



RESEARCH ARTICLE

**REVISED** **Good sex matters: Pleasure as a driver of online sex education for young people [version 2; peer review: 1 approved, 1 approved with reservations, 1 not approved]**

Lindsay van Clief , Elianne Anemaat

RNW Media, Hilversum, Noord Holland, 1217 AM, The Netherlands

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**Abstract**

**Background**

There are few documented examples of online sex education platforms that make an impact on young people’s sexual health and wellbeing, yet research shows that new media has enormous potential to be harnessed in this way. The same is true for a pleasure-positive approach to sex education curricula and programmes. This research provides empirical evidence from the Love Matters’ websites in Mexico, Kenya, Nigeria, Egypt, and India to highlight the prevalence and importance of talking about pleasure-related topics with young people.

**Methodology**

Love Matters is an online sex education platform targeting seven countries and attracting 30 million website visits in 2018. We analysed data through Google Analytics to explore the difference between sex education-focused content and pleasure-focused content and how young people engage with different types of sexual health information on the Love Matters platforms.

**Results**

Pleasure-focused content is 1.5 times more popular than sex education-focused content across all platforms. However, education-focused content attracts more organic traffic, suggesting young people purposefully search for sexual health information online. Users generally spend longer on the site engaging with sex education-focused content than pleasure-focused content.

**Conclusion**

This research provides empirical evidence from five countries in the Global South to support the notion that young people are actively looking for sexual health information that covers the full scope of sexual experience and pleasure, including – but not limited to – the reduction of health risks. This paper furthers the efforts to adopt a pleasure-positive approach to both online and offline sex education interventions.

**Open Peer Review**

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1. **John S. Santelli**, Columbia University, New York City, USA
2. **Pauline Oosterhoff**, Institute of Development Studies (IDS), Brighton, UK  
**Susie Jolly**, Institute of Development Studies, UK and freelance consultant on gender and sexuality, Brighton, UK
3. **Rachael Eastham** , Lancaster University, Lancaster, UK  
**Ali Hanbury**, The Proud Trust, Manchester, UK

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## Keywords

sex education, pleasure, young people, new media, online, Google Analytics, digital

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**Corresponding authors:** Lindsay van Clief ([lindsay.vanclief@gmail.com](mailto:lindsay.vanclief@gmail.com)), Elianne Anemaat ([elianne.anemaat@rnw.org](mailto:elianne.anemaat@rnw.org))

**Author roles:** **van Clief L:** Conceptualization, Methodology, Project Administration, Writing – Original Draft Preparation, Writing – Review & Editing; **Anemaat E:** Data Curation, Formal Analysis, Methodology, Validation, Visualization, Writing – Original Draft Preparation, Writing – Review & Editing

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**REVISED Amendments from Version 1**

In our updated version we are more explicit about the Love Matters websites and its contents, and we use more plain language in our methodology and data collection. We have made a clearer link with our introduction and conclusion, while expanding on our definition of pleasure. We now dive deeper into the digital landscape, including pornography. Finally, we reconsidered some of our arguments around universality and rephrased to globally relevant.

**Any further responses from the reviewers can be found at the end of the article**

**Introduction**

Since the pioneering work of Michelle Fine in 1988, the missing discourse of pleasure has been used as a lens to both enhance and critique sex education (comprehensive or otherwise) and sexual and reproductive health and service provision while also creating a movement of community programmes and discussions (Abel & Fitzgerlad, 2006; Allen, 2005; Allen, 2007; Allen, 2012; Beasley, 2008; Boonstra, 2011; Gruskin *et al.*, 2019; Lamb *et al.*, 2013; McGeeney & Kehily, 2016; Ollis, 2016). Sex education curricula tend to approach sexual health from a public health perspective, focusing on risk reduction of sexually transmitted infections (STIs) and sexually transmitted diseases (STDs), reducing teenage and unwanted pregnancy and emphasising the delay of first-time sex (Allen, 2007). Yet pleasure, in all its facets intrinsically connected to sexual experience, has been notably absent in the educational context of sexual health (Fine, 1988).

Pleasure, then, relates to the full context of sexual and romantic experience, including love, sex for pleasure, relationships, boundaries, communication, consent desire etc. (Wood *et al.*, 2019). Talking about pleasure has been highlighted as a “gap” between discourses in sex education and the realities of young people’s varied sexual experience (Abel & Fitzgerlad, 2006; Allen, 2001; Fine, 1988; McGeeney & Kehily, 2016). Despite these discussions and recommendations, most sexual health education programmes continue to solely focus on risk reduction and avoid larger conversations about sex and sexuality. With this research, we will highlight an online example of integrating pleasure-focused topics to help inform young people about their sexual health and rights in Mexico, Egypt, India, Kenya and Nigeria.

The primary focus of incorporating pleasure is acknowledging young people as sexual beings with wants, needs and desires (Allen, 2001; Allen, 2005; Boonstra, 2011; Fine, 1988; Hanbury & Eastham, 2016). It is about bringing a stronger rights framework into sexual health “to include such issues as gender norms, sexual orientation, sexual expression and pleasure, violence, and individual rights and responsibilities in relationships” (Berglas *et al.*, 2014, p. 63). Researchers have argued that not talking about pleasure means that the needs of young people are not being met (Francis, 2010; Giami *et al.*, 2006; Ingham, 2005; Philpott *et al.*, 2006b). Taking pleasure out of the conversation effectively ignores one of the main motivators for high-risk sexual health behaviour – which is, indeed, pleasure

(Gruskin *et al.*, 2019). Rather, the guiding notion should be to ground sex education in the actual lived (sexual) experiences of young people, thereby encouraging a healthier outlook towards sex that is both safe and enjoyable.

It is important to address key topics like negotiation and communication, as well as diversity of bodies, genders and sexual orientations when you are integrating pleasure into the conversation (Abel & Fitzgerlad, 2006; Beasley, 2008; Fine, 1988; Gruskin *et al.*, 2019; Tepper, 2000). To effectively speak with young people, you need to make sure that the information is reflective of the population you are speaking to (Abel & Fitzgerlad, 2006; Allen, 2001; Allen, 2005; Giami *et al.*, 2006). If not, it further marginalises young people when they do not fit into the cis-gendered and heteronormative model or are having sex outside of a committed relationship.

In the last decade, the arguments are no longer about *if* you should include pleasure, but *how* (Allen, 2012; McGeeney & Kehily, 2016; Wood *et al.*, 2019). There have been a number of interventions and research publications on how to best include pleasure-related topics in sexual health education, with some promising findings (Hanbury & Eastham, 2016; Gruskin, *et al.*, 2019; Müller *et al.*, 2017; Philpott *et al.*, 2006a; Philpott *et al.*, 2006b). There have also been some projects and programmes that have adapted such discourse and narratives (Philpott *et al.*, 2006b). The Pleasure Project, for example, has demonstrated that when talking about pleasurable sex and condoms, sales and use of condoms increase more than with other, more traditional fear-based or sex-negative methods (Philpott *et al.*, 2006a; Philpott *et al.*, 2006b). Unfortunately, many of these projects “...tend to occupy marginal spaces and are not included in mainstream policy-making or news reporting, unless being chastised and accused of corrupting the young” (Hanbury & Eastham, 2016). More innovation in sex education is needed, as well as more research to test the existing theories.

This is not to say that school-based programmes have not made attempts to integrate pleasure. However, they seem to share various challenges and pitfalls revolving around teacher training, lack of sensitivity around gender and sexual diversity, community acceptance and fear of these approaches (Allen, 2005; Allen, 2012; Fine, 1988; Francis, 2010; Giami *et al.*, 2006; McGeeney & Kehily, 2016; Ollis, 2016). Some sex education curricula have incorporated pleasure within existing risk reduction models, thus effectively framing pleasure as a risk factor for unhealthy behaviour, emotional turmoil, STIs and STDs and pregnancy (Lamb *et al.*, 2013). This results in an opposite discourse where pleasure is equated to fear and danger instead of the notion that sex can be pleasurable and safe (Hanbury & Eastham, 2016; Lamb *et al.*, 2013; McGeeney & Kehily, 2016).

