

Maximising Social Media Platforms to Enhance Sexuality Education in Rural Schools

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Abstract: Sexuality education is central to the South African government's strategy to promote adolescents' sexual and reproductive health, reduce student pregnancy, and prevent sexually transmitted infections, including HIV. The school-based sexuality education program aims to reduce young people's vulnerability, enhance their decision-making skills, and improve their self-efficacy. The rising incidence of sexually transmitted infections and student pregnancy in some rural schools in King Cetshwayo district may indicate that their sexuality education programs are ineffective as a result of multiple contextual factors. In light of this, the author conducted a study that explored students' lived experiences with the sexuality education programs available in their schools. This phenomenological study was conducted in 2020. Nine schools were chosen, and 84 purposively sampled secondary school students participated in focus group interviews. The collected data were analysed using an interpretative phenomenological analysis framework. Study findings revealed that social media platforms could be utilised to improve the effectiveness of school-based sexuality education in the research setting. The study identified untapped opportunities to spread sexuality education messages to all stakeholders, including students, teachers, parents, and various community actors. Furthermore, the findings showed that using social media platforms could increase the spread and accessibility of sexuality education messages outside of the four walls of classrooms. In addition, it emerged that social media could be used to create platforms for confidential, private, and non-judgemental engagements on sensitive aspects of sexuality education. Based on the findings of the study, the author recommends that policymakers initiate and implement policies that will integrate the use of multiple social media platforms to advance the messages of sexuality education to all stakeholders. In addition, such platforms could be used for capacity building and support for both teachers and students, as well as a medium for multi-stakeholder engagement.

Keywords: Social Media, Sexuality Education, Sexual And Reproductive Health, Students, Teachers, South Africa.

1. Introduction

A high-quality sexuality education program provides young people with the knowledge and skills they need to make health-promoting decisions and protect themselves from sexually transmitted infections (STI) including HIV. However, misconceptions, a culture of silence, and contradictory messages have been identified as factors limiting the effectiveness of school-based sexuality education on students' sexual and reproductive health (SRH) outcomes in South Africa (Adekola & Mavhandu-Mudzusi, 2021). To maximize the impact of a sexuality education program on adolescents' SRH, it is necessary to communicate scientifically accurate messages about sexuality education to students and other key stakeholders. This can be done by harnessing every available resource and platform to increase access to sexual health-promoting information.

Korda and Itani (2011) indicated that social media provide a huge opportunity to share health-promoting information. The authors defined social media as participatory, rapid, and innovative internet communication platforms. As a result, social media, due to its interactive and engaging nature, could be used to disseminate health education messages to many people, regardless of their demographic attributes. Examples of social media platforms include but are not limited to Facebook, Twitter, WhatsApp, Instagram, YouTube, Telegram, WeChat, TikTok, and so on. According to Stollefson, Paige, Chaney, and Chaney (2020), more people are inclined to use social media platforms because they eliminate physical barriers that previously hampered access to health-related information and resources. The authors further maintain that social media is increasingly being used because it allows for actionable, interactive, and impactful engagement on a variety of health issues for various population groups. For certain population groups, such as at-risk or minority groups, social media provides access to online health information resources that would otherwise be difficult to accessed using a conventional or traditional approach (Jane, Hagger, Foster, Ho, & Pal, 2018).

As of 2021, Social media platforms are used by approximately 4.26 billion people worldwide for a variety of purposes such as networking, advertising, information dissemination, community building, and so on (Statistica, 2022). Social media is a veritable and cost-effective tool for health promotion advocacy, information dissemination, collaboration, and engagement with a larger audience. While the use of social media has increased over the years, Uittenhout (2012) stated that social media may be ineffective if the targeted audience does not have access to internet resources or is not adequately mobilized about its use through awareness. This is consistent with the findings of Stollefson et al. (2020), who found that using social media among people who

are not technologically literate or inclined may be ineffective, particularly for population subgroups such as the elderly, those who are physically and cognitively challenged, and those who are not text, technical, or eHealth literate. Furthermore, the widespread use of social media on cellphones and other digital devices could be used to galvanize social support for health education and promotion. In some cases, a lack of internet access may be a barrier to leveraging the use of social media.

