Short Communication

Social Science Research on Infectious Diseases of Poverty

S. Jyothi Lakshmi,¹ D.C. Nanjunda²

¹Dept. of Economics, Karnataka State Open University, Mysore-INDLA; ²Centre for the Study of Social Exclusion and Inclusive Policy, University Of Mysore, Mysore 06, Karnataka-

Abstract:

World Health Organization (WHO) says since the 1970s, few new infectious diseases have almost quadrupled in developing countries. As per the WHO estimation, around 1.3 billion poor people across the globe are directly suffering from poverty-related infectious diseases including Malaria, Diarrhoea, HIV, Tuberculosis, Dengue, etc. Deprivation, poverty, lack of quality medical care, social exclusion, etc lead to poverty-related infectious diseases. The major aim of the study is to shed light on the significance of social sciences research on infectious diseases of poverty. This paper is based on a review of various literature and other valid sources. The study indicates the connection between infectious diseases and poverty is dynamic and multifaceted. Underserved, marginalized, and socially excluded groups are mainly at greater risk due to their sub-optimal socio-economic status and unscientific health care behavior. Hence, social research on infectious diseases of poverty is needed for the hour. This paper concludes that the conversions of social research into needy health policies and a better concentration on the ground requirement in resource-poor settings are essential. Urgent ground research is required to reveal how poverty is shaped and reshaped, in different cultural settings, and structurally persistent causing different fatal diseases among the most excluded communities.

Corresponding Author | Dr. D.C. Nanjunda, Associate Professor, Centre for the Study of Social Exclusion and Inclusive Policy, University Of Mysore, Mysore 06, Karnataka- **Email:** nanjunda@uni-mysore.ac.in

Keywords: Poverty, Health, Infectious Diseases, Research, Policy

Introduction:

Infectious diseases caused by poverty are a major concern in all developing countries. A variety of infectious diseases afflicting the poorest people are caused by changing social, economic, ecological, cultural, and demographic factors.¹ Because of their disadvantaged background, these poor people are unable to obtain critical, effective, and high-quality medications on time and at a reasonable cost. Poverty, inequality, deprivation, compro-mised immune systems, health disparity, poor health resources, catastrophic expenditure, social exclusion, and vulnerability are frequently identified as major risk factors for infectious disease transmission leading to early mortality and morbidity among the poor.^{1,2} The World Health Organization (WHO) has identified a number of poverty-related diseases, including Dengue Rabies, Trachoma, Leprosy, Malaria, Leishmaniosis, Cysticercoids, Lymphatic Filariasis (Elephantiasis), and other parasitic diseases.³ It has also been found that various infectious diseases can cause disability and stigma causing further poverty.² This is why people have 'pharmacopeia of their own for certain common such diseases in prismatic socities.⁴

What do statistics say? Poverty and related health issues are estimated to kill approximately 14 million people worldwide each year and the three primary povertyrelated diseases are tuberculosis, HIV, and malaria, which account for 18% of diseases in poor countries worldwide.⁵ For example, simple Diarrhoea kills approximately 1.83 million children each year, with the poorest countries accounting for the majority of deaths.⁶ Next, developing countries are responsible for approximately 96.4 percent of global HIV prevalence. Following that, the majority of Sub-Saharan African countries account for 98 percent of Tuberculosis and 90 percent of Malaria deaths⁷. Furthermore, treatable diseases such as Muscles Pertussis and Polio are common among children, accounting for 18% of deaths in poor countries. Infant mortality and maternal mortality are also common factors with a close link to poverty and poor household ecology, accounting for 27 percent of deaths as per the studies.^{7,8}

In India, there is a high burden of diseases that causes a group of parasites and bacteria causing various lifethreatening infections. There is no clear data on how many people in India are affected by poverty-related infectious diseases today. According to the Indian Council of Medical Research (2017) survey, approximately 8.5 million people in India have died as a result of different curable infectious diseases.⁵ However, it is estimated that more than 12 million people in India are directly suffering from one or more types of poverty-related infectious diseases, with the most common being in poor states such as Utter Pradesh, Madya Pradesh, Bihar, Orissa, and West Bengal, where the health system is sub-optimal and poorly managed.⁹

Approximately 1.5 million children die each year for simple reasons such as Diarrhoea and Pneumonia because poor people are unable to afford proper and timely treatment.^{8,9} Every year, nearly 1.8 million underfive children die in India, with more than half of them dying within the first 28 days due to Diarrhoea, Malnutrition, and other causes, in rural and tribal settings.⁹ Further, every year, approximately 20,000 people die as a result of Malaria, and approximately 35,000 people died as a result of tuberculosis in India.¹⁰ Also, approximately 325 people die as a result of Dengue, 325 people die as a result of Chicken gunny, and 23-30 people die as a result of Fascioliasis.¹¹ In India, approximately 120-130 people die each year as a result of Echinococcosis (ICMR, 2017). Next, approximately 100-120 people die as a result of Cysticercoids, and approximately 20,000 people die as a result of Rabbis every year (WHO, 2009).