These reflections demand more consistent definitions of pleasure and best practices for its integration to attain a more sex-positive and validating approach to the sexual experiences of young people. In a special edition of the journal *Sex Education*, McGeeney & Kehily (2016) speak about the disconnect between research and practice. Despite the larger trend of acknowledging

pleasure in academic theory and research studies presented on its benefits, a lack of larger uptake or significant change in these practices can be noted on the ground. This calls for a closer connection of practitioner and researchers to help bridge the gap between theory and practice.

### The global relevance of pleasure

There is a scarcity of research on the relationship between pleasure and sex education from the Global South, despite the rise of sexual health education globally post the HIV/AIDS crisis (Altman, 2008; Ingham, 2005). Looking at the theory, one would suspect that the concepts of pleasure and the empowering of young people as sexual beings would be relevant across the globe, however there is little research to support this (Ingham, 2005). Some research has been done in Africa, Asia and South America that indeed implies more universality of pleasure (Francis, 2010; Müller *et al.*, 2017; Philpott *et al.*, 2006b; Simon & Daneback, 2013). Yet, much of the body of research linking pleasure to sex education is from the United States, Australia and New Zealand which raises many more questions than answers (Wood *et al.*, 2019). This research aims to fill this gap by contributing empirical evidence from various countries in the Global South to help highlight the importance and relevance of pleasure.

There are hints to pleasure as a globally relevant concept when looking at research and theory in other disciplines. In communications and marketing, there has been a long-standing principle of 'hedonic consumption' which echoes the importance of pleasure in making decisions, and our natural bias for positivity and things that people believe will make them happy (Alba & Williams, 2013). This perspective is relevant because it acknowledges the emotional aspects of the selection process and consumption of products (including information), which means that utilitarian use and practicality are not always enough (Jordan, 1998). When taking this approach to sex education, this implies that the risk reduction focus, despite its use and importance, is missing elements to make it successful and impactful with young people themselves. It is important to address the emotion and the context behind the decisions and motivators to have the desired effect.

### New media as a vehicle for health interventions

With the growth of the internet and mobile technology, new media<sup>1</sup> has become increasingly important as a source of information for people's sexual and reproductive health (Allen, 2005; Allison, *et al.*, 2012; Lefebvre, 2007; Levine, 2011; McGeeney & Kehily, 2016; Suzuki & Calzo, 2004; Vance *et al.*, 2009). Some even challenge the concept that schools are the best place for sexuality education in today's landscape, highlighting the popularity of the internet as a source for young people (Giami *et al.*, 2006; Jones & Biddlecom, 2011). As Simon and Daneback state: "...adolescents want to learn about sexual

experiences, not just sexual health, the Internet may cater better to adolescent's education interests, thus serving as a replacement for topics lacking in [school-based sex education]" (Simon & Daneback, 2013, p. 314). Although it may not be ideal to serve as a full replacement, young people are seeking information online even when other sources may be available in their communities or schools.

Access to new media also opens the variety of types of information and source material available. Pornography in various formats is widely available on the internet. Many young people are consuming porn, which not only offers pleasure, but can also inform consumers about sex (Oosterhoff *et al.*, 2016). Most educators and activists aim to offer young people more formal information alongside, or instead of, porn as a place to develop an understanding around sex and sexuality. The reality is that young people are filling in the gaps of their formal sexual education with digital media including (if not exclusively with) porn.

There is a strong interest for educators in exploring new media and digital avenues to engage with young people about their sexual health (Giami *et al.*, 2006; Jones & Biddlecom, 2011; Levine, 2011; Lefebvre, 2007; Oosterhoff *et al.*, 2016). The web has fewer barriers to access and fewer censors when it comes to sensitive, taboo or sexual information (Müller *et al.*, 2017). There is a rise of websites, mobile applications and social media accounts that share sexual health related information to people when they want it, where they want it (Suzuki & Calzo, 2004; Vance *et al.*, 2009). The internet offers educators a space to share information and engage directly with young people themselves, with varying degrees of privacy and is largely less subject to censorship than school and other formal education institutions (Suzuki & Calzo, 2004). This freedom allows for new approaches and discourses that could further embody the pleasure perspective and overcome many of the common barriers highlighted around sex education. It is clear that young people are using new media as a source whether the information available online is accurate or not (Jones & Biddlecom, 2011; Simon & Daneback, 2013).

Digital and new media methods are also an intervention that can cross borders. The trend of young people searching for sexual health information online is present in different geographical and cultural contexts (Simon & Daneback, 2013). "Freedom from geographic and temporal boundaries, open access to sources and information, and the ability to create the digital and social contours that surround health conversations, information seeking, decision making, and behavioural choices" (Lefebvre, 2007, p. 34). Online platforms can offer insights into young people's behaviour and insights at scale in under-researched locations.

### Love Matters

Love Matters is the flagship sexual and reproductive health and rights programme of RNW Media, an international media organisation based in the Netherlands that focuses on building digital communities for social change. Love Matters is a collection of online platforms where young people (between

<sup>1</sup>"The term new media is a broad term that refers to on-demand access to content anytime, anywhere, on any digital device, as well as interactive user feedback, creative participation, and community formation around the media content" (Allison *et al.*, 2012).

fifteen and thirty<sup>2</sup>) can access information about love, sex and relationships. Love Matters is active in China, Mexico, Egypt, Kenya, Nigeria, India, and the Democratic Republic of Congo, and provides evidence and rights-based sexual health information in local languages to anyone who has access to the internet. Love Matters engages with young people on the topics of sexual and reproductive health and rights using a pleasure-first approach (Gruskin *et al.*, 2019; Müller *et al.*, 2017).

In 2018, Love Matters' websites hosted almost 30 million visits, and Love Matters' pages were viewed 49 million times. More than 5.6 million fans followed the Love Matters Facebook pages, interacting through likes, comments and shares. Love Matters China and Egypt maintain strong video platforms with 46 million and 26.2 million views respectively (RNW Media, 2018).

Rather than shying away from pleasure-related topics, Love Matters covers a wide range of diverse topics related to love, sex and relationships, and tries to make sure that the information is relevant, interesting and engaging for young people. Love Matters brings the theory of talking about pleasure, the lived experiences of young people and the concept of hedonic consumption together. It embeds a pleasure and right-based perspective within the body of content in attempts to empower through understanding and knowledge. As an example, the article *Oral Sex: Top 5 Facts*<sup>3</sup> contains tips for giving pleasurable oral sex, highlighting some techniques while also including a tip to use a barrier contraceptive method during oral sex. The idea behind this approach is to contextualise sex education information in a pleasure-focused way which both acknowledges and engages with young people's interests, with the aim of enhancing the effectiveness of the information provided (Philpott *et al.*, 2006a; Philpott *et al.*, 2006b).

## Methods

### Study background

To understand to what extent young people are visiting the platforms and engaging with the content, we make use of various digital data collection and analytic tools. Web analytics, including Google Analytics, have been used in digital marketing for decades and are now increasingly being used as a process evaluation tool for online health interventions because they provide valuable insights into the extent to which people are exposed to the intervention, and how intensively they engage with it before leaving (Crutzen *et al.*, 2012; Müller *et al.*, 2017; Plaza, 2010).

