, decision-making draws on readily accessible behavioural options [14]. A recently observed act therefore becomes disproportionately retrievable, increasing its probability during crisis. Together, these mechanisms do not predetermine outcomes but redistribute risk within an exposed population.

3.2 Why universities amplify transmission

Universities represent environments where such redistribution may be intensified. Academic identity frequently carries high personal and social stakes, particularly within competitive professional programs where performance influences long-term mobility [15]. Failure or perceived failure therefore threatens not only academic progression but self-concept.

Peer networks are dense and repetitive. Students share schedules, examinations, and performance comparisons, accelerating information diffusion and shared interpretation. Residential arrangements further increase proximity, embedding events within daily routine rather than distant awareness. Exposure therefore occurs not as isolated information but as a collectively processed experience.

Academic stress also occurs synchronously. Examination cycles align vulnerability across large cohorts, so exposure during these periods may affect many individuals simultaneously. Institutional silence or unstructured communication may unintentionally amplify uncertainty, allowing informal narratives to dominate interpretation [16]. These conditions do not create suicide risk independently but can modify how existing vulnerability is expressed within the population.

3.3 Implications for prevention

If exposure alters short-term probability distribution, the preventive unit shifts from the individual to the exposed group. Treatment remains necessary for affected students, but it does not address increased vulnerability among peers. Public health practice distinguishes between managing a case and stabilizing a population following a sentinel event [17]. Within this framework, a suicide attempt functions as a sentinel indicator indicating temporary elevation of risk within a defined social network.

An alternative explanation is that temporally proximate events arise solely from shared academic stressors rather than behavioural transmission. The two mechanisms are not mutually exclusive: structural pressures may create baseline vulnerability, while exposure modifies short-term probability of action among susceptible individuals. Because the proposed interventions are supportive, brief, and low-intrusion, preventive containment remains justified even if contagion contributes only partially to recurrence.

Recognizing suicide as a population phenomenon does not deny individual pathology; rather, it complements it by identifying an additional layer of preventable harm. Prevention therefore requires mechanisms capable of identifying and supporting those newly at risk following exposure.

In public-health practice, preventive intervention does not require demonstration that transmission has occurred, only that a plausible mechanism exists and the consequence of inaction is severe [18]. Suicide contagion therefore represents a precautionary risk condition rather than a retrospectively provable event, justifying population-level stabilization measures. The next section examines why existing institutional responses are insufficient to address this dynamic and why a structured preventive system becomes necessary.

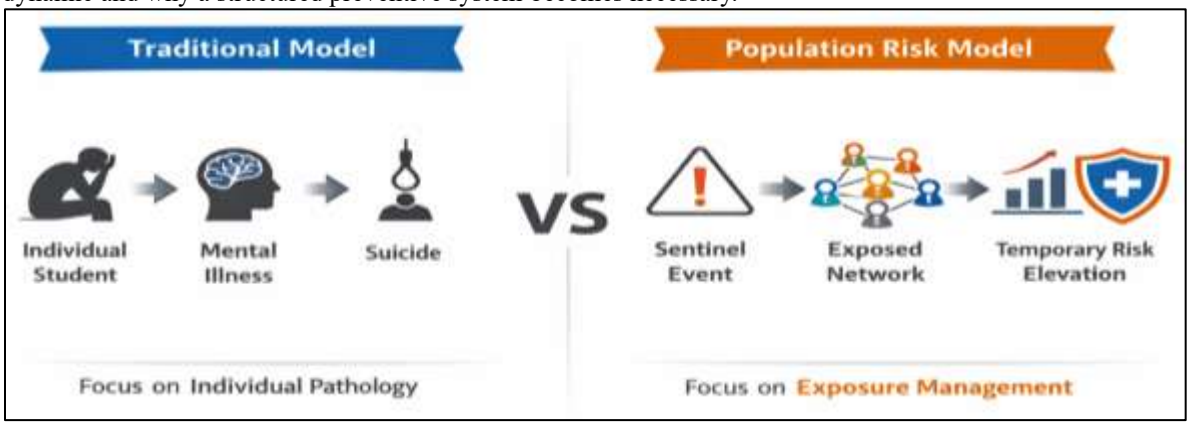

Figure 2: The Core Idea (Conceptual Shift)

Behavioural crises often manifest first as functional deterioration rather than verbalized suicidal intent. In institutional settings, functional markers (attendance disruption, performance collapse, disengagement) represent observable proxies of acute coping failure and therefore provide a practical detection threshold for supportive outreach.

