



Master of Public Health

Master de Santé Publique

Period Tok: Uncovering Women's Health Narratives on Social Media

A Social Media Analysis

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LIST OF ABBREVIATIONS

COVID-19 - Coronavirus disease 2019

BCE - Before Common Era

MAQ - Menstrual Attitudes Questionnaire

MJQ - Menstrual Joy Questionnaire

SNAP - Supplemental Nutrition Assistance Program

WIC - Special Supplemental Nutrition Program for Women, Infants, and Children

NSES - National Sexuality Education Standards

CDC - Centers for Disease Control and Prevention

Dobbs - Dobbs v. Jackson Women's Health Organization

CSE - Comprehensive sex education

CPCs - Crisis pregnancy centers

AFAB - Assigned female at birth

SMI - Social media influencer

BC - Birth control

ABSTRACT

This study investigates how women's health brands use TikTok to communicate ideas about menstruation, and identify and analyze how the audience perceives the content. The project arises from the significant stigma and misinformation surrounding menstrual health. Although menstruation is a normal bodily function, people hesitate to discuss menstruation openly, which results in a lack of information about periods and their management.

To conduct this research, I performed a social media content analysis for 4028 short-form videos from ten women's health brands on TikTok, focusing on videos that specifically address menstruation. Out of these, I analyzed 549 videos for their content, themes, and audience engagement metrics, including likes, comments, and engagement rates. I included all data from June 24, 2022, to April 1, 2024, covering various topics such as healthcare, stigma, period products, and educational content.

The findings reveal that menstrual health content generally receives positive engagement - more likes and comments than their non-menstrual health counterparts. However, many brands still portray menstruation negatively or as an inconvenience. Videos addressing menstrual stigma receive higher user engagement, indicating that societal attitudes surrounding period stigma may be changing. Users use the comment sections to share tips, experiences, and seek information, showing a need for increased safe, online, educational community spaces.

In conclusion, TikTok may be a valuable platform for disseminating menstrual health information and challenging existing stigmas. To further these efforts, women's health brands should continue to produce varied menstruation content that is neutral or positive in nature. They should encourage conversation about stigma and menstrual experiences. Due to the increasing political climate surrounding reproductive health education, social media platforms like TikTok may be an appropriate space for menstrual health messaging.

Keywords: Menstrual health, Social media, TikTok, Women's health, Destigmatization

INTRODUCTION

Over the course of any given month, 1.8 billion people will menstruate, about 22% of the global population.¹ Though the number is large, menstruating people face daily challenges that affect their menstruation experiences including but not limited to: stigma, taboos, discrimination, judgment, censorship, and lack of information. In the United States, it is reported that 58% of women are ashamed to have a period, and 51% of men believe menstruation is inappropriate to discuss at work.²⁵ Workplaces remain an unsafe space for those who menstruate, though certain countries, like Spain, have implemented menstrual leave policies.⁴¹ After being in place for over a year, Spain's policy hardly gets used, due to the additional hoops people have to jump through to use it. For example, you have to be diagnosed with a disorder like endometriosis, a disease that typically takes 4-11 years on average to diagnose, and receive a doctor's note based on that diagnosis, implying that although you may be unable to go to work, you still have to go to a doctor's office.^{41,42} These preconceived notions and lack of information about periods are ingrained in society and result in self-silencing and hesitancy in discussing menstruation. Additionally, in the US, many sexual education classes in schools lack accurate menstrual health information and often are not required as part of the curriculum.² This leaves adolescents turning to mothers and friends for information about menstruation, from whom they may or may not receive scientifically accurate information.⁴ During the COVID-19 pandemic, the general population turned toward the internet, and specifically social media, for news and health information.⁵ Since then, digital women's health brands have popped up all over social media in an effort to destigmatize and raise awareness for women's health conditions and products. Social media as a health messaging tool comes with challenges like women's health online censorship, stigmas, and misinformation and disinformation. This examination serves as an analysis of how digital women's health brands' communicate about menstruation and how these topics are perceived by online audiences.

Period Poverty

On an international scale, the weight of menstrual stigma has devastating effects across cultures. "Period poverty," defined as the lack of access to safe and hygienic menstrual products and inaccessibility to basic sanitation services as well as menstrual hygiene education, affects both developed and developing countries including the US, the United Kingdom, India, Venezuela, and countless others.²⁵ On the surface this can be seen in many communities in which workplaces and schools do not provide clean water and toilets. For example, in Niger and Tunisia, only 50 percent of women and girls have a private place to wash and change.⁴³ This

lack of access results in prolonged use of menstrual products which causes illnesses such as urinary tract infections, yeast infections, bacterial vaginosis, and toxic shock syndrome.²⁵ Aside from a lack of access to clean water and sanitation services, menstruating people bear the economic burden of products to manage menstruation. In Venezuela, this combination of determinants causes some women to choose pregnancy over monthly menstruation because access to safe and hygienic menstrual products is not possible.²⁵ On a lesser scale, in the US and in other countries such as Greece, Norway, and New Zealand, just to name a few, a “tampon tax” is in place that allows governments to tax menstrual products in a similar way to luxury goods like electronics, makeup, and toys.^{27,28} For example, for those in the US, an already expensive good gets more expensive. The tampon tax continues to exist today in the wake of global stigma surrounding menstruation. A vicious cycle occurs, in which the stigma around menstruation allows the tampon tax to continue to exist, and the tampon tax being in place perpetuates a continuous othering of menstruating people. Additionally, United States government aid programs like the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) do not cover period products, leaving many women without.²⁹ Among adolescents, 4 out of 5 menstruating teenagers in the US reported that either they have missed class time because they did not have access to menstrual products, or they know someone who has.²⁹ Missing out on time in the workplace and/or school system limits economic opportunities for women, increases discrepancies in the gender pay gap, and compromises gender equality.³⁰

Period poverty also includes a lack of access to menstrual health information and education. Studies show that women with less education surrounding safe and hygienic menstrual health practices tend to develop more urinary tract infections.²⁵ The lack of information on menstrual health breeds negativity towards periods and fuels the existing stigmas. Healthcare seeking is reduced when menstrual health information is unknown.²⁵ Menstruators do not know when to seek help for conditions like dysmenorrhea (painful periods) and menorrhagia (heavy menstrual bleeding), decreasing quality of life.²⁵ At least 500 million out of 19 billion women who menstruate are not able to achieve good menstrual health due to period poverty.³¹