### Data extraction

For this study, we used Google Analytics to analyse reach and engagement of users with four of the longest running websites: Love Matters India, Love Matters Africa (operated from Kenya and Nigeria), Hablemos de Sexo y Amor (operated

from Mexico), and Love Matters Arabic (operated from Egypt)<sup>4</sup>. We collected data from January 1<sup>st</sup> to December 31<sup>st</sup> of 2018, based on the following indicators: sessions by landing page, traffic type, session duration, time on page, and exit rate<sup>5</sup>. The number of sessions show how many times people visit the website, while the landing page indicates on which page they first enter. Session duration shows how many seconds (on average) people stay on the website, while time on page shows the number of seconds (on average) people stay on a specific page. Traffic type gives insight into how users find the website, for example through search engines (organic), Google Ads (paid) or social media (social). Lastly, exit rate shows the percentage of people that end their session with a certain page (Müller *et al.*, 2017).

We are looking at total amounts of sessions that include different traffic sources, including organic, social and paid sources. We choose to use all types of traffic sources because ad clicks, social media clicks and search engine clicks all imply interest from the user. The ads are targeted to key words and interests related to the themes discussed in this paper.

### Data categories

Each Love Matters website is made up of thousands of pages of various content on a large spectrum of topics related to sexual health and reproductive rights. For the purpose of this research, and to help demonstrate which themes attract and interest young people, we have divided the Love Matters website content into two fundamental categories: sex education and pleasure. Each of the eight key topic areas of the website content (which also serve as the main navigation categories) have been assigned to either sex education or pleasure<sup>1</sup>. Please note that this is an artificial separation, based on each article's core topic, for the purpose of comparative analysis. Some articles include elements that refer to both pleasure and sex education.

Building on the notion that sex education primarily takes a risk reduction approach, main content themes for sex education are *Birth Control*, *Our Bodies* (covering anatomy and issues related to physical development), *Pregnancy*, and *Safe Sex* (including safe sex practices, STIs and STDs). Pleasure then takes on the content themes that acknowledge and address the full context of diverse sexual experience(s): *Love and Relationships* (covering dating advice, consent, harassment, relationship problems and tips), *Making Love* (covering orgasms, sex tips and sexual problems), and *Marriage* (covering proposals, weddings, married life).

This division results in more articles being assigned to pleasure than sex education. This is a natural result of the large variety of topics covering the full scope of sexual experience under pleasure, and also of the fixed nature of sex education articles

<sup>2</sup>Love Matters web analytics confirm that 90% of the online audience is between the age of 18 and 30.

<sup>3</sup><https://lovemattersafrica.com/making-love/ways-to-make-love/oral-sex-top-five-facts>

<sup>4</sup>We selected these four websites given that they are the longest running Love Matters platforms and fully operational for the entirety of 2018.

<sup>5</sup>As RNW Media is a media for social change organisation, the careful handling of data is of special importance to us. In addition to being GDPR compliant, we have developed a Responsible Data Framework to standardise our approach to data and the ethics of it. As part of this project, we assessed if the data used was in line with our responsible data practices and found that it was. The main reason for this is that the data was aggregated and not personally identifiable, which means the data is not sensitive or high-risk.

which remain relevant and are visited throughout the year while pleasure content tends to be topical and has a shorter lifespan per page

### Limitations

We have limited this study to a comparative analysis of selected Love Matters websites, thereby excluding Love Matters social media platforms and offline components of the comprehensive Love Matters programme. This choice was made for two reasons: First, this paper is focused on providing data on the information-seeking behaviour of young people on the internet. The primary purpose of the Love Matters websites is to provide information, while other online and offline programme components focus more on engaging young people in dialogue. Secondly, due to the websites serving as information hubs in their respective regions, they are the only programme component designed to have similar content categories, which allows for a cross-regional comparative analysis.

A second limitation is that using Google Analytics provides reliable insights in user traffic on websites but cannot provide 100% accuracy due to its dependency on user cookie settings and limitations in recognising source traffic. While this paper presents relevant website data that indicates strong user interests, we cannot provide insight into why users behave in a certain way without employing additional qualitative methods.

### Results

#### Attracting visitors: sessions by landing page

We found significant differences in user interest when distinguishing between pleasure-focused content and sex education-focused content. For all four platforms (India, Africa, Arabic and Hablemos), we see that pleasure content attracts a higher number of visitors than sex education content: a combined total of 9.1 million sessions came in on pleasure pages, while sex education pages attracted 6.3 million sessions across the platforms. Pleasure-focused content is on average 1.5 times more popular than sex education-focused content. Love Matters Arabic and Hablemos show the greatest difference between pleasure and sex education: respectively 1.6 (3.8 million pleasure versus 2.3 million education sessions) and 1.7 (697,350 pleasure versus 409,914 education sessions). Love Matters Africa and India are on the lower part of the scale, with pleasure content surpassing sex education by an average of 1.3. [Figure 1](#) shows that despite the differences in scope between the four platforms, the pleasure trend is consistent throughout all platforms.

For all platforms, the popularity of pleasure-focused topics is centred around the content category *Making Love*, which accounts for 77% of the 9.1 million pleasure-focused sessions. This category focuses on articles and facts on orgasms and how to have pleasurable sex. Regional differences can be found when looking at topical interest: Love Matters Arabic's top position is determined by the popularity of *virginity* as a topic category, covering information and facts on virginity, and the hymen. Over the year, more than 660,000 sessions came in on pages related to virginity, which is 6.5% of all incoming traffic on Love Matters Arabic. Although the topic of virginity also attracts users to Love Matters India and Love Matters Africa

(respectively 812,000 and 41,000 sessions), we see that articles under *Ways to make love* interest most users on Love Matters India (nearly 1.1 million sessions, making up 9% of total incoming traffic), while *Orgasms* are the most popular on Love Matters Africa (almost 104,000 sessions, making up 11% of total incoming traffic).

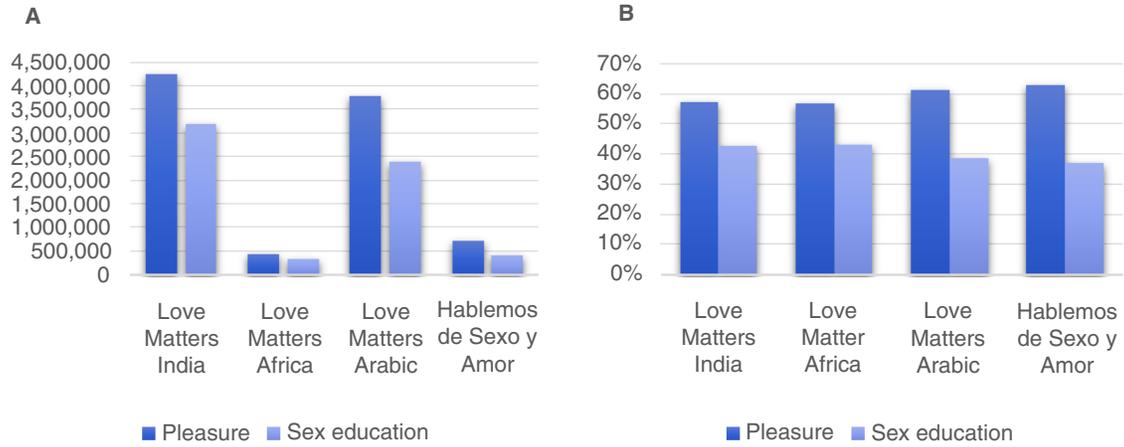
Most of the interest in sex education-related content is focused on the male and female anatomy, with a particular emphasis on *Penis shapes and sizes*, which is the most popular page under sex education-focused content for all platforms except Hablemos, whose article *Reasons for delayed menstruation* is the top-visited sex education page. Sex education topics focused on risk reduction, such as contraception, pregnancy and safe sex, are the least popular and attract close to 1.7 million sessions, making up 29% of 5.9 million sex education-related sessions. As shown in [Figure 2](#), this relative disregard for risk reduction topics is a visible trend on Love Matters India, Arabic and Hablemos. Although Love Matters Africa follows the same trend when it comes to safe sex and birth control, the *Pregnancy* content category is an outlier in this category and attracts a high number of visitors with almost 100,000 sessions over the year, making up 10% of the total incoming traffic to Love Matters Africa.