Besides providing access to information for target population groups, Hudnut-Beumler, Po'e, and Barkin (2016) explain that social media could serve as an accessible virtual venue for health intervention programs. However, Korda and Itani (2011) caution that despite the enormous potential of social media to promote health messages and education, it requires skillful, careful, and innovative application, and the intended outcomes sometimes may not be achieved. Stellefson et al. (2020) agree, citing misinformation and noncompliance with user privacy protections as potential challenges and complications associated with social media use. The literature review showed that there is a dearth of qualitative studies on how social media can be utilized to enhance school-based sexuality education in the research setting. Therefore, with the increased negative SRH outcomes such as teenage pregnancies and STIs among the students in rural areas of the King Cetshwayo district in South Africa (Office of the Premier, KwaZulu-Natal, 2020), this study explored the students' experiences with sexuality education being implemented in their schools and what possible interventions could enhance its effectiveness.

2. Methodology

2.1 Design

Guided by Polit and Beck (2017), this study used an interpretative phenomenological design to investigate students' lived experiences with the sexuality education that their schools offered. This design allows researchers to gain deep insights into the participants' shared experiences and the contexts in which they had those experiences. Participants' self-described experiences were obtained through focus group interviews. All sessions of the interview were audio recorded.

2.2 Setting

The study took place in rural schools in the King Cetshwayo district of the KwaZulu-Natal province, South Africa. The schools chosen for the study offer a sexuality education program as part of their life orientation curriculum. In addition, the schools in the research setting have a high prevalence of teenage pregnancy among the students.

2.3 Sampling

Participants were purposively sampled from the selected schools in the research setting. The participants in this study met the following inclusion criteria: they were aged between 14 and 19 years, resided in the research setting, were fluent speakers of either or both English and isiZulu, were enrolled as Grade 10 or Grade 11 learners, accepted to be audio recorded, and signed an informed assent as well as obtained parental consent to take part in the study.

2.4 Data Collection

Data collection took place between March and July 2020. Data for this study was obtained using focus group interviews. The interview guide developed by the researcher was refined in a pilot study before the actual data collection took place. Each interview session lasted for about two hours and was mediated by the researcher. The researcher used Kvale's (1996) interview guidelines, as cited by Adekola and Mavhandu-Mudzusi (2021), during data collection, asking open-ended questions such as, "From your experience as a learner in this school, how can the effectiveness of the sexuality education program in your school be improved?" The central question was followed with probes, prompts and clarifying questions to obtain rich information from the students' shared experiences.

COVID-19 safety protocols were strictly adhered to during the data collection sessions due to the COVID-19 pandemic during data collection. Also, as a result of the participants wearing facemasks, a high-quality audio recorder was used for data collection. Field notes were also used to capture the researcher's observations, thoughts, and participants' non-verbal expressions during the interviews. The collected data was analysed iteratively until saturation was reached.

2.5 Data Analysis

Within two days, the collected audio data from each interview was transcribed verbatim into written text. The interpretative phenomenological (IPA) analysis framework, as described by Noon (2018), guided the analysis of nine focus group interview transcripts. Furthermore, an independent coder was hired to independently analyse all the transcripts. The themes that emerged from the researcher's analysis were compared with those of the independent coder, which led to the emergence of a final table containing two main themes and several sub-themes, along with relevant quotes from the participants.

2.6 Trustworthiness

To guarantee the trustworthiness of this research, Lincoln and Guba's (1985) four criteria for trustworthiness were adopted. The criteria include credibility, confirmability, dependability, and transferability. The credibility of this study was ensured by conducting on-going member checking, where participants listened to the recorded audio to make sure their self-reported information was captured accurately. Likewise, the transcripts were made available to some participants to verify that their experiences and views were accurately reflected. The study locations, dates, and times spent in the study setting were recorded in the researcher's fieldnotes to enhance the dependability and confirmability of the study. In addition, the researcher's colleagues independently transcribed the audio-recorded data verbatim, and an independent coder was also engaged, who came up with independent thematic categories. Confirmability for this study was achieved by comparing the independently obtained thematic categories with the researcher's determined themes. Besides keeping an audit trail of all research activities, rich details and thick descriptions of participants' biographies and study context were provided to enhance transferability.