History and Narratives

Menstruation in the US has historically been stigmatized due to a lack of research and information. Up until the 1980s, the start of menstruation, otherwise known as menarche, was viewed by psychodynamic theorists as a change that occurred in the mind.⁶ It was seen as

traumatic, anxiety inducing, and associated with diminished self esteem.⁶ The focus of research at the time was on the debilitating effects of hormonal fluctuations, which failed to provide a complete understanding of the menstrual experience.⁶ This body of research accentuated the already present menstrual stigmas that were based around female “hysteria”. The root of the word, “hysteria” comes from “hystera”, the Greek word for “womb”.⁴⁰ The idea of female hysteria can be traced back thousands of years to Hippocrates in 5th century BCE.³⁹ Physicians believed hysteria to be a disease in which the uterus moved around the body and caused female “madness” and anxiety.³⁹ Hippocrates believed that without sexual activity and procreation, the uterus was prone to becoming “sick”. He claimed the cure to hysteria was to get married and engage in regular sexual activity. This definition of hysteria shaped the way the uterus and female bodily functions are treated across all medical domains, from sexual health to mental health. Hysteria, labeling menstruating women as “hysterical”, and hysterectomy, the removal of the uterus, can all be traced back to this same root. In the 1980s, the idea that menstruation was a complex biopsychosocial event began to form amongst researchers.⁶ The development of Brooks-Gunn and Ruble’s Menstrual Attitude Questionnaire (MAQ) was a pivotal point in the research as it surveyed positive attitudes about the menstrual experience in addition to negative ones.⁶ The questionnaire prior to the MAQ only inquired about negative symptoms and attitudes, framing menstruation in a negative light. The MAQ paved the way for the eventual Menstrual Joy Questionnaire (MJQ) which further explored positive aspects of the menstrual experience, as well as examining the new concept that menstruation was socially constructed, complex, and potentially even positive.⁶ It was not until the late 20th and early 21st centuries that amongst a sea of negative press for menstruation, a positive presentation began to emerge through websites, organizations, and increased visibility of menstrual products.⁶

Religious and Cultural Stigma

Long before these ideas formed within research and academia, many different religions had been stigmatizing menstruation for thousands of years. Leviticus 15:19-33 of the Bible contains one of the oldest pieces of evidence of menstrual stigma within Christianity. In brief, it states that any woman becomes “unclean” when they are menstruating, and anything or anyone that comes in contact with the menstruating woman is also now deemed “unclean”.⁸ Within the Eastern Orthodox Christian Church, it is forbidden to participate in sacraments like communion while menstruating.² Within Judaism and Islam, menstruating people are seen as “unclean” and “impure”, respectively.⁷ Hinduism also holds these stigmas with the idea that menstruating people are impure and are not allowed to participate in religious ceremonies, eat certain foods,

or enter the home's prayer room, amongst many other restrictions.⁷ In Nepal, these Hindu practices have evolved into extensive menstrual isolation techniques that still exist today.²⁶ The tradition known as "chhaupadi" is the idea that a menstruating woman is to be banished to a menstruation shed for the duration of menstruation.²⁶ These traditions are believed to be based in God's rules, and that one must follow them to avoid misfortunes.²⁶ What these traditions fail to take into account are the ethical and human rights violations that occur as a result of the physical and emotional "othering" of menstruating people. The "chhaupadi" practice exposes women to exposure to outside elements, animal and bug bites, rape and sexual assault, animal attacks, unhygienic living and sleeping conditions, and decreased access to healthcare, all of which leave menstruating women at an increased risk of illness and disease.²⁶ This physical isolation practice has ramifications across the social system, resulting in stigma, fear, and shame. If women do not follow menstrual traditions, they are blamed for negative events that occur in the community, like illness, accidents, and deaths.²⁶ Instances of verbal and physical abuse towards these women have also been documented.²⁶ Additionally, many women believe that not following these traditions may result in negative consequences in their lives like marriage rejections or abandonment after marriage.²⁶ Across religious landscapes, these practices successfully keep women from holding religious authoritative positions, keeping the gender equality gap vast.² Though certain religions have tried to move away from some of these ancient practices, menstrual stigma persists globally within religion and results in the disenfranchising of women everywhere.

Societal Stigma

The history of menstrual stigma lies not only in religion and culture but also within all layers of society. Societal stigma is seen today in menstrual product advertising. The marketing of menstrual pads and tampons often leans into themes of secrecy and concealment that encourage these harmful stigmas.⁶ For example, tampons are often advertised through women playing high intensity sports, so as to suggest one must keep up their regular physical activities to avoid menstruation being known. These products are also advertised as compact (easy to conceal) and as the solution to odor and leaking - further adding to the shame surrounding menstrual blood and menstruation.^{6,9} Additionally, advertisements show menstrual products using blue liquid instead of menstrual fluid which also contributes to shame and secrecy. Sometimes, tampons with an applicator will be advertised as a solution to touching menstrual fluid, perpetuating the idea that the phenomenon of menstruation is "gross" or "dirty".⁶ Beyond menstrual products, these ideas are perpetuated through birth control methods that are

marketed as the solution to periods, offering shorter or no periods, and less emotional symptoms.⁶ This constant marketing of periods as “gross”, “burdensome”, and “dirty” contributes heavily to the internal stigmatization among people who menstruate. This shame typically extends to the vagina and surrounding areas, leaving many integral parts of women’s reproductive health in the dark.¹⁰

Harmful stigmas surrounding menstrual health seem to persist in the online world as well. One study that focused on individual tweets on Twitter (now X) found that in a sample of 10,000 tweets from adolescents about menstruation, the vast majority of them are negative and surrounded by shame.⁴ One tweet reads: “On my way to class I pulled my phone out of my pocket and to my surprise a tampon fell out too and the boy behind me and I just looked at each other for 7 seconds or so and now I fell awkward so I’m tweeting this to get out of my situation”.⁴ This study shows that not only are these themes showing up in marketing and advertising, as well as religious, familial, and cultural settings, but also in casual settings on social media sites. A quick search on Reddit, of “periods are gross” returns hundreds of results. On the board r/unpopularopinion, you can find the sentiment echoed over and over: “It’s not immature to think periods are gross”, “Thinking periods are gross isn’t wrong”, “A woman’s period IS disgusting, and saying that it’s not because it’s natural makes no sense”, “Periods are gross and people need to stop glorifying them”. Misinformation runs rampant in various boards all across Reddit with sentiments like, “I think it’s gross how young girls push out their periods, and don’t hold them and wait till they are older!”, “Periods are not natural”, “Virgins don’t get periods”. This kind of misinformation is widespread and can have detrimental effects on impressionable people of all genders. Not only this, but on boards dedicated to “Men’s Rights” one will find endless conversations about why period products should continue to be taxed, and even face price increases, as well as heated discourse on why workplace menstrual leave is just an excuse for women to work less than men (r/MensRights, Reddit).

