

Call a period a period: Exploring the language and knowledge of menstruation

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Abstract

This study assesses general knowledge, linguistic associations and social attitudes to menstruation in three UN languages – French (in Europe and West Africa), Spanish (in Europe and South America) and English (in Europe, South Asia and East Africa).

The research was conducted in early 2020 using the online electronic tool Survey Monkey. Results indicate that in all three languages there are many slang words, mostly negative, for menstruation; acronyms such as ‘MHM’ are not understood; and whilst ‘health’ is linked to total wellbeing, the term ‘menstrual hygiene’ may restrict the issue only to cleanliness. Recognition of menstrual products is high: over 93% of respondents recognised a single-use disposable pad; 89% recognised a tampon; and 79% recognised a menstrual cup. Meanwhile over 65% of respondents could label the ovaries and vagina but less than 40% could identify the uterus, indicating that knowledge of female anatomy is poor, even among post-graduate respondents.

Results from this study can be used to reduce stigma and normalise periods by using accessible language. This study can inform communications, education, and advocacy around menstruation, in all relevant sectors, including sanitation, industry, health, economics and technology.

Keywords: menstruation; language; health; hygiene; periods; stigma; MHM; MHH; tampon; menstrual cup; single-use; disposable; pad

A note on terminology

The authors acknowledge that people who menstruate include girls, women, transgender and non-binary people. In this report the term ‘girls and women’ is used to increase readability, but the findings and recommendations include all people who menstruate, regardless of gender identity.

Disclaimer



Analysis and recommendations represent the views of the lead researchers, and not necessarily those of the commissioner Dorcias International; or the funder United Nations Office for Project Services (UNOPS).

1. Introduction

1.1 Background

The importance of improving the experience of menstruation to combat gender inequality has been increasingly recognised over the last five years. This was clearly indicated by its inclusion as one of the five global priorities for adolescent girls under UNICEF's 2018–2021 Gender Action Plan (GAP 2.0).¹ This is now a key programming goal for several sectors;^{2 3} and is relevant to seven of the 17 Sustainable Development Goals (SDG), including many of their specific targets, adopted by the United Nations in 2015.^{4 5} Specifically, SDG 1. End poverty; SDG 3. Good health and well-being; SDG 4. Quality education; SDG 5. Gender equality; SDG 6. Clean water and sanitation; SDG 8. Decent work and economic growth; and SDG 12. Responsible consumption and production.⁶

However, for these SDG endeavours to have an effect, there needs to be synergy and harmony of policies, facts and messages, and the language used across them.

1.2 Genesis and purpose of this study

The purpose of this study is to investigate the use of language and understanding around menstruation.

Before 2015, a few organisations such as WaterAid, the Water Supply and Sanitation Collaborative Council (WSSCC), and UNICEF included 'menstrual hygiene management' (MHM) in their WASH activities, but it was still primarily viewed as a niche issue. In 2015, Sommer articulated the need for recognition that menstruation is a public health issue.⁷ After 2015, governments and universities began to pay attention to menstruation, and many organisations devoted to the subject were established all over the world.⁸ This qualitative pilot study was commissioned to understand the language used when discussing menstruation across four continents, and therefore to inform clear communications and interventions working in those contexts. Dorcas International, an international women's health charity registered in England and Wales, commissioned researchers to design and coordinate the study.

Whilst much time has been spent considering what inclusive or technical language should be used around menstruation, this has primarily been within the world of academics and

¹UNICEF Gender Action Plan 2018-21 (GAP 2.0).

https://www.unicef.org/gender/files/Gender_Action_Plan_brochure-web.pdf

² Sommer M., Caruso B.A., Sahin M., Calderon T., Cavill S., Mahon T., et al. (2016) 'A Time for Global Action: Addressing Girls' Menstrual Hygiene Management Needs in Schools', in *PLOS Medicine* 13(2): e1001962. Available at <https://doi.org/10.1371/journal.pmed.1001962>

³ UNICEF, *FAST FACTS: Nine things you didn't know about menstruation*, May 2018 <https://www.unicef.org/press-releases/fast-facts-nine-things-you-didnt-know-about-menstruation>

⁴ <https://sdgs.un.org/goals>

⁵ UN Sustainable Development Goals <https://sdgs.un.org/goals>

⁶ See Appendix 3 for more details.

⁷ Sommer M, *Comfortably, Safely, and Without Shame: Defining Menstrual Hygiene Management as a Public Health Issue*, *American Journal of Public Health*, July 2015.

<https://ajph.aphapublications.org/doi/10.2105/AJPH.2014.302525>

⁸ E.g. Bloody Good Period, The Cup Effect, Menstrual Health Hub, Menstrual Cup Coalition, Womena, Afri-Pads, Golden girls Foundation, Femme International, etc.

professionals.⁹ There has been some research in remote places but there has been little research into the everyday language used around the topic, or among professionals and policymakers in other fields, and how best to make the conversation as inclusive as possible.¹⁰ Menstruation is a subject that includes people of all ages, socio-economic class and education, and therefore knowledge about it should not be restricted to those with higher education who can understand medical phrases and technical acronyms. The meaning and use of language change all the time, and it is important for clear communication to keep up with changes and adapt. As the esteemed British author Jan Morris said, 'Truth [in language] is not absolute. It's all in the mind.'¹¹ When language around menstruation is appropriate, then communications and advocacy can connect effectively to policymakers, donors and implementers, and thus benefit those in need of healthy, dignified and affordable menstrual periods.¹²

There has been little research into what and how much knowledge is required to attain and support menstrual health. This study does not attempt to answer what level of menstrual knowledge is required, but it takes the first step by asking what people know already.

The survey also wanted to understand whether people understand acronyms commonly used in menstrual communications, both to experts and the public. In some subject areas, acronyms are obscure to the subject and so exclude those people not close to that subject. Often acronyms are used because the writer is unaware that not everyone understands them. Within their field, the acronym becomes the word, just as 'BBC' or 'NHS' has for the British public. Breaking down stigma and ignorance about menstruation and shining light on this topic should be a priority for those working in global public health.

While we may not know exactly how much menstrual knowledge is needed to support healthy practices, studies do show that a positive and accurate introduction to menstruation leads to a more positive attitude around periods, puberty and female body image later on.¹³ Language affects how both people who menstruate, and those who do not, feel about periods. Because menstruation is a taboo subject and kept hidden by the people who menstruate, even among the well-educated, the language used from academic research papers to consumer product labels, continues to obscure this natural biological event behind acronyms such as 'MHH' and euphemisms such as 'hygiene' and 'sanitary'. Many global and national organisations whose aim is to promote better understanding of menstruation, inadvertently create barriers by using inaccessible language and acronyms. For menstruation to become normalised and mainstream, policymakers and stakeholders in other fields, who may not be so familiar with jargon and acronyms commonly used by professionals in this field, need to be involved. To do this, inclusive and simple language must be used. The aim of this research is to provide information which can be used to inform communications, education and advocacy around

⁹ Sommer M, Caruso BA, Sahin M, Calderon T, Cavill S, Mahon T, et al. (2016) *A Time for Global Action: Addressing Girls' Menstrual Hygiene Management Needs in Schools*

¹⁰ Chandra-Mouli, V. and S. V. Patel, *Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low- and middle-income countries*, 2017, *Reprod Health* 14(1): 30. <https://reproductive-health-journal.biomedcentral.com/articles/10.1186/s12978-017-0293-6>

¹¹ Maclean, R, *In praise of Jan Morris*, *Guardian*, Nov 23, 2020. <https://bit.ly/377opwf>

¹² Hennegan, Julie; Torondel, Belen; Phillips-Howard, Penelope; Sommer, Marni and Montgomery, Paul (2017) *Time to talk about menstruation: a response*. *Lancet*, Vol 390, Issue 10097, pp. 845-846.

¹³ Johnston-Robledo and Stubbs, *Positioning Periods: Menstruation in Social Context: An Introduction to a Special Issue, Sex Roles* 68 (2013); Kissling, "Bleeding Out Loud"; McPherson and Korfine, "Menstruation Across Time".

menstruation, to all sectors, including sanitation, industry, health, finance, economics, education and technology.