2.7 Ethical consideration

Ethical clearance was sought and received from the University of South Africa and the KwaZulu-Natal provincial Department of Basic Education to conduct the research. The nature, purpose, and possible benefits of the study were made clear to the participants by the researcher. In addition, the researcher informed the participants that their participation in the research was entirely voluntary and reiterated their right to decline and withdraw from the study at any time without penalty. To participate in the study, the students returned completed and signed informed assent forms and their parental/guardian consent letters. Furthermore, to protect the participants' identities, pseudonyms were used in the transcripts and data reporting. To guarantee the confidentiality of the participants, the group interviews were held in appropriate, comfortable, and convenient locations. When using focus group interviews, the researcher used Sim and Waterfield's (2019) strategies to address the important issue regarding the participants' anonymity. The researcher briefed the participants about the difficulties in maintaining anonymity during a focus group interview due to its public nature. The researcher outlined the importance of participants' cooperation and commitments in order to meet the ethical standards of anonymity. Thereafter, the participants were given the option to withdraw their participation if they were uncomfortable with the issues surrounding anonymity. Following that, the researcher confirmed with the participants that they understood their responsibilities regarding anonymity. Due to the prevailing COVID-19 pandemic at the time some of the group interviews were conducted, all necessary COVID-19 safety guidelines were followed. These guidelines include a 2-meter distance between the participants, the availability of alcohol-based hand sanitizers at the interview venues, mandatory facemasks, and choosing interview rooms with cross ventilation. To prevent unauthorized access, the audio-recorded interview and transcribed data were kept in a password-protected electronic folder.

3. Results

The study findings described the biographical details of the participants. Furthermore, it revealed the use of social media platforms as a possible intervention to enhance the effectiveness of the school-based sexuality education program in the study setting.

3.1 Participants Biographical details

The study participants were made up of 35 boys and 49 girls from nine schools. The study sample size was informed by data saturation. According to Saunders, Sim, Kingstone, Baker, Waterfield, Bartlam, Burroughs, and Jinks (2018), "data saturation" occurs when new information collected from participants is a repetition of what was previously obtained from other participants. As a result, data analysis cannot yield new thematic categories

and ideas. Approximately 60% of the participants (49 students) engaged in sexual activities previously, with many of the sexually active participants having had more than one sexual partner in the previous three years. The vast majority of sexually active participants (41 students) reported they used condoms, while the remaining eight students claimed they occasionally used condoms. Four of the girls reported to have been pregnant before, while only a quarter of the participants claimed to have had no previous exposure to alcohol at the time of the focus group interview.

Apart from the biographic details of the participants, the study findings revealed the potential enhancing benefits of social media platforms in sexuality education and the possible challenges to the utilization of social media for sexuality education.

3.2 Potential benefits of social media platforms in sexuality education

Participants mentioned various ways social media platforms could enhance the impact of sexuality education on their SRH outcomes. These include access to SRH information, mitigation of the culture of silence, SRH care and support services, multi-stakeholder engagement, as well as privacy, confidentiality, and convenience.

3.2.1 Access to SRH information

Participants suggested that the sexuality education messages could be disseminated through social media platforms by their schools and department of education. This, they reasoned, would make the contents of sexuality education available to learners at any time of day via their mobile devices. In addition, such access could reinforce the sexuality education information learned in the classroom.

“It is difficult to remember everything in the class. Many of us have phones so maybe a WhatsApp group can be created so we can continue the discussion at home.” (Asande, female, 17 years old)

“We should be able to learn these things about sexuality on internet at any time. I think it will help us because we don’t have enough time in school to learn about this. Yeah, social media can help us” (Nompilo, female, 18 years old)

3.2.2 Mitigation of the culture of silence

The findings revealed that discussing sexual-related topics is frowned upon in the study setting. As a result, there is a culture of silence on sexuality-related issues, which prevents students from discussing them with their parents, guardians, religious leaders, and, in some cases, educators. Participants believed that social media could be exciting and engaging platforms for promoting discussion on a variety of sexuality education topics that had previously been considered taboo in their communities.

“My family avoid talking about sex with me. They just warned me not to do it. We don’t talk about sex in our church either. It is uncomfortable to talk about what we learnt in LO (Life Orientation) with my parents. Government can create ‘websites’ for students to talk about sexuality with experts because our teachers wouldn’t go into the details for us too. It’s like they are scared of talking (about) sex with us. Social media may help us if government do it.” (Kwanda, male, 18 years old)

3.2.3 Privacy, confidentiality, and convenience

Another benefit of using social media platforms for sexuality education is that students can conveniently access sexuality education messages while maintaining their privacy and confidentiality. Participants believed that this would allow them to access and interact with sexuality education messages without being judged or labelled as immoral.

