Commentary

Teledermatology for the many, not the few: Tackling the racial health divide in a digital world

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A R T I C L E   I N F O

"The availability of good medical care tends to vary inversely with the need for it in the population served": The Inverse Care Law, By Julian Tudor Hart, now appears to impact healthcare provision in the digital realm of virtual clinics; meaning, those that require dermatology services the most may have the least accessibility through virtual clinics. Within Dermatology, 'Teledermatology' is a subspecialty which uses interactive, real-time sessions for patients with skin-related problems through modern audio-visual communications. Though teledermatology is one of the commonest applications of telemedicine and e-health, its adoption within all communities, especially in those from the ethnic minority backgrounds needs to be considered: 'ethnic minority' will refer to people of South Asian, Caribbean and African descent. This commentary piece analyses pre-existing inequity in the social determinants of health, health system level barriers and explores the instituting of policies which could facilitate ethnic minority accessibility to the rapid expansion of Teledermatology.

The wider social determinants of health are a central component to the aforementioned Inverse Care Law. In the UK, Ethnic minority families are up to 3-times more likely to be living in poverty compared to White British families [1]; as well as being 7-times more likely to live in overcrowded housing, therefore, lack the privacy requisite for dermatological consultations [2]. The prior decade of the austerity agenda, which has disproportionately harmed ethnic minorities, may limit internet access or good quality computers for video calls to elicit skin problems [3], making teledermatology an unsuitable alternative for many in the ethnic minority community [2]. The pandemic has exacerbated ethnic minority poverty, as people from these communities are 2.1-times more likely to be rendered unemployed compared to White British [4]. Thus, consideration needs to be given to the social determinants of health to ensure ethnic minorities are not excluded from teledermatology accessibility.

During the COVID-19 pandemic, transition to remote consultations in a primary care setting precipitated decreased visits, disproportionately, amongst ethnic minority patients [5]. Whilst yielding increased accessibility for White patients [5]: evidencing a widening of the health system accessibility gap. At the health system level, teledermatology has an additional challenge in facilitating language interpreter access to the remote consultation. This is deleterious for people without English language proficiency, which is recognised as a persistent barrier in engaging with health services by the ethnic minorities [6].

The adoption of teledermatology was borne from a deficit of service provision in geographically isolated areas. In the UK, there are 13 million primary care or general practitioner (GP) consultations for skin conditions every year, yet only 611 dermatology consultants across the country to provide specialist care [7]. This represents a dichotomy between aggregate service use and provision; and this is most palpable in areas of geographical isolation [7]. Teledermatology was instituted as a promising solution to this problem. Yet, international evidence suggests rural communities lack the digital infrastructure prerequisite for remote consulting [8]. The UK has a tangible digital divide with 7% of rural premises lack acceptable internet access, compared to just 1% of urban premises [9]. The systemic inequities of society and lack of infrastructure may pose disadvantageous to the use of teledermatology amongst marginalised groups.

The efficacy of teledermatology is incumbent on the diagnostic acumen of future dermatologists with a wide repertoire of knowledge on diverse skin types and cultural competence. For dermatology undergraduate and postgraduate education, recent attention has been given to skin of colour. Skin pathology in patients from ethnic minority backgrounds can appear different and may not be easily recognisable. This could lead to delayed diagnosis and management with fatal consequences, in both digital and face-to-face settings. This is exemplified in international evidence, with African Americans in the United States having the lowest 5-year survival rates for melanoma skin cancer: 66% compared to 90% in White individuals [10]. The need for 'decolonising' the medical curriculum has been widely recognised across UK institutions. The implementation of teledermatology heavily relies on the pioneering steps taken by the British Association of Dermatologists (BAD) to diversify the undergraduate curriculum.

With the advent of a 'new normal' and use of virtual platforms, the expansion and adoption of teledermatology seems inevitable. To allow for a more equitable use, we propose a realistic system-wide,

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Table 1

Policy recommendations facilitating equitable accessibility to teledermatology by ethnic minorities, with a time-specific focus.

HIGHLIGHTED ISSUES	POLICY RECOMMENDATIONS
The digital divide and technology gap.	**Short term**: A call for internet providers to scrap data limits and reduce costs in order to mitigate the impact of poverty. This was initially a recommendation to increase accessibility to education during the pandemic; though, it may also be translated to equity of access to teledermatology. **Medium Term**: Increase Government funding for Local Authorities in the most deprived areas to address the digital divide and technology gap amongst ethnic minorities. **Long term**: Introduce a universal basic services model which includes quality broadband, would facilitate a teledermatology service for all.
The health system level barriers.	**Short term**: Ensure teledermatology infrastructure and workflow practice allows easy language interpreter access to mitigate English Language proficiency barriers amongst ethnic minorities to teledermatology services. **Medium Term**: All new digital services should undergo robust evaluation to ensure they are effective and impact assessments to ensure their accessibility and availability to patients from *all* communities with the alternative of face-to-face being always available if patients prefer. **Long term**: Healthcare providers could consider collaborating with local organisations such as public libraries and community centres to supply private office spaces with provision of interpreter services. Teledermatology services could then be accessed by patients living in overcrowded housing, disproportionately from ethnic minorities.
The social determinants of health.	**Short term**: Ethnic minorities are 7-times more likely to live in overcrowded households; often multigenerational households. Allow flexibility during teledermatology consultations for patients to turn their video off or conducting audio-only visits by telephone when clinically appropriate. **Medium term**: Include focus on diverse skin types and understanding cultural practices in communities within undergraduate and postgraduate dermatology & medical education curricula. **Long term**: A concerted effort must be taken by the health systems, the Government, and local community leads to increase health literacy amongst ethnic minorities in order to facilitate a smoother transition to teledermatology, and telemedicine more generally. Poor accessibility to services may yield lower trust levels in doctors and an invasion of privacy when accessing teledermatology services within a patient's home. This could be overcome through patient education and empowerment through multi-collaborative agencies.

evidence-based policy for a more egalitarian teledermatology service. This is illustrated in Table 1.

Through ensuring equitable accessibility with a diverse set of policy, including an intersectional curriculum, the frontier of teledermatology may provide for the many, not just the few.

Declaration of Competing Interest

The authors have nothing to declare.

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