Because the Love Matters platforms attract visitors through different channels, it is worthwhile to consider the implications of organic traffic in relation to pleasure and sex education content. On Love Matters India, nearly 50% of all incoming traffic to educational content is based on organic searching (against 33% for pleasure pages), which means users have been looking for specific key words that led them to the website. On Love Matters Africa, organic traffic to educational pages is somewhat lower with 24%, but still follows India in the trend that sex education pages attract 1.5 times more organic traffic than pleasure pages. Love Matters Arabic is once again the outlier: with barely any paid traffic, their organic traffic to both sex education and pleasure is remarkably high, with 71% and 68%, respectively.

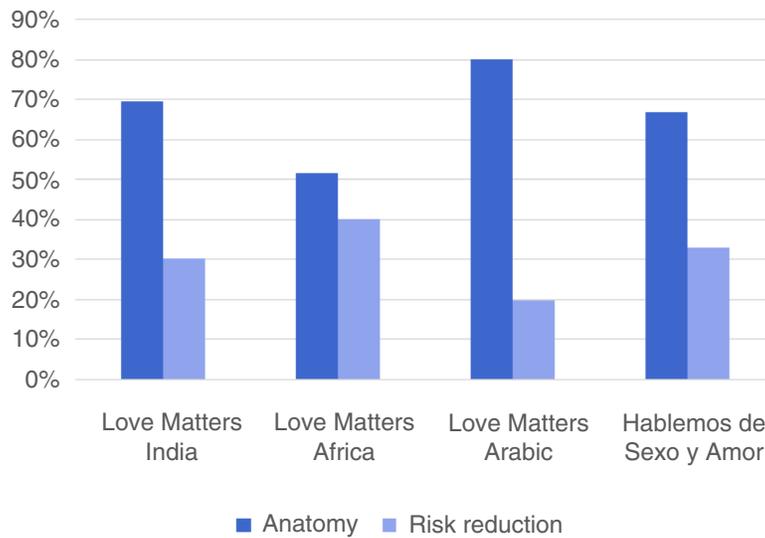
#### Spending time: Time on page, session duration

Although pleasure-focused content surpasses sex education-focused content in terms of popularity and attracting visitors, we observe a different trend when it comes to the amount of time users spend on the pages and the total length of their sessions. [Figure 3](#) shows that on all platforms except Hablemos, users generally spend more time on sex education pages than pleasure pages; for Love Matters India, the difference is considerable, with 02:04 against 02:41, respectively, which is a 30% increase in average time spent on sex education-focused pages. For Love Matters Africa and Arabic, the difference is smaller at 8%.

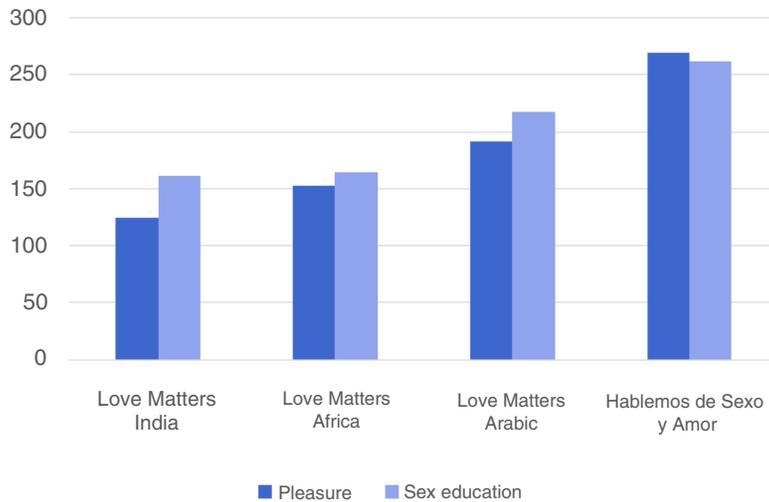
Perhaps more interesting than average time by category, however, are the specific topics that come out on top. The theme *Safe Sex* may not attract high visitor rates on Love Matters Arabic and India, but its users spend on average 40% more time on pages about STIs and STDs than, for example, on the *Ways to Make Love* articles (03:32 against 02:14), even though the latter category attracts five times more visitors than the former. The same trend emerges when comparing total session duration



**Figure 1. Sessions by landing page type: pleasure vs sex education. (A) Number of sessions. (B) Percentage of sessions.**



**Figure 2. Percentage of sex education-related sessions by landing page topic: anatomy vs risk reduction.**



**Figure 3. Number of seconds spent on page type: pleasure vs sex education.**

between the two categories of landing pages: for all platforms except Hablemos, users coming in on *Safe Sex* spend longer interacting with the website than those who come in on *Making Love*, with Love Matters India peaking at a 1.5 difference. This supports the assumption that users interested in this category take more time to go through the content.

In terms of session duration, there are relatively minor differences between pleasure and education content. However, it is interesting to note that users coming in on Love Matters Arabic, Africa and Hablemos through organic search typically have a very short session duration. For example, the more than 56,000 organic visitors to the Love Matters Arabic fact page on *Wet Dreams* spent around 1 minute and 11 seconds reading the page before leaving, which is 40% less than the time generally spent on educational pages. A possible explanation for this is that organic users tend to be looking for a specific piece of information and leave as soon as they have gone through the article.

Looking at how users exit the website, we see that exit rates for educational content are lower than pleasure content on all platforms, which means that users are more likely to click through to other pages when they are on educational content. For Love Matters Africa, Arabic and India, the difference is between 3 and 5%, and slightly higher for Hablemos with 8%.

## Discussion and conclusion

With over 30 million visits to the Love Matters sites in 2018, young people are, without question, looking online for sexual health-related content. The new digital era is here, and this is no longer a potential but a reality. Not only are they looking online but they are looking for pleasure online further propelling the idea of the universality of pleasure. Love Matters is carving out a significant space online where sex education and pleasure are accessible and integrated in countries all over the world. While the platforms are in different languages and driven by local needs, there are still trends that go beyond borders.

The findings of this research enforce the notion that young people are primarily engaged with topics that address their interests and concerns as they explore different aspects of their sexuality online. This re-affirms the theoretical suggestions that to engage young people you must also talk about their pleasure and their lived sexual experiences that Fine and others have been arguing for the past few decades. Sexual development goes beyond risk reduction of unwanted pregnancies and STI or STDs, therefore interests and concerns do too. If we wish to provide young people with information and guidance on how to have healthy and fulfilling sexual relationships, we cannot disregard the crucial elements of sexual pleasure. Considering strategies from other disciplines, such as hedonic consumption, can support in creating interesting and engaging sex education material. Integrating sexual health information with different aspects of (sexual) pleasure is how Love Matters attracts young people to their platforms.

The quantitative nature of analysing website traffic through Google Analytics means we can only speculate and make assumptions on the interpretation of certain metrics. Whether young people staying longer on a page means they are taking up the content is something we cannot determine, but the sheer number of clicks shows us that something is happening on a large scale. Our findings show that young people spend more time on sex education-related pages, which implies that they are reading the content with care and interest. Furthermore, we see that young people also search, purposefully, for content related to risk reduction. They are bringing their curiosities, questions and concerns to search engines rather than classrooms, looking for trustworthy information. The availability of online platforms that reliably addresses their interests and answers their questions on all aspects of sexual experience is therefore not just an opportunity, but a necessity.

Addressing sexual pleasure does not mean that we should disregard the health risks that are inevitably linked to sex. Reducing the risk of STIs and STDs, as well as teenage and unwanted pregnancies, remains an essential part of sexual health. Yet, unless it is positioned in the broader scope of sexual experience, it is unlikely to fully and effectively engage young people. As the concept of using pleasure as a driver of online sex education is evident, more work in both design and research is needed to understand how pleasure can be used to more effectively engage young people on sex education. Love Matters shows that by building awareness, trust and community around sexual health through openly addressing pleasure, it is also possible to provide fact-based information around contraceptive methods, STI and STD prevention and other risk-reducing behaviours to millions of young people around the world.