“Most of us are not comfortable talking about sex in LO classes because some students will tease you or joke about you. Some teachers also will judge you and treat you like you don’t have morals if you talk about sex too much. With social media, I can talk about these things without using my real names and no one will judge me.” (Mthokhosizi, male, 17 years old)

3.2.4 Access to SRH care and support services

It further emerged from the data analysis that information about SRH linkage services, such as contact information and locations of clinics that provide SRH counselling services, STI management services, screening,

voluntary male circumcision, contraceptive services, pregnancy testing and care, and safe abortion care, could be made available and accessible to students via social media platforms.

“We need information about clinics where we can get condoms and counselling from nurses. In the community, everybody knows you, and the nurses will judge you. So, we need information about other clinics where nobody knows you. To go there for help like condoms and abortion. If we see this on social media, we will not need to ask around from people that will judge you.” (Silungile, female, 17 years old)

3.2.5 Multistakeholder collaboration platforms

Participants suggested that social media platforms could provide a multidimensional collaboration, engagement, and advocacy space through which various groups of stakeholders, such as sexuality education teachers, teacher-parent engagements, and key community actors such as religious, cultural, and traditional leaders, could address contradictory messages and perceptions.

“My parents think the teachers are ‘spoiling’ us by teaching us about sexuality. They think teacher should not expose us to information like that at our age. If our teachers can form a WhatsApp group with our parents, maybe they will understand” (Mzomuhle, male, 17 years old)

3.3 Challenges to utilization of social media for sexuality education

Despite the potential benefits of social media platforms for improving school-based sexuality education programs, the findings revealed that there are potential challenges such as internet accessibility, acceptance, affordability, and content relevancy that may limit the use of social media platforms in the research setting for increased impact of sexuality education programs.

3.3.1 Internet Accessibility

The use of social media for enhancing sexuality education programs could be impeded by a lack of access to internet facilities. Due to its rural nature, some parts of the study setting do not have uninterrupted internet access. Other participants mentioned that the cost of internet data bundles is not affordable.

For me I don’t have problem with social media. But the real problem is that data (bundle) is expensive, and some areas here have poor signal (Internet coverage). (Osiphayo, female, 17 years old)

3.3.2 Acceptance

Some participants mentioned that their parents and teachers are not comfortable with social media platforms and are used to more traditional ways of disseminating information. There is a genuine concern among some participants that the use of social media platforms may not be acceptable to some key stakeholders, and this lack of acceptance represents an obstacle to harnessing the opportunities provided by social media platforms for the improvement of school-based sexuality education programs.

I think using social media will only work with us young people. Our parents are old and may not like the idea. (Fezeka, female, 16 years old)

3.3.3 Affordability

Apart from the costly data bundle, results showed that the high cost of mobile and electronic devices such as smartphones, tablets, and computers could mean that a lot of people in the study setting may not have access to social media platforms.

“Not everybody in our school has cell phones or laptop. This may not work because gadgets are very expensive.” (Phumulani, male, 17 years old)

3.3.4 Contents’ relevance

The creation of sexuality-related content that aligned with the Department of Basic Education curriculum required the use of skilled individuals capable of producing curriculum contents that will be scientifically accurate, contextually relevant, engaging, evidence-based, and of high audio-visual quality. This requires that competent personnel develop content that speaks to the young people living in the study setting. Participants

are concerned that the information available on certain social media platforms may be inaccurate or irrelevant to them.

“We need to be careful, our teachers must be involved in forming the social media because they know us and the problems we face. We cannot believe everything we see on the social media if we don't know the person who posted it. It could be a misinformation.” (Myeni, male, 17 years old)