4. WHY CURRENT RESPONSES FAIL

Institutional responses to student suicide in many universities are organized around a case-management logic: acknowledge the incident, determine proximate causes, and restore routine functioning. This sequence is administratively coherent because it addresses accountability, communication, and community reassurance. However, it assumes that risk ends with the affected individual. If suicidal behaviour also modifies short-term risk among exposed peers, the adequacy of a purely retrospective response becomes limited.

4.1 The reaction cycle

After a suicide or serious attempt, institutions typically issue condolences, initiate internal review, and temporarily suspend normal activity. Once the inquiry concludes, operations resume and the event is considered resolved. This approach is effective for documenting events but not for modifying risk conditions within the surrounding population. Investigations reconstruct why the individual acted, yet they rarely assess who may now be vulnerable. Consequently, the response addresses explanation rather than prevention [19].

Repeated incidents within the same environment then appear unexpected because each is interpreted as an independent occurrence. From an administrative perspective this is logical, but from a population-risk perspective it leaves a dynamic condition unmonitored. The structure of response therefore inadvertently maintains a cycle in which reassurance replaces risk stabilization.

4.2 The second-exposure problem

Following a suicide, individuals sharing academic, residential, or social proximity may experience increased identification and rumination. Many will not seek help voluntarily due to stigma, uncertainty, or fear of academic consequences. Passive counselling services therefore reach only a fraction of those affected. The period immediately after the first incident when short-term vulnerability may be elevated receives no proportionate preventive attention [20].

This is not a failure of care provision but a mismatch between service design and probability distribution. Most university support systems rely on self-referral, whereas exposure-related risk often manifests in students who do not self-identify as needing mental-health services. Without structured outreach, elevated risk remains largely invisible until another crisis emerges.

4.3 Structural mismatch

Universities maintain detailed safety procedures for physical hazards such as fire, laboratory accidents, or infectious disease. These include predefined triggers, assigned responsibilities, and time-limited containment actions. Behavioural crises lack comparable operational protocols. Instead, they are managed through ad hoc coordination among administration and counselling services [21].

The difference reflects underlying assumptions: physical hazards are treated as environmental risks requiring population protection, while suicide is treated as a private psychological matter requiring individual care. When exposure potentially alters group vulnerability, this distinction becomes operationally significant. The absence of predefined procedures means the institution cannot transition from explanation to stabilization in the critical period after an incident [22].

Recognizing this mismatch does not imply institutional negligence; rather, it highlights that current frameworks were designed for isolated cases, not for exposure-mediated risk. If the first event changes the probability of subsequent events within a defined community, prevention requires mechanisms that operate prospectively rather than retrospectively. A structured system capable of detecting vulnerability and guiding timely outreach becomes a logical extension of existing safety responsibilities [23].

Without surveillance, the initial incident functions primarily as documentation of harm rather than as an actionable sentinel indicator. Therefore, universities currently manage suicide as a retrospective incident report rather than a prospective safety condition. Without predefined triggers and time-limited containment actions, institutions cannot operationally respond during the period when recurrence risk is elevated. This gap necessitates a structured protocol rather than additional counselling capacity.

5. PROPOSED FRAMEWORK: CAMPUS SUICIDE EARLY-WARNING AND RESPONSE SYSTEM (SEWRS)

The preceding sections suggest that a suicide attempt within a cohesive academic community can alter short-term probability distribution beyond the affected individual. A preventive response therefore requires a mechanism that detects vulnerability early and stabilizes the surrounding population after exposure. The Campus Suicide Early-Warning and Response System (SEWRS) is proposed as an operational model [24]. SEWRS does not introduce a novel prevention philosophy; it operationalizes established safety practices already used in infectious disease control, injury prevention, and postvention protocols by organizing detection, graded response, and time-limited stabilization into a single institutional procedure. The framework does not replace clinical care but organizes institutional action so that support reaches individuals who may not actively seek help.