## Data availability

### Underlying data

Harvard Dataverse: Love Matters Sample Website Data 2018. <https://doi.org/10.7910/DVN/WXUOA2>.

This project contains a sample of the Google Analytics data from the Love Matters websites in India, Mexico, Kenya, Nigeria, and Egypt.

Owing to the large size of the data analysed in this study, the full dataset has not been made available. However, interested parties may request access by contacting [data@rnw.org](mailto:data@rnw.org).

Data are available under the terms of the [Creative Commons Zero “No rights reserved” data waiver](#) (CC0 1.0 Public domain dedication).

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## References

- Abel G, Fitzgerlad L: "When you come to it you feel like a dork asking a guy to put a condom on": Is sex education addressing young people's understandings of risk? *Sex Educ.* 2006; 6(2): 105–119. [Publisher Full Text](#)
- Alba JW, Williams EF: **Pleasure principles: A review of research on hedonic consumption.** *J Consum Psychol.* 2013; 23(1): 2–18. [Publisher Full Text](#)
- Allen L: **Closing Sex Education's Knowledge/Practice Gap: The reconceptualisation of young people's sexual knowledge.** *Sex Educ.* 2001; 1(2): 109–122. [Publisher Full Text](#)
- Allen L: **'Say everything': exploring young people's suggestions for improving sexuality education.** *Sex Educ.* 2005; 5(4): 389–404. [Publisher Full Text](#)
- Allen L: **Doing 'it' differently: relinquishing the disease and pregnancy prevention focus in sexuality education.** *Br J Sociol Educ.* 2007; 28(5): 575–588. [Publisher Full Text](#)
- Allen L: **Pleasure's perils? Critically reflecting on pleasure's inclusion in sexuality education.** *Sexualities.* 2012; 15(3–4): 455–471. [Publisher Full Text](#)
- Allison S, Bauermeister JA, Bull S, et al.: **The intersection of youth, technology, and new media with sexual health: moving the research agenda forward.** *J Adolesc Health.* 2012; 51(3): 207–212. [PubMed Abstract](#) | [Publisher Full Text](#) | [Free Full Text](#)
- Altman D: **AIDS and the globalization of sexuality.** *Social Identities.* 2008; 14(2): 145–160. [Publisher Full Text](#)
- Beasley C: **The challenge of pleasure: Re-imagining sexuality and sexual health.** *Health Sociol Rev.* 2008; 17(2): 151–163. [Publisher Full Text](#)
- Berglas NF, Constantine NA, Ozer EJ: **A rights-based approach to sexuality education: conceptualization, clarification and challenges.** *Perspect Sex Reprod Health.* 2014; 46(2): 63–72. [PubMed Abstract](#) | [Publisher Full Text](#)
- Boonstra HD: **Advancing Sexuality Education in Developing Countries: Evidence and Implications.** *Guttmacher Policy Review.* 2011; 14(3): 17–23. [Reference Source](#)
- Crutzen R, Roosjen JL, Poelman J: **Using Google Analytics as a process evaluation method for Internet-delivered interventions: an example on sexual health.** *Health Promot Int.* 2012; 28(1): 36–42. [PubMed Abstract](#) | [Publisher Full Text](#)
- Fine M: **Sexuality, Schooling, and Adolescent Females: The Missing Discourse of Desire.** *Harv Educ Rev.* 1988; 58(1): 29–53. [Publisher Full Text](#)
- Francis DA: **Sexuality education in South Africa: Three essential questions.** *Int J Educ Dev.* 2010; 30(3): 314–319. [Publisher Full Text](#)
- Giami A, Ohlrichs Y, Quilliam S, et al.: **Sex education in schools is insufficient to support adolescents in the 21st century.** *Sex Relation Ther.* 2006; 21(4): 485–490. [Publisher Full Text](#)
- Gruskin S, Yadav V, Castellanos-Usigli A, et al.: **Sexual health, sexual rights and sexual pleasure: meaningfully engaging the perfect triangle.** *Sex Reprod Health Matters.* 2019; 27(1): 1593787. [PubMed Abstract](#) | [Publisher Full Text](#)
- Hanbury A, Eastham R: **Keep calm and contracept! Addressing young women's pleasure in sexual health and contraception consultations.** *Sex Educ.* 2016; 16(3): 255–265. [Publisher Full Text](#)
- Ingham R: **'We didn't cover that at school': education against pleasure or education for pleasure?** *Sex Educ.* 2005; 5(4): 375–388. [Publisher Full Text](#)
- Jones RK, Biddlecom AE: **Is the internet filling the sexual health information gap for teens? An exploratory study.** *J Health Commun.* 2011; 16(2): 112–123. [PubMed Abstract](#) | [Publisher Full Text](#)
- Jordan PW: **Human factors for pleasure in product use.** *Appl Ergon.* 1998; 29(1): 25–33. [PubMed Abstract](#) | [Publisher Full Text](#)
- Lamb S, Lustig K, Graling K: **The use and misuse of pleasure in sex education curricula.** *Sex Educ.* 2013; 13(3): 305–318. [Publisher Full Text](#)
- Lefebvre C: **The New Technology: The Consumer as Participant Rather Than Target Audience.** *SMQ.* 2007; 13(3): 31–42. [Publisher Full Text](#)
- Levine D: **Using Technology, New Media, and Mobile for Sexual and Reproductive Health.** *Sex Res Social Policy.* 2011; 8(1): 18–26. [Publisher Full Text](#)
- McGeeney E, Kehily MJ: **Young people and sexual pleasure – where are we now?** *Sex Educ.* 2016; 16(3): 235–239. [Publisher Full Text](#)
- Müller C, Oosterhoff P, Chakkalackal M: **Digital Pathways to Sex Education.** *IDS Bulletin.* 2017; 48(1): 61–80. [Publisher Full Text](#)
- Ollis D: **"I felt like I was watching porn": the reality of preparing pre-service teachers to teach about sexual pleasure.** *Sex Educ.* 2016; 16(3): 308–323. [Publisher Full Text](#)
- Oosterhoff P, Gilder L, Mueller C: **Is Porn the New Sex Education.** *Rapid Response Briefing.* 2016. [Reference Source](#)
- Philpott A, Knerr W, Boydell V: **Pleasure and prevention: when good sex is safer sex.** *Reprod Health Matters.* 2006a; 14(28): 23–31. [PubMed Abstract](#) | [Publisher Full Text](#)
- Philpott A, Knerr W, Maher D: **Promoting protection and pleasure: amplifying the effectiveness of barriers against sexually transmitted infections and pregnancy.** *Lancet.* 2006b; 368(9551): 2028–2031. [PubMed Abstract](#) | [Publisher Full Text](#)
- Plaza B: **Google Analytics for measuring website performance.** *Tourism Management.* 2010; 32(3): 477–481. [Publisher Full Text](#)
- RNW Media: **Annual Report 2018.** Hilversum, Netherlands. 2018. [Reference Source](#)
- Simon L, Daneback K: **Adolescents' Use of the Internet for Sex Education: A Thematic and Critical Review of the Literature.** *Int J Sex Health.* 2013; 25(4): 305–319. [Publisher Full Text](#)
- Suzuki LK, Calzo JP: **The search for peer advice in cyberspace: An examination of online teen bulletin boards about health and sexuality.** *Appl Dev Psychol.* 2004; 25(6): 685–689. [Publisher Full Text](#)
- Tepper MS: **Sexuality and Disability: The Missing Discourse of Pleasure.** *Sex Disabil.* 2000; 18(4): 283–290. [Publisher Full Text](#)
- Vance K, Howe W, Dellavalle RP: **Social internet sites as a source of public health information.** *Dermatol Clin.* 2009; 27(2): 133–6, vi. [PubMed Abstract](#) | [Publisher Full Text](#)
- Wood R, Hirst J, Wilson L, et al.: **The pleasure imperative? Reflecting on sexual pleasure's inclusion in sex education and sexual health.** *Sex Educ.* 2019; 19(1): 1–14. [Publisher Full Text](#)

## Open Peer Review

Current Peer Review Status:   

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### Version 2

Reviewer Report 10 August 2020

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**Rachael Eastham** 

Faculty of Health & Medicine, Lancaster University, Lancaster, UK

**Ali Hanbury**

The Proud Trust, Manchester, UK

The paper presents findings from the analysis of 'Love Matters' website in five countries and the engagement with it by users, as per Google analytics available data. It demonstrates the need and importance of taking a pleasure inclusive approach to sex education in order to meet the demand by young people who are interested in learning about a wider scope of sexual experience than provided through risk reduction only models.