Education

Lack of information plays an integral role in the perpetuation of menstrual stigma.⁹ For many people who menstruate, their first exposure to menstrual health information is through their mothers or peers, who may also hold internalized shame and stigma.⁹ On the same note, menstrual education is highly underrepresented within the American school system. The US National Sexuality Education Standards (NSES) include puberty and adolescent reproductive anatomy in their framework, but these standards are guidance and are not mandatory, which leads to the onus being put on individual states and educators to include the content.² As a

result of this, one study done by the Centers for Disease Control and Protection (CDC) in 2014 found that only 39% of US schools required in-school instruction on reproductive anatomy and puberty.² Additionally, while the NSES suggests the physiological aspects of menstruation are included in the content, there is little to no information on menstrual management, and only three states include menstrual management explicitly in their school health standards.² This suggests that a majority of schools in the US do not teach students how to manage their periods, from period products, to pain and symptom management. Again, these numbers show the true underrepresentation of menstrual health in US education.

Similarly, menstruation gets unfairly lumped into sexual education courses in the US. Because of this, when parents and guardians hear the phrase, “sex education”, they may assume that the teachings are solely about sexual intercourse, and not about puberty.³ This leads to restrictions on school districts and parents opting their children out of sex education classes as more and more programs become optional. Parents can opt their children out of sex education classes in 2 out of 3 US states.³ Through this, numerous adolescents miss crucial information about their periods. School system studies also note that problems in sex education delivery arise from high teacher turnover, teacher discomfort, teacher inexperience with the topics, and limited teacher bandwidth.³ Oftentimes, schools make the assumption that parents teach the kids about these topics and parents make the assumption that they will learn these topics in school, leaving large knowledge gaps in reality.³

Health Effects of Stigma

Menstrual stigmas come from every aspect of society, and have existed for thousands of years. Internalized shame and stigma amongst those that menstruate have dire medical implications throughout the lifecourse, one of them being within sexual health behaviors. For example, numerous studies have reported that negative, shame-filled attitudes surrounding menstruation and genitalia may contribute to a lack of self advocacy and autonomy in sexual decision making.^{2,6} An additional study among college students show that students who felt more comfortable about menstruation demonstrate less sexual risk.² Stigma also reaches into mental health and affects self esteem, especially during adolescence.⁹ Menstrual stigma may also cause stress, social isolation, depression, and anxiety.²⁵ Young adults feel the need to silence themselves on menstrual topics from a young age, primarily to fit in socially.⁹ This self-silencing can be detrimental to health outcomes as it prevents menstruators from seeking menstrual health consultations and interventions, often leaving health conditions undiagnosed.⁹ This can lead to a decreased quality of life. It has been found that 75% of adolescents

experience problems with menstruation including pain, irregularity, and/or delayed onset. This is a large proportion of vulnerable young adults that may never seek treatment for these conditions due to self-silencing and internalized stigma.⁴ The drastic medical implications of menstrual stigma call for public health interventions.

Sexual and Reproductive Health Policy

Menstruation not only is stigmatized across the world, but is also becoming more and more politicized in the US due to the overruling of *Roe v. Wade*. On June 24, 2022, the Supreme Court of the United States ruled in *Dobbs v. Jackson Women's Health Organization* (Dobbs) that states may individually regulate access to abortion care services.¹¹ Although this ruling does not explicitly discuss menstrual health, the implications on menstrual health are legion. First, this ruling directly impacts femtech, the industry that is currently known for period and ovulation tracking applications. Because abortion is restricted and often criminalized in many states after the Dobbs ruling, there have been growing concerns about data privacy on apps of this sort like Flo, Clue, and even the iPhone Apple Health app that has period tracking capabilities. Generally, this data does not have special protection, indicating that it can be sold to third parties, hacked, and even shared with law enforcement.¹² Law enforcement officials are using data from menstrual cycle tracking applications to detect period patterns that indicate pregnancy and possible abortion.¹³ A 2022 study of similar applications proved these concerns. It found that 87% of the apps sampled shared user data with third parties and 87% of them explicitly stated that if law enforcement is involved, they will share user data with them.¹² These data privacy concerns can even extend past suspecting if an abortion occurred. For example, an app showing a late period could indicate that a person knew or should have known that they were pregnant, crucial data points in certain states where abortion feasibility is measured by weeks of pregnancy, some being as early as six weeks.¹² This lack of privacy and violation of reproductive rights will have a detrimental impact on menstruators who use these apps. They may stop monitoring their own period data and therefore miss symptoms of larger conditions like endometriosis, cancers, or pregnancy.

Along with data privacy concerns online that will affect menstrual health, the Dobbs ruling goes hand-in-hand with the outcomes of poor sex education. The existing stigmas and insufficient menstrual health knowledge within sex education will now have more dire consequences in a post-Dobbs world. For example, if adolescents do not have the knowledge that teenage menstrual cycles are often irregular, that there is a possibility to get pregnant prior to menarche, and how to understand the fertile window and ovulation, then this may lead to

more risky sexual behavior and unplanned pregnancies.¹⁴ When discussing the Texas “heartbeat bill” that prohibits abortion after six weeks, governor Greg Abbott stated, “Obviously it provides at least six weeks for a person to be able to get an abortion.”¹⁴ This statement alone is proof of a broken sex education system. Pregnancies are measured from the time of the last menstrual period, meaning that according to this bill, the person actually would have menstruated six weeks ago, ovulated approximately four weeks ago, and would have only been able to detect a pregnancy through a test two weeks ago, assuming that they chose to test immediately at the sign of a late period.¹⁴ Because we know that many people experience irregular menstruation, it is not likely that everyone would test at this point.¹⁴ Therefore, this bill is essentially a total abortion ban. Without sufficient menstrual education, the general public might not understand those implications.

