Pak J Med Res
Vol. 56, No. 4, 2017

Editorial

Trends and Predictors of Suicides in Pakistan

Salima Mansoor Kerai
Department of Paediatrics, Aga Khan University, Karachi.

Someone in the world is taking their lives in every 40 seconds.[1] Act of suicide suggest a cry for help. Rosenberg et al. defined suicide as "a death arising from an act inflicted upon oneself with the intent to kill oneself".[2] Burden of suicide is huge; more than 800,000 people loose their lives annually and three quarters of it occur in low and middle income countries (LMICs).[3]

Suicide is considered to be second leading cause of death among adolescent and youth (15-29 years),[3] which is considered as the most productive years in lifespan of an individual. It is considered to be thirteenth leading cause of years of life lost globally and tenth leading cause of mortality in South Asia from 1990-2010.[4] India and China contributes half to this burden.[5] An epidemiologic review from Asia showed that Asians have a higher average suicide rates as compared to West with less elderly population involved.[6] The reported suicide rates in South Asia appears to be higher as compared to global average, with a rate of 43 per million people in Pakistan.[7]

World Health Organization (WHO) reported an estimated 13,000 suicide cases in Pakistan in 2012 which has risen considerably over years. The actual estimates would be much higher as there are issues of under-reporting due to the legal offence and religious condemn attached to act of suicide.[8] The paucity of data on this important problem lags people behind to understand the gravity of situation.

Pakistan is a sixth most populous country situated in South Asia with an estimated 184.35 million people. The country is experiencing an early phase of the demographic transition with the majority of young population, implying the country is either at high risk or probably have high under-reported burden of suicide.

A seven years review from Pakistan showed that there are approximately 119 suicide cases with 2000-4000 deliberate self-harm cases reported every year.[9] Police records of the country suggests that the trend of suicide has increased in last 15 years (1985-1999); the lowest number cases 90 in 1987 and maximum 360 cases in 1999, with organophosphate poisoning most commonly used method followed by hanging to cause self-harm.[10] Pakistan has one of the highest reported figures of suicide amongst muslim majority countries in the world while incidence of suicide is lower as compared to western countries; as Islam condemns suicide-declaring it a major sin. This anamoly of higher rates of suicide in Pakistan can be attributable to but not limited to socio-economic determinents such as hopelessness, violence, social exclusion, marginalization of minorities, injustice and inequities in distribution of resources, lack of economic opportunities and social security, lack of institutional scaffolding for health and education, rising religious conservatism, instability in political and state operated institutions, unplanned growth, rapid urbanization leaving no room for arts and culture including lack of recreational and public spaces and expression.

An alarming rise of suicides rates have been reported among teens and youths in Pakistan. Any disability, morbidity or mortality in this age can have huge social, psychological and economic consequences for individual, families and societies. Such costs are high, if a person is a sole income provider and belongs to a resource scarce country like Pakistan. A study from a tertiary care hospital from Pakistan, estimated the mean cost of patients with suicide who discharged from emergency department to be 55.6 USD (range 10-294 USD) and mean cost of admitted patients was 255 USD (range 14-1695 USD) with median stay of two days.[11] Moreover, people with suicide not only over burden their family but also health care resources and society in all aspects. Evidence from the country statistics suggest that the Karachi has the highest counts for suicide (1379) from 1995-2001 and have the highest crude rate of suicide (i.e. 2.12 per annum) after Faisalabad when compared to other big metropolitan cities of the country.[12] These statistics reflect the high burden of suicide in Karachi, which is considered as an economic hub of the country and hence has implication in terms of preventive and screening programs.

Common methods of suicide reported from the local context includes hanging, poisoning (most common is organophosphate ingestion), drowning and burning.[13-15]

Corresponding Author:
Salima Mansoor Kerai
Department of Paediatrics
Aga Khan University, Karachi.
Email: salima.kerai@aku.edu

Received: 19 July 2017, **Accepted:** 12 December 2017,
Published: 22 December 2017

Less common methods include use of firearm, jumping from height or in front of train, and drug overdose.[13] Environmental factors includes access to means like pesticide, firearms, medication and exposure to inappropriate media portrayal.[1] Societal and family related factor includes history of experiencing natural disaster, trauma, abuse and discrimination in early life.[1] Notably sense of isolation, lack of social support, relationship conflicts, family discords, loss and separation also puts a person at higher risk for such acts.[1] Personal factors includes age, gender, marital status, mental health of the person. Pooled relative risk of suicide is found to be highest for depression among all other mental and substance abuse disorder (PRR: 19.9; 95% CI 9.5-41.7).[16]