The structure of SEWRS adapts established prevention logic rather than introducing a novel doctrine. Sentinel events are routinely used in injury and infectious-disease surveillance to trigger focused assessment; stepped triage models allocate support proportionate to risk severity; and time-limited monitoring windows are applied in outbreak control to stabilize risk following exposure. The framework therefore translates existing public-health practice to behavioural risk management within educational institutions [25].

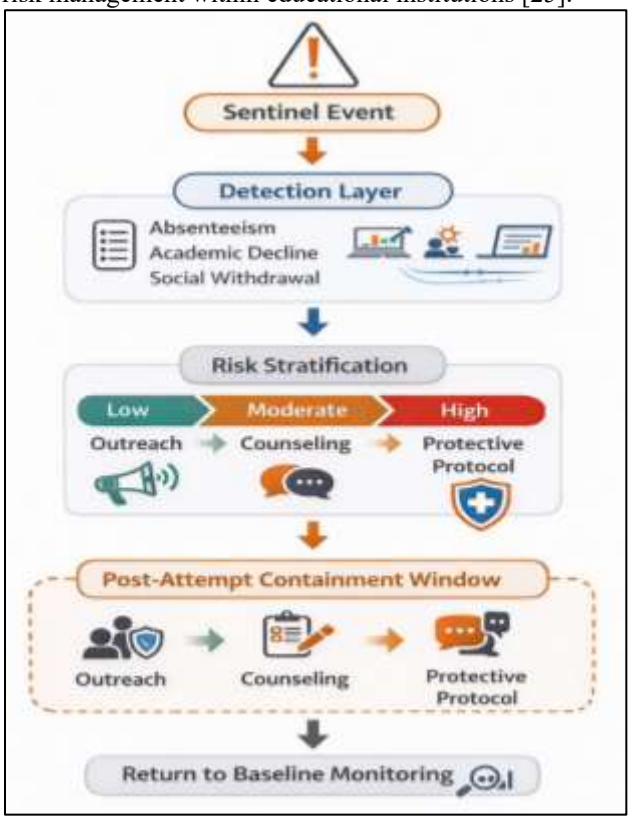

Figure 3: The SEWRS Operational Workflow

5.1 Public-health logic

Public-health systems routinely distinguish between background conditions and triggered risk states. Certain events such as the first confirmed infectious case in a closed setting activate monitoring and outreach because the probability of additional cases temporarily increases [26]. SEWRS applies comparable operational logic without implying biological transmission. A suicide attempt functions as a sentinel signal indicating that vulnerability within a defined peer network may be elevated for a limited period. In this context, elevation refers to increased likelihood relative to the institution's usual background rate rather than prediction at the individual level.

The objective is therefore prospective stabilization rather than retrospective explanation. The university assumes a coordinating role, linking academic administration, student services, and counselling into a structured response sequence. The emphasis remains supportive and preventive rather than disciplinary.

5.2 Detection (Early Warning)

SEWRS begins with passive surveillance using routine institutional records. Universities already track attendance, academic progress, deferments, and residential reports for administrative purposes. Interpreted collectively, these indicators can reflect deterioration in functioning that often precedes crisis.

Key markers include sustained absenteeism, abrupt decline in academic performance, repeated examination postponement, behavioural or disciplinary alerts, prolonged hostel isolation, and sudden disengagement from normal activities. Individually these signs are nonspecific, but convergence across domains increases relevance. The system therefore evaluates patterns rather than single events [27].

The purpose is not diagnosis but early awareness. When predefined thresholds are crossed, the case moves from routine administration to supportive review by a designated wellbeing team. Because the data already exist, detection requires no invasive screening and does not depend on students self-identifying as psychologically distressed.

The selected indicators represent disruption of routine functioning rather than psychological diagnosis. In crisis development, individuals frequently show withdrawal from expected roles before articulating distress. Universities are uniquely positioned to observe role performance; therefore detection relies on deviation from normal academic participation rather than mental-health screening.

5.3 Alert (Triage Response)

Once detected, cases enter a tiered response structure calibrated to severity. This step converts observation into proportionate action while minimizing unnecessary intervention.

