HEALTH IN TRANSITION

Translating developmental origins of health and disease science to improve future health in Africa

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CELEBRITY HEALTH PROMOTION MESSAGING: NOVEL OPPORTUNITIES TO ENGAGE YOUTH IN THE DEVELOPMENTAL ORIGINS OF HEALTH AND DISEASE

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This chapter is a personal view seen from disparate viewpoints of age and culture. Two proponents of health promotion, one a Ugandan youth with first-hand experience of the burden of illness among African children and the other a Canadian academic with a lifetime spent treating sick children, speak to the place and potential of celebrity in the promotion of health among youth. Since 2011, school-based health promotion programmes conceived at the Stellenbosch Institute for Advanced Study (STIAS) have been introduced into many communities in Uganda. These initiatives are seen as an example of innovative health promotion with the potential to give the next generation health knowledge and skills that will translate into an important measure of ‘health independence’ for them in

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their future lives. A regular component of these programmes enables schools to introduce new topics through teacher-guided in-class discussions about health; in this way, pupils were introduced to elements of the developmental origins of health and disease (DOHaD) agenda, and then asked to discuss which ‘messages’ they saw as most relevant to them, and which ‘messengers’ could deliver these messages with the greatest impact.

Amongst the messengers, celebrities were identified as particularly influential; young people said they would listen to what a celebrity said about health, lifestyle and behaviour. Expanding on these discussions, pupils quoted health and lifestyle messaging that they already knew from listening to celebrity-recorded music videos. Here we describe examples, from a Ugandan perspective, of this form of celebrity-endorsed health messaging contained in music videos; these are the songs young people told us they listened to and knew the promotional messages they contain. National music celebrities, whom these young people identify with, have recorded a variety of videos with content advocating specific health behaviours, endorsing physical, emotional or spiritual health and calling for individual and collective action to address challenges such as maternal deaths related to childbirth and infant mortality. Some artists even raise awareness of difficult but very important social issues such as gender inequity, sexual harassment and domestic violence through their music.

Music videos resonate with youth, and celebrity recordings appeal as they combine young people’s love of music with their fascination of the aura of celebrity. We review the production concepts, content and messaging that make these celebrity music videos particularly powerful, and also suggest future directions where the engagement of celebrity messengers could offer a conduit for innovative delivery of DOHaD-related messages, and an effective way to impart knowledge and impact health behaviours among youth.

Introduction

With links established between exposures during key developmental periods and later health and disease, the DOHaD-health promotion challenge now is how to engage the ‘at risk’ population. It is relatively straightforward to decide ‘who’ needs to be engaged – youth have to be the key target population because the ‘window of opportunity’ for intervention with DOHaD requires the influence of behaviours before conception, to optimize preconception health of both parents and early fetal micronutrient provision, and then maternal health during pregnancy and infant care and nutrition in the first years of life. Engagement must also include youth of

both genders, recognising the important direct and supportive roles for fathers as well as for mothers.³

Youth are not a sub-set of the population who traditionally prioritise or even seriously consider their future health or that of their potential partners, let alone their offspring.⁴ As health behaviours correspond strongly from adolescence to adult life, health knowledge, and positive behaviours learned during this period are vital because of their potential to have a sustained influence.⁵ Hence, engaging young people in the context of DOHaD is a relevant and essential investment, offering a real possibility that where effective behavioural change can be generated within the youth population, this will translate into a future reduction in non-communicable diseases. The Cape Town Manifesto also called for DOHaD to be presented as a new and exciting way to achieve a healthier life, so innovative solutions must be found to sow the seeds of learned behaviours in a way that can positively impact the next generation of parents appropriately to result in better health for their offspring.⁶

With innovation, health promotion messages that have ‘relevance’ and ‘resonance’ for youth can be generated. The health promotion literature contains robust methodology, and the concept of health promotion has given birth to ‘some bright ideas’, but there are calls to create new approaches, and to ‘innovate for health.’⁷ In addition to needing new messages, we must also explore new ways to

- 3 Pentecost, M., Macnab, A.J., Mayekiso, A. & Ross, F. 2018. Beyond the dyad: making intervention DOHaD interventions more inclusive. *Journal of Developmental Origins of Health and Disease*, 9(1), February:10-14. [<https://doi.org/10.1017/S2040174417000629>].
- 4 Davies, J.I., Macnab, A.J., Byass, P., Norris, S.A., Nyirenda, M., Singhal, A., Sobngwi, E. & Daar, A. 2018. Developmental Origins of Health and Disease in Africa – influencing early life. *Lancet Global Health*, 6(3), March:244-245. [[https://doi.org/10.1016/S2214-109X\(18\)30036-6](https://doi.org/10.1016/S2214-109X(18)30036-6)]; Macnab, A.J. & Mukisa, R. Priorities for African youth to engage in the DOHaD agenda. *Journal of Developmental Origins of Health and Disease*, 9(1), February:15-19. [<https://doi.org/10.1017/S2040174417000423>].
- 5 Viner, R.M., Ozer, E.M., Denny, S., Marmot, M., Resnick, M., Fatusi, A. & Currie, C. 2012. Adolescence and the social determinants of health. *The Lancet*, 379(9826), April:1641-52. [[https://doi.org/10.1016/S0140-6736\(12\)60149-4](https://doi.org/10.1016/S0140-6736(12)60149-4)].
- 6 International Society for Developmental Origins of Health and Disease (DOHaD). 2015. *The Cape Town Manifesto – November 2015: A healthy start builds a bright future*. International Society for DOHaD, Cape Town. [<https://bit.ly/3aJwzFD>].
- 7 Bandura, A. 2004. Health promotion by social cognitive means. *Health Education & Behaviour*, 31(2), April:143-164. [<https://doi.org/10.1177/1090198104263660>]; Rimer, B.K. & Glanz, K. 2005. Theory at a glance: a guide for health promotion practice. 2nd Edition. *National Cancer Institute*. [<https://bit.ly/3hp0GLL>]; Antonovsky, A. 1996. The salutogenic model as a theory to guide health promotion. *Health Promotion*

