

## Association between Unemployment and Suicide during COVID-19

Kanwar Hamza Shuja, Jumserna Saluan, Arfa Mubeen & Tayyaba Zahoor

### Abstract

**Background:** The current pandemic has disrupted the whole globe in a couple of months and along with it has brought several major issues. One of those global threats is the rapidly increasing unemployment and the impending threat of suicides associated with it.

**Methods:** Through a narrative review analysis the current study has tried to identify the probable rate of suicides by utilizing the findings of previous literature.

**Results:** The findings suggest that during the previous economic recession period of 2008, there was an exponential increase in the suicide rates across the globe between 20% to 30%. Likewise, the current pandemic scenario also indicates towards a massive unemployment rate, which could eventually lead to an increase in the suicidal rates.

**Conclusions:** The present condition is in dire need for policies and interventional strategies to encounter this issue at hand. The current review is an effort for calling out authorities to take necessary precautionary measures to protect several lives at risk.

**Keywords:** *Unemployment, COVID-19, suicide, recession, policies and interventional strategies*

1. M.Phil Scholar, National Institute of Psychology, Center of Excellence, Quaid-i-Azam University, Islamabad.
2. Assistant Professor, Trauma and Emergency Department, King Saud Medical City, Riyadh, Saudi Arabia.
3. M.Phil Scholar, National Institute of Psychology, Center of Excellence, Quaid-i-Azam University, Islamabad.
4. Department of Animal Sciences, Sargodha University, Sargodha, Pakistan

Correspondence concerning this article should be addressed to Kanwar Hamza Shuja, National Institute of Psychology, Center of Excellence, Quaid-i-Azam University, Islamabad. Email: [kanwarmphil18@nip.edu.pk](mailto:kanwarmphil18@nip.edu.pk).



## Background

Global pandemic led to the implementation of restrictions as a precautionary measure which has affected the world economy substantially (Fernandes, 2020). It equally adversely affected the organizational sectors causing ample increase in the rate of unemployment (Odoemenam, 2020). In a study conducted by Nordt et al. (2015), the effect of unemployment was statistically modelled on suicide, based on published data provided by 63 states of the world. It was observed that during 2000 to 2011 which suffered the economic crisis of 2008, the suicide rate had record increase of 20% to 30% due to unemployment (Nordt et al., 2015).

Similarly, in developing countries like that of Pakistan, there is already a lack of employment. According to a report by World Bank the employment ratio in Pakistan was 57.4 %, during the fiscal year of 2019 (World Bank, 2019). With current lockdown around the country this ratio of unemployment is most likely to increase drastically. It has been estimated that a 2.6% decrease in Pakistan economy is to be expected during this pandemic which could eventually elevate to 11.5% (Asian Development Bank, 2020b, 2020a). Whereas around 12.3-18.5 million occupational losses are assumed by the Pakistan Ministry of planning during the pandemic (Rana, 2020).

### Statistical Estimates of Suicide and Related Factors

Reports found the annual average death rate of 8 hundred thousand due to suicide (World Health Organization, 2020). Estimates of the core model were intercept, unemployment, age and gender which were used to explain the non-linear link between suicide and unemployment. These estimates were applied to jobbers and jobless people of 2019 and to the population of 2018 with two categories of gender, i.e. male and female and four groups of various ages. With given statistics the model gave a prediction of 671,301 deaths by suicide even though the expected was 8 hundred thousand. At that point in time a correlation of 0.17 was added to explain differences in number of countries and time duration (Kawohl & Nordt, 2020).

### Present Condition of Unemployment During Pandemic

The press release of 18<sup>th</sup> March, 2020 from the International Labor Organization reported the anticipating amount of unemployment in the scenario of global pandemic COVID-19 showing difference in unemployment rates depending on scenarios. A decrease of maximum 24.7 million and minimum of 5.3 million employment has been estimated (International Labour Organization, 2020a). The worldwide rate of unemployment is expecting to be increased to 5.08% in case of a low scenario linked with an elevation of 2135 cases of suicide. However, in case of a high scenario, the rate would rise from 4.93% to 5.64% having link with the increase of an annual 9570 case of suicide (International Labour Organization, 2020b).

According to the reports of WHO, every suicide demonstrates association with more than 20 attempts of suicides (World Health Organisation, 2016). Consequently, it increases the services of mental health practitioners in condition of a pandemic as people with mental stress may be seeking help from them (Shuja et al., 2020; World Health Organization, 2014). Reports of 2008's economic crisis

showed surpass of the suicide rate as compare to a substantial increase in joblessness (Reeves et al., 2014). In this pandemic condition there is going to remain another responsibility on the health care system, especially on mental health services and there is need for preparation of medical staff for this burden (Shuja et al., 2020).