1.3 The language and myths of menstruation

Manifestations of menstrual taboos are vast and varied. The very word 'taboo' comes from the Polynesian word *tapua*, meaning 'forbidden, set apart, or menstruation'.¹⁴ To this day, periods are often equated with being unclean, reinforced by ongoing taboos which consider 'dirtiness' as the worst thing a human can be.¹⁵ In communities across the world, taboos attach confusion and humiliation to the experience of menstruation.¹⁶ Menstrual myths that have persisted into the 21st century include the belief in Saudi Arabia that hot showers and haircuts should be avoided while menstruating,¹⁷ or the thought held from Canada to Hong Kong that sexual intercourse with a menstruating woman is disgusting, or even dangerous.¹⁸ In Portugal, it is still thought that menstruating women cause meat to go rancid, while in Ireland many still believe that using tampons or menstrual cups destroys a woman's virginity.¹⁹ In each case, these myths limit women's behaviour and build stigma and shame around menstruation.²⁰

Menstruation is the English version of *menses*, the Latin word for 'month', a metaphor for the observation that menstruation occurs about once a month. Latin has been universally accepted as the language for medical terms for over 2,000 years.²¹ There are also over 5,000 words for menstruation around the world which are euphemisms,²² which originates from the Greek for 'good talk'. It is a word or phrase used to both hide the actual idea, and to make it sound less unpleasant. Some euphemisms contain humour, which may be used to hide embarrassment, or suggest someone is visiting. Many euphemisms for menstruation are negative, or describe a military invasion, suggesting that menstruation is unwelcome and violent, a bloody event which happens to the person, rather than being a normal bodily function.²³ For example, in Germany, periods are sometimes referred to as 'The Russians are coming' (Red Army) and in France 'the English have arrived', a phrase rooted in the red

¹⁴ Cook, James & James King, *A voyage to the Pacific Ocean: undertaken by command of His Majesty, for making discoveries in the Northern Hemisphere: performed under the direction of Captains Cook, Clerke, and Gore: in the years 1776, 1777, 1778, 1779, and 1780: being a copious, comprehensive, and satisfactory abridgement of the voyage.* 1793, Champante and Whitrow.

¹⁵ Douglas M., *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*, Routledge, 1966/2003.

¹⁶ Hampton L, *The Taboo of Menstruation*, Aeon, 27 February 2018. <https://aeon.co/essays/throughout-history-and-still-today-women-are-shamed-for-menstruating>;

¹⁷ Osborne, Alethea, *Unlocking the Secret and Breaking the Cycle: Exploring Menstrual Taboos in Contemporary Amman*, MPhil Thesis, University of Oxford, 2016.

¹⁸ Nina Brockmann & Ellen Stokken Dahl, *The Wonder Down Under – a user's guide to the vagina*, Hodder & Stoughton, 2018.

¹⁹ Womena, *Do Menstrual Cups Affect Hymens*, <http://womana.dk/do-menstrual-cups-affect-hymens-virginity/>

²⁰ Mason L, Nyothach E, Alexander K, Odhiambo FO, Eleveld A, Vulule J, Rheingans R, Laserson KF, Mohammed A, Phillips-Howard PA. 'We keep it secret so no one should know' – A qualitative study to explore young schoolgirls attitudes and experiences with menstruation in rural western Kenya. *PLoS ONE*, 8(11):e79132, 2013.

²¹ DeLone, N., *Latin and medicine*, Journal of Medical Humanities, Hektoen International, 2015. <https://hekint.org/2017/03/04/latin-and-medicine/>

²² O'Connor, Roisin, *Menstruation Study finds over 5000 slang terms for 'period'*, The Independent <https://www.independent.co.uk/life-style/health-and-families/menstruation-study-finds-over-5000-slang-terms-for-period-a6905021.html>

²³ <https://helloclue.com/articles/culture/top-euphemisms-for-period-by-language>

uniforms of British soldiers during the Battle of Waterloo in 1815.²⁴ In English, negative words such as ‘The Curse’ reinforce stigma, while secrecy is learnt through the use of codewords such as ‘Aunt Flo’s visit’.²⁵ Every culture has created euphemisms or codewords to avoid using more direct language.²⁶

The word *hygiene* originates in late 16th century English via French from the Latin word *hygieina*, from the Greek *hugieinē* ‘(art) of health’, from *hugiēs* ‘healthy’.²⁷ In the 19th century, menstruation became an issue of hygiene, to offset myths about its debilitating effects.²⁸ Menstruation was no longer primarily an event demonstrating sexual and reproductive maturity, and by the mid-20th century was a matter of hygiene and cleanliness, reliant on the menstrual products industry. The early 20th century English dictionary definition of the word *hygiene* was: ‘The art of health and science of preventing disease, especially of the community’.²⁹ Both in 19th century colonialism and in 20th century notions of global health, ‘hygiene’ was part of the armoury to sanitize refugee, poor and ‘other’ populations.³⁰ This focus on cleanliness over-rode other aspects of menstruation such as fertility, changing bodies, economics and mental health.³¹ The 1930s dictionary definition of the word *hygiene* was: ‘The art of health and science of preventing disease, especially of the community’.³² Later in the 20th century, *hygiene* became a personal fight against odour and uncleanness. When in the 21st century, the Water, Sanitation & Hygiene (WASH) sector began to address menstruation as a public health issue, the expression ‘Menstrual Hygiene Management’ was coined, often reduced to the acronym ‘MHM’. Possibly the use of the word ‘hygiene’ alluded to the early 20th century community definition, and maybe they were unaware that for many outsiders or non-technical experts, ‘hygiene management’ could conjure up a dirty, disease ridden process, in need of control by outside agencies.³³

The 21st century Oxford English Dictionary defines ‘hygiene’ as ‘Conditions or practices conducive to maintaining health and preventing disease, *especially through cleanliness*’. In 2019, Josie Parmee wrote in youth culture magazine Huck that the words ‘hygiene’ and ‘sanitary’ both help perpetuate ideas of disease, dirt and disinfection: ‘The word [hygiene] implies something is dirty or needs to be cleaned and sanitised. “Health”: a word that has more positive connotations, lending itself to wellbeing, energy, fitness and strength.’³⁴ An online ‘Change’ petition named ‘Fight menstrual stigma: initiate World Menstrual Health Day in 2021’ asked for the name of ‘World Menstrual Hygiene Day’ to be changed to ‘World Menstrual Health Day’ in order to ‘broaden the narrative around menstruation’. By December

²⁴ Hampton, J, *The effect of menstrual taboos on girls’ education*, World Literacy Summit, University of Oxford, March 2018.

²⁵ Winkler, Inga T and Roaf, Virginia, *Taking the Bloody Linen out of the Closet: Menstrual Hygiene as a priority for achieving gender equality*, Cardozo Journal of Law & Gender, March 2015.

²⁶ Clue, *Top euphemisms for “period” by language*, March 10, 2016. <https://hellocue.com/articles/culture/top-euphemisms-for-period-by-language>

²⁷ Oxford English Dictionary. <https://www.lexico.com/definition/hygiene>

²⁸ Walker, A, *The Menstrual Cycle*, Routledge, London & New York, 1997.

²⁹ Webster’s Dictionary 1934; Cassell’s English Dictionary, 1932; Soule’s 1908; Dictionary of English Synonyms, Soule, 1938.

³⁰ Packard, R. M. *A history of global health: interventions into the lives of other peoples*. Baltimore, 2016.

³¹ Brumberg, J.J. *The Body Project: An Intimate History of American Girls*. New York: Random House, 1997.

³² Webster’s Dictionary 1934; Cassell’s English Dictionary, 1932; Soule’s 1908; Dictionary of English Synonyms, Soule, 1938.

³³ Bobel C, *The Managed Body, Developing girls and menstrual health in the global South*, Palgrave Macmillan, 2019.