#### Review 1

Thank you for this contribution to the pleasure inclusive literature that draws on a substantial and wide-reaching resource. I think there is much merit in using the Love Matters website and taking this approach to consider the popularity of the content available in these respective country contexts.

The paper is well written and concise with good background provided. My main comments relate to the method and some critical reflections on this method. I think the paper should be published but it would benefit from these things being discussed explicitly in either the 'Limitations' or 'Discussion' section in order to strengthen the method/analysis.

The authors created an 'artificial separation' between the sex education and pleasure-based content and use these as two fundamental categories. Although I understand the necessity and value of doing this in order to answer questions about the difference between the two, I think it would be helpful in the data categories section or limitations section to have more critical explanation about what is included (and not), and why in these respective categories. It says that 'Marriage' and 'harassment' themed items for example were included in the 'Pleasure' category. You state that items included reflect 'the full scope of sexual experience under pleasure' but could it be problematic to classify such content in this way? Is there an argument some content could

have been omitted from this classification process altogether? Critical address of this could ensure claims made in results are more robust. Also what, if anything, was 'missing' from the topics you categorised and have you any reflections on why that might be? e.g. diverse sexualities and relationship types, which are not mentioned in the examples in the Data Categories section.

Why did you select Love Matters from the specific countries that you did out of all those available? Was it *because* of the duration of their operation (four of the longest running)? Why did you not include the others? I think the reason for this decision could be stated (more) clearly.

In terms of who is using Love Matters, I think it is absolutely reasonable to assume that as the resources are for young people, this is largely the audience. However, can we actually know who the users are from the analytics data available? If not, this could be noted in the limitations. The framing of the resource as 'Love Matters' (rather than 'Sex Matters' for example) could offer an interesting point of reflection regarding the nature and motivations of the audience.

The sex education topics attract more organic (specific key word searching) traffic than pleasure topics. I think this is very interesting and could warrant a reflection in the discussion for future research. What could this say about the available and legitimate vocabulary learnt about sex informs search terms? How does this vary by country context and language spoken?

Pleasure positive or pleasure integrated or pleasure focused - which is the authors preferred approach? I was unsure of their own position.

There are some popular topics mentioned such as 'virginity and the hymen.' I would like to see some critical commentary about such topics to avoid reinforcing any problematic norms related to sex, bodies and gender.

Finally, I think that the use of 'organic traffic' in the abstract could be written in plain language as at that point, what it means has not been explained for the reader. In the 5<sup>th</sup> paragraph in the Introduction it may be better to stress the 'academic' arguments or similar as in many realms there is still resistance to including pleasure at all.

Overall, the research and analysis you present is very helpful especially in terms of pleasure in the global context. Having such a huge number of visits to the Love Matters resources documented and analysed in this range of settings is great evidence to pave the way for future pleasure inclusive work in these countries and beyond. Thank you.

## Review 2

A really well written and concise paper. A large data set providing insightful material for study.

I would be interested to hear what the authors think about new technologies and pleasure as a unique combination of factors for education as these seem to be the two main threads; a) a method of delivery and how this can be enhanced and used to best effect and b) the 'topic' or 'theme' of pleasure and how this can be utilised as a vehicle for better outcomes?

The term 'notion' is used throughout but I'd suggest using a firmer term to strengthen the argument or point.

Finally, any insight or reflections on the diversity and inclusion literature you cite early in the paper and how this works in conversation with the analysis of the content and six themes of the Love Matters site and content. It may be a broader question framed around the reconciliation of theory and practice, which the authors allude to.

Thank you for the opportunity to review a well-researched project, which will make a useful contribution to a burgeoning field.

**Is the work clearly and accurately presented and does it cite the current literature?**

Yes

**Is the study design appropriate and is the work technically sound?**

Partly

**Are sufficient details of methods and analysis provided to allow replication by others?**

Yes

**If applicable, is the statistical analysis and its interpretation appropriate?**

Not applicable

**Are all the source data underlying the results available to ensure full reproducibility?**

Partly

**Are the conclusions drawn adequately supported by the results?**

Yes

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Sexual health, sexualities and pleasure. Health inequalities. Young people

**We confirm that we have read this submission and believe that we have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however we have significant reservations, as outlined above.**

Reviewer Report 01 May 2020

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**Pauline Oosterhoff**

Institute of Development Studies (IDS), Brighton, UK

**Susie Jolly**

Institute of Development Studies, UK and freelance consultant on gender and sexuality, Brighton, UK

The authors have made some adjustments to the article which is great. However, a number of comments such as the various restrictions young people face have also not been addressed. How about PWD, LGBTQI in countries with restrictive policies? The article still includes various sweeping statements which can be distracting.

For example: "In the last decade, **the** arguments are no longer about *if* you should include pleasure, but *how* (Allen, 2012<sup>1</sup>; McGeeney & Kehily, 2016<sup>2</sup>; Wood *et al.*, 2019<sup>3</sup>). Whose arguments? The arguments of the quoted researchers? The need to include pleasure as part of sex ed is still contested in many countries- can statements like these be nuanced?

The article still starts with presenting pleasure without defining it upfront, implicitly claiming a universal and ahistorical understanding of the term. There is also no discussion on pleasure and rights and boundaries. One person's pleasure can be another person's pain. Could the authors address these concerns?

The authors claim that some literature has given "some promising findings" but do not specify what these findings are. Intervention and evaluation reports and studies are lumped together with observational and descriptive studies. Can this be unpacked and nuanced? Quoting them in this fashion suggests a universality and a consensus which is not warranted by the quoted studies. (Hanbury & Eastham, 2016<sup>4</sup>; Gruskin, *et al.*, 2019<sup>5</sup>; Müller *et al.*, 2017<sup>6</sup>; Philpott *et al.*, 2006a<sup>7</sup>; Philpott *et al.*, 2006b<sup>8</sup>). The authors contradict themselves starting a paragraph with "In the last decade, the arguments are no longer about *if* you should include pleasure, but *how*" and ending it *with* when writing that **Unfortunately, many of these projects "...tend to occupy marginal spaces and are not included in mainstream policy-making or news reporting.** There are still a number of instances in this article where interpretations are made about universality that need nuancing such as "Some research has been done in Africa, Asia and South America that indeed **implies more universality of pleasure.** Can this be unpacked? Pursuing pleasure in sexual relations may be universal but not what pleasure constitutes of- peoples sexual preferences in terms of what they do or would like to do or fantasize about is very diverse.

What do the authors mean when that say that porn can inform people about sex? Do the authors perhaps mean inform but not necessarily educate people about sex or inform but in a way that is different from comprehensive sex education? Please clarify.

Methods. Good to see the list of criteria used. Were there cut off points for these criteria? Was there a minimum number of seconds that a user needs to stay on a page in order to be included as a user? Suggest clarification.

