A Systematic Review of SMS Appointment Reminders for Reducing Default Rates in Diabetic Retinopathy Screening: An African Perspective, 2009

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Abstract

Diabetic retinopathy is a leading cause of preventable blindness in Africa. High default rates for screening appointments undermine early detection and treatment. Short Message Service (SMS) reminders present a potential low-cost intervention, but their effectiveness within African healthcare contexts requires clarification. This systematic review aimed to synthesise evidence on the effectiveness of SMS appointment reminders for reducing default rates in diabetic retinopathy screening, with a specific focus on African settings. A systematic search of electronic databases was conducted following PRISMA guidelines. Studies were included if they evaluated SMS reminders for diabetic retinopathy screening in any African country. Data on study design, population, intervention, and outcomes were extracted and assessed for quality. The search identified a limited number of eligible studies. No primary research met the inclusion criteria for the specific focus on Khartoum, Sudan. A review of related African studies on SMS reminders for chronic disease appointments indicated a consistent pattern of improved attendance, with one study reporting a reduction in default rates by approximately 15 percentage points. While direct evidence from the specified context is absent, indirect evidence suggests SMS reminders are a promising intervention for improving screening attendance in similar African healthcare systems. The lack of primary research underscores a significant evidence gap for this specific intervention and population. High-quality, context-specific research, including randomised controlled trials, is needed to evaluate the efficacy and cost-effectiveness of SMS reminders for diabetic retinopathy screening in Sudan and comparable settings. Health programmes should consider piloting and integrating such systems within existing infrastructure. diabetic retinopathy, screening, default rates, appointment reminders, SMS, mHealth, Africa, systematic review This review consolidates the available evidence and identifies a critical research gap, providing a foundation for future studies and informing public health strategy for diabetic retinopathy screening in Africa.

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