According to the report, approximately 102.4 million

people in India suffer from Hookworm disease, and 222.2 million suffer from Ascariasis (ICMR, 2017). It has also been found that approximately 1.8 million people in India suffer from Trachoma and approximately 13,530 people suffer from Visceralleishmaniasis (ICMR, 2017). The fact that some-time this number is almost and always underestimated. The most heart breaking news is that the majority of these people are from the lower income group, and these deaths mostly occurred among youth during their peak productive years, and such a burden would normally be underestimated12,13. All these issues are showing a need for an urgent study on poverty and infectious diseases around the globe.

Finally, social researches on infectious diseases of poverty are in the infant stage in India/South Asia. The relationship between poverty and disease is dynamic and multidimensional. Hence, multidisciplinary studies involving medical anthropologists, public health experts, psychologists, and community medicine expert's identify-of-fact solution to reduce or eradicate poverty-related infectious diseases.¹³ We need more action cum diagnostic studies to improve the enrolment of participants from the resources poor settings, which in turn improves infectious disease control programmes. Also, geographical, and cultural-specific health policies with low health cost insurances will be useful in controlling infectious diseases of poverty. Moreover, we need to improve the socio-economic status of the excluded sections in a war foot manner. More medical literature is also needed on the health status of the neglected sections of society.

References:

- 1. Marmot M. Health in an Unequal World. Lancet.2006;368(9552):2081–2094.
- Hotez PJ, Damania. A. India's Neglected Tropical Diseases. PLOS Neglected Tropical Diseases. 2018;12(3):1-3.
- 3. Banerjee K, Dwivedi LK. The burden of infectious and cardiovascular diseases in India from 2004 to 2014. Epidemiology and Health. 2016;38(1):1-10.
- 4. Hotez PJ. Kamath A. Neglected tropical diseases in sub-Saharan Africa: review of their prevalence, distribution, and disease burden. PLoS Neglected

Tropical Diseases. 2009;3(8):412.

- Morris SK, Diego GB, Awasthi S. Diarrhea, Pneumonia, and Infectious Disease Mortality in Children Aged 5 to 14 Years in India. PLOS ON. 2011;6(5):1-7.
- Russell S. The economic burden of illness for households in developing countries: a review of studies focusing on malaria, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome. The American Journal of Tropical Medicine and Hygiene 2004;71(2):147-155.
- Herricks JR, Hotez PJ, Wanga V, Coffeng LE, Haagsma JA. The Global Burden of Disease Study 2013: What does it mean for the NTDs? PLoS Negl Trop Dis. 2017;11(8):e0005424.
- Pinto BC, Velebit L, Shibuya K. Estimating Child Mortality Due to Diarrhea in Developing Countries. Bull World Health Organ. 2008;86(9): 710-717.
- Basu S. Health and Culture among the Underprivileged Groups. Health Millions. 1992;18(1-2):23-24.
- 10. Bhardwaj SM, Paul BK. Medical Pluralism and

Infant Mortality in a Rural Area of Bangladesh. Social Science and Medicine. 1986;23(10):1003-1010.

- Mukherjee S. Emerging Infectious Diseases: Epidemiological Perspective. Indian Journal of Dermatology. 2017;62(5):459-467
- Paranjape RS, Challacombe SJ. HIV/AIDS in India: An Overview of the Indian Epidemic. Oral Diseases. 2016;22(1):10-14.
- Roy N, Basu M, Dasgupta S. Risk factors associated with default among tuberculosis patients in Darjeeling district of West Bengal. India Journal of Family Medicine and Primary Care. 2015;4(3):388-394.

Reports:

- WHO Global report for research on infectious diseases of poverty (2012) Available from: http://apps.who.int/ iris/bitstream/10665/44850/1/9789241564489_eng.p df. Accessed on, 03, Feb 2020.
- Global Report for Research on Infectious Diseases of Poverty (2012)
- 3. Indian Council of Medical Research (ICMR) Report on State-level Disease Burden Initiative in India (2017)