Low-level indicators trigger informal outreach. A trained staff member or peer mentor contacts the student to address academic barriers and offer guidance. The interaction is framed as academic support to maintain normalcy and reduce stigma.

Moderate-level patterns prompt referral to counselling with scheduled follow-up. The emphasis is continuity rather than single-session advice, ensuring that students who might otherwise disengage remain connected to support.

High-level risk, particularly following a recent suicide exposure, activates protective procedures. These may include urgent assessment, temporary workload adjustments, and involvement of trusted support persons where appropriate. The aim is stabilization, not restriction, and decisions are time-limited and reviewable.

Tiered response aligns resource use with need. Most students receive brief supportive contact, while intensive care is reserved for a smaller group demonstrating significant deterioration.

5.4 Containment (Post-Attempt Protocol)

If a suicide attempt occurs, SEWRS shifts from individual triage to population containment for a defined monitoring period. Exposure-related suicide risk is typically temporally concentrated rather than indefinite; prolonged monitoring would create unnecessary intrusion and institutional mistrust. Therefore, containment is intentionally finite, analogous to post-incident safety precautions in other hazard domains, balancing prevention with autonomy.

Structured communication: The institution issues a concise factual notice acknowledging the event and directing students to support resources. Avoiding detailed descriptions reduces interpretive amplification while preventing rumor proliferation [28].

Targeted outreach: Students sharing close academic or residential proximity receive brief supportive check-ins from trained faculty or peer supporters. The purpose is to identify distress early rather than to conduct formal psychological screening.

Time-limited monitoring: For several weeks following the event, counselling access is prioritized for affected cohorts. The monitoring interval is intentionally brief and finite because exposure effects are typically temporally concentrated rather than persistent, and prolonged observation risks unnecessary intrusion. Monitoring duration is predefined to prevent indefinite observation while covering the period of greatest vulnerability.

Academic flexibility: Temporary adjustments such as deadline extensions or attendance accommodations are permitted during the stabilization window. These measures reduce acute pressure without altering long-term academic standards.