deliver the knowledge, concepts and approaches necessary to generate informed decision making by the targeted youth concerning pregnancy and the nurture of their infants. There is also a fundamental yet often overlooked need to learn from young people themselves how best to instil behavioural change, and promote their adoption of health behaviours that will benefit the future health of their progeny.

We suggest that a creative way to address this essential step in health promotion is to ask our target population how to frame effective ‘messages’, and to establish how, and by whom, the messages chosen can be shared most effectively. Messages need to be clearly understood by young people when first heard, and be presented so that they have the greatest potential to create an impact in the long-term. Hence, an important consideration is to look at who will be the best ‘messengers’, and what modes of delivery will be the most effective for youth to access and retain the core DOHaD concepts. While the health promotion literature provides the basic methodology and conventional approaches, because youth are our target population, it behoves us to engage young people actively in the process. Their input is central to future health promotion strategies having the highest potential to attract and interest youth, generating pertinent messaging, identifying the most effective messengers and exploring the most topical and up to date modes of delivery.

To initiate this form of youth-centred inquiry, we presented the concept of DOHaD to senior pupils in rural primary schools in Uganda at discussion groups held regularly as part of our school-based health promotion programmes. These programmes are based on the WHO ‘Health-Promoting School’ model,⁸ and such discussion sessions are a regular component of the school-based health promotion used to engage pupils in health-related topics, promote dialogue and identify avenues for constructive behavioural change.⁹ While the idea that early life events

International, 11:11-18. [<https://bit.ly/2Ec41Qd>]; Crisp, B.R., Swerissen, H. & Duckett, S.J. 2000. Four approaches to capacity building in health: consequences for measurement and accountability. *Health Promotion International*, 15:99-107. [<https://doi.org/10.1093/heapro/15.2.99>];

De Leeuw, E. 1999. Theory and policy innovation for health: where has the creativity and fun gone? *Health Promotion International*, 6(1), March:1-3. [<https://doi.org/10.1093/heapro/dar001>].

- 8 WHO. 1997. *Promoting health through schools: Report of a WHO Expert Committee on Comprehensive School Health Education and Promotion*. WHO Technical Report Series, 870. [<https://bit.ly/2EcBASg>].

- 9 WHO. 1997. *Promoting health through schools: Report of a WHO Expert Committee on Comprehensive School Health Education and Promotion*. WHO Technical Report Series, 870. [<https://bit.ly/2EcBASg>]; Macnab, A.J. & Mukisa, R. 2018. Celebrity endorsed music videos: innovation to foster youth health promotion. *Health Promotion*

strongly impact future health was unfamiliar to these pupils, they quickly came to understand the concept.

In the discussions that followed, it became clear that the main impetus for these young people to want to learn about DOHaD was coming to know that when they have healthy offspring, these children will be able to earn more in their lifetime than a child born to them who is not healthy. In contrast, other issues related to DOHaD and non-communicable diseases, usually seen as the most substantive rationale for action carried no weight for the pupils. Neither the prospect of reducing the epidemic of obesity, Type 2 diabetes and heart disease in the future nor financial arguments about reducing the burden for governments related to providing care for those with non-communicable diseases were persuasive.

It was also clear that these children had significant gaps in their DOHaD-related knowledge, especially about the importance of micronutrient provision and good maternal health and nutrition during pregnancy, and the significance of how an infant is nourished during the first two years of life. They were, however, amenable to learning more if this meant they could then contribute to their children being healthy. Significantly, there were clear opportunities to engage both genders, as boys saw relevance in having a role where they could actively support a mother in ways that promoted the health and wellbeing of their infant. Once again, the context of higher earning capacity for healthy offspring was of definite interest, and boys' questions showed their interest in what their roles might be and how they could learn to fill them.¹⁰

An unexpected insight came when these pupils shared how they have already become aware of health promotion messaging because of music videos popular amongst school-aged children. In these videos, health topics and positive actions and behaviours are promoted and endorsed by celebrities.¹¹ The impact on pupils of celebrities promoting health in this way was striking. It was clear that young people already know facts and concepts relevant to maternal and child health; pupils gave us examples of where such messaging could be found on social media and referred to music videos they regularly viewed on YouTube in particular. The majority of pupils indicated they were aware of videos of this type, the names of the celebrity recording artists were familiar to the group as a whole, and more than half the children indicated that they had heard and remembered messages from music videos of this type that they had watched. The boys, interestingly, even more than

International, 34(4), August:716-725. [<https://doi.org/10.1093/heapro/day042>]; Macnab & Mukisa, 2018.