In addition, those that have successfully attacked the right to abortion have simultaneously been fighting against comprehensive sex education (CSE), which as stated previously, harms menstruating people and those around them.¹⁵ States that have imposed new abortion restrictions post-Dobbs have a tendency to also be states that have broken sex education systems.¹⁶ The combination of poor sex education and criminalized abortion policies will result in harmful public health consequences.¹⁶ In 2022, numerous states including Massachusetts, Michigan, New Jersey, and Ohio, introduced bills that would harm CSE by switching to opt-in or optional policies, where parents would have to give consent to sex ed instruction. The chipping away at CSE means that less and less adolescents will learn medically accurate and shame-free menstrual health education, contributing to the never ending cycles of stigma and shame.

Aside from the aforementioned education and privacy concerns, the Dobbs ruling has direct repercussions on menstrual and reproductive primary healthcare. Among the medical community, there is worry that the patient-provider relationship will be harmed due to a lack of trust surrounding patient privacy.¹¹ If patients are less willing to share intimate health information with their providers, this may hinder providing appropriate care to the patient.¹¹ In the case of menstruation, many health problems can be identified and diagnosed with the help of menstrual symptoms and patterns, something that will be obstructed with the erosion of the patient-provider relationship. The Dobbs ruling also directly impacts the quality and availability of reproductive healthcare including contraception and family planning access, menstrual management, pre- and postnatal care, and preventative health exams.¹³ Without abortions, certain clinics may be forced to close due to financial reasons, effectively putting an end to any other non-abortion related reproductive healthcare services they offered.¹³ These closures then

cause patients to travel out of state for abortion care.¹³ This travel puts an unexpected strain on clinics that remain open, leaving patients with longer wait times to see providers, less access to non-abortion related medical care, and burnt out medical staff.¹³ The closures of reproductive health clinics will have the worst impact on vulnerable, low-income residents that rely on clinics for primary care because the states with the worst abortion restrictions tend to have the worst healthcare systems and resources for low-income groups in the country.¹³

The post-Dobbs state of the US means that female (here representing those assigned female at birth (AFAB)) reproductive anatomy will be policed, politicized, and further ostracized and stigmatized. The goal of menstrual advocacy includes the ability to fully participate in public life, be free from discrimination, and experience the full extent of human dignity, goals that in the light of the Dobbs ruling, seem out of reach.¹⁴

Social Media as a Public Health Tool

The idea of using social media as a public health tool has begun to emerge in research. In 2023, The Pew Research Center released a study that showed that more than 50% of the population turn to social media for their news at least some of the time.¹⁷ The increase in smartphone use and the emergence of social media sites like TikTok increases access to information seeking online. Another study from the Pew Research Center found that 95% of US teens have access to a smartphone, and nearly half of them say they are constantly online.⁴ Thus, young adults are turning to social media and the internet more and more for their sexual health information.¹⁸ This body of information includes menstrual health, with some young girls stating that “Google is your best friend” when it comes to seeking information about puberty like managing body odors, hormonal acne and oily skin, and how to dispose of menstrual products properly.³ Because young adults are turning to the internet for not only their news, but also for their health information, a new avenue of public health interventions should be explored.

Although the use of social media among adolescents is widespread, the field of research on social media use for public health interventions is still new and underdeveloped.¹⁸ Previous studies have concluded that social media can be used for mass dissemination of information, health education, and health behavior change.⁴ The effectiveness of social media as a public health tool has been proven in other public health fields like nutrition and physical activity. For example, a recent review showed that 9 out of 10 public health campaigns using social media to target nutrition and physical inactivity resulted in improvement in health behaviors.¹⁹ In a SRH context, other studies confirm that young adults are talking about sexual health and menstruation online. A Twitter based study concluded that medical conversations and resource

sharing while building social rapport exists on the site.⁴ This study also showed that youth on Twitter are using the site for challenging menstrual stereotypes and creating new meaning and value to menstruation.⁴ This was seen also in a study of school-aged girls, where it was found that the girls seemed to be very open, honest, specific, and direct when discussing and asking about menstruation online, something that historically is less seen in classroom instruction, and is a stark difference in the history of self-silencing.⁶ Other perks of social media for health messaging include: anonymity, which is desirable with sensitive topics like menstruation, easy accessibility, and fostering a sense of community and belonging.²⁰ From a public health perspective, social media has the ability to, for a relatively low cost, target those at highest risk and reach large masses of people.¹⁹ A recent study examined how popular condom brands have accepted the challenge and used their platforms for sexual health messaging.¹⁸ The study was informed by previous studies that stated that messages delivered by social media applications are effective in providing information on risky sexual behavior. It was also believed that organizations, like reputable condom brands, may have more reach and influence than regular social media users and other health stakeholders.¹⁸ This indicates a large opportunity for brands and organizations to use their platforms for health messaging, specifically, menstrual and sexual health messaging.

Censorship and Health Messaging

Though social media does provide a unique opportunity for effective menstrual health messaging, there are a few barriers that public health interventions may face. One of these larger issues is censorship. Censorship on social media is rampant, specifically when it comes to women's health topics. The Center for Intimacy Justice performed an investigation in 2022 about censorship within women's health brands on Meta platforms (including Instagram and Facebook).²¹ The investigation found that Meta had rejected at least one of each of the 60 brand's ads, commonly citing "Adult Products".²¹ The content in the rejected ads included information about pelvic pain, menopause, pregnancy and postpartum care, sexual wellness, menstrual health, and more.²¹ None of the advertisements contained any nudity. Meta even went far enough as to suspend half of the account's advertising abilities. Several ads relating to male erectile dysfunction medication, masturbation, and male grooming tools that explicitly referred to "balls", as well as ads containing sexual innuendos were approved, proving the application of said censorship is unequal.²¹ This censorship is inherently misogynistic. It desensitizes society to men's sexual health, while women's sexual and reproductive health continues as a taboo, and leaves women without vital health information and services. One of

the older mainstream censorship movements was the “#FreeTheNipple” campaign that took place in 2013 due to Meta’s censoring of breasts.²² As long as women’s health and female bodies have existed on the internet, they have been censored. For this reason, women’s health brands may face challenges in sharing menstrual health information online.