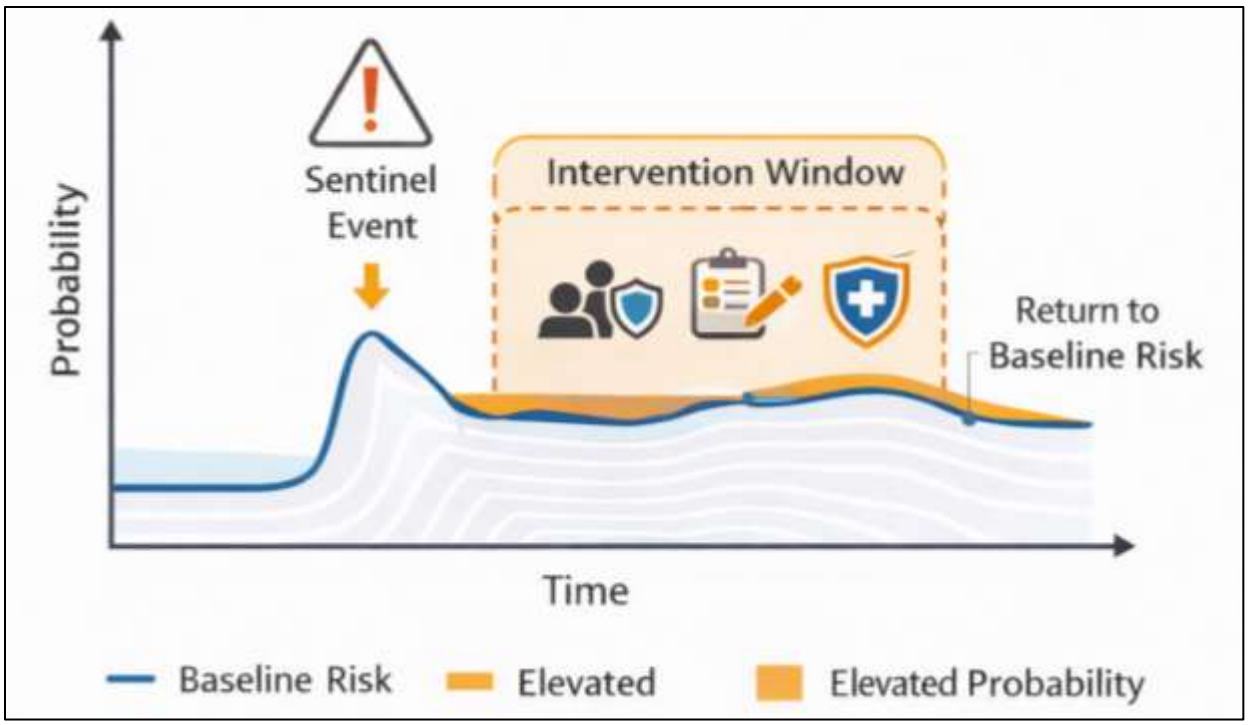

Figure 4: Post-Attempt Containment Window

Together these actions are intended to stabilize the post-exposure period during which additional crises are most likely to occur.

5.5 Governance

Implementation requires coordinated responsibility. A campus wellbeing committee comprising student affairs, faculty representatives, and counselling staff oversees detection thresholds and triage decisions. Clear protocols define when administrative data may be reviewed and who may access them.

Regulatory bodies provide oversight by incorporating minimum mental-health safety procedures into institutional accreditation standards. Universities report anonymized process indicators (e.g., outreach completed, follow-ups conducted) rather than personal data, preserving confidentiality while ensuring accountability.

Importantly, SEWRS operates as supportive infrastructure rather than behavioural surveillance. Information is used solely for welfare intervention, not academic evaluation or disciplinary action. Defined boundaries and staff training safeguard against misuse [29].

By organizing existing resources into a predictable response sequence, SEWRS transforms a suicide attempt from an isolated crisis into an actionable early warning, enabling institutions to act during the brief interval when prevention is most feasible.

6. IMPLEMENTATION & ETHICS

The practicality of any preventive framework in low- and middle-income country (LMIC) universities depends on minimizing new infrastructure requirements. SEWRS relies on data already generated through routine academic administration, attendance records, deferment requests, performance trends, and residential reports, thereby reducing reliance on large clinical staffing expansions [30]. Implementation therefore requires coordination rather than substantial financial investment. A small multidisciplinary wellbeing committee can manage detection and triage using existing institutional structures, allowing even resource-limited campuses to operationalize preventive response. The system identifies disruption in academic functioning rather than attempting to infer suicidal intent, thereby avoiding psychological labelling and maintaining an educational rather than diagnostic role.

Because surveillance-oriented language can imply intrusion, ethical safeguards must be explicit. SEWRS does not monitor private communications, personal beliefs, or off-campus behaviour. It relies solely on observable academic functioning already documented for educational purposes. Access to this information is restricted to designated wellbeing personnel, and records remain separate from academic evaluation files. Monitoring is time-limited and triggered only by predefined indicators, preventing continuous tracking of students. These boundaries ensure the system functions as targeted support rather than generalized observation.

A central concern is the potential harm of false positives. Some students identified through indicators will not be suicidal but may be experiencing temporary academic difficulty. The framework therefore prioritizes low-intensity initial outreach brief supportive contact framed around academic assistance rather than psychological labeling. No disciplinary consequences follow identification, and participation in counselling remains voluntary except in acute

safety situations. Because early steps involve conversation rather than restriction, the cost of unnecessary intervention remains minimal while the benefit of timely support may be substantial [31].

The approach is intentionally non-punitive. Students are not categorized as high-risk individuals but as members of a community temporarily requiring support after sentinel indicators appear. Academic accommodations are short-term and reversible, preserving fairness while reducing immediate pressure. Staff training emphasizes empathetic communication and confidentiality to maintain trust and reduce stigma, which is particularly important in settings where mental-health disclosure is socially sensitive [32].

The system identifies patterns of functional distress rather than attempting prediction of suicidal intent and therefore does not constitute behavioural surveillance or predictive policing.