10 Ibid.

11 Ibid.

the girls identified with music videos. If this applies broadly, celebrity music videos offer a rare avenue to preferentially engage boys, in a health promotion area that to date has predominantly addressed girls and women.¹² Both genders, however, need to learn the DOHaD-related links between causation of illness and the contribution of diet and lifestyle in early life.¹³

This familiarity and interest of African youth in YouTube is in keeping with the recognised popularity and widespread access of materials from this site in many other societies and the known attraction and central place of social media in the lives and lifestyles of today's youth.¹⁴ While the impact of some music videos is considered to be negative and potentially harmful in the context of issues such as gender equity, sexual behaviour, alcohol abuse, drug-taking and violent behaviour, the statements of the pupils we met, warrants more attention to celebrity music videos.¹⁵ Many pupils identified strongly with videos that they saw as promoting health and lifestyle messages, and could sing or quote familiar content from these videos. Hence, it was apparent that they had retained key health messages from hearing the lyrics and viewing the images, raising the question, do music videos represent an innovative avenue to educate youth about DOHaD?

What follows is an evaluation of music videos endorsing health promotion and gender equity selected from those identified by African youth. The evaluation included locating and viewing these recordings on YouTube, transcribing and translating the lyrics, and content coding the core concepts and technical elements they incorporate regarding the health promotion genre of Education-Entertainment. The overall conclusion was that celebrity-endorsed messaging in music videos is an innovative medium with real potential for the promotion of DOHaD and related health messaging among youth in Africa.

12 Pentecost et al., 2018.

13 Davies et al., 2018; Macnab & Mukisa, 2018.

14 Brown, J.D. & Witherspoon, E.M. 2002. The mass media and American adolescents' health. *Journal of Adolescent Health*, 31 (Supplement 6), December:153-170. [https://doi.org/10.1016/s1054-139x(02)00507-4]; Brodersen, A., Scellato, S. & Wattenhofer, M. 2012. *YouTube around the world: geographic popularity of videos. Behavioural Analysis and Content Characterization in Social Media*. Proceedings of the 21st International Conference on the World Wide Web, Lyon, France, April 16-20. pp.241-250. [https://bit.ly/34FCguf]; Chou, W.Y., Hunt, Y.M., Beckjord, E.B., Moser, R.P. & Hesse, B.W. 2009. Social media use in the United States: implications for health communication. *Journal of Medical Internet Research*, 11(4):48. [https://doi.org/10.2196%2Fjmir.1249].

15 Tapper, J., Thorson, E. & Black, D. 1994. Profile: Variations in music videos as a function of their musical genre. *Journal of Broadcasting & Electronic Media*, 38(1), April:103-11. [https://doi.org/10.1080/08838159409364249]; Brown & Witherspoon, 2002.

Celebrity messages in song

Positive motivation

When we first asked pupils to tell us about a health message they had learned from a celebrity music video, the song suggested spoke in general terms about knowing that “consequences follow from whatever we choose to do”, probably because of the simple way we had introduced the DOHaD concept as a ‘cause and effect’ relationship. Health examples given by pupils that ‘consequences follow’ were that eating the right things will make you grow and that cleaning your teeth will keep the mouth healthy.

The message about consequences is contained in the music video, *Obuvubuka BWO (Your Youth)*, recorded by Bobi Wine.¹⁶

Young people

Enjoy your youth and be happy while you are still young

Do everything that you want to do

And follow your heart’s desire.

But remember

For everything that you do

Judgement must come.

Ecclesiastes Chapter 11 Verse 9¹⁷

The principal reason why Bobi’s message has an impact, the young people told us, is because he is a prominent celebrity; another factor mentioned was that his message must be right because he used words from the Bible. Analysis of why this video engages its audience shows that it uses visual cues, locations and an overall style similar to those employed in the production of Wine’s other popular videos; he speaks to a broad audience by singing in English and Luganda (pupils in Uganda are taught English and Luganda) and includes the source of the biblical text in the lyrics to emphasise the message. Uganda is a country with a large Christian following, so a biblical quote or song recorded in a Gospel style likely has particular appeal.

16 Swalz. 2013. *Bobi Wine ft Nubian Li & Henry Tigan _ Obuvubuka BWO (*Swalz*)*, May 23. [<https://www.youtube.com/watch?v=IHc73xKWOHE>].

17 Ibid.

Messages on maternal and child health

An example of a music video where the message relates to maternal and child health concepts is 'Everyone' a song where the first line is "No child is born to die, no mother should die giving life".¹⁸ This popular song was written and recorded by a group of celebrity musicians in Uganda who were aware of the issue of maternal and infant morbidity and mortality; they came together to create a compelling message through their music, intended to promote awareness and prompt action to generate change. It is clear that this song resonates with youth because of the talent, popularity and stature of the artists involved in Ugandan society; but the message also has relevance and power because of the reality and emotional impact in Uganda of maternal and infant death.

The words of the song are transcribed in Table 16.1. They are a model of how to combine elements that make the impact and appeal of a health promotion message as broad as possible for a potential audience. The production of this video also employs the core elements of the education-entertainment genre model of health promotion.¹⁹ The group of celebrities has wide appeal, achieves gender equity by including male and female artists, and children also contribute as central protagonists. Three languages are included Luganda, Swahili and English. Performers bring their unique style and individual music genre to the messaging, including Ballad, Reggae, Rap, Hip Hop and Lugaflo so that individual celebrities can reach out to their fans as well as contributing to the collective impact of the work as a whole.²⁰ Rap, for example, is considered one of the most controversial of music genres. However, research indicates that it can have profound psychological

18 Swalz. 2014. *All Stars (Bobi, Radio, Weasel, Chameleone, Navio, Miles, Renam Gravity_ EVERYONE 2014* (Swalz), June 12. [https://bit.ly/3eO2IVn].