³⁴ Parmee J, *When it comes to periods, hygiene is a dirty word*, Huck Mag, 24 September 2019. <https://bit.ly/373kQqW>

2020, this petition had received 39,926 signatures, suggesting that for those people, ‘health’ is now the preferred term for the topic of menstruation.³⁵

As van de Veerdonk and Keiser of the Menstrual Health Hub stated in 2021, the words ‘hygiene’ and ‘sanitary’ reinforce gender-based discrimination and negative notions that menstruation is inherently unhygienic, dirty, and that the vagina needs to be sanitized or cleaned up... [they] insinuate that menstrual products are the quick-fix solution to the “unhygienic problem” of menstruation. It also puts the responsibility on the menstruator to “clean themselves up” rather than looking at menstrual health as a larger, societal issue.’³⁶

Language and lived reality cannot be separated, because one frames the other. Women and girls often report feeling dirty during their periods, which may be a direct result of lack of access to water for washing or hygienic menstrual products; or because of social taboos that inform them they are ‘unclean’.³⁷ However, as Mary Douglas stated, ‘The rules of hygiene change, of course, with changes in our state of knowledge.’³⁸ ‘The feminine ‘hygiene’ industry perpetuates taboo thinking by suggesting the monthly cycle is dirty and socially impolite; it should be concealed in frilly pink wrappers like candy and only very loosely referenced with blue liquid in product commercials,’ stated Jen Lewis in 2020.³⁹ In *The Managed Body*, Bobel states: ‘establishing MHM [menstrual hygiene management] as part of WASH links menstruation to dirt and disease. Grouping defecation and menstruation together collapses the bodily processes both as waste elimination, when, in fact, menstruation is more appropriately one phase of a systemic, whole-body, ongoing cycle fundamental to healthy fertility as well as heart and other organ health.’⁴⁰

During the first conference on menstruation in Britain, held in June 2016 at the University of Oxford,⁴¹ the relative merits of the terms, ‘Menstrual Hygiene Management’ and ‘Menstrual Health’ were discussed. By June 2020, ‘Menstrual Health’ had been adopted by many activists, organisations, and practitioners as the more inclusive and positive phrasing to use. In April 2021, a definition of ‘menstrual health’ (not ‘menstrual hygiene’ or ‘management’) was published by multi-sectoral academics and activists working around the world.⁴²

To further this discussion, this study aimed to look at perceptions of the words *hygiene* and *health*, and understand further how such connotations shape perceptions towards menstruation.

³⁵ Change.org <https://www.change.org/p/fight-menstrual-stigma-initiate-world-menstrual-health-day-in-2021>

³⁶ van de Veerdonk N & Keiser D, *Learning & Growing from Scotland’s New Anti-‘Period Poverty’ Policy Precedent*, Menstrual Health Hub, February 2021. <https://mhhub.medium.com/learning-growing-from-scotlands-new-anti-period-poverty-policy-precedent-b9942c1842dd>

³⁷ Barnett, E, *It’s about bloody time. Period*, HarperCollins, UK, 2019.

³⁸ Douglas M., *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*, Routledge, 1966/2003.

³⁹ Jen Lewis J, *About the Cover: Beauty in Blood—A Macrophotographic Lens on Menstruation, Body Politics, and Visual Art in The Palgrave Handbook of Critical Menstrual Studies*, Palgrave Macmillan, 2020.

⁴⁰ Bobel C, *The Managed Body, Developing girls and menstrual health in the global South*, Palgrave Macmillan, 2019.

⁴¹ University of Oxford report, Menstrual Hygiene Management conference, 15 June 2016.

⁴² Hennegan J, Winkler I, Bobel C, Keiser D, Hampton J, Larsson G, Mahon T, Chandra-Mouli V & Plesons M, *Menstrual health: a definition for policy, practice, and research*, *Menstrual health: a definition for policy, practice, and research*, Sexual and Reproductive Health Matters, Vol 29, 2021- Issue 1, <https://lnkd.in/eQNDR39>

Language and imagery play a crucial role in facilitating taboo, by exacerbating shame and period-negativity, and reinforcing gender stereotypes.^{43 44} Menstrual products are branded with names like *Whisper* and *Discreet*, and blue liquid is used in adverts to represent blood. This directs more embarrassment and shame upon those who menstruate by reinforcing menstruation as negative, to be hidden and not discussed.⁴⁵ Until the mid-1980s, even the words period and menstruation had never appeared on American television: the fact that women bled every month was ignored.⁴⁶ This avoidance of frank, open and accurate language strengthens the stigmatic consensus that menstruation is a topic and experience to avoid mentioning.^{47 48} Even within development and medical communities, language is used to disguise reality.

Until the Chinese swimmer Fu Yuanhui told the media during the 2016 Olympics that she was having a period, many sports fans did not know that swimming during menstruation was possible, nor had considered the effect of menstruation on athletes.⁴⁹ That the international media covered this story, and the novelty of stories such as those about a father in Scotland talking to his daughter about periods,⁵⁰ shows how much it is seen as a private topic, with open, public discussion remaining unusual. Even when menstruation is apparently celebrated, such as with the 2018 Bollywood film *Pad Man*⁵¹ and the Oscar-winning Hollywood documentary *Period. End of Sentence*,⁵² the underlying message was that women in India who have suffered period shame and indignity for centuries can overcome this if encouraged by a man to use technology (designed by him) to make non-biodegradable single-use 'disposable' pads, using imported materials.

The way the media discusses menstruation around the world indicates the differing social settings in which periods are allowed to be discussed. For example, whilst there has been a small amount of academic research on menstruation in Saudi Arabia, there has been almost no coverage in popular newspapers, other than how it might affect prayer schedules and fasting.⁵³ Conversely, in much of Europe there has been increasing coverage of menstruation in mainstream media, particularly in relation to period poverty and government taxes on menstrual products,⁵⁴ but little comprehensive academic research.⁵⁵ Across the world, there is very little beyond anecdotal evidence around how menstrual stigmas and taboos can affect a woman's lived experience.⁵⁶ In South Korea, it took a scandal about carcinogenic materials

⁴³ Barnett, E, *It's about bloody time. Period*, HarperCollins, UK, 2019.

⁴⁴ Braun V & KitzingerC, "Snatch," "Hole," or "Honey-pot"? Semantic categories and the problem of non-specificity in female genital slang, *The Journal of Sex Research*, Volume 38, 2001 - Issue 2, Jan 2010. <https://www.tandfonline.com/doi/pdf/10.1080/00224490109552082?needAccess=true>

⁴⁵ <https://www.gov.scot/news/lets-call-periods-periods/>

⁴⁶ Jennifer Weiss-Wolf, *Periods Gone Public, – taking a stand for menstrual equity*, Arcade, New York, 2017.

⁴⁷ Plan International UK, *Break the Barriers: Girls' experience of menstruation.*, January 2018, <https://plan-uk.org/file/plan-uk-break-the-barriers-report-032018pdf/download?token=Fs-HYP3v>

⁴⁸ Chris Bobel, *New Blood: Third Wave Feminism and the Politics of Menstruation*, 2010, New Brunswick: Rutgers University Press, 178.

⁴⁹ <https://www.theguardian.com/sport/2016/aug/16/chinese-swimmer-fu-yuanhui-praised-for-breaking-periods-taboo>

⁵⁰ *My dad jokes about my first period*, BBC Scotland. 2017. <https://www.bbc.co.uk/news/av/magazine-41324799/my-dad-jokes-about-my-first-period>

⁵¹ Twinkle Khanna (prod), *Pad Man*, starring Akshay Kumar, Colombia Pictures, 2017.

⁵² Rayka Zehtabchi, (dir) *Period.End of Sentence*, Netflix, 2018

⁵³ Osborne, Alethea, *Unlocking the Secret and Breaking the Cycle: Exploring Menstrual Taboos in Contemporary Amman*, MPhil Thesis, University of Oxford, 2016.

⁵⁴ Laura Coryton, *Speak Up! Use your voice to change the world*, Red Shed, 2019.

⁵⁵ Caroline Criado Perez, *Invisible Women – exposing data bias in a world designed by Men*, Chatto & Windus, 2019.