Resource allocation also remains realistic. Most cases involve brief check-ins or academic guidance rather than long-term therapy, reserving specialized care for a small subset requiring urgent attention. By aligning intervention intensity with observable need, SEWRS converts prevention from a specialized psychiatric function into a routine component of institutional safety. Under these safeguards, the framework aims to balance early detection with autonomy, enabling prevention without transforming universities into monitoring authorities [33]. The framework is less applicable in settings lacking stable student cohorts or where exposure networks cannot be reasonably identified.

The framework assigns responsibility to administrative structures rather than individual clinicians, positioning suicide prevention within institutional duty of care comparable to other student safety obligations.

7. CONCLUSION - FROM EVENT TO PREVENTION

Student suicide within universities is commonly approached as an unpredictable personal tragedy requiring compassionate response after occurrence. However, recurrent incidents within shared academic environments suggest that at least part of the risk emerges at the level of the community rather than solely within the individual. When exposure transiently elevates vulnerability among peers, the preventive responsibility of institutions extends beyond counselling availability toward structured risk stabilization.

The framework proposed here advances a shift in orientation: from explaining individual acts to managing population risk. In this view, a suicide attempt functions as a sentinel safety event indicating the need for time-limited monitoring and supportive outreach within an exposed network. The objective is not to medicalize academic life but to recognize that educational environments already accept responsibility for preventing foreseeable harm in other domains. Behavioural harm may warrant comparable preparedness when patterns indicate elevated probability rather than coincidence.

Reframing suicide in this manner does not diminish the importance of clinical care; rather, it situates treatment within a broader preventive system capable of acting before repetition occurs. Institutions that respond only retrospectively rely on reassurance, whereas institutions that respond prospectively support conditions for interruption of escalation. The difference is procedural rather than philosophical.

The practical implication is therefore cautious but clear: the first incident may serve as a sentinel indicator prompting coordinated support rather than solely documentation. The framework therefore offers a defensible basis upon which institutions may consider adopting structured preventive procedures.

DECLARATIONS

Ethics Approval and Consent to Participate: This study is a conceptual public-health framework and does not involve human participants, identifiable data, or institutional records. Therefore, ethical approval and informed consent were not required.

Consent for Publication: Not applicable.

Availability of Data and Materials: No datasets were generated or analyzed during the current study.

Competing Interests: The author declares no competing interests.

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

8. REFERENCES

1. Dawn. (2023, November 12). *Lahore medical student dies by suicide in hostel room*. https://www.dawn.com/news/1788420

2. The News International. (2023, October 16). *Another university student commits suicide in Lahore*. https://www.thenews.com.pk/print/1120985

3. Geo News. (2023, October 13). *Private university student found dead in Lahore hostel*. https://www.geo.tv/latest/514012

4. ARY News. (2023, October 18). Third student suicide reported in Lahore within days. https://arynews.tv/student-suicide-lahore-university/

