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Leprosy

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ABSTRACT
Leprosy also called as hansen's disease, it is a chronic infectious disease it mainly caused by mycobacterium leprae. Leprosy continue a global health issue, mainly in region with limited healthcare services It has significant social, physiological and economic impact on affect individuals and communities. Affort to adress community impact leprosy focus on raising awareness, reduce stigma, provide the psychological support and access effective medical treatment.

Keywords: leprosy, chronic infection, global health issue, psychological support, access medical treatment

INTRODUCTION

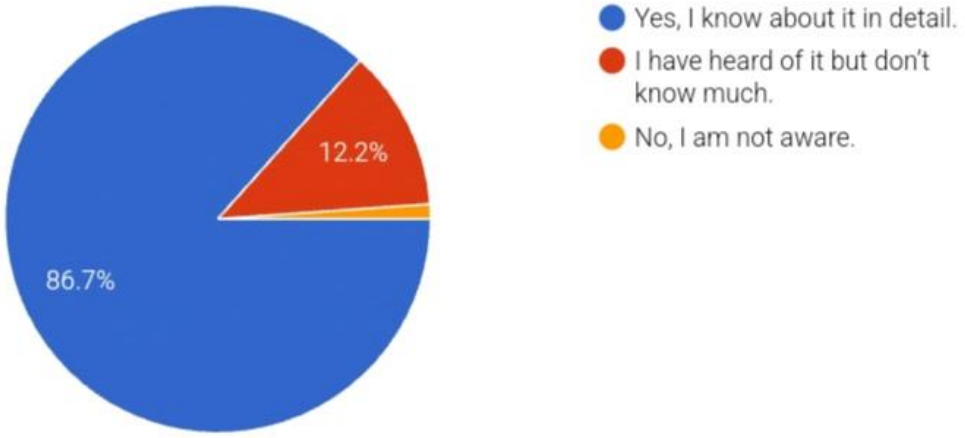
Leprosy, or Hansen's disease (HD), is an ancient bacterial illness that remains a significant public health issue in various parts of the world, despite being curable. It is caused by the bacterium Mycobacterium leprae, which leads to a chronic infection that primarily targets the skin and peripheral nerves but can also affect areas like the eyes, mucous membranes, bones, and testes. The disease manifests in a range of clinical presentations, reflecting its diverse effects on the body.

In the skin, M. leprae interacts with keratinocytes, macrophages, and histiocytes. In peripheral nerves, it invades Schwann cells, disrupting their normal function. Research indicates that keratinocytes play an essential role in producing antimicrobial peptides, such as β-defensin, in response to M. leprae. Once inside the host cell, the bacterium manipulates lipid metabolism to survive, especially in Schwann cells, where it attaches to specific receptors like α-dystroglycan and ErbB2. This interaction initiates changes that transform Schwann cells, allowing the bacterium to proliferate.

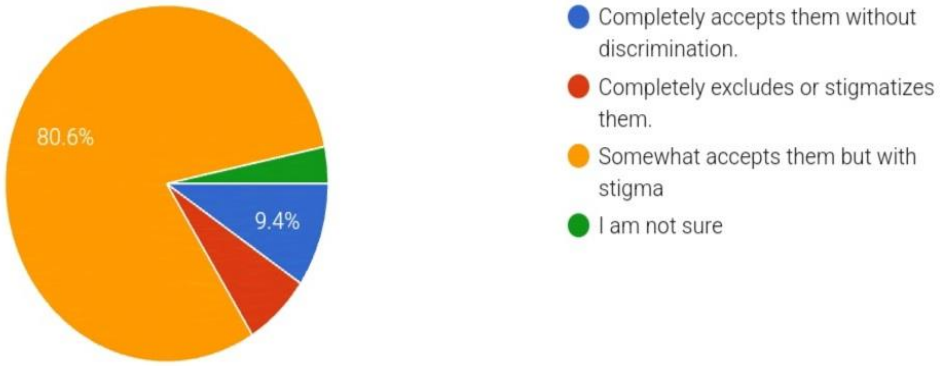
These transformations may lead Schwann cells to adopt stem-cell-like properties, enabling further bacterial spread and triggering the formation of granulomas. The resulting nerve damage causes sensory loss, disability, and deformities, which are hallmarks of leprosy. Nerve infections, compounded by inflammatory reactions known as leprosy reactions, exacerbate sensory dysfunction and disability.

Survey:

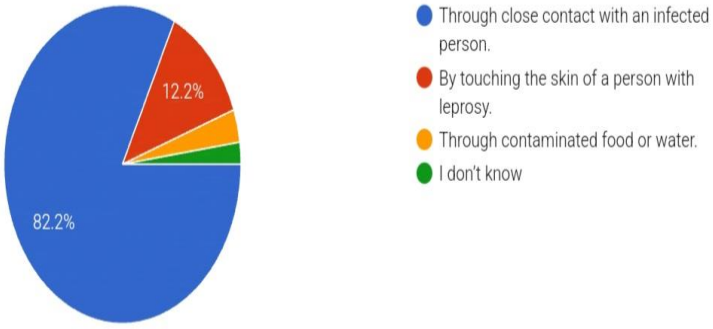
Here we see all about survey among students of Osh State University In our survey 250 people participated, most of the participants from India



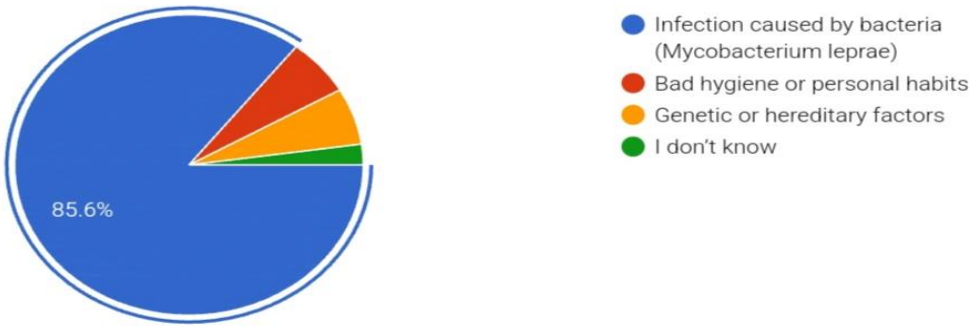
In this figure you can see more than 86.7 of the participants are aware about Leprosy



In this figure you can see 80.6% completely accepts them without discrimination



In this figure you can see that 82.2% participants are believed that leprosy can spread through close contact with an infected person



In this figure you can see that 85.6% of the participants are aware that Leprosy is caused by bacteria

Conclusion

Leprosy, though an ancient disease, continues to challenge global health systems, especially in regions where it remains endemic. Advances in medical treatments, such as multidrug therapy (MDT), have made the disease curable and significantly reduced its prevalence worldwide. However, the long-term complications, including nerve damage, disabilities, and social stigma, persist as major barriers to the complete eradication of its impact.

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