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We Have Never Seen a Dermatologist. Prisons Telederma Project Reaching the Unreachable Through Teledermatology

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Abstract: Background: Atopic Dermatitis (AD) is one of the most prevalent and growing chronic inflammatory skin diseases in African prisons. AD care is limited in African due to a lack of information about the disease amongst primary care workers, limited access to dermatologists, lack of proper training of healthcare workers, and shortage of appropriate treatments. We designed and implemented the Prisons Telederma project based on the recommendations of the International Society of Atopic Dermatitis. We aimed at; i) increase awareness and understanding of teledermatology among prison health workers and ii) improve treatment outcomes of prisoners with atopic dermatitis through increased access to and utilization of consultant dermatologists through teledermatology in Uganda prisons. Approach: We used Store-and-forward Teledermatology (SAF-TD) to increase access to dermatologist-led care for prisoners and prison staff with AD. We conducted five days of training for prison health workers using an adapted WHO training guide on recognizing neglected tropical diseases through changes on the skin together with an adapted American Academy of Dermatology (AAD) Childhood AD Basic Dermatology Curriculum designed to help trainees develop a clinical approach to the evaluation and initial management of patients with AD. This training was followed by blended e-learning, webinars facilitated by consultant Dermatologists with local knowledge of medication and local practices, apps adjusted for pigmented skin, WhatsApp group discussions, and sharing pigmented skin AD pictures and treatment via zoom meetings. We hired a team of Ugandan Senior Consultant dermatologists to draft an iconographic atlas of the main dermatoses in pigmented African skin and shared this atlas with prison health staff for use as a job aid. We had planned to use MySkinSelfie mobile phone application to take and share skin pictures of prisoners with AD with Consultant Dermatologists, who would review the pictures and prescribe appropriate treatment. Unfortunately, the National Health Service withdrew the app from the market due to technical issues. We monitored and evaluated treatment outcomes using the Patient-Oriented Eczema Measure (POEM) tool. We held four advocacy meetings to persuade relevant stakeholders to increase supplies and availability of first-line AD treatments such as emollients in prison health facilities. Results: We have the very first iconographic atlas of the main dermatoses in pigmented African skin. We increased; i) the proportion of prison health staff with adequate knowledge of AD and teledermatology from 20% to 80%; ii) the proportion of prisoners with AD reporting improvement in disease severity (POEM scores) from 25% to 35% in one year; iii) increased proportion of prisoners with AD seen by consultant dermatologist through teledermatology from 0% to 20% in one year and iv)Increased the availability of AD recommended treatments in prisons health facilities from 5% to 10% in one year. Our study contributes to the use, evaluation, and verification of the use of teledermatology to increase access to specialist dermatology services to the most hard to reach areas and vulnerable populations such as that of prisoners.

Keywords: teledermatology, prisoners, reaching, un-reachable

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