5. Joiner, T. E. (2005). *Why people die by suicide.* Harvard University Press. https://doi.org/10.4159/9780674037922
6. Tollefsen, I. M., Hem, E., & Ekeberg, Ø. (2012). The reliability of suicide statistics: A systematic review. *BMC Psychiatry, 12*, 9. https://doi.org/10.1186/1471-244X-12-9
7. WHO. (2014). *Preventing suicide: A global imperative.* World Health Organization. https://doi.org/10.1007/978-94-007-3962-1
8. WHO. (2017). *Suicide prevention through means restriction.* World Health Organization. https://doi.org/10.1017/S0033291717001198
9. O'Carroll, P. W., et al. (1996). Suicide contagion and the reporting of suicide. *JAMA, 275*(4), 335–339. https://doi.org/10.1001/jama.275.4.335
10. Mars, B., et al. (2015). Exposure to suicidal behaviour and risk of self-harm. *The Lancet Psychiatry, 2*(5), 431–439. https://doi.org/10.1016/S2215-0366(15)00062-5
11. Abrutyn, S., & Mueller, A. (2014). Are suicidal behaviors contagious? *American Sociological Review, 79*(2), 211–227. https://doi.org/10.1177/0003122413519445
12. Durkheim, E. (1897/2005). *Suicide: A study in sociology.* Routledge. https://doi.org/10.4324/9780203994320
13. Insel, T. R., & Gould, T. D. (2008). Warnings about antidepressants and suicide risk. *American Journal of Psychiatry, 165*(6), 693–695. https://doi.org/10.1176/appi.ajp.2008.08030310
14. Klonsky, E. D., & May, A. M. (2015). The three-step theory of suicide. *International Journal of Cognitive Therapy, 8*(2), 114–129. https://doi.org/10.1521/ijct.2015.8.2.114
15. Auerbach, R. P., et al. (2018). WHO world mental health surveys among college students. *Journal of Abnormal Psychology, 127*(7), 623–638. https://doi.org/10.1037/abn0000362
16. Mortier, P., et al. (2018). The prevalence of suicidal thoughts and behaviors among college students. *Psychological Medicine, 48*(4), 554–565. https://doi.org/10.1017/S0033291717002214
17. Silverman, M. M., et al. (2007). Rebuilding the tower of Babel: A revised nomenclature for suicidal behaviors. *Suicide and Life-Threatening Behavior, 37*(3), 248–263. https://doi.org/10.1521/suli.2007.37.3.248
18. Hegerl, U., et al. (2013). Optimizing suicide prevention programs. *World Psychiatry, 12*(2), 107–114. https://doi.org/10.1002/wps.20041
19. Cox, G. R., et al. (2012). Suicide postvention in schools: A systematic review. *Crisis, 33*(3), 173–184. https://doi.org/10.1027/0227-5910/a000125
20. Maple, M., et al. (2017). Peer exposure and suicide bereavement. *Death Studies, 41*(3), 159–166. https://doi.org/10.1080/07481187.2016.1265549
21. Centers for Disease Control and Prevention. (2012). *Suicide cluster response guidelines.* https://doi.org/10.15620/cdc:12525
22. Robinson, J., et al. (2016). School-based suicide prevention programs. *The Lancet Psychiatry, 3*(10), 946–958. https://doi.org/10.1016/S2215-0366(16)30130-1
23. Wasserman, D., et al. (2015). School-based suicide prevention: SEYLE study. *The Lancet, 385*(9977), 1536–1544. https://doi.org/10.1016/S0140-6736(14)61213-7
24. Mann, J. J., et al. (2005). Suicide prevention strategies: A systematic review. *JAMA, 294*(16), 2064–2074. https://doi.org/10.1001/jama.294.16.2064
25. Stanley, B., & Brown, G. K. (2012). Safety planning intervention. *Cognitive and Behavioral Practice, 19*(2), 256–264. https://doi.org/10.1016/j.cbpra.2011.01.001
26. Thacker, S. B., et al. (2012). Public health surveillance in the United States. *MMWR Supplements, 61*(3), 3–10. https://doi.org/10.15585/mmwr.su6103a2
27. Bilsen, J. (2018). Suicide and youth: Risk factors. *International Journal of Environmental Research and Public Health, 15*(4), 807. https://doi.org/10.3390/ijerph15040807
28. Niederkrotenthaler, T., et al. (2010). Role of media guidelines in suicide prevention. *British Journal of Psychiatry, 197*(3), 234–243. https://doi.org/10.1192/bjp.bp.109.074633
29. Large, M., et al. (2017). The false positive problem in suicide prediction. *BJPsych Open, 3*(6), 277–282. https://doi.org/10.1192/bjpo.bp.117.005983
30. Patel, V., et al. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet, 392*(10157), 1553–1598. https://doi.org/10.1016/S0140-6736(18)31612-X
31. Shatte, A. B. R., et al. (2019). Machine learning in mental health risk detection. *Journal of Medical Internet Research, 21*(7), e14802. https://doi.org/10.2196/14802
32. Kutcher, S., Wei, Y., & Coniglio, C. (2016). Mental health literacy interventions in schools. *Canadian Journal of Psychiatry, 61*(3), 154–158. https://doi.org/10.1177/0706743715616609
33. Hawton, K., Saunders, K. E. A., & O'Connor, R. C. (2012). Self-harm and suicide in adolescents. *The Lancet, 379*(9834), 2373–2382. https://doi.org/10.1016/S0140-6736(12)60322-5