19 McGuire, W.J. 2001. Chapter 2: Input and output variables currently promising for constructing persuasive communications. In: Rice, R.E. & Atkin, C.K. (eds). *Public Communication Campaigns*, 3rd Edition. Thousand Oaks: Sage Publications, pp.22-48. [http://doi.org/10.4135/9781452233260.n2]; Singhal, A. & Rogers, E.M. 2006. A theoretical agenda for Entertainment-Education. *Communication Theory*, 12(2), January:117-135. [https://doi.org/10.1111/j.1468-2885.2002.tb00262.x]; Piotrow, P.T. & De Fossard, E. 2004. Entertainment-education as a Public Health Intervention. In: Singhal, A., Cody, M. J., Rogers, E. M. & Sabido, M. (eds). LEA's communication series. *Entertainment-education and social change: History, research, and practice*. Mahwah, New Jersey: Lawrence Erlbaum Associates Publishers. pp.39-60; Porter, B. 2006. Beyond words: The craftsmanship of digital products. *Learning & Leading with Technology*, 33:28-31. [https://bit.ly/38xfxlO]; Storey, D. & Sood, S. 2013. Increasing equity, affirming the power of narrative and expanding dialogue: The evolution of entertainment education over two decades. *Critical Arts Journal*, 27(1):9-35. [https://doi.org/10.1080/02560046.2013.767015]; Rimer & Glanz, 2005.

20 Tapper, Thorson & Black, 1994.

and educational effects on the listener, and it has been utilised effectively with adolescents in fields such as education, risk reduction, and counselling psychology.²¹

In this video, the health issues promoted are not just delivered through words or in song; the music conveys emotion, the images are compelling, and text messaging is used like subtitles to deliver specific health messages; these include:

- ☐ When pregnant, visit a health facility as soon as possible.
- ☐ Make at least four antenatal clinic visits during pregnancy.
- ☐ Give birth in a health facility under the care of a skilled healthcare worker.
- ☐ Seek medical care immediately if the mother or newborn is unwell.
- ☐ Everyone has a role to play in ensuring that maternal, newborn and child health is prioritised, funded and delivered effectively at community and national level.
- ☐ Together we can end the preventable death of mothers and newborns.²²

Pupils recalled many of these messages from 'Everyone', and quoted key elements when describing what they had learned from the videos they liked to watch.

The English lyrics of the introduction and chorus of 'Everyone' are:

No child is born to die
 And no mother should die giving life.
 We need to come together
 To make a difference
 Everyone²³

The song continues with English lyrics that speak to the issue of mothers dying during childbirth and babies dying in infancy being urgent and of public concern. Numbers are given to quantify the problem; resources needed are listed; the preventable nature of these deaths is emphasised, and everyone is called upon to take responsibility and generate change. The phrases in Luganda and Swahili each reinforce these messages or challenge the listener to be responsible and become

21 Iwamoto, D.K., Creswell, J. & Caldwell, L. 2007. Feeling the beat: The meaning of rap music for ethnically diverse midwestern college students – A phenomenological study. *Adolescence*, 42:337.

22 Swalz, 2014.

23 Ibid.

involved. In Verse 4, Judith sings: “Everyone has their own experience of death, and wherever you are my friend, you can start to make a difference.” In his verse, David asks each of us: “Who do you think is going to help this young blood if not you?” and Bobi goes further, with the challenge: “Whose responsibility is it, yours or mine?” Jose repeats the theme of collective responsibility; “Me and you and everyone are responsible for all the young ones; how can a child be born and quickly die? Saving the children of the future is the responsibility of all of us.” Then Gravity calls; “Don’t sleep – wake up. Let us all fight for the young blood and the mothers not to die. Children must not be left alone without mothers.” Mike asks: “Mothers die when they are giving birth, but why?” and brings a new thought; “We just say the government should help, but me and you, and you and me, let’s combine our energy now to save the future.” Finally, Chagga describes the ideal all should strive for; “Children’s lives are lovely when they can laugh with their mothers, celebrate their birthdays year by year and live in a peaceful country.”

Messages of importance identified by girls

When asked about a particularly important message to them, girls spoke of liking certain celebrities because of what they sang about. When they described songs recorded by these artists, the ballads had three main themes where ‘hopes’ or ‘wanted realities’ predominated:

- ☐ Hopes for fidelity, lasting relationships and true love
- ☐ Hopes for greater gender equality and opportunity for girls
- ☐ Calling for or giving validation of the roles, actions and lives of women

An example of a song on the first theme is Mukyaala Mwami (wife and husband), where Khalifa Aganaga sings:

The way that you love ...

Don’t feel frightened, don’t feel shy ...

You have made me forget other ladies.

Chorus: Wife and husband – that is always good when you are loving each other, and the relationship is fine.²⁴

An example of the second theme is the song, *Woman*,²⁵ sung in English by Juliana Kanyomozi. Key verses and the chorus are summarised in Table 16.2. *Woman’s*

24 Aganaga, K. 2016. *Kalifah AgaNaga – Mukyaala Mwami (Official Video)*, 23 Aug. [<https://www.youtube.com/watch?v=m7UYaXRysuU>].

25 Sly Musik. 2015. *Woman – Juliana Kanyomozi {SHAMAC} Ugandan music*, February 12.

words are a celebration of the strengths and virtues of women, and so are worth listening to in full.