TikTok Censorship

Looking toward a newer short form video platform, TikTok, that grew in popularity during the beginning of the COVID-19 pandemic, censorship is still alive and well. While some videos on TikTok may be taken down due to inappropriate content, a much sneakier form of censorship comes with being “shadowbanned”. Shadowbanning on TikTok means that without any formal notification, the algorithm might show videos to fewer people, essentially hiding them from viewers. Because the algorithm on TikTok is so complex, it is often hard to find out if you have been shadowbanned, and why.²³ There is often not a clear reason why some videos do well and some do not. TikTok has been known to censor content relating to sexual activity and genitalia.²³ This can make it harder for women’s health brands to provide sexual and menstrual health messaging. On the other hand, where there is censorship, there are loopholes. TikTok has created a new language among its users to combat censorship. One of these languages is in misspellings.²³ For example, one might talk about sex on TikTok by writing “seggs” or “\$ex” in the captions or on the screen, to avoid it getting flagged. Aside from misspellings, there is an entire language of emojis (pictograms used in online messaging) that is being used to avoid censorship on social media.²³ For instance, the eggplant emoji is used to represent a penis, the peach emoji for the buttocks, the cat emoji to reference the vagina or vulva (alluding to the slang term for vagina), the corn emoji to discuss porn, and so on and so forth. Tackling censorship on social media involves creativity and trend following, or else it can hinder communication about sexual health topics.

Another problem with using social media for health messaging lies in misinformation and disinformation. The spread of misinformation on social media was seen as a large issue during the COVID-19 pandemic. Inaccurate medical information spread rapidly globally which contributed to a sense of distrust of politicians, a sense of distrust of scientists and public health professionals, conspiracy theories that affected vaccination coverage, and general disinformation about the epidemiology of the virus.²⁴ The spread of misinformation can especially be harmful when dealing with topics like menstruation, as the topic is already stigmatized due to inaccurate and insufficient information. With platforms like TikTok, the spread of misinformation is easy because anyone can create an account and post whatever they like,

reach an incredible amount of people, and have absolutely no credentials or accountability to be telling the truth. Creators can make scientifically inaccurate content and go viral in less time than it takes reputable organizations to release scientifically accurate content. As a result, content that is contradictory leads to a sense of distrust and thus impact's someone's ability to make informed health decisions.²⁰ Distrust and misinformation directly feed the cycles of shame and stigma. A harmful example of disinformation is seen through the online presence of Crisis Pregnancy Centers (CPCs). CPCs are pro-life clinics that target people seeking abortion care. They promote themselves on social media and in search engines and provide false claims about abortion care that convince people to believe that abortion is not an option.²⁰ The presence of routine misinformation and disinformation on social media adds a specific challenge to women's health brands looking to communicate on topics like menstruation and sexual health.

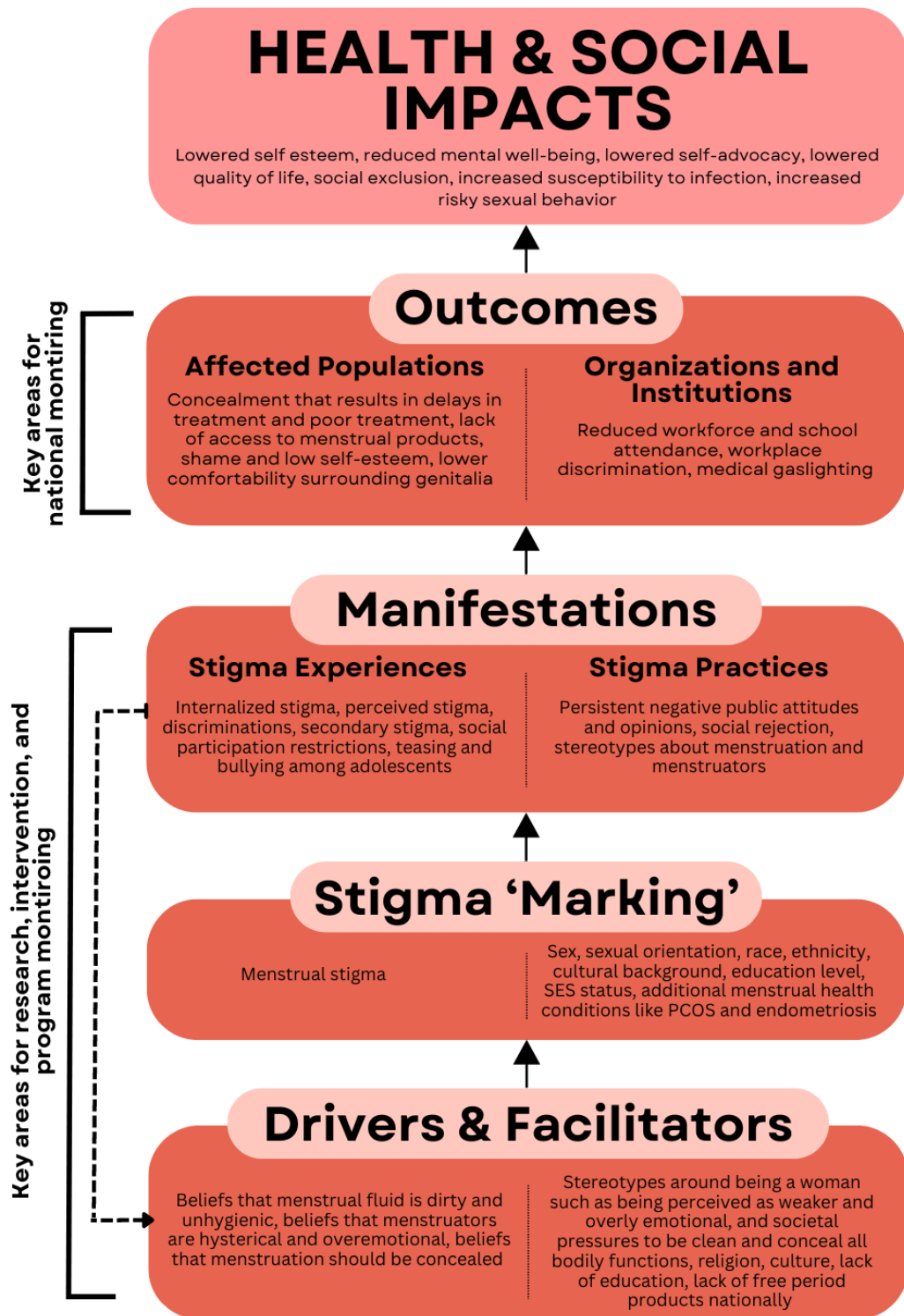
Religion, culture, family dynamics, and a broken sex education system all shape the complex negative attitudes surrounding menstruation across the world. Throughout history, the social and political systems of the U.S. have actively stigmatized menstruation. The Supreme Court's recent ruling on Dobbs further exacerbates the harm inflicted on menstrual health through stigma, misinformation, and lack of access to healthcare. For these reasons, menstrual health urgently requires help from public health interventions. New research actively suggests that social media can effectively disseminate health information to vast audiences. Given that menstrual health is consistently overlooked in sexual education curriculum, the dissemination of menstrual health education requires new methods, with social media being an emerging, viable tool. Social media has the potential for fostering discussion, knowledge sharing, community building, and destigmatizing menstruation. However, acknowledging that barriers like censorship and misinformation online can hinder interventions that use social media for messaging is imperative in this study, as well as all future analyses. Despite this, several women's health brands have actively turned to social media to engage in conversations about sensitive topics such as periods, infertility, sex, endometriosis, and more.