⁵⁶ Bobel et al (Eds.), *The Palgrave Handbook of Critical Menstruation Studies*, Palgrave, 2020

found in single-use pads to push menstruation into public discussion.⁵⁷ Popular media tend to highlight negative reports on the use of menstrual cups, even though reports are only anecdotal and not medically reviewed; for example, unidentified women who believe their menstrual cups have caused uterine collapse, toxic shock syndrome or septicæmia.⁵⁸ However, whatever the catalyst, a rise of newspaper articles around menstruation is likely to be positive, as it reinforces an idea that menstruation is normal and can be discussed openly. Change is afoot: in 2020, the New Zealand supermarket chain Countdown stopped using the euphemistic labels 'sanitary' and 'feminine hygiene' and was the first supermarket chain in the world to use 'period' when describing pads, tampons, and menstrual cups; and previously described 'intimate hygiene' products were renamed 'genital washes and wipes'.⁵⁹

2. Methodology

2.1 Survey design

This pilot study collected and analysed the most often used words, phrases and expressions to describe and explain menstruation in three of the official UN languages: English, French and Spanish. Initial research revealed that no similar studies to this existed, from which methodologies could be replicated, and so the pilot methodology was designed from scratch. This survey of the language around menstruation was collaboratively designed to assess the general knowledge, linguistic association and social attitudes of respondents to various aspects of menstruation, including reproductive anatomy, and knowledge of products. A data analyst was consulted throughout the process to ensure the survey would collect the desired data effectively and securely, with sufficient numbers to ensure reliable results.

After finalising the survey in English, with the support of the data analyst, the survey was hosted on the electronic research tool Survey Monkey. To assess respondents' general knowledge of menstruation, questions included naming the blood which comes out of a woman's vagina, labelling a diagram of female sexual anatomy, identifying different menstrual products and writing out the meanings of relevant acronyms. This was not to test respondents but to highlight gaps in knowledge and familiarity with terminology and words. Different styles of questions were designed to reflect the information required. These included binary yes/no questions, along with open-ended questions, labelling, and word association. A copy of the survey in English can be found in Annex 2.

2.2 Data collection

Researchers were recruited and different survey links were given to separate researchers to disseminate through their social and professional channels, with snowball sampling of respondents passing the survey on to others.

A call was sent out via email and through appropriate academic and professional networks, for researchers with appropriate translation, analytical skills, and contacts to facilitate the

⁵⁷ The Korea Times, October 2017, *Audit to focus on settling 'toxic' sanitary pad dispute* (http://www.koreatimes.co.kr/www/nation/2017/10/113_237676.html).

⁵⁸ Tellier, S, *Rapid media response to Cup Stories by Womena*, presented at Menstrual Cup Coalition Summit, 26 June 2020.

⁵⁹ Graham-McLay C, *New Zealand supermarket chain becomes first to use 'period' label on menstrual products*, The Guardian, 26 June 2020/ <https://www.theguardian.com/world/2020/jun/26/new-zealand-supermarket-chain-countdown-becomes-first-to-use-period-label-on-menstrual-products>

translation and dissemination of the survey. After CVs were reviewed, interviews were held with potential researchers to ensure their skills and familiarity with the topic. Many of the researchers appointed are working or studying at world-class universities. Given the importance of linguistics in the survey, the researchers all had the ability to translate sensitively, and discuss the topic clearly in both English and their other language.

Four continents were covered across three languages, with English in Europe, South Asia and East Africa; French in Europe and West Africa; and Spanish in Europe and South America. Almost all responded in their native language, which was then being translated into English. Out of 1633 respondents, 507 responded to the English survey, 225 to the French one and 901 to the Spanish one. A further breakdown of the demographic of respondents can be seen in Table 1. The disparities in the numbers of responses from different areas reflect the strength of the networks which different researchers could draw on for responses.

European Spanish respondents	428
South American Spanish respondents	473
European English-speaking respondents	173
South Asian English-speaking respondents	160
East African English-speaking respondents	174
European French-speaking respondents	154
West African French-speaking respondents	71

Table 1: Number of respondents according to language spoken

The areas sampled also tallies with the geographical location of the majority of menstrual health interventions and research so far. The selected researchers were offered a fee commensurate with their skills and experience and the budget, for up to 5 days work each, during February and March 2020. The survey was translated into French and Spanish, by French and Spanish speakers from Europe, South America and Africa, and then retranslated back into English to ensure consistency.

Researchers shared the electronic survey in their native languages (English, Spanish or French) across their networks and a wide range of responses were gathered from across the globe. Many used social media channels such as WhatsApp, Facebook and Twitter, along with reaching out to alumni and professional groups directly by email.

Each researcher's survey was hosted on Survey Monkey and internally labelled as:

1. English 1
2. English 2
3. English 3
4. English 4
5. English 5
6. French – Astrid
7. French – Vitalis
8. Latin Spanish – Adela
9. Latin Spanish – Mariana

10. Spanish – Adela

Each survey link was labelled differently and shared by a different researcher, so the data analyst could keep track of the number of respondents from each researcher.

2.3 Data analysis

The following questions from the survey were analysed in both native language and translated versions.

- What word do you use for the monthly blood from a woman's vagina? (Question 1)
- Name any local words or phrases to describe the monthly flow of blood? (Question 5)
- Please name any parts of this diagram of a woman that you can. (Question 7)
- When you see the word 'health' which other words do you think of? (Question 9)
- When you see the word 'hygiene' which other words do you think of? (Question 10)

The other questions were only analysed when in English. As part of their work those researchers who translated the survey from English into their native languages and back again were also asked to provide quality assurance of translations by others using their own language. After receiving all the survey results, researchers were also asked to write up an initial analysis of the results and identify any trends, along with providing any contextual knowledge they felt may be useful for explanation.

Results data were collected analysed along the following groupings:

- English – Europe
- English – South Asia
- English – East Africa
- All English
- French – European
- French – West Africa
- All French
- Spanish – Europe
- Spanish – Latin America
- All Spanish
- All languages combined (having been translated back into English).

The data analyst worked with the research lead to provide quantitative statistical results and graphics, to display the data clearly. All results were collected together to create the spreadsheet 'Menstrual Health collective Language Research – All Translated Version March 2020 v4.csv'; the column titles for this spreadsheet can be seen in Annex 4.

A function was created using the software language R 4.0.3 and other relevant coding libraries to produce three plots for each dataset. These plots are:

1. a word cloud that scales the words depending on frequency on use.
2. a bar chart showing word frequencies.
3. a table showing the top 10-word frequencies and % of participants using this word.

The data from each group and combined group were then passed to the function for each question. This resulted in a document of initial diagrams reflecting analysis for each result's grouping, from which the lead researchers choose the most useful to provide visual illustrations of the results.

3. Key Findings and Discussion

In total, 1633 respondents took part in this survey, of whom 84% were female and 74% had been to university, which is not a representative sample of the general population. However, while the respondents to this survey may know more than the average person about menstruation, this does not discredit the results. Instead, the low level of understanding around menstruation shown in this survey's results suggests that the average level of general knowledge globally is significantly lower. Even if respondents were taken as a representative sample, it is clear there is a need for an improvement in menstrual messaging and education. If one considers then that their knowledge is likely to be above an average sample, then that need becomes even more pressing.

3.1 Identifying menstruation

In response to the question 'What word do you use for the monthly blood from a woman's vagina?' in all languages, there were clear commonalities: *period* in English, *regla* in Spanish and *règles* in French were each used by most respondents. Some variation existed, particularly amongst Spanish respondents. This is useful evidence to confirm the daily language to discuss menstruation and therefore the words to use in order to reach the largest audience, regardless of their education.

English: 'What word do you use for the monthly blood from a woman's vagina?'

While variations existed in the English responses to this question, Table 2 and Figure 1 show clearly that *period* is the most used word, an abbreviation of 'menstrual period'. 'Period' means a portion of time and comes from the late Middle English (11th–15th century), denoting the time during which something, especially a disease, runs its course, from the Greek *periodos* 'orbit, recurrence, course', from *peri-* 'around' plus *hodos* 'way, course'. The sense 'portion of time' dates from the early 17th century. 'Period' is used in many other contexts in English, such as school timetables, geology and history.

Other words mentioned were associated with menstruation, blood or the monthly nature of periods. There were slight regional differences, with those from South Asia using the word *menses* more than East African or European respondents. The most frequently used words as a percentage of all English responses can be seen in Table 2. The word cloud (Figure 1) illustrates this, with the top ten words featured and the size of the font reflecting the frequency with which they were used.