The phrasing on the limitations for google analytics reads a little odd. "A second limitation is that using Google Analytics provides reliable insights in user traffic on websites but cannot provide 100% accuracy due to its dependency on user cookie settings and limitations in recognising source traffic." Do the authors want to suggest that they believe there are analytics that are 100% accurate? I suspect they don't so I suggest rephrasing.

The limitation section is still a little weak. Could the authors expand this and add a bit more detail

and rigor?

### References

1. Allen L: Pleasure's perils? Critically reflecting on pleasure's inclusion in sexuality education. *Sexualities*. 2012; **15** (3-4): 455-471 [Publisher Full Text](#)
2. McGeeney E, Kehily M: Young people and sexual pleasure – where are we now?. *Sex Education*. 2016; **16** (3): 235-239 [Publisher Full Text](#)
3. Wood R, Hirst J, Wilson L, Burns-O'Connell G: The pleasure imperative? Reflecting on sexual pleasure's inclusion in sex education and sexual health. *Sex Education*. 2019; **19** (1): 1-14 [Publisher Full Text](#)
4. Hanbury A, Eastham R: Keep calm and contracept! Addressing young women's pleasure in sexual health and contraception consultations. *Sex Education*. 2016; **16** (3): 255-265 [Publisher Full Text](#)
5. Gruskin S, Yadav V, Castellanos-Usigli A, Khizanishvili G, et al.: Sexual health, sexual rights and sexual pleasure: meaningfully engaging the perfect triangle. *Sex Reprod Health Matters*. 2019; **27** (1): 1593787 [PubMed Abstract](#) | [Publisher Full Text](#)
6. Muller C, Oosterhoff P, Chakkalackal M: Digital Pathways to Sex Education. *IDS Bulletin*. 2017; **48** (1). [Publisher Full Text](#)
7. Philpott A, Knerr W, Boydell V: Pleasure and Prevention: When Good Sex Is Safer Sex. *Reproductive Health Matters*. 2006; **14** (28): 23-31 [Publisher Full Text](#)
8. Philpott A, Knerr W, Maher D: Promoting protection and pleasure: amplifying the effectiveness of barriers against sexually transmitted infections and pregnancy. *The Lancet*. 2006; **368** (9551): 2028-2031 [Publisher Full Text](#)

**Is the work clearly and accurately presented and does it cite the current literature?**

Yes

**Is the study design appropriate and is the work technically sound?**

Yes

**Are sufficient details of methods and analysis provided to allow replication by others?**

Yes

**If applicable, is the statistical analysis and its interpretation appropriate?**

Yes

**Are all the source data underlying the results available to ensure full reproducibility?**

Yes

**Are the conclusions drawn adequately supported by the results?**

Yes

**Competing Interests:** No competing interests were disclosed.

**We confirm that we have read this submission and believe that we have an appropriate level of expertise to state that we do not consider it to be of an acceptable scientific standard, for reasons outlined above.**

**Version 1**

Reviewer Report 05 August 2019

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**Pauline Oosterhoff**

Institute of Development Studies (IDS), Brighton, UK

**Susie Jolly**

Institute of Development Studies, UK and freelance consultant on gender and sexuality, Brighton, UK

**Review 1.**

The paper argues that despite a growing body of evidence on the importance of recognizing pleasure as a motivation for sex and relationships most sexual health education programs continue to solely focus on risk reduction and avoid larger conversations about sex and sexuality. This article looks at on-line sex-education offered in several contexts which is important for researchers and practitioners not in the least because of the impressive numbers of young people who are reached by on-line platforms such as Love Matters.

The authors rightly point out that with the growth of the internet and mobile technology, new media has become increasingly important as a source of information for people's sexual and reproductive health.

A central argument of the authors- that seeking pleasure is one of the reasons why people have sex and relationships is very important for sex education. There is -as the authors say- indeed a growing body of evidence on this. But sexual preferences and experiences of pleasure are very diverse- and there can be conflicts- one persons pleasure may not be pleasurable for another. It would be good to highlight the importance of consent and what this means in different circumstances. The importance of consent in relation to pleasure has also been made in classrooms and campaigns such as "tea consent"

(<https://www.youtube.com/watch?v=oQbei5JGiT8>) Many of these tensions- reflect gendered inequalities which are important both on-line and off-line.

It would be good to clarify what the authors mean with "information" about sexual and reproductive health, and how sexuality is defined. The numbers of people (and possibly bots) visiting sex education sites is dwarfed by the number of people who visit porn sites. Porn reaches young people intentionally and unintentionally and is an important- some would argue the main- vehicle through which young people learn about sex and sexual relationships. How do the authors conceptualize and measure differences between pleasure as an entry point to consumption and pleasure as an entry point to sex education? Can and should this be measured?

On-line worlds, just like the offline worlds, are moderated. One argument for such moderation is to prevent harm and abuse and create safer digital spaces. The level and extent of this moderation and its relation to freedom of speech is highly controversial. What is clear is that the moderation

industry employs thousands of people to moderate on-line content. Moderators of platforms such as Facebook and search engines such as google have particular instructions on nudity, obscenity and violence which do affect the content of on-line sex education platforms including Love Matters. On-line sex educators such as Love Matters add another layer of moderation to make sure that on-line sex education spaces are safe spaces. It would be useful to be more upfront about these different layers of moderation which shape what kind of information young people can access. In some countries providing information on sexual orientation (such as lesbian, bisexual, queer, and gay) is problematic, some people such as young people with disabilities are hardly present in on-line sex-education, and some sexual practices such as bondage have encountered resistance. In practice, for young people, this means that the information on "pleasure" and "sexuality" on sex education platforms is restricted. It would be very helpful to be more upfront about the digital environment in which digital sex education takes place recognizing the various levels and dimensions of the restrictions and the opportunities at the 1) global level with transnational companies such as facebook shaping sex education 2) national level where national legislators can also restrict on-line information and the legislate companies or NGO such as Love Matters who have offices on the ground. Donors also play a role in the content of on- and off-line sex education.

Methodologically it would strengthen the article if the authors could clarify set the boundaries of the data sets which have been analyzed and the rationales for these boundaries. What it included and what is excluded? What are the limitations of the methodology chosen? Love Matters, as a group of on-line platforms offers a variety of services and pathways into sex education, on- and off-line. These platforms are part of a group but they also have unique features to match the users' needs in specific regions- that is why there are different platforms. Each platform offers a variety of services such as the publicly accessible sex education platforms, virtual reality pilots, the on-line discussion groups and bulletin boards. There are Facebook ads and Facebook queries, off-line peer education etc. It would be very helpful if the users describe each of these platforms, the various services and other key features together with the data sets that each of these features generate. This could be in a visual or a table. The authors should then explain why this article focuses on one feature and what the strengths and limitations of that feature are in terms of their main argument. Are there differences between the kinds of questions that young people ask in these different moderated and less or unmoderated on-line spaces? Are all the on-line and off-line spaces focused more on pleasure than on health, or would it be more accurate to say that users go to different places depending on what they need and what these spaces offer? What is the added value of these different moderated and semi-private services in these spaces to the publicly available platforms? What does that tell us about the role of pleasure in on-line sex education? The article can and needs to be strengthened but after that it should be published as it does contribute to new thinking, new evidence and new lesson for interventions on sex-education.

## **Review 2.**

Indeed, good sex matters and pleasure matters. And as this article says, while the debates may be shifting from if you should include pleasure to how, there have been few accounts of how to do so. Using google analytics, this article analyses how young people using the Love Matters websites in different regions search for sexual health information including on pleasure, and how much time they spend on different kinds of content on the sites. They find that, overall, pleasure focused content attracts a higher number of visitors than sex education content. However, visitors spend more time on the sex education pages than on the pages about pleasure. They conclude that while pleasure is an important content in itself, it can also be a driver to draw young people in to

learn more about other aspects of sex education.

The article is clearly written and provides an important piece of evidence on how pleasure can potentially function in online sexuality education, adding vital new evidence to an ongoing debate. This article should absolutely be published, after minor adjustments. The two areas that I would suggest need to be revised are outlined below.