### Conclusion

In these hours of need, it is an obligation of practitioners of mental health that they should work on raising awareness in the political and social setup with the context that increase in joblessness has link with rising in cases of suicide. The financially unstable population of countries is going to be affected by downsizing in the economy sector, and only COVID-19 pandemic being focused by medical sector. Therefore, a dire need of online mental health services should be able to respond to people with issues, timely and appropriately.

### Funding

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

**Conflict of Interest:** The authors are well informed and declared no competing interests.

### Acknowledgment

The authors thank all students who participated in the current study.

### Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding authors on reasonable request.

### Author's contributions

KHS: study design, literature search, first draft, manuscript revisions, approval of the final version. JS: literature search, first draft, manuscript revisions, approval of the final version. AM: literature search, manuscript revisions, approval of the final version. TZ: literature search, manuscript revisions, approval of the final version.

### Ethics approval and consent to participate

The integrate study was approved by the National Institute of Psychology Review Board. Written consent was obtained from all participants.

### Competing interests

The authors declare to have no competing interests.

**Received: 11 November 2019 Accepted: 25 July 2020**

**Published online: 01 August 2020**

## References

- Asian Development Bank. (2020a). *An Updated Assessment of the Economic Impact of COVID-19*. <https://doi.org/10.22617/BRF200144-2>
- Asian Development Bank. (2020b). Asian Development Outlook 2020: What Drives Innovation in Asia? *Adb*, 1–391. <https://www.adb.org/sites/default/files/publication/575626/ado2020.pdf>
- Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3557504>
- International Labour Organization. (2020a). *Almost 25 million jobs could be lost worldwide as a result of COVID-19, says ILO*. International Labour Organization (ILO). [https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS\\_738742/lang--en/index.htm](https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_738742/lang--en/index.htm)
- International Labour Organization. (2020b). *COVID-19: Protecting workers in the workplace: Almost 25 million jobs could be lost worldwide as a result of COVID-19, says ILO*. International Labour Organization (ILO). [https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS\\_738742/lang--en/index.htm](https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_738742/lang--en/index.htm)
- Kawohl, W., & Nordt, C. (2020). COVID-19, unemployment, and suicide. *The Lancet Psychiatry*, 7(5), 389–390.
- Nordt, C., Warnke, I., Seifritz, E., & Kawohl, W. (2015). Modelling suicide and unemployment: A longitudinal analysis covering 63 countries, 2000-11. *The Lancet Psychiatry*, 2(3), 239–245. [https://doi.org/10.1016/S2215-0366\(14\)00118-7](https://doi.org/10.1016/S2215-0366(14)00118-7)
- Odoemenam, K. (2020). *Impact Of Covid-19 On The Economy (Global, Africa And Nigeria)*. Medium. <https://medium.com/@kennethodoemenam/impact-of-covid-19-on-the-economy-global-africa-and-nigeria-3af1386726da>
- Rana, S. (2020). *Coronavirus forecast to render 18.5m jobless in Pakistan | The Express Tribune*. Tribune. <https://tribune.com.pk/story/2189904/2-coronavirus-forecast-render-18-5m-jobless/>
- Reeves, A., McKee, M., & Stuckler, D. (2014). Economic suicides in the Great Recession in Europe and North America. *British Journal of Psychiatry*, 205(3), 246–247. <https://doi.org/10.1192/bjp.bp.114.144766>
- Shuja, H. K., Aqeel, M., Jaffar, A., & Ahmed, A. (2020). COVID-19 PANDEMIC AND IMPENDING GLOBAL MENTAL HEALTH IMPLICATIONS. *Psychiatria Danubina*, 32(1), 32–35. <https://doi.org/10.24869/psyd.2020.32>
- World Bank. (2019). *Pakistan - Employment To Population Ratio, Ages 15-24, Male - 1991-2019 Data | 2020 Forecast*. Trading Economics. <https://tradingeconomics.com/pakistan/employment-to-population-ratio-ages-15-24-male-percent-wb-data.html>
- World Health Organisation. (2016). WHO | Suicide data. In *WHO Website* (p. 1). World Health Organization. [http://www.who.int/mental\\_health/prevention/suicide/suicideprevent/en/](http://www.who.int/mental_health/prevention/suicide/suicideprevent/en/)
- World Health Organization. (2014). Preventing suicide: A global imperative. In *Geneva: WHO Press*. World Health Organization.
- World Health Organization. (2020). *Suicide*. [https://www.who.int/health-topics/suicide#tab=tab\\_1](https://www.who.int/health-topics/suicide#tab=tab_1)

## Publisher's Note

Foundation University Islamabad remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.