Word	Frequency	%
Period	377	74.21
Menstruation	52	10.24
Blood	37	7.28
Menstrual	33	6.50
Menses	19	3.74
Flow	7	1.38
Monthly	7	1.38
Time	5	0.98
Month	4	0.79
Bleeding	4	0.79



Figure 1: Words most used for menstruation in English

Table 2: Frequency of most commonly used words for menstruation in English

French: 'Quel mot utilisez-vous pour désigner le sang mensuel provenant du vagin d'une femme?'

Figure 2 gives an indication of some of the most used words used by French-speaking respondents when identifying the blood released from the vagina. *Règles*, meaning period, is the clear winner. However, there were regional disparities, with only 40% of West African respondents using the word *règles*, followed by 24% using *menstrues*, while 85% of European French speakers used *règles*, followed by 10% using *sang* (French for blood).



Figure 2: Word cloud showing frequency of words used for menstruation in French

Spanish: '¿Qué palabra usas para la sangre mensual de la vagina de una mujer?'

Figure 3 shows the most common word used from all Spanish-speaking respondents is *regla*.



Figure 3: Word cloud showing frequency of words used for menstruation in Spanish

Whereas European Spanish speakers predominantly used *regla*, respondents from South America were more varied in their responses. *Regla* literally means a ruler (the tool used to measure things, rather than the person who rules), and refers to the regularity of the menstrual cycle. While it could be translated as *monthly*, it can also be translated to mean period, as would *período*, another common response. These, along with some of the other Spanish words given, such as *menstruación*, have clear equivalents in other languages. Another common word people used was *luna*, meaning moon, a theme seen worldwide in menstrual references. Blood (*sangre*) and bleeding (*sangrado*) were also used.

There are clear patterns in the most common everyday terms for menstruation in Spanish, French and English. *Regla* and *règles* both have similar original meanings to *period* – a measure or portion of time. It seems sensible to use this common neutral parlance when designing communications and advocacy.

3.2 Acronyms

Knowledge of acronyms is very low. Over 80% of respondents knew none of those listed other than the UN. Respondents were shown a list of acronyms commonly used by academics, non-government organisations, activists, and practitioners in the menstrual health community in each of their languages, such as WASH, SHRHR, MHM, MH and UNICEF, and were then asked to spell them out.

Acronyms are regularly used in advocacy, communication and education relating to menstruation, and yet most respondents across all three languages could not spell out any of the example acronyms correctly. The acronyms chosen all related to menstrual health, sexual and reproductive health, water and sanitation and the development sector. While many could

identify UNICEF as being a part of the UN and to do with children, few could fully recognise what it stood for; and very few knew any of the others. Given this response from those who were aware of the context of the study, those who see these acronyms with no context are even less likely to know what they mean.

While acronyms are sometimes used to shorten terms and titles, and in academic papers they are used after being spelled out once, the purpose of this research was to interrogate what is most effective to ensure the highest number of people can understand and feel comfortable with the topic. Every time someone does *not* use an acronym, even when speaking to a colleague, it opens the topic up, and reduces stigma, e.g. 'MHM' is as much code, which has to be broken by the recipient, as 'Auntie Flo'. MHM, and other acronyms such as SRHR, exclude many people.

These results indicate that if written or spoken communication is to be clear and understood, then acronyms of any kind should be avoided. If, however, the purpose of a document or conversation is to obscure the message and reduce access to only those already familiar with the topic, then acronyms are an ideal code.

3.3 Labelling female reproductive anatomy

- An illustration of female reproductive anatomy (Figure 4) was presented in the survey, requesting participants to designate names to each identified area. Most respondents could label some but not all of the female reproductive anatomy. Over 70% of all respondents could label the ovaries, with significantly less knowing the endometrium, uterus, or cervix. However, there were regional, rather than linguistic, disparities. Respondents from South America and South Asia had significantly lower knowledge levels than those from Europe and East Africa (see Table 3).

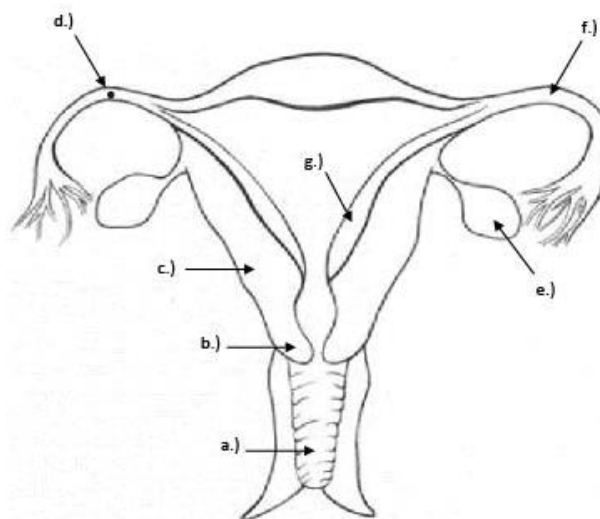


Figure 4: Picture of female anatomy given to respondents to label.

Table 3 shows the percentage of all respondents who were able to identify each female reproductive part in the diagram above, and their breakdown according to region.

	All	Europe	S. America	S. Asia	E. & W. Africa
a) Vagina	68%	72%	67%	60%	62%
b) Cervix	52%	58%	52%	37%	53%
c) Uterus	34%	40%	34%	20%	28%
d) Egg	44%	50%	48%	30%	35%
e) Ovary	74%	78%	77%	59%	65%
f) Fallopian tube	67%	69%	77%	50%	58%
g) Endometrium	46%	51%	53%	24%	31%

Table 3: Percentage of respondents able to identify female reproductive parts

While there were slight differences between languages, the disparity in knowledge appears to have been regional rather than linguistic. For example, over 80% of English-speaking respondents from the UK could label the Fallopian tube and ovary correctly, whilst only 20% and 38% respectively could do the same from Pakistan. A similar disparity appeared between Spanish speakers from Spain and those from Mexico. Respondents from Chile showed a higher level of knowledge in this area, but many of the Chilean respondents worked in medical or academic fields. As mentioned in the limitations of the study, professional background affects results, but also highlights that even with high levels of education, the knowledge of reproductive anatomy overall is not good.

There is little research into what information, and how it is presented, is most effective for living a healthy life as an adult. Reproductive health education varies from good, through biased, to untruthful. Even though everyone is different, many lessons and textbooks teach that everyone's body is similar, and that periods last the same amount of days for everyone. Words like 'irregular' or 'regular' periods and 'normal' reinforce this. Puberty arrives just when educational pressures and life choices are mounting; and as menstruation is starting at younger ages, this puts double pressure on girls. Without quality education, this natural development becomes a negative and potentially traumatising process.

Appropriate and comprehensive menstrual education will encourage conversation, break down taboos, and improve the experience of menstruation. However, sex education books often simply repeat 19th and 20th century medical books. Despite many recent updates, current menstrual education often still focuses on the negatives, including activities to avoid while having a period. Emphasis is often given to particular biological characteristics of the menstrual cycle including the length, frequency and potentially negative symptoms. Anatomy diagrams are often drawn inaccurately, or not to scale, and hark back to 19th century medical textbooks, without thought about what information is most required. Little practical information is offered, and/or schools may use educational materials provided by companies, allowing for targeted advertising of their own single-use products.

Further research is needed to establish whether good menstrual health requires, for example, a person to understand the purpose of the endometrium or the position of the fallopian tubes. For example, in nutrition, a person can eat a balanced, healthy diet without understanding the role or position of their gall bladder or bile duct.

3.4 Menstrual product recognition

- Photos of menstrual products (Figure 5) were used to establish participants' familiarity with different products. Over 93% of all respondents identified a single-use pad, 89% recognised a single-use tampon and 79% a menstrual cup. However, it was not language but region which dictated this ability (Table 4).