Study Objectives

The objectives of this study were created with the Health Stigma and Discrimination Framework, by Anne Stangl et al. in 2019, in mind.³⁵ The framework applied to menstruation is below, in figure 1. It begins with the drivers and facilitators of menstrual stigma, including conceptions of menstruation and religion and culture. These drivers and facilitators lead to the presence of stigma, or stigma 'marking'. Menstrual stigma intercepts with other stigmas

including sex, race, culture, and more, which results in manifestations. The manifestations present as both experiences and practices. These include internalized stigma, teasing, negative attitudes, stereotypes, and more. The manifestations of menstrual stigma result in outcomes for the affected populations, menstruators, and organizations and institutions. Resulting outcomes lead to health and social impacts including all mentioned above. The dotted arrow displays the loop between the manifestations and drivers and facilitators. Drivers and facilitators, stigma marking, and manifestations are noted for being the key areas for research and intervention, and the outcomes are noted as key areas for monitoring. This study focuses primarily on stigma practices and stigma experiences, and the drivers and facilitators that cause them.

Figure 1: The Health Stigma and Discrimination Framework + Menstruation



I hypothesized that women's health brands on social media have the ability to contribute to destigmatizing and normalizing menstruation by reaching vast audiences with visual

messaging. Young people are seeking health information from social media sites like TikTok, which is why I believe that women's health brands can be used as an important communication tool within public health. This analysis aims to answer the question: How do women's health brands use social media for menstrual health messaging? Using metadata from the TikTok accounts of Women's Health Brands, this examination analyzes common messaging themes, as well as audience reception to menstrual health topics.

Research Questions

RQ1: How do women's health initiatives articulate and "brand" menstruation on visual social media platforms?

I performed a content analysis to determine what topics within menstruation are being discussed on women's health TikTok platforms, including overarching themes, phrases, and general connotations of the content. I aimed to discover which aspects of menstrual health are being overlooked, as to acknowledge a potential information gap. The hypothesis is that the majority of the content shared would fall under one or two categories, excluding many menstrual experiences, and generally be negative in nature.

RQ2: Using comment sections and engagement information to inform the project about audience response, how is menstrual health messaging on social media received by audiences?

Using engagement metadata, I aimed to uncover reach patterns in posts containing menstrual health information when compared to other women's health topics, as well as themes and connotations from comment sections of the content. I hypothesized that menstrual health is not as well received on TikTok as other women's health topics, and that stigma would be present in comment sections.

This work is an early step in discovering the use of TikTok as a public health messaging tool.

OBJECTIVES

Research question	How do women's health brands use social media for menstrual health messaging?
General objective	To collect social media data about menstrual health regarding the efficiency of using TikTok as a public health education tool.
Specific objective 1	To identify what exists on TikTok in terms of menstruation content put

	out by women's health brands.
Specific objective 2	To identify how menstrual health content is perceived by TikTok users.
Specific objective 3	To propose content strategies that improve the reception of menstrual health content and increase the dissemination of menstrual health information on TikTok.

METHODS

Data Collection

To answer research RQ1, I performed a content analysis of existing menstruation content on TikTok by compiling content from 10 existing women's health brands. I chose the brands by searching the "Women's Health" hashtag on TikTok. Inclusion criteria is as follows: the company must either be based in the U.S., have an office in the U.S., and/or a large U.S. based audience, they must identify as a company (instead of an individual or social media influencer (SMI)), they must have posted on Tiktok regularly in the last 3 months, they must self identify either on their social media accounts or website as a women's health and wellness brand, or a sexual, reproductive, and menstrual health brand that focuses on women's health, and they must post regularly about a variety of aspects of women's health outside of menstruation (for example, breast cancer, autoimmune diseases, fertility, etc.). The following 10 accounts were selected: Rescripted, Wisp, Flo Health, Femiclear, Hers, Allara Health, Stix, Bellabeat, Clue, and Natural Cycles.

I pulled short-form video content from all ten accounts within the time period from June 24th 2022, the Dobbs ruling and overturning of Roe v. Wade, through April 1st, 2024, for analysis. Videos that fit within this timeframe were analyzed for content including overall subject, themes, and language.

Coding

Throughout the given time period, I pulled a total of 4028 short form videos from the 10 TikTok accounts. Screening the videos for content, videos not entirely pertaining to menstruation were excluded (n=3479). The analysis included the remaining 549 videos under the topic: periods. I personally screened each video and created a content codebook based on the main focus of each video. The topic codes include: healthcare and education, stigma, period products, birth control/pharmaceutical intervention, symptoms (emotional and physical), periods (general), and miscellaneous. The miscellaneous category includes videos with a separate theme unable to fit a separate category including topics like period sex, period tracking through

technology, and pregnancy scares. All videos were able to be categorized into one of the eight subtopics. This analysis serves to show which topics are being discussed the most by women's health brands on social media. Following this, each video was given multiple theme codes to further analyze the communication styles and underlying themes at play in the videos. These include humor, education, inconvenience, shame, sexism, pain, and more. Each video could contain more than one theme. The goal of recording these themes was to 1. Identify how women's health brands are discussing menstruation and 2. Determine what connotations are associated with menstruation most frequently. The following table provides examples for initial coding.