4. Discussion

The study's findings indicated that students find social media platforms attractive for accessing SRH information. This agrees with various studies that showed that social media provide space through which health-promoting messages could be disseminated and accessed due to the increased and popular usage of mobile digital devices (Korda & Itani, 2011; Adekola & Mavhandu-Mudzusi, 2022; UNICEF, 2019; Stellefson et al., 2020). Furthermore, the findings showed that the culture of silence, where the discussion of sexual-related matters is considered taboo, can be addressed by using social media as platforms for discussing sexuality education information. This agrees with Ragsdale, Harper, Kathuria, Bardwell, Penick, and Breazeale's (2015) findings, which report that social media can be effectively used to deliver sexuality education messages to students and, if maximised, could strengthen the impact of sexuality education among students. This is also consistent with the findings of Gabarron and Wynn (2016), who highlight the potential enhancing influence that social media use can have on the delivery of sexuality education curriculum. The results further revealed that information to access SRH care and support services could be made available and accessible through social media platforms. Participants mentioned how such access to SRH-related information could be convenient, confidential, and protect their privacy. This is in line with UNICEF's (2019) reports and Gabarron and Wynn's (2016) findings, which underscore the huge opportunities to use social media for dissemination of information regarding the contact details and locations of SRH care and support services. Jane et al. (2018) agreed, by emphasizing that through social media, people could access important online health information resources that were previously difficult to access due to contextual factors. The study highlighted the opportunities for stakeholders to engage and collaborate via social media. Such engagement and collaboration could be an inter-school collaboration between sexuality education teachers for peer and professional development, parent-teacher engagement, school-community actors' engagements, and so on. This result aligned with Decker, Berglas, and Brindis's (2015) and Fernane et al.'s (2012) findings that social media space could be used as a venue for multipurpose engagement and collaboration on sexuality education among key stakeholders.

Besides the benefits, the study revealed possible challenges to maximising the use of social media. Potential barriers to maximising the social media platform for promoting sexuality education include a poor internet network in study settings and the high cost of internet data bundles. The findings were supported by Uittenhout (2012) and Stellefson et al. (2020), who noted that a lack of internet access could be the biggest impediment to using social media for improving sexuality education. Furthermore, the authors argue that for social media use to be effective, the target audience should have internet access and be technologically inclined and literate. In the same vein, the results showed that older people who are used to traditional ways of communication may not accept or use social media for educational engagements. Coupled with the fact that mobile electronic gadgets may not be affordable to students and parents who come from low socioeconomic backgrounds, Despite the fact that information made available on social media has a wider reach and coverage, Wadham, Green, Debattista, Somerset, and Sav (2019) cautioned that the quality of the information and messages matters to ensure their accuracy, creativity, and innovation. Korda and Itani (2011), as well as Stellefson et al. (2020), concur that messages to be shared on social media should be checked to avoid misinformation and non-compliance with existing users' privacy regulations.

5. Limitation of the study

The participants were recruited using a non-probability sampling method. This sampling method may have inadvertently excluded other students who may have had different experiences and perspectives. The study relied solely on students' experiences and perspectives, omitting parental and educator perspectives and experiences. The level of anxiety among participants during the COVID-19 pandemic (some focus group interviews occurred during the pandemic) may have also affected how participants shared their experiences. The interpretation of the study's findings should be done with these limitations in mind.

6. Recommendations

To maximise the use of social media platforms for the advancement and enhancement of school-based sexuality education programs in the research setting and similar settings, the Department of Basic Education (DBE) should revise its policy regarding sexuality education pedagogy to accommodate the integration of social media platforms as important resources to achieve its curriculum outcomes. In addition, based on the results of this study, teachers should be trained or retrained on the use of social media to improve their pedagogical efficacy. Social media platforms should be used by the DBE and its schools to create awareness and foster multidimensional collaboration and engagements to promote the teaching and learning of sexuality education in the study setting and, by extension, in similar settings throughout the country. Finally, the municipal authorities should provide the needed leadership to address the identified challenges to the use of social media platforms for enhancement of sexual and reproductive health education in the research setting by collaborating with other relevant stakeholders.

7. Conclusions

The findings of this study revealed the potential benefits of social media platforms for sexuality education programs if they were well harnessed. The study further shows the challenges that may impede the effective use of social media for improving school-based sexuality education. Therefore, I argue that if the identified challenges are addressed and policies are put in place to maximise the benefits of social media use in teaching and learning about sexuality education, the messages of the sexuality education curriculum will be reinforced, become more acceptable, and become more impactful, leading to enhanced positive SRH outcomes among the students.

Acknowledgements

The author would like to thank the Kwazulu-Natal Department of Basic Education for granting permission to conduct the study in its facilities and the students who participated in the study voluntarily.