The first issue which needs addressing is the definition of pleasure and the politics of pleasure. The article declares in the introduction that better definitions of pleasure are needed. Yet this article does not adequately define pleasure, or discuss at all a politics of pleasure. When examples are given of pleasure focused content on Love Matters sites, eg. 'making love', or 'orgasms', there is little information on how these are presented. For example Tepper, a UK author, has critiqued "the orgasm imperative" a norm that we should all be having orgasms, and that we are somehow inadequate or dysfunctional if we do not achieve this or desire this, or if we find pleasures in other ways (Tepper, Mitchell S., 2000, "Sexuality and Disability' the Missing Discourse of Pleasure', *Sexuality and Disability* 18: 4<sup>1</sup>). Do the Love Matters pages on orgasms reinforce this norm or challenge it? Are they providing diverse and sensitive information on pleasure which can empower young people to find their own path to realising their own desires, or do they set up new pressures that will actually undermine pleasure? Reading a webpage on pleasure is not necessarily empowering. A political conception of pleasure which links it to a rights framework can increase the chances that engaging with information on pleasure will be empowering. Some of the debates around the politics of pleasure need to be brought into the article. (See for example Jolly, S., 2010, 'Pleasure and Empowerment: Connections and Disconnections', in *Development*, 53, 227<sup>2</sup>).

The second issue is the claim to a "Universality of pleasure". The article says that the majority of research on pleasure in sex education is from the United States, Australia and New Zealand. The authors argue that "theory" would suggest that pleasure and empowerment of young people as sexual beings are universal. Which theory would suggest that pleasure and this kind of empowerment is universal? What kind of pleasures are they talking about? What about people who label themselves asexual, not just in the West but also in some southern contexts like China? Asexual people might describe a claim to universality of sexual pleasure as an oppressive enforcement of a norm which excludes them. There have been debates around pleasure by African feminists in the Journal Feminist Africa which could provide some answers to some of these questions. These debates should be included in the discussion by this article.

One paragraph is included suggesting that the principle of hedonic consumption in marketing strengthens the argument that pleasure is a universal concept. The principle of hedonic consumption is explained as people making decisions based on what they believe will make them happy, not just on ideas of utilitarian use and practicality. I find it problematic to use a marketing principle as evidence of the universality of pleasure. Marketing principles might tell us more how people can be manipulated for profit than about what constitutes a universal human desire. Some debates about the politics of pleasure have posited deployment of pleasure as a marketing strategy as undermining sexual rights.

I would agree that pleasure is relevant internationally to people in both the global South and North, but the term universality is a problematic claim. I would suggest renaming this section something like "Pleasure is globally relevant".

I look forward to seeing this article indexed. It addresses a gap in the current literature, and has important practical implications for how to develop online sexuality education.

### References

1. Tepper M *Sexuality and Disability*. 2000; **18** (4): 283-290 [Publisher Full Text](#)
2. Jolly S: Pleasure and Empowerment: Connections and disconnections. *Development*. 2010; **53** (2): 227-231 [Publisher Full Text](#)

**Is the work clearly and accurately presented and does it cite the current literature?**

Yes

**Is the study design appropriate and is the work technically sound?**

Partly

**Are sufficient details of methods and analysis provided to allow replication by others?**

Partly

**If applicable, is the statistical analysis and its interpretation appropriate?**

Not applicable

**Are all the source data underlying the results available to ensure full reproducibility?**

Partly

**Are the conclusions drawn adequately supported by the results?**

Partly

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Sexual and reproductive health, human rights, international development

**We confirm that we have read this submission and believe that we have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however we have significant reservations, as outlined above.**

Author Response 21 Jan 2020

**Lindsay van Clief**, RNW Media, Hilversum, The Netherlands

**Pauline Oosterhoff**

Thank you for your detailed review of our paper, your insight and understanding in the topic helped us sharpen our ideas on paper. We have taken your note to highlight more explicitly our dataset and its boundaries and limitations. In doing so we also established that social media and its moderation strategies were outside the scope of this paper, as we are presenting a dataset that is limited to the Love Matters websites. However, based on your feedback, we did go back to include pornography, more about the Love Matters platforms as a whole and our definition of pleasure in relation to this paper.

**Susie Jolly**

Thank you for your thoughtful review of our paper. We were excited that you saw merit in our work, and we have taken your notes to heart. You highlighted some uncertainty about how we defined and talked about pleasure, which we have given more attention to. You also challenged us on the section of universality, which we agree with, and went back to rephrase and adjust our perspective based on your insight.

**Competing Interests:** No competing interests were disclosed.

Reviewer Report 15 July 2019

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**John S. Santelli**

Heilbrunn Department of Population and Family Health and Pediatrics, Columbia University, New York City, NY, USA

This research article addresses a critical issue in sexuality education: adolescent use of online platforms to receive content focused on sex education (including safer sex, STIs, and HIV) and pleasure (love and relationships, making love, and marriage). Data are reported from Love Matters websites in five nations: Mexico, Kenya, Nigeria, Egypt, and India. Google analytics is used to provide information on the search behaviors of youth visiting websites in these countries. A comparison of search behavior for content focused on sex education and pleasure is provided.

This study is a useful and interesting comparison of youth use of online sexuality education. The Internet - in many communities - has become the destination of choice for sexuality education. The inclusion of pleasure-focused content is particularly important as such content is seldom included in school- or community-based sexuality education. This non-judgement exploration of adolescent behavior gives an adolescent "voice" to young people's interests and needs, unconstrained by adult fears and social norms. This study exists against the backdrop in many local communities where there is a failure to provide sex ed or the only education provided is about abstinence. The key clinical implication of this study is that young people online are searching for information about a myriad of topics related to human sexuality.

The review of existing literature on sex education and pleasure in the Introduction is excellent and provides a comprehensive rationale for the work of Love Matters. It would be helpful in revising the article for the authors to return to this literature in the Discussion. In the study, we learn that young people are searching for information about multiple topics including pleasure. Does this study reaffirm or refute the work of Fine and others who are cited?

There are a number of places where further explication or definitions could be provided to readers

who are not digital natives. These include organic traffic (Abstract) and paid traffic (Results).

In understanding the ratio of searching on pleasure vs. sex education pages, it would be helpful if the reader had some idea of the “denominators”, the number of pages or words devoted to these two categories on the Love Matters websites in each country. Search behaviors could have been influenced by the amount of content available to view.

The study provides little information about pleasure-focused content. A bit of information is found under in the Methods section under Data Categories. More information and/or examples would be helpful. Likewise, it is unclear how abstinence is classified. Of course, it is difficult to classify certain information as either pleasure or sex education; how did the authors deal with that issue?

A few other specific comments: on page 7, line 3 “increase in average time” would be better as “greater amount of time.” Also, on page 7, line 10 “5 times more popular” is difficult to understand.

Overall, a noble and important effort!

**Is the work clearly and accurately presented and does it cite the current literature?**

Yes

**Is the study design appropriate and is the work technically sound?**

Yes

**Are sufficient details of methods and analysis provided to allow replication by others?**

Yes

**If applicable, is the statistical analysis and its interpretation appropriate?**

Yes

**Are all the source data underlying the results available to ensure full reproducibility?**

Yes

**Are the conclusions drawn adequately supported by the results?**

Yes

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Adolescent health and medicine, sexual and reproductive health, sexuality education

**I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.**

Author Response 21 Jan 2020

**Lindsay van Clief**, RNW Media, Hilversum, The Netherlands

Thank you for taking the time to review our work and your thoughtful review. We appreciated your shared interest in the topic and your confidence in its relevancy. We have taken your notes to heart and improved our explanation of some of the digital and pleasure related concepts. We also took time to deepen our linkage between the literature and the data itself.

**Competing Interests:** No competing interests were disclosed.

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