An example of the third theme is *Superwoman*, sung in Luganda and English.²⁶ It is notable that the artists in this video are both male (Bobi Wine and Nubian Lee) as the lyrics validate the role and positive impact of mothers; the key messages are:

Respect your mama, love your mama.
 I became what I am because of my mother
 She is a superwoman.
 It was because of you,
 Because of all your work
 All the time when I was weak,
 That I am who I am.
 Everything can be possible when you have a mother's love.
 Superwoman.²⁷

Messages of importance identified by boys

Interestingly, many boys identify with messaging about HIV/Aids. One video given as an example has a dark storyline portraying adult characters, with one exception; a girl of school age is also portrayed. The video is *Togwamu Suubi (Don't lose hope), Keep Uganda alive*.²⁸

The key messages in the song (recorded in Luganda) are:

Keep Uganda alive.
 We are not running away because you are affected (with HIV)
 Do not lose hope
 We are here for you
 Educate our youth
 Use protection (condoms)
 Get tested (for HIV)
 Stay faithful, do not cheat (on your partner) and risk the danger (HIV)

[<https://www.youtube.com/watch?v=SuR3YEaMk5s>].

26 Ugandan Music Videos. 2017. *Bobi Wine & Nubian Li – Superwoman (Official Video)*, September 16. [<https://www.youtube.com/watch?v=5ueRpSLiDdI>].

27 Ugandan Music Videos, 2017; Swalz, 2013.

28 DeonMurrayPro. 2013. *Aids Song Togwaamu Ssuubi All Ugandan Stars New Uganda music 2013 DEONMURRAY PRO*, July 29. [<https://bit.ly/3piUUzD>].

Please, all pregnant mothers – get tested
If your husband has left you – don't fear,
Take your medicine and care for your children.

Those who are affected
Please do not hide your disease
You should know there is treatment.

Always have protection (condoms) available at your house.

Do not lose hope.

We as celebrities want to fight this disease, we are there for you and are
with you.

This video conveys important and direct health and behavioural messages. The song is particularly inclusive; the words speak to a broad audience – men and women, adults and youth, those who are HIV positive and negative, women who are pregnant, those who have been left by their partners, and youth thinking of starting sex. The celebrities effectively combine a message of hope with the importance of testing and treatment and include advice on how to avoid transmission through the use of condoms. They call for universal action to fight the disease and encourage tolerance towards those who have it.

The specific scenario central to this video is interesting from a health promotion, and cultural perspective as the central character is a young school-aged girl. She is portrayed dressed in her school uniform and shown entering a room with an older man. All the visual cues are that they are about to engage in sex. However, the girl catches sight of a TV where the celebrities' video is playing, and after seeing their message, her actions indicate that she decides not to have sex, and so gets up and leaves. The boys, who suggested this video, described this scene, indicating impactful messaging, received information, and that the intended behaviour promoted had been understood and retained.

Messaging in Africa related to gender equity

While industrialised countries came to view the emergence of the #MeToo movement as an opportunity to reconsider inappropriate behaviour and sexual stereotyping when it burst onto the scene in the autumn of 2017, #MeToo has not created the same public debate across Africa. Although the media in some sub-Saharan countries did pick up the theme, and report individual stories, the resulting public conversations were muted at best, even though globally more than one in three women fall victim to sexual harassment or gender-based physical or

sexual violence.²⁹ In Africa, such acts have significantly higher rates of prevalence compared to western countries. It is essential to address the endemic gender disparity in Africa to promote knowledge and behaviours conducive to advancing the DOHaD agenda and in the broader social context. Currently, in most sub-Saharan cultures women and girls are not seen to have the same value as boys, and in parallel, molestation, trans-generational sex and rape are still widely accepted as normative behaviour; so the support of mothers during pregnancy and the importance of their role while breastfeeding and caring for their infant's social and emotional development are currently undervalued.

Domestic violence is an inherent African plague, but, while the norm used to be just living through the pain inflicted because of the shame such violence engenders, today there are signs of improvement, because, with the advent of social media, celebrities are now coming out to tell their stories. Music and storytelling, always powerfully intertwined in Africa, can be seen in songs and videos relevant to the #MeToo issues from many parts of the continent. Endorsement by celebrities in the Nigerian music industry is particularly strong. As in other countries, performers there have often turned a blind eye to societal issues just to score a hit, but now, lyrics are written, and songs recorded that are directly relevant to #MeToo. These include five powerful examples with messages to help address domestic violence, and one, *Good man*, performed by Eldee, has a verse that could be adopted across Africa and beyond.³⁰

Three rules: never raise a hand to hurt a single hair;

Rule number two: listen to her like you care;

Rule number three is more important than the others

It's simple: respect every woman like your mother.³¹

Nigerians and South Africans have also released songs that celebrate the love of mothers, the significance of their presence, the strength of women, and songs celebrating female empowerment.³² The recording artist Manteiga is quoted as

29 O'Neil, A., Sojo, V., Fileborn, B., Scovelle, A.J. & Milner, A. 2018. The #MeToo movement: an opportunity in public health? *The Lancet*, 391(10140), June:2587-2589. [[https://doi.org/10.1016/S0140-6736\(18\)30991-7](https://doi.org/10.1016/S0140-6736(18)30991-7)].

30 Jonathan. 2018. *These five songs about mothers and women will get you emotional*. Pulse TV. [<https://bit.ly/34FK9jl>].

