



Opinion Corner

Noma - Africa's "face of poverty"

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ABSTRACT

Today, the most common chronic disease is dental caries or cavities. It is the dreaded conversation you have with your dentist, where they try to convince you that flossing does more than make your gums bleed. However, in places other than the United States, a different oral disease is doing a lot more than being a nuisance. Instead, it is causing hundreds of children to die or be debilitated by sores and holes in their faces. Noma, a disease that is not a household name, deserves to be heard and needs more research attention to eradicate it.

Keywords: Oral health, Noma, Dentistry, Global health, Public health

INTRODUCTION

Noma is a disease caused by a bacteria that is flesh-eating and can cause a gamut of issues. For many children in poverty-stricken countries, there is no light at the end of the tunnel. The survival rate from this disease is about 10%.^[1] This is comparable to the Ebola virus, killing about 90% of those infected.^[2] Nicknamed "the face of poverty," has to do with the way that it attacks people's facial structure.^[3] In most cases, those who are most at risk are those who are malnourished and have reduced oral hygiene. At present, the key to a cure for this disease is catching it early to administer antibiotics. However, in many cases, the patient's oral hygiene is so poor that Noma attacks, and it is too far along by the time they receive help.^[4] My goal is to create awareness about the many lives that are lost every day from Noma. The progression of the disease usually starts with small sores on the inside of one's mouth from trauma or bacteria that have attacked an already gingivitis-ridden mouth.^[3] Next, it can lead to larger sores which become infected with the noma bacteria. In some cases, this can lead to large holes in their face or mouth. Unfortunately, not being caught early enough can lead to facial deformities and difficulties in talking or eating.^[5] In many cases, noma is not reported, and they do not receive care, leading to death.^[1] The worst part about this disease, it could be argued, is that it affects our most vulnerable, which is children. In sub-Saharan Africa, the death toll is about 0.5 – 3% of all child mortality, a true testament to its wrath.^[5] For a completely preventable disease, it is terrible that we still see the prevalence of death that we do. As aforementioned, malnourishment is a "prerequisite" of this disease.^[6] Many children may be undernourished in many vital nutrients their body needs. Thus, their immune system is severely impacted.^[6] As a result, the bacteria can invade. Much of the malnutrition occurs due to the extreme rates of poverty in these areas. In addition, oral health also has a large impact on the children who contract noma. If one's oral hygiene is already lessened due to gingivitis or other oral health diseases, there is a higher risk that they develop noma.^[4]

With all this to say, What do we do? What have we done? In terms of supporting malnutrition, many public health agencies in Africa have aimed at solving this issue for decades, with some

traction in many places. In terms of noma itself, the primary goal for mitigation is education. Those at risk may not know what the disease is and the warning signs to look out for. In addition, they may not have the resources to seek treatment. Thus, the World Health Organization has aimed at providing education for health-care professionals, to bridge the gap between scientists and the general public.^[7] In terms of oral hygiene, many are working to increase oral health screening and prevention as a general health practice, even including it in schools for children.^[7] This aims to hopefully make dental care a necessity and not a luxury. For those who are not at risk, the primary goal is still education. Noma is a largely unrecognized disease, only getting acknowledged as a neglected tropical disease in 2021.^[8] This disease is continuing to kill many children every day. Many have not yet had the opportunity to start their life and will also never get the chance to.

CONCLUSION

Noma is an ever-present disease that deserves to be heard about. Although the prevalence in the United States is low, knowledge must be disseminated to all people everywhere. With this knowledge, I hope that you, as a reader, walk away with a greater understanding of the disease and its impacts. In addition, we need to make Noma a priority. Overall, little is known about the disease, and research needs to be done. The possibility that more deaths could be prevented needs to be at the forefront of oral health research. The children affected by it deserve to have someone hear their story.

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Ethical approval

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Declaration of patient consent

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Conflicts of interest

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Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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