Table 1: Content category examples

Topic	Example Quotes
Healthcare/Education	“When you tell your doc you’re having painful & heavy periods and they tell you it’s ‘normal’ and offer you BC / “What the color of your period blood really means!”
Stigma	“Finding out that the first EVER test of the absorbency of menstrual products with ACTUAL blood was this month. Before scientists were using saline solution to test 🙄” Asking men, “Can girls pee at the same time as they have a tampon in?”
Period Products	“POV: you can’t remember the last time you changed your tampon”
Birth Control/Pharmaceutical Intervention	“This is your sign to delay your period before Valentine’s Day” “I just found out: bleeding on hormonal birth control is not a real period”
Physical Symptoms	““Wow I’m going to have such a productive day today’ *Period cramps forcing me to be horizontal for 24 hours*”
Emotional Symptoms	“When you’re on your period and no one is safe. But then you remember it’s your period, not them, and you’ll have to apologize if you cuss them out”
Periods (General)	“When you get your period a week before vacation”
Miscellaneous	[referring to period tracking with an app] “Is it an addiction? No, I don’t think it’s an addiction, I think it makes me happy but, no it’s not an <i>addiction</i> ”

Audience Reception

To answer RQ2, I aim to see how Women’s Health Brands’ audiences view content about periods. To gauge audience reception, the views, likes, and engagement rates were compared using Excel. I gathered this metadata, including follower and post count, by using the Popsters software. Popsters automatically collects metadata for multiple social media sites over

a specified period of time. I performed a linear regression analysis, using R, for the number of likes and comments by content category to measure audience reception on TikTok. The regression analysis included two different methods. The first variable explored was a binary for content about menstruation versus non-menstruation content. Then, wanting to explore the effects of content further, I created a variable containing all eight period subtopics to be compared against the resulting like count.

For additional audience reception of content, I pulled the comment sections from each video and coded them for themes and overall connotation. Individual comments were sampled to provide examples of recurring themes.

RESULTS

Content Thematic Analysis

RQ1 aims to find out what the discourse about menstruation looks like, coming from women's health brands on social media. After analyzing content from 10 TikTok accounts belonging to various women's health organizations, I found that the discussed content could fit into eight different categories, as previously mentioned. A wide range of topics are being discussed on TikTok. Table 2 shows the categorical content breakdown for all 549 videos about menstruation.

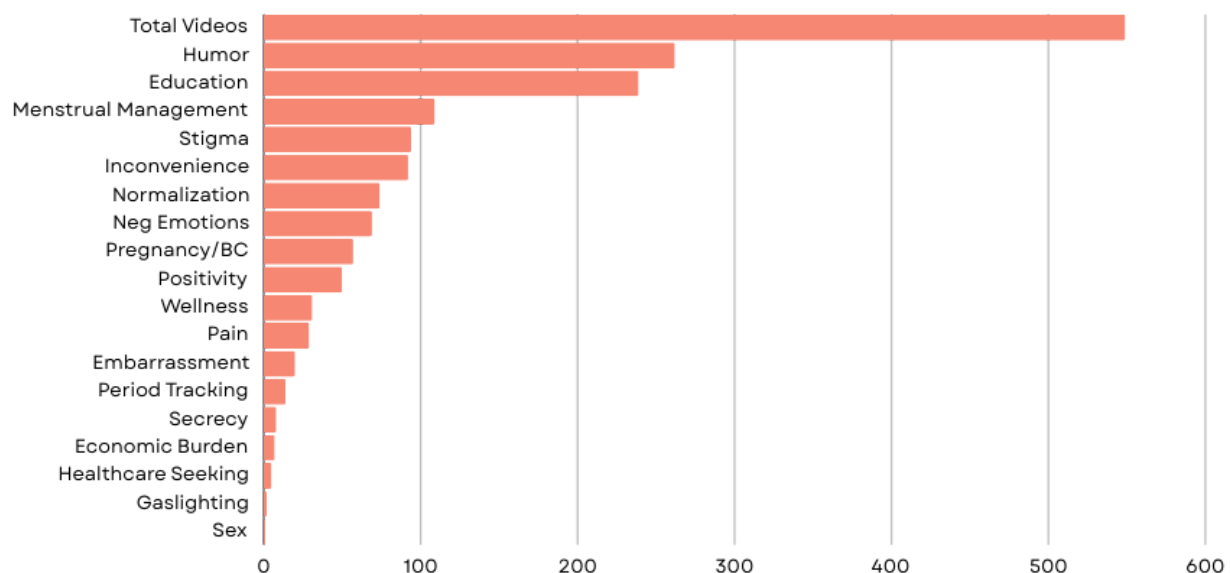
Table 2: Menstrual health messages shared by women's health brands on TikTok between June 24, 2022 to April 1, 2024

	Menstruation TikToks n=549 (100%)
Healthcare/Education	115 (21%)
Stigma	99 (18%)
Periods (General)	77 (14%)
Period Products	59 (11%)
Physical Symptoms	59 (11%)
Birth Control	59 (11%)
Miscellaneous	42 (8%)
Emotions/Emotional Symptoms	38 (7%)

The double coding of each video resulted in over 18 different subthemes ranging from humor and education as a technique, to touching on themes of stigma or associating periods with negative emotions. Table 2 displays all of the subthemes in descending order of occurrence. In the following chart, note that the Stigma category also contains videos that include themes of sexism, stereotypes, gender roles, and period myths. The Neg Emotions category refers to any videos that share negative emotions (including stress, rage, anger, sadness, and fear) either while having periods, or towards periods in general. Menstrual Management includes videos on tips for making period experiences easier and period products and how to use them. Inconvenience refers to videos that discuss periods being an inconvenience to daily life. The Normalization category includes videos that show periods in a neutral light or are actively working towards normalizing aspects of periods like showing fluids that look similar to blood on the screen. Pregnancy/BC refers to TikToks about pregnancy scares from having a late period and birth control. The Positivity category includes videos that view periods positively or encourage positive community building around menstruation. The category for Wellness

includes videos containing information about nutrition, fitness, meditation, and self care surrounding the period experience. Pain refers to videos mentioning painful period symptoms, Embarrassment includes videos that feature embarrassing or shameful emotions towards having a period, and Secrecy includes videos with themes about concealing period experiences, self-silencing about periods, and fears of leaking through clothes with menstrual fluid. Economic burden refers to videos that address the costs associated with having a period, Healthcare Seeking includes videos that encourage users to see a doctor if they have certain symptoms, and Gaslighting includes sharing experiences of feeling invalidated in personal and medical settings about period symptoms.

Chart 1. Menstrual Subthemes by Occurrence



Social Media Presence

Table 3 shows the social media presence of women's health brands' TikTok accounts for context.