31 Ibid.

32 Ohunyon E. 2017. *Five Nigerian songs inspired by domestic violence*. Net TV. [<http://thenet.ng/five-nigerian-songs-inspired-by-domestic-violence/>]; OkayAfrica. 2016. *South Africa's Boldest Women in Music on the Ultimate 'Girl Power Anthems*, Aug. 30. [<https://www.okayafrica.com/womens-month-south-africa-girl-power-anthems/>].

saying that when she hears the song, *Pride*, it “builds me up inside as it speaks of being proud, of being black, of being a woman, of being a goddess, a flower, a sun”. Another artist Yvonne Chaka says of the protagonist in her song simply titled, *Woman*:

... she is strong, she is vulnerable, she is assertive, and she is humble. Women are taking up more powerful spaces in our society, and as a woman, I am always inspired by the tenacity and strength of the many women who have gone against all the odds to make their voices known in the world.³³

All these sentiments are relevant to the promotion of the DOHaD agenda in Africa.

The genre of Education-Entertainment

This genre is a communication strategy suited to promoting the DOHaD message as it aims to alleviate a social issue or educate the public through custom-made forms of entertainment, where the production involves the use of various types of mass media to communicate messages intended to drive social and behavioural change.³⁴ All the videos identified by children as containing health messages they remembered met inclusion criteria for the entertainment-education genre of health promotion. Each video addressed locally relevant and current educational issues, including avoidable maternal and neonatal death, the contemporary challenge of HIV/Aids, and calls for gender equity, the celebration of women and the central role of mothers. They also incorporate multiple techniques and approaches used successfully to increase the impact of various forms of the education-entertainment health promotion model.

Education-Entertainment is a genre of health promotion that intentionally incorporates educational content into a variety of entertainment media to increase knowledge about an issue, create favourable attitudes, and change behaviours. Music videos represent one of the most popular Education-Entertainment media formats.³⁵ In their design, the central issue to be framed in the video is chosen first, and then layers of reference values are added to the lyrics that complement the central message; these layers come from multiple sources (e.g. the songwriter, lyricist, content experts or members of the intended target audience). Creative elements (images, sound, music, transitions, animations, text and special effects)

33 Ibid.

34 McGuire, 2001; Singhal & Rogers, 2002; Piotrow & De Fossard, 2004; Porter, 2006; Storey & Sood, 2013; Rimer & Glanz, 2005.

35 Singhal & Rogers, 2002; Storey & Sood, 2013.

are then employed and artfully mixed to attract, retain and impact, while informing, touching and influencing the viewer.

Compelling visual images are obviously central to good video, but this is also relevant as humans process visual information 60 000 times more quickly than narrative fact.³⁶ Good sound is also essential as this reinforces the message by establishing the tone, mood and emotional context. Watching videos involves verbal and non-verbal thinking and so engages both sides of the brain; the left-brain processes dialogue, plot, rhythm and lyrics in parallel with right-brain processing the visual images, sound effects, melodies and harmonic relationships from the video.³⁷

An important design component is the repetition of the health promotion content; repeated words, phrases, text and images, including multiple performers and using different languages within the song, multiplies the opportunities for the message to 'connect' with its target audience. Added impact comes with repeated playing; unlike a message heard only once, each time a video is viewed or a song heard, the educational message imprints that much more on the memory of the viewer/listener, and increases the probability that the message will be retained.³⁸ Subsequently, a glimpse of the visual images, hearing a phrase from the song or even seeing the celebrity in another video can then trigger recall of the core message.

We can only hypothesise that such imprinting translates into behavioural change, but the fact that African school children are aware of music videos with a health message, and many can sing a phrase or quote a message from a video that they have watched, warrants attention. Such awareness is an achievement in itself in health promotion terms, and we know that where positive behaviours evolve in adolescence, they tend to carry forward into adult life.³⁹ Of interest regarding the challenges of social engagement over DOHaD, boys identified with music videos more than girls; if this applies broadly, celebrity music videos offer a rare avenue to preferentially engage boys in DOHaD-related health promotion, where the emphasis to date has predominantly focussed on girls and women. Both genders need to learn the links between causation of illness and the contribution of diet

36 Porter, 2006.

37 Schlaug, G., Jäncke, L., Huang, Y., Staiger, J.F. & Steinmetz, H. 1995. Increased corpus callosum size in musicians. *Neuropsychologia*, 33(8), August:1047-1055. [[https://doi.org/10.1016/0028-3932\(95\)00045-5](https://doi.org/10.1016/0028-3932(95)00045-5)]; Hébert, S. & Peretz, I. 1997. Recognition of music in long-term memory: Are melodic and temporal patterns equal partners? *Memory and Cognition*, 25(4), July:518-533. [<https://doi.org/10.3758/bf03201127>].

38 Singhal & Rogers, 2002.

39 Viner et al., 2012.

and lifestyle in early life to the adult onset of non-communicable diseases later.⁴⁰ In this way future parents will have similar awareness and can mutually support one another.

The potential for celebrity and music to impact DOHaD

In debating the merits and potential of celebrity music videos in the context of DOHaD, it must be acknowledged that only a tiny proportion contain robust health messaging or even follow the principles of Education-Entertainment. Also, that overall, most music videos cannot be considered to have positive social messaging or depict appropriate behaviours and role modelling; many are rightly seen to contain negative messages and portray important social issues inappropriately.⁴¹ Consequently, it is refreshing to find the strong, positive messaging about women, stable relationships and motherhood in songs that the female pupils identified. And find evidence that the videos had commanded attention and provided knowledge and perspectives that had been retained.