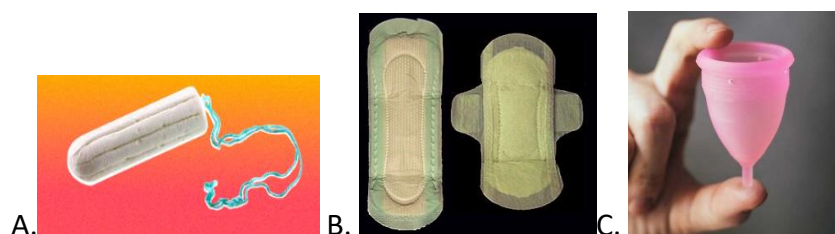


Figure 5: different menstrual products shown in the survey

	All	Europe	S. America	S. Asia	E. & W. Africa
A. Single-use tampon	89%	97%	95%	69%	67%
B. Single-use pad	93%	96%	92%	91%	88%
C. Menstrual cup	79%	92%	74%	73%	34%

Table 4: Percentage of respondents who correctly identified menstrual products

Whilst almost all those from Europe could recognise all menstrual products, in South Asia and East and West Africa single-use pads are almost three times as recognisable as menstrual cups. Interestingly, while single-use pads were most recognised throughout the entire cohort, in South America, tampons appear to be more recognisable. Meanwhile, only 25% of French-speaking respondents from Cameroon recognised a menstrual cup and only 51% of English-speaking Pakistan-based respondents knew a tampon. This is unsurprising given the menstrual stigma and poor education around menstrual products which are inserted, and limited supply chains in many regions.⁶⁰ This result emphasises the need for a global improvement in menstrual product choice and education.

3.5 Stigma and slang

Menstrual taboos exist across the world and one way to observe their manifestation is the language that people use to refer to menstruation. To explore the different words used for menstruation, the survey asked respondents what local words they knew.

English: 'Name any local words or phrases to describe the monthly flow of blood'

Figure 6 illustrates the most given responses when asked what other words or phrases respondents knew to describe the monthly blood from a woman's vagina. Once again, regardless of location, *period* was the most commonly given answer. *Month* and *time* also clearly dominate, with many mentioning *time of the month*.

⁶⁰ Menstrual hygiene management in South Asia: Pakistan, WaterAid & UNICEF, 2018. https://washmatters.wateraid.org/sites/g/files/jkxooof256/files/WA_MHM_SNAPSHOT_PAKISTAN.pdf

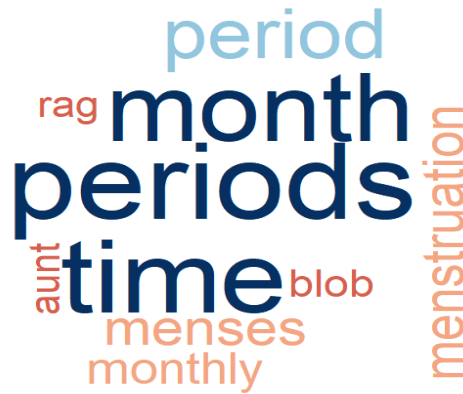


Figure 6: Word cloud of local words used for menstrual period in English

There are clear regional differences in the local words or s that people use when referring to periods, just as the taboos and behavioural expectations associated with menstruation also vary across the globe. Many local words, and mixes between English and local languages, were suggested for this question. However, most are used in an attempt to codify and hide the experience from others, particularly men.

Most Europeans acknowledged that period slang is negative, for example ‘shark week’, ‘The Curse’, and ‘women’s struggles’. Those from South Asia cited most phrases as either neutral or negative. However, amongst almost all African respondents, both East and West, words to do with menstruation were considered positive. One respondent stated that the Maasai ‘consider women in menses to be at the height of her powers and would not permit a menstrual woman anywhere near warriors or healers’. It was not explained why women are not allowed near warriors or healers or how they might affect them. While this respondent thought that the fear of menstruation and its impact on others, particularly male, casts it in a positive light, all codewords and the unwillingness to discuss the topic perpetrates a taboo.

French: ‘Nommez des mots ou des expressions locales pour décrire le flux sanguin mensuel’

While *règles* was used by many participants in both settings, there are differences between West Africa and France for local words used for menstruation. These can be seen in the word clouds below, with European French on the left and West African French on the right.

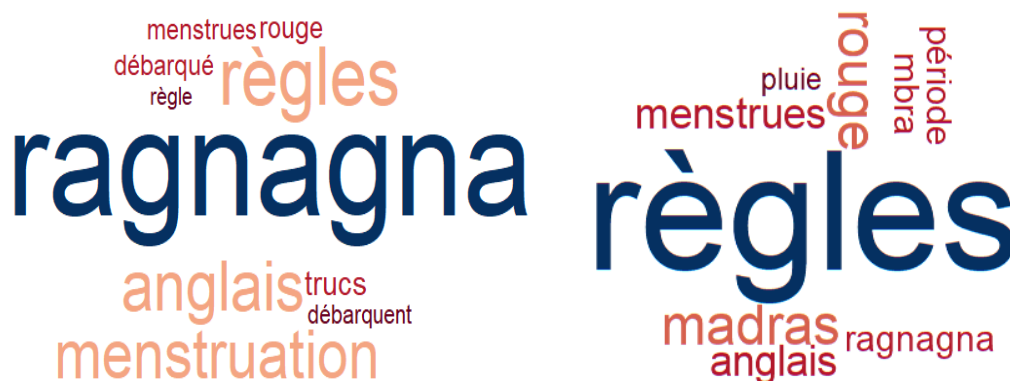


Figure 7: Word clouds of local words most commonly used for menstrual period in European French (left) and West African French (right)

For those in Europe, *ragnagna* was the most common response, with 44%. Roughly translated as 'time of the month' or 'on the rag', *ragnagna* is an informal euphemism. While the idea of an invading force comes up in both contexts, it is more prevalent in Europe.

In Cameroon, where the majority of French-speaking African respondents for the study came from, some words have been influenced by local languages. While almost all of the European responses may be known in the West African context, the opposite is not always true. 'Madras' for example, which is used by nearly 10% of Cameroonians, is the slang word for *menses* in Bassa language. It is used predominantly by middle-aged women in the French-speaking part of Cameroon. *Mbra*, on the other hand, is also slang but has roots in Pidgin and is mostly used by women and girls with roots in English-speaking parts of Cameroon. First or painful periods are often described as 'Mbra bites'.

Spanish: 'Nombra algunas palabras o frases que se utilizan en tu localidad para describir el flujo mensual de sangre'

The homogeneity of the responses to this question from Spanish speakers is striking. Across all Spanish speakers *regla*, *menstruación*, *periodo* and *días* have been recorded as the top four responses and they are equally cited from both Europe and South America (Table 5). This is an opportunity for Spanish language menstrual communications which are likely to reach a wide audience and can connect across regions. However, after these first four words there are divisions between regions. For example, 'Andres' is a common term in South America while it is little known in Europe.

Word	Frequency	%
Regla	288	61.02
Menstruacion	143	30.30
Periodo	104	22.03
Dias	46	9.75
Enferma	39	8.26
Ruler	32	6.78
Andres	29	6.14
Sangre	26	5.51
Bajando	24	5.08
Indispuesta	22	4.66

Word	Frequency	%
Regla	248	57.94
Menstruacion	136	31.78
Periodo	123	28.74
Dias	53	12.38
Mala	38	8.88
Sangrado	18	4.21
Roja	14	3.27
Amiga	12	2.80
Bajado	12	2.80
Rojo	12	2.80

Table 5: Frequency of words to describe menstruation in Latin America (left) and Spain (right)

As with the rest of the world, the everyday colloquial Spanish expressions for menstrual periods all share an element of secrecy. They translate to phrases such as 'I am in my days', 'It came down' or 'Andres the one who comes every month.' All refer to menstruation without actually saying the speaker is menstruating.

Euphemisms for menstrual periods are common. Here they may contain humour, a visit from someone else, often an aunt or female relative, such as *Aunt Flo* and *Auntie Ji* in English, or *Andres* and *Ines* in Spanish; or a violent military invasion. This use of euphemisms, even humorous ones, reinforce the idea that the topic is shameful, embarrassing and not to be discussed publicly.

Many expressions focussed on the monthly regularity of menstruation, and how this can be linked to the moon or tides, thus potentially reinforcing the menstrual myth that menstrual and lunar cycles are connected. Even the medical word *menses* is a euphemism from the Latin for monthly or moon.