Data from Global burden of disease suggest that suicide affects more male than female.[4] However, these factors varies from place and context. For instance, a hospital study based in Karachi showed that majority of people committing suicide were female (63.8%), married (92.8%) and more than 14 years of age (89.9%).[8] The findings also showed that 76.3% attempts were made with an intent to die with no history of mental illness (91.3%). Other reported risk factors for suicide from Karachi includes, low socio-economic status,[9] unemployment and negative life events.[17]

Insights into the burden, pattern of injury and its predictors provide a window of opportunity to intervene, particularly those factors which are modifiable factors and are feasible to tap at the primary prevention level. Unfortunately, stigma associated with mental health creates barrier in seeking help and closes the window of opportunity to intervene. However, passive intervention for targeted action includes, but not limited to effective legislation and restricting access to means (firearm, poison). Other preventive actions that can employed for public and high risk group in educational or institutional settings can be periodic mental health screening, peer support group, helpline (where they can share their worries or cries) and awareness programs on adaptive coping and tackling with health issues among youth. Timely attention and consideration can prevent the cascade of events to happen and reduce the burden of this neglected public health problem.

Conflict of interest: None declared.

References

1. World Health Organization. Preventing suicide: A global imperative. 2014 (Accessed on 12th December 2017) Available from http://www.who.int/mental_health/suicide-prevention/world_report_2014/en/
2. Rosenberg ML, Davidson LE, Smith JC, Berman AL, Buzbee H, Gantner G, et al. Operational criteria for the determination of suicide. J Forensic Sci 1988; 33(6): 1445-56.
3. World Health Organization. Suicide data. 2014. (Accessed on 12th December 2017) Available from URL: http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/.
4. Lozano R, Naghavi M, Foreman K, Lim S, Shibuya K, Aboyans V, et al. Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. The Lancet 2013; 380(9859): 2095-128.
5. Phillips MR, Cheng HG. The changing global face of suicide. The Lancet 2012; 379(9834): 2318-9.
6. Chen YY, Wu KCC, Yousuf S, Yip PS. Suicide in Asia: opportunities and challenges. Epidemiologic reviews 2011; 34(1):129–44.
7. Jordans MJ, Kaufman A, Brenman NF, Adhikari RP, Luitel NP, Tol WA, et al. Suicide in South Asia: a scoping review. BMC Psychiatry 2014;14:358.
8. Syed EU, Khan MM. Pattern of deliberate self-harm in young people in Karachi, Pakistan. Crisis 2008; 29(3): 159-63.
9. Shahid M, Hyder AA. Deliberate self-harm and suicide: a review from Pakistan. Int J Inj Contr Saf Promot 2008; 15(4): 233-41.
10. Khan MM, Ali Hyder A. Suicides in the developing world: Case study from Pakistan. Suicide Life Threat Behav 2006; 36(1): 76-81.
11. Shahid M, Khan MM, Naqvi H, Razzak J. Cost of Treatment of Deliberate Self-Harm. Crisis 2008; 29(4): 213-5.
12. Khan MM, Naqvi H, Thaver D, Prince M. Epidemiology of suicide in Pakistan: determining rates in six cities. Arch Suicide Res 2008; 12(2): 155-60.
13. Khan MM. Suicide on the Indian subcontinent. Crisis 2002; 23(3): 104-7.
14. Rafiq R, Akhtar U, Farooq U, Khan M, Bhatti JA. Emergency care outcomes of acute chemical poisoning cases in Rawalpindi. J Acut Dis 2016; 5(1): 37-40.
15. Akhtar U, Syed NM, Malik IA, Rafique I, Bhatti JA. Quality of Medical Reporting of Self-Poisoning Cases in a Teaching Hospital, Islamabad, Pakistan. Sucidology Online 2015; 6(2): 13-20.
16. Ferrari AJ, Norman RE, Freedman G, Baxter AJ, Pirkis JE, Harris MG, et al. The burden attributable to mental and substance use disorders as risk factors for suicide: Findings from the Global Burden of Disease Study 2010. PloS One 2014; 9(4):e91936.
17. Khan MM, Mahmud S, Karim MS, Zaman M, Prince M. Case–control study of suicide in Karachi, Pakistan. Br J Psychiatry 2008; 193(5): 402-5.