Social media

The use of social media by modern youth does offer a powerful tool for delivering health promotion messaging. Internet access, even in Africa is already considerable. It will be a growing phenomenon, and the fact that many pupils in rural Uganda have sufficient access to view music videos like the ones described, remember key content and be familiar with the names of the celebrity recording artists is significant.

Trends in the USA will inevitably impact Africa; an average American youth currently spends one-third of each day with various forms of mass media, mostly without parental oversight.⁴² The mass media have been shown to affect a broad

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- 40 Bradac, J.J., Hopper, R. & Wiseman, J.M. 1989. Message effects: Retrospect and prospect. In: Bradac, J. (ed). *Message effects in communication science*. Newbury Park, CA: Sage. 241-317; Kajee, N., Sobngwi, E., Macnab, A.J. & Daar, A. 2018. The Developmental Origins of Health and Disease and Sustainable Development Goals: Mapping the Way Forward. *Journal of Developmental Origins of Health and Disease*, 9(1):5-9. [<https://doi.org/10.1017/S2040174417000630>]; Pentecost et al., 2018; Macnab & Mukisa, 2018.
- 41 Ward, L.M., Hansbrough, E. & Walker, E. Contributions of music video exposure to black adolescents' gender and sexual schemas. *Journal of Adolescent Research*, 20:143-166. [<https://doi.org/10.1177%2F0743558404271135>]; Brown & Witherspoon, 2002; Tapper, Thorson & Black, 1994.
- 42 Kraak, V. & Pelletier, D.L. 1998. How marketers reach young consumers: implications for nutrition education and health promotion campaigns. *Family Economics and Nutrition Review*, 11:31-41. [<https://bit.ly/2Qr5d4p>].

range of adolescent attitudes and behaviours, including violence, eating disorders, and tobacco and alcohol use.⁴³

Celebrity endorsement

Research does validate a role for celebrities in health promotion and the potential effectiveness of their endorsement; “Heroes, heroines and role models can motivate children and teenage youth.”⁴⁴ This aspect of social marketing has been identified as a way to design better health promotion campaigns and create more effective nutrition education in particular.⁴⁵ Celebrities are recognised to be effective in ‘selling’ health promotion messages; many are highly visible and already affect opinion in society, so readily assume the role of champions advocating for change, particularly where they share social and cultural bonds with their audience, or have had a ‘life experience’ related to the issue they champion.⁴⁶ The more their ‘audience’ identifies with their celebrity, the more they associate with the issues and causes advocated, and the higher the likelihood of them adopting the values modelled. In Africa, very few children ever see their celebrities perform in person, but the news, TV, radio, and the availability of their music videos on social media make them widely ‘accessible’ and hence influential. Two caveats are however necessary; media controversy exists around the ethics of payments required by some celebrities for endorsement, and there are legitimate concerns about the potential for negative impact to be generated where a high-profile celebrity falls from grace.⁴⁷

43 Valente, T.W. & Pumpuang, P. 2007. Identifying opinion leaders to promote behaviour change. *Health Education & Behaviour*, 34(6):881-896. [https://doi.org/10.1177/1090198106297855].

44 Erdogan, B.Z. 1999. Celebrity endorsement: A literature review. *Journal of Marketing Management*, 15(4):291-314. [https://doi.org/10.1362/026725799784870379].

45 Batras, D., Duff, C. & Smith, B.J. 2016. Organizational change theory: implications for health promotion practice. *Health Promotion International*, 3191, March:231-241. [https://doi.org/10.1093/heapro/dau098].

46 Chapman, S. & Leask, J.A. 2001. Paid celebrity endorsement in health promotion: a case study from Australia. *Health Promotion International*, 16(4), December:333-338. [https://doi.org/10.1093/heapro/16.4.333]; Roberts, D.F. 2000. Media and youth: access, exposure, and privatization. *Journal of Adolescent Health*, 27(Supplement 2), August:8-14. [https://doi.org/10.1016/s1054-139x(00)00128-2].

47 Escobar-Chaves, S.L., Tortolero, S.R., Markham, C.M., Low, B.J., Eitel, P. & Thickstun, P. 2005. Executive summary. *Pediatrics*, 116(Supplement 1):297-300. [https://doi.org/10.1542/peds.2005-0355B].

Celebrity engagement

Some celebrities, like Bobi Wine, create opportunities for engagement; in addition to being a musician, he is an elected member of parliament and a Save the Children Ambassador. The role of ambassadors of the United Nations Children's Fund also offers motivated celebrities' unique opportunities. Ambassadors have a wide range of talents and achievements, but all share a commitment to improving the lives of children worldwide. Sports celebrities have great appeal amongst youth and hence considerable potential. Bill and Melinda Gates advocate for change through their foundation, and the founder of Facebook and his wife have pledged to fund cutting edge initiatives to eradicate major diseases within their daughter's lifetime. Strategies to seek to engage celebrities and philanthropists to promote knowledge and lifestyles in line with DOHaD should be possible given the weight of scientific evidence and escalating burden of non-communicable diseases. Facebook has already made the issue of cyberbullying its own, and announced that it is to offer secondary schools in the UK a digital on-line ambassador to run safety workshops and share advice on how to address cyberbullying. There is no doubt that the pervasive nature and social impact of Facebook adds an element of celebrity to the lives of young people; hence it is also an obvious medium to explore in the context of health promotion. However, an obvious caveat is the inescapable challenge of the volume of unreliable and inaccurate content posted.