3.6 'Do you use different words with different people?'

Over half (51%) of all respondents said that they used different words with different people, or code switching (changing language depending on context). This depended with whom they felt comfortable discussing menstruation. There was a multitude of reasons given for why different words were used when speaking to different people, including professionalism, formality, societal/cultural expectations, and adjusting the phrasing to ensure no alarm is caused. They cited being more comfortable with those with whom they feel a certain degree of 'familiarity/closeness' (*confianza*). While humour among female friends was mentioned it was rare. The idea of *closeness* appears most relevant in order to speak about menstruation. Many suggested they used different words when speaking to medical professionals, in an attempt to appear more knowledgeable. Indian and Kenyan respondents often mentioned that periods should not be discussed directly with men; or it is simply said that a woman is 'not feeling well'.

Others, particularly male respondents, acknowledged that the only reason they did not vary their language was because they only knew one word. Across all respondents, a common reason for differentiating language was not wanting to make other people uncomfortable. The respondents never stated that they themselves felt uncomfortable but instead the fear focused around the danger of making others, particularly men, uncomfortable. Others qualified their remarks by saying that they knew they should not adjust their language, as by doing so they contributed to the continuation of the taboo, and yet they struggled not to do so. This provides an insight into the power of menstrual stigma and its continuation, even amongst respondents who may actively want to resist it.

3.7 linguistic association of health and hygiene

There is an ongoing conversation among academics, media and practitioners about how to refer to menstruation and the negative or positive impacts of associating menstruation with health or hygiene, or whether to use both. This study wanted to find out if words used by commerce which may appear neutral, such as 'feminine hygiene', actually reinforce negative attitudes towards the female body as something which needs special maintenance. The responses to these questions are helpful for building evidence around why and how such phrasing can affect the ongoing positive or negative connotations around menstruation. Across respondents, *health* elicits connotations of wellness, while *hygiene* suggests cleanliness and cleaning.

Health: 'When you see the word 'health' which other words do you think of?'

Table 6 and Figure 8 illustrate the words most commonly given in association with 'health' from the entire cohort of respondents. Those who answered in French or Spanish have been translated and also link health to *diet*, a *doctor*, or *exercise*. Overall, and across all languages, health elicited responses which suggest 'health' is associated with all aspects of physical and mental wellbeing: lack of disease, access to care and products, and the ability to function.

Word	Frequency	%
Well	345	21.23
Wellbeing	238	14.57
Mental	158	9.68
Hygiene	157	9.61
Life	149	9.12
Doctor	136	8.33
Health	110	6.74
Healthy	98	6.00
Exercise	94	5.76
Physical	93	5.70



Table 6: Words and frequency associated with 'health' in English

Figure 8: Word cloud showing frequency of words associated with 'health' in English

Hygiene: 'When you see the word 'hygiene' which other words do you think of?'

Word	Frequency	%
Cleanliness	530	32.46
Cleaning	244	14.94
Clean	238	14.57
Health	205	12.55
Soap	136	8.33
Shower	111	6.80
Water	105	6.43
Care	80	4.90
Washing	57	3.49
Sanitation	53	3.25



Table 7: Words and frequency associated with 'hygiene' in English

Figure 9: Word cloud showing frequency of words associated with 'hygiene' in English

The results for 'hygiene' are mostly limited to activities around removing dirt or germs, with 'cleanliness', 'cleaning' and 'clean' accounting for over 50% of all responses. Such associations suggest that by using the phrase 'menstrual hygiene' menstruation is limited to sanitation and washing.

While universal, affordable and sustainable access to water, sanitation and hygiene is a key public health issue within international development, hygiene is just one aspect of this, limited to cleanliness, water, soap and water. Hygiene is ultimately positive but infers an initial dirtiness in order to create this condition. Therefore, when deciding which to associate with menstruation, *health* provides a more positive framing than *hygiene*.

Improving menstruation encompasses many topics, including education, nutrition, fertility, access to care and products, economics and taxes. For all aspects of menstruation to improve, it needs to be understood as something beyond only water, sanitation and hygiene. 'Menstrual hygiene management' may minimise the multidisciplinary nature of menstruation which should encompass the entire menstrual cycle, not just the days of bleeding.

The primary focus of the research was to discover the everyday parlance around periods to enable clarity of communication, especially when common words are neutral and well-understood.

4. Study Limitations

There are inevitable limitations to such a survey as this, but we believe the findings are valuable, nonetheless. While we had a large geographical range in respondents, the diversity in the respondents' gender, age and education level was restricted. There were too few male respondents to analyse the results by gender. Respondents were self-selecting in their willingness to complete the survey and may have had a personal connection to the researcher who distributed it. Many of the respondents were from a similar educational or professional network as the researchers, with university degrees and possibly bilingual skills. By the very nature of being willing to answer a survey about menstrual health, respondents are likely to be more comfortable with the topic than most.

Hosting the survey online requires respondents to have access to the internet and be computer literate. Again, this suggests that respondents are likely to have a certain level of wealth and education.

This survey could have reached larger numbers and more diverse respondents if there had been a larger budget and so the ability to travel and conduct in-person interviews or focus groups discussions. The aim of this study was to learn the most appropriate language to use for communication, education and advocacy, particularly among peers in other sectors, and the methodology employed achieved that.

Initially Mandarin, Arabic and Russian were to be included in the study. However, during the design phase, it became clear that, given the scope of this pilot study, the results would be stronger by concentrating on French, Spanish and English in greater depth. Having now designed and conducted the study and research process, the research can be expanded to further languages when time and funding allows.

5. Conclusions

This study provides evidence which can be used to guide practical guidelines for many aspects of menstrual health in French, Spanish and English. It is well known that shame and stigma

around menstruation are universal, and inappropriate language can perpetuate these and further misinformation. Messages and information about menstruation are obscured by codewords, myths, silence, acronyms and technical, development and medical language. This risks leaving the audience feeling inadequate with more shame. To counteract this, these results should help to inform anyone writing or speaking to people both *in* the menstrual community, and also *close* to it or outside, who want to be better informed, such as donors, educationalists, practitioners, civil servants, politicians etc.

The results of this survey illustrate that most people, including academic and well-educated people, use local or colloquial words. This suggests that communications and advocacy campaigns which use the language most familiar to the target audience would be more effective.

These findings raise the question of how a lack of general knowledge and discomfort with the topic affects a person's menstrual health. Positive word associations help to shape an individual's response to any process. A limited understanding of menstrual products compromises an individual's autonomy to manage their periods. The knowledge of a doctor and medical terminology is not necessary and more informal language should be made more acceptable. The skills and understanding to experience a healthy period with dignity must be shared, but in language familiar to the audience.

6. Key Recommendations

Based on the findings from this research the following universal recommendations are made:

- Acknowledging dominant usage, use the word *period* in English, *regla* in Spanish and *règles* in French, wherever possible.
- Avoid using acronyms for accessibility in *all* communications, spoken or written, even with other experts.
- Discuss periods openly and avoid codewords which reinforce stigma.
- Associate menstruation with *health* to popularise it as natural, positive, and related to all aspects of well-being, rather than *hygiene*, which, although important, may limit menstruation to sanitation and cleaning.
- Include all types of menstrual products in menstrual education.

7. Further Research Ideas

This study has raised questions about further research that is required to fully understand menstrual language and education These include:

- What menstrual health education is required, and works best, for what ages and genders?
- Survey of current menstrual and reproductive health education materials, around the world.
- What information is remembered five years later, in order to establish which methods of communication work best? Repeat this study in the other UN languages, and across a wide range of respondents in different sectors.

Annex 1: Research Team

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Acknowledgments

We thank the following for reviewing our manuscript:

Dr Polly Mitchell, BA MA PhD, bioethics research fellow, King's College, London.

Professor Penelope Philips-Howard, PhD, Liverpool School of Tropical Medicine, UK

Siri Tellier, BA MSc, Technical adviser, Womena.