References

- Adekola, A. P., & Mavhandu-Mudzusi, A. H. (2022). Advancing sexual and reproductive health outcomes in rural schools with the use of a sexuality education enhancement model: Learners' perspectives. *Heliyon*, 8(10). <https://doi.org/10.1016/j.heliyon.2022.e11189>
- Adekola, A.P. & Mavhandu-Mudzusi, A.H. (2021). Addressing Learner-Centred Barriers to Sexuality Education in Rural Areas of South Africa: Learners' Perspectives on Promoting Sexual Health Outcomes. *Sexuality Research and Social Policy*. Retrieved from <https://doi.org/10.1007/s13178-021-00651-1>.
- Decker, MJ, Berglas, NF & Brindis, DC. (2015). A Call to Action: Developing and Strengthening New Strategies to Promote Adolescent Sexual Health. *Societies*. 5, 686-712.
- Fernane, S, Fruitman, H, Topping, T, Clarke, D, Lane, A & Secan V. (2012). Effective Health Promotion Strategies to reduce sexually transmitted infections: A rapid review. <https://www.peelregion.ca/health/resources/pdf/EffectiveHealth.pdf>
- Gabarron, E & Wynn, R. (2016). Use of social media for sexual health promotion: a scoping review, *Global Health Action*, 9:1, 32193. <https://www.tandfonline.com/doi/pdf/10.3402/gha.v9.32193?needAccess=true>
- Hudnut-Beumler J, Po'e E, & Barkin S. (2016). The Use of Social Media for Health Promotion in Hispanic Populations: A Scoping Systematic Review *JMIR Public Health Surveill* 2016;2(2):e32 doi: 10.2196/publichealth.5579
- Jane, M., Hagger, M., Foster, J., Ho, S., & Pal, S. (2018). Social Media for Health Promotion and Weight Management: A critical debate. *BMC Public Health*, 18(1). <https://doi.org/10.1186/s12889-018-5837-3>
- Korda, H., & Itani, Z. (2011). Harnessing Social Media for Health Promotion and Behavior Change. *Health Promotion Practice*. <https://doi.org/10.1177/1524839911405850>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage.
- Noon, E. J. (2018). Interpretive phenomenological analysis: An appropriate methodology for educational research? *Journal of Perspectives in Applied Academic Practice*, 6(1), 75–83.
- Office of the Premier, KwaZulu-Natal province (2020). KwaZulu-Natal HIV & AIDS, STIs & TB Multi-Sectoral Response Provincial Synthesis Report. Q3 2019/20 pp.15–16
- Polit, DF & Beck, CT. (2017). *Nursing Research: Generating and Assessing Evidence for Nursing Practice*. Tenth edition. Wolters Kluwer. Philadelphia.
- Saunders, B, Sim, J, Kingstone, T, Baker, S, Waterfield, J, Bartlam, B, Burroughs, H & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality and quantity*, 2018; 52(4), 1893–1907.

- Ragsdale, K, Harper, SK, Kathuria, S, Bardwell, JH, Penick, CB & Breazeale, M. (2015). Social media to enhance sexual health education for youth: Fact Not Fiction's (re)design and launch. *Case Studies in Strategic Communication*. cssc.uscannenberg.org/wp-content/uploads/2016/06/v4art5.pdf
- Sim, J & Waterfield, J. (2019). Focus group methodology: Some ethical challenges. *Quality & Quantity*, 53. 3003-3022.
- Statista (2022). Number of Social Network Users Worldwide from 2018 to 2027. Available online: <https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/> (accessed on 09 December 2022).
- Stellefson, M., Paige, S. R., Chaney, B. H., & Chaney, J. D. (2020). Evolving role of Social Media in Health Promotion: Updated responsibilities for Health Education Specialists. *International Journal of Environmental Research and Public Health*, 17(4), 1153. <https://doi.org/10.3390/ijerph17041153>
- Uittenhout, H. (2012). *The Use And Effect Of Social Media In Health Communication About Common Head Lice* (dissertation). University of Twente, Enschede. https://essay.utwente.nl/62495/1/MSc_H_Uittenhout.pdf
- United Nations Children's Fund (UNICEF). (2019). *The Opportunity for Digital Sexuality Education in East Asia and the Pacific*. <https://www.unicef.org/eap/media/3686/file/Digital.pdf>
- Wadham, E, Green, C, Debattista, J, Somerset, S & Sav, A. (2019). New digital media interventions for sexual health promotion among young people: a systematic review. *Sexual Health*, 2019; 16(2): 101–123.