Musical styles

Musical styles need consideration. For instance, despite its national and international appeal, rap is considered one of the most controversial music genres. Given the political charge it generates, rap music has spawned research across the social and health sciences, but, the majority of the research has investigated its impact on African Americans, not native Africans, and tended to focus on negative aspects of the music. There is a dearth of in-depth qualitative studies that explore how rap impacts the listener. Iwamoto suggests that rap can have a profound psychological and educational effect and sees potential for rap music to be used in innovative ways with adolescents in fields such as education, risk reduction programmes, and counselling psychology.⁴⁸ This suggestion indirectly supports our hypothesis and the potential for music videos to be useful in DOHaD health promotion. Because rapping also often occurs in native tongues, it can be argued that this offers the advantage that messages will be understood better by local populations and those less familiar with mainstream lyric languages. Lugaflo, for example, is Uganda's definition of Hip Hop, and a form of music used to advocate

⁴⁸ Iwamoto, Creswell & Caldwell, 2007.

truth for the future of the youth and the people of Uganda. Similar variants of rap exist in other African countries, and again, the potential significance of specific musical styles resonating with youth should not be lost.

Conclusion

Youth must be the target audience for health promotion related to DOHaD. In Africa, schoolchildren have heard and retained important health messages because they have spontaneously listened to music videos recorded by celebrities that are available via social media and endorse health. Emerging empowerment songs are now promoting public awareness on the continent about the cultural differences that impact gender roles and the inherent risks of harassment faced by women; these appear capable of helping generate change. Music videos that incorporate principles fundamental to the health promotion genre Education-Entertainment can be made to address elements of the DOHaD agenda. Education-Entertainment is defined as the process of putting educational content into entertainment messages to increase knowledge about an issue, create favourable attitudes and change behaviour. Education-Entertainment has been advocated as an innovative approach particularly applicable for the developing world. We suggest Education-Entertainment music videos containing celebrity endorsement are a medium suited to innovative health promotion, and in particular, lend themselves to engaging youth in Africa in the context of DOHaD.

Table 16.1 The English lyrics of 'Everyone'- All stars, Uganda.

Introduction
No child is born to die And no mother should die giving life. We need to come together To make a difference Everyone.
Chorus (sung by the celebrity artists as an ensemble with children)
No child is born to die Born to die No mother should die giving life We need to come together you and I Everyone, everyone we all today.
Verse 1 (sung by Bobi Wine, in 'Ragga' in Luganda and English)
Imagine 282 children to die Why don't we wonder why they have to die Why don't we save them little babies cause everyday 16 mommas dem have to die Inna Uganda we simply cry If we just cry they'll continue to die They'll die and die till we try ooh why.
Verse 2 (sung by Radio)
Save a child and save a mother Every child deserves a mother A mother loves to see her daughter Find a man and become a mother. Have some sons or maybe some daughters Some could be nurses or some will ah ha Like a sweet lovely something along We can only do it if we want together.
Verse 3 (sung by Weasel in 'Rap')
Everybody stand up, come step alite No baby born to die No mother has to cry Everybody needs a life, We can make a future let me say. Together we can make a difference Put up resistance They need existence Everybody's assistance. Your presence, me want to let you know ooh oh.
Verse 4 (sung by Judith Babirye in Luganda)
Verse 5 (sung by David Lutalo in Luganda)

Verse 6 (sung Peter Miles who returns to 'Rap')
It's a bit big tragedy Why we have to sleep and wake up in agony That's why I don't mess with biology Make a discovery Follow me, follow to save the children generally. 20, 50, 60 get to 70 till to the infinity. Cause we have ability. Ability.
Verse 7 (sung by Jose Chameleone in 'Ragga')
(His lyrics includes questions and messages in Luganda, English and Swahili)
Verse 8 (sung by Navio in 'Hip Hop')
Back to the business, We need staff and equipment when it comes to health You all know my passion is endless Women walking miles to find a place to child birth. We're all responsible no matter how your mind works Too many kids dying that we have to save Other my change this But first it's me I thought it couldn't get worse but hey, 16 women died giving birth today.
Verse 9 (sung by Gravity Omutujju in 'Lugaflow' in Luganda)
Verse 10 (sung by Mike Wine in 'Ragga' in Luganda and English)
Let's combine the energy, we save the future.
Verse 11 (sung by Chagga in Luganda)
Verse 12 (sung by Rema Namakura)
Hey, You and I can change this, together You and I tokoolere wamu Everyone is me Everyone is you Hand in hand in, coz
Chorus (sung by the artists as an ensemble with children)
No child is born to die Born to die No mother should die giving life We need to come together you and I Everyone, everyone we all today.

Table 16.2 The English lyrics of 'Woman' - Juliana Kanyomozi

Verse 1
<p>We don't know how she always finds her way. The mystery of a woman. A savior in a time of need The bravery of a woman. In your time of need she does the deed. The magic of a woman</p>
Chorus
<p>Woman, woman. A warrior is a woman. Woman, woman. A savior is a woman.</p>
Verse 2
<p>When a man will cry a woman smiles When her spirit's down She has no time to frown. A warrior is a woman.</p>
Chorus
<p>Woman, woman. A warrior is a woman. Woman, woman. A savior is a woman.</p>
Verse 3
<p>Bountiful, wonderful is her frame of mind Beautiful, colorful her style is one of a kind. Her womanhood and her motherhood Are her strength and pride. Her warmth and grace she cannot hide The wonders of a woman</p>
Chorus
<p>Woman, woman. A warrior is a woman. Woman, woman. A savior is a woman.</p>