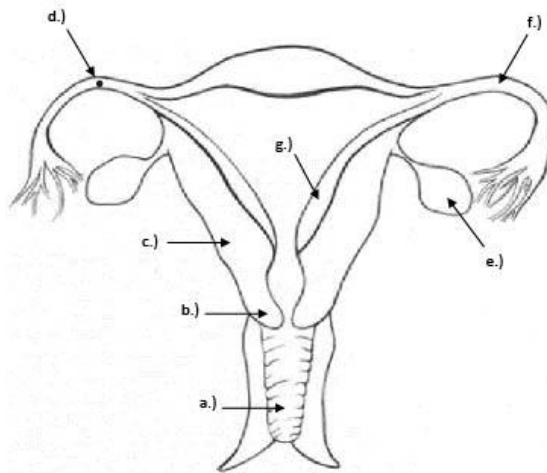
We thank Dorcas International, (Charity Commission registered charity number 1149559) for commissioning this work, and United Nations Office for Project Services (UNOPS) for their funding.

For enquiries or to quote this study, contact: Janie Hampton - janie@janiehampton.co.uk

Annex 2: Survey questions

This survey is about the words we use to describe women's bodies. Your answers will help us to communicate more clearly when educating others around women's health and reproduction.

1. What word do you use for the monthly blood from a woman's vagina?
2. Do you use different words with different people? Yes/No
3. What word do you use when speaking to:
 - a) Female Family members
 - b) Male Family members
 - c) Friends
 - d) Doctors
4. If possible, can you explain why you use different words when speaking to different people?
5. Name any local words or phrases to describe the monthly flow of blood?
6. Do you consider these words as negative or positive?
7. Please name any parts of this diagram of a woman that you can.



- a. b. c. d.
e. f. g.

8. Can you name these things? Leave blank if you cannot.



9. When you see the word 'Health' which other words do you think of?

10. When you see the word 'hygiene' which other words do you think of?

11. Do you know what these acronyms stand for?

- a. MHH
- b. UNICEF
- c. MH
- d. MHM
- e. SRHR
- f. WASH

12. Which city/country do you live in?

13. What is your job?

14. Your Age:

15. Your Gender: Male/Female/Prefer Not to Say

16. Your Highest Education Level: Primary School/Secondary School/University

Annex 3: Sustainable Development Goals

Menstruation is relevant to seven of the 17 Sustainable Development Goals, including many of their specific targets, adopted by the United Nations in 2015:⁶¹

- **SDG 1. End poverty in all its forms everywhere** – lack of access to knowledge and products for menstruation leads to failure at school; lower paid jobs; and less ability to be economically effective. *‘More than 700 million people, or 10 per cent of the world population, still live in extreme poverty, struggling to fulfil the most basic needs like health, education, and access to water and sanitation, to name a few. The majority of people living on less than \$1.90 a day live in sub-Saharan Africa.’*
- **SDG 3. Good Health and Well-being** – knowledge about menstruation and the ability to have a dignified period is an integral part of health and a positive lived experience. SDG 3 includes: *universal access to sexual and reproductive health-care services.*
- **SDG 4. Quality Education** –comprehensive menstrual education can contribute to increased positive attitudes towards menstruation, puberty and body image throughout life. SDG 4 includes: *‘all learners acquire the knowledge and skills needed to promote...human rights, gender equality...’* and *‘Build and upgrade education facilities that are child-, disability- and gender-sensitive’.*
- **SDG 5. Gender Equality** – menstrual taboos, lack of education, inadequate access to products and facilities, and expense are all gendered barriers to menstrual health which add another blockade to gender equality for women and girls. SDG 5 includes: *“Ensure women’s full and effective participation...in public life’; ‘Ensure universal access to sexual and reproductive health’ and ‘End all forms of discrimination against all women and girls’.*
- **SDG 6. Clean water and sanitation** – accessible and appropriate water, sanitation and hygiene (WASH) facilities, including disposal, are central to ensure environmentally-friendly, healthy and safe menstruation. SDG 6 includes: *“access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations’.*
- **SDG 8. Decent Work and Economic Growth** – women and girls can miss work and fail at school because of shame, stigma and a lack of menstrual products or facilities. Women and girls also face the economic costs of menstrual products themselves. To empower women and girls to fully contribute to economic growth, menstrual health must be considered. SDG 8 includes: *‘promote safe and secure working environments for all workers, including migrant workers, in particular women migrants’.*
- **SDG 12. Responsible Consumption and Production** – Single-use pads and tampons are promoted by commercial companies, and then taxed by governments. This monetisation of menstruation leaves women and girls at a disadvantage, which is compounded by the lack of available information around reusable products and their large environmental benefits. SDG 12 includes: *‘reduce waste generation’; ‘Support developing countries to strengthen their...capacity to move towards more sustainable patterns of consumption and production’.*

⁶¹ UN Sustainable Development Goals <https://sdgs.un.org/goals>

Annex 4: Data Analysis Spreadsheet Columns

Column	Field	Description
A.	Survey	Name of the survey responder used (E.G French 1, English 1, Spanish 2 etc.) added by combining
B.	Respondent ID	Unique ID generated by Survey Monkey
C.	Collector ID	Unique generated by Survey Monkey
D.	Start Date	Start time of answering survey
E.	End Date	End time of answering survey
F.	IP Address	IP address obtained by Survey Monkey
G.	Email Address	Not collected – all empty fields
H.	First Name	Not collected – all empty fields
I.	Last Name	Not collected – all empty fields
J.	Custom Data 1	Not collected – all empty fields
K.	What word do you use for the monthly blood from a woman's vagina?	Text box that is answered in native/survey language
L.	Translation	Translation to English by translator
M.	Do you use different words with different people?	Yes/No response
N.	What word do you use when speaking to Female Family members?	Text box that is answered in native/survey language
O.	What word do you use when speaking to Male Family members?	Text box that is answered in native/survey language
P.	What word do you use when speaking to Friends?	Text box that is answered in native/survey language
Q.	What word do you use when speaking to Doctors?	Text box that is answered in native/survey language
R.	If possible, can you explain why you use different words when speaking to different people?	Text box that is answered in native/survey language
S.	Translation	Translation to English by translator
T.	Name any local words or phrases to describe the monthly flow of blood?	Text box that is answered in native/survey language
U.	Translation	Translation to English by translator
V.	Do you consider these words as negative or positive?	Text box that is answered in native/survey language
W.	Translation	Translation to English by translator
X.	Please name any parts of this diagram of a woman that you can? – a. Vagina	Text box that is answered in native/survey language
Y.	Please name any parts of this diagram of a woman that you can? – b Cervix	Text box that is answered in native/survey language
Z.	Please name any parts of this diagram of a woman that you can? – c. Uterus	Text box that is answered in native/survey language
A.	Please name any parts of this diagram of a woman that you can? – d. Egg	Text box that is answered in native/survey language

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B.	Please name any parts of this diagram of a woman that you can? – e. Ovary	Text box that is answered in native/survey language
C.	Please name any parts of this diagram of a woman that you can? – f. Fallopian Tube	Text box that is answered in native/survey language
D.	Please name any parts of this diagram of a woman that you can? – g. Endometrium	Text box that is answered in native/survey language
E.	Can you name these things? Leave blank if you cannot – a. Tampon	Text box that is answered in native/survey language
F.	Can you name these things? Leave blank if you cannot – b. Sanitary Pad	Text box that is answered in native/survey language
G.	Can you name these things? Leave blank if you cannot – c. Menstrual Cup	Text box that is answered in native/survey language
H.	When you see the word 'Health' which other words do you think of?	Text box that is answered in native/survey language
I.	Translation	Translation to English by translator
J.	When you see the word 'hygiene' which other words do you think of?	Text box that is answered in native/survey language
K.	Translation	Translation to English by translator
L.	Can you write these in full? – a. MHH	Text box that is answered in native/survey language
M.	Can you write these in full? – b. UNICEF	Text box that is answered in native/survey language
N.	Can you write these in full? – c. BBC	Text box that is answered in native/survey language
O.	Can you write these in full? – d. MH	Text box that is answered in native/survey language
P.	Can you write these in full? – e. MHM	Text box that is answered in native/survey language
Q.	Can you write these in full? – f. SHRH	Text box that is answered in native/survey language
R.	Can you write these in full? – g. WASH	Text box that is answered in native/survey language