

Creating inclusive digital health resources for marginalised culturally diverse families: a call to action

Jeslyn Teng kawan ,^{1,2} Richa Agnihotri,³ Ripudaman Singh Minhas^{4,5}

To cite: Teng kawan J, Agnihotri R, Minhas RS. Creating inclusive digital health resources for marginalised culturally diverse families: a call to action. *BMJ Paediatrics Open* 2022;**6**:e001626. doi:10.1136/bmjpo-2022-001626

Received 28 July 2022

Accepted 23 September 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Population, Family and Reproductive Health, Johns Hopkins University Bloomberg School of Public Health, Baltimore, Maryland, USA

²Child Health and Advocacy, Capella Project Foundation, Jakarta, Indonesia

³Community Paediatric Medicine, University of Toronto, Toronto, Ontario, Canada

⁴Department of Pediatrics, University of Toronto, Toronto, Ontario, Canada

⁵Department of Pediatrics, St Michael's Hospital Li Ka Shing Knowledge Institute, Toronto, Ontario, Canada

Correspondence to

Dr Jeslyn Teng kawan;
jeslynteng@yahoo.com

'How can I get my son to eat his congee?'

'Is it okay that my daughter cosleeps with her grandparents?'

'I always hand feed my children. Is that a problem?'

'Is it good to teach my children more than one language?'

More than ever, parents and caregivers seek online health information and need access to evidence-based digital health resources to inform their decision-making around their children's health and development. We know that parents' decision-making processes impact health behaviours and outcomes. As such, they ought to be addressed in a way that honours their diverse values and perspectives on parenting and children's health.¹

While a recent survey showed that 68% of American parents searched for health and parenting-related information,² only 59% found helpful parenting information.³ A survey by Neely *et al.*⁴ also showed that more than half of social media users did not check the accuracy of the health information they retrieved on the internet.⁴

Existing online resources for parents are not accessible to a large proportion of families globally due to barriers relating to language, culturally incongruent caregiving frameworks and are centred on the values of healthcare providers. During the pandemic, where systemic inequities have become more exacerbated, the informational needs of marginalised cultural-linguistic communities have become more evident.⁵ As the healthcare sector grapples with implementing the foundational concepts of equity, diversity and inclusion into clinical care, we must also translate these into a digital space—where many families search for relevant health information. Families can become reluctant to seek healthcare services as they do not have an adequate literacy on health. However, this goes both ways, where lack of access in

healthcare services also reduce chances of these families to receive adequate health information, further put them at risk of unhealthy habits and parenting styles.

This paper discusses the need for digital child health resources that are culturally inclusive, representative and responsive to the evolving profiles and values of diverse parenting communities globally. Here, we propose three key imperatives to ensure no families are left behind in this new digital landscape.

First, we must ensure accessibility of child health information and leveraging the new technologies. However, alternatives of old modalities, such as radio, should be considered whenever the new technologies are not available. The global community must commit to continuing to overcome digital inequities for families who do not have internet access or smartphones through multisectoral collaboration. We should engage whole of society approach with multidimension resource to maximise any intervention, especially in improving health literacy through digital health. As asserted by Evans *et al*, 'Colour-blind' or pan-cultural approaches are inherently inequitable, in that, these generic resources are built around Eurocentric values of parenting, child health and programme delivery.⁶

All communities must be included as equal partners in assessing the community's health values and perceived needs, understanding what child health information is being accessed, household child health decision-making dynamics and the ideal modalities for digital delivery.

Second, child health information should be relevant and culturally acceptable. Academic and community partners must cocreate approaches to improve health literacy and critical thinking among diverse communities to battle the spread of misinformation, which



is seemingly ubiquitous and present in all languages and mediums. Many healthcare organisations have developed social media recommendations to help clinicians share general health information online. However, digital health education tools must be customised to the diverse cultural, linguistic and literacy profiles of the population of interest.

Community-based participatory research has successfully engaged marginalised communities as equal partners in the design and implementation of novel in-person health solutions, leading to greater content relevance, uptake and programme sustainability. The same inclusive and participatory principles should be applied to the design and implementation of digital resources and may be facilitated through rapid online participation strategies (eg, online polls, comments, direct messages).

Finally, these modalities should be evidence based, evaluated for their impacts in individual and community settings. We must prioritise research avenues that design and evaluate the digital delivery of evidence-based health information to marginalised parenting communities. There are only two relevant studies regarding the effectiveness of social media interventions in accessing child health information among marginalised cultural-linguistic populations: Grow2gether and B'more Healthy Communities for Kids (BHCK) studies.

The Grow2gether study randomised 87 low-income, low-literacy women in Philadelphia. The intervention was conducted for 11 months in the form of interactive Facebook group discussions, and participants received stipends.⁷ The programme was found to be feasible and acceptable in the local community, with participants actively engaged in the discussion. BHCK randomised 28 low-income, predominantly African-American Baltimore communities.⁸ It is important to scale up and adapt the strategies of the successful social media intervention programmes, such as BHCK and Grow2gether, to the unique profiles of other communities.^{7,8} This is mainly to mobilise child health science in a way that is relevant and applicable to parents' experiences and needs.

Overall, social media and text messaging analysis showed high dose delivery, high fidelity and medium reach.

We urge our colleagues through this call to action to improve the quality, rigour, diversity, and accessibility of

child health resources globally. As more parents engage in social media, there are more opportunities lie ahead to increase child health literacy and advance public health through population-based interventions that leverage social media.

Contributors JT and RSM conceptualised and designed the study, drafted the initial manuscript and reviewed and revised the manuscript. RA critically reviewed and revised the manuscript. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of the work.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Jeslyn Tengkwon <http://orcid.org/0000-0002-8644-1872>

REFERENCES

- 1 Minhas RS, Suleman S. The paediatrician's role in understanding and supporting parenting practices through a health behaviour lens. *BMJ Paediatr Open* 2019;3:e000560.
- 2 Bryan MA, Evans Y, Morishita C, et al. Parental perceptions of the Internet and social media as a source of pediatric health information. *Acad Pediatr* 2020;20:31–8.
- 3 et al Duggan M, Lenhart A, Lampe C. Parents and Social Media. Pew Research Center: Internet, Science & Tech, 2015. Available: <https://www.pewresearch.org/internet/2015/07/16/parents-and-social-media/> [Accessed 10 Apr 2021].
- 4 Neely S, Eldredge C, Sanders R. Health information seeking behaviors on social media during the COVID-19 pandemic among American social networking site users: survey study. *J Med Internet Res* 2021;23:e29802.
- 5 Bandi S, Nevid MZ, Mahdavinia M. African American children are at higher risk of COVID-19 infection. *Pediatr Allergy Immunol* 2020;31:861–4.
- 6 Evans MK, Rosenbaum L, Malina D, et al. Diagnosing and treating systemic racism. *N Engl J Med* 2020;383:274–6.
- 7 Fiks AG, Gruver RS, Bishop-Gilyard CT, et al. A social media peer group for mothers to prevent obesity from infancy: the Grow2gether randomized trial. *Child Obes* 2017;13:356–68.
- 8 Ruggiero CF, Poirier L, Trude ACB, et al. Implementation of B'More healthy communities for kids: process evaluation of a multi-level, multi-component obesity prevention intervention. *Health Educ Res* 2018;33:458–72.