Table 3: Social media presence of women's health brands on TikTok between June 24, 2022 to April 1, 2024

Social Media Presence	Women's Health Brand TikTok Accounts
Average Views	138,384
Total Views	557,273,197
Average Likes	3,663
Total Likes	14,750,859
Average Comments	35
Total Comments	141,658
Average Followers	226,086
Total Followers	2,260,855
Average Total Posts	403
Total Posts	4,028

Regression

Table 4 shows the regression models that explore the relationship between menstrual messaging and TikTok engagement (likes and comments). Table 4a shows that TikTok content about menstruation receives 7224 more likes on average than non-menstruation content ($n = 549$, $p < 0.001$). Table 4b shows that TikTok content about menstruation receives 88 more comments on average than non-menstruation content ($n = 549$, $p < 0.001$).

Table 4a: Regression model examining likes with menstrual health messages shared by women's health brands on TikTok between June 24, 2022 to April 1, 2024

LIKES	Estimate, (97.5% CI)	p-value
PERIOD CONTENT	7224, (4253-10194)	0.000***

*** $p < 0.001$

Table 4b: Regression model examining likes with menstrual health messages shared by women's health brands on TikTok between June 24, 2022 to April 1, 2024

COMMENTS	Estimate, (97.5% CI)	p-value
PERIOD CONTENT	88 (59-118)	0.000***

*** $p < 0.001$

Table 4c shows the regression model containing all eight of the menstruation content topics and their impact on like count. Miscellaneous period content (containing primarily content about late periods and pregnancy scares, as well as period sex and period tracking through technology) is a significant predictor of likes on TikTok ($n = 42$, $p = < 0.001$). Content about period stigma is also a significant positive predictor of likes ($n = 99$, $p < 0.001$). The remaining categories were non-significant predictors of likes.

Table 4c: Regression model examining likes with menstrual health messages shared by women's health brands on TikTok between June 24, 2022 to April 1, 2024

LIKES	Estimate, (97.5% CI)	p-value
Birth Control	-1925, ((-10390)-6540)	0.656
Emotions/Emotional Symptoms	5806, ((-4711)-16322)	0.279
General	-108, ((-7537)-7321)	0.977
Healthcare/ Education	5866, ((-245)-11977)	0.060
Miscellaneous	26790 , (16781-36799)	0.000***
Physical Symptoms	7123, ((-1342)-15588)	0.099
Period Products	1331, ((-7134)-9796)	0.758
Stigma	15859 , (9287-22430)	0.000***

*** $p < 0.001$

Comment Thematic Analysis

Excluding videos that received no comments during the specified timeframe, I analyzed the comment sections of 437 videos for overall themes. The most common themes are relatability (n = 136), information seeking (n = 123), and personal information sharing about periods (n = 156). Sharing personal experiences about menstruation was the most common theme. Many users share information about the age in which they got their first period, the length of their period, their period symptoms, their stories of getting their first period, and more, in the comment sections. Other relevant themes include: sharing tips and information (n = 15), encouraging healthcare seeking (n = 5), and data privacy concerns with regards to period tracking technology (n = 5). Individual comments were pulled to illustrate common themes, including stigma, lack of information, community, and positivity. Comment examples can be found below in chart 2.

Chart 2. Example Comments and Their Themes

"well it looks like I'll only be hiring women for part time positions now"
[on menstrual leave at work]

"stanky"
[on leaving a tampon in]

"literally the first and last thing I was told about it at home was to never, ever mention it to anyone especially any man and to hide any evidence"

"it's disgusting and makes me and lots of other people feel uncomfortable"
[on talking about periods/showing period products in public]

"my granny says that's absolutely gross cause I wanted to start using period underwear"

"my mom said I will lose my virginity if I use a tampon"

"we don't care"
[man on period content]

"florida is wonderful I love it here"
[on taking menstrual education out of schools]

"u saved me I thought it was unhealthy or I pooped myself cause its my first time"

"is it ok if you get ur period at the age of 10-11"

"my school did not educate me at all"

"do you put it where you pee?"
[on how to use tampons]

"Things I wish I knew before my 30s"

"if you can't lose a tampon how can a baby fit through"

"I thought I was dying"
[on getting first period]

"I feel so seen by this"

"what a relief that this happens to other people"

"am I the only one happy on my period?"

STIGMA

LACK OF INFO

COMMUNITY

POSITIVITY

DISCUSSION

Content Analysis

The initial thematic coding concludes that a wide variety of menstrual health topics are being discussed online. The most common category is within healthcare and education, meaning that women's health brands are in fact using TikTok as a health education tool. The next highest category is stigma. Stigma holding such a large place within the content analysis means that women's health brands are aware of the complex stigmas at play within menstruation, and are working towards dismantling them. This finding is very promising for moving forward as a society with less menstrual stigma. Within the chosen accounts, there is an equal spread of videos about emotional symptoms, physical symptoms, period products, birth control, and miscellaneous topics. This variety of content was not expected in the original hypothesis.

Within the period product category, very few videos sampled were based on alternative period products like menstrual cups, discs, and underwear. These reusable products are increasing in popularity and have the ability to make a large environmental impact. An Australian study showed that the environmental impact of a menstrual cup was equal to less than 1.5% of the environmental impact of a disposable product.³³ For this reason, it may be worthwhile to increase online content about alternative products.

Looking deeper into the subthemes of the content, a large portion of the videos are based in humor ($n = 262$). This is not surprising, given that humor has been noted as the top video category that viewers look for in creators on TikTok.³² It is a large driver in the virality of TikTok videos. The second most populous category being education ($n = 239$), followed by menstrual management ($n = 109$) is another reminder that women's health brands are actively using their accounts to educate viewers about menstrual health. With that being said, 94 videos address subthemes like sexism, stereotypes, stigma, and myths. These videos bring important and polarizing ideas to the TikTok space, and offer an opportunity to spark meaningful conversations about menstrual stigma and its ramifications on the human experience amongst viewers.

92 videos discuss periods as an inconvenience or burden, interfering with one's daily life. 69 videos harbor negative emotions, 20 involve embarrassment, 29 contain pain, and 8 discuss secrecy, concealment, or leaking. In total, this makes 218 videos that discuss why periods are a negative experience, something that was expected prior to beginning the study. Branding periods as a negative experience is a dangerous concept because women who internalize

negative attitudes about menstruation are more likely to have negative menstrual experiences.³⁴ They actively engage in menstrual concealment, and feel failure and shame if they are not able to live up to this standard³⁴. This constant hypervigilance and avoidance can take a toll on both the physical and mental well being of the individual.³⁴ Unfortunately, the menstrual stigma present in the world contributes to the negative experiences that many women experience (i.e. not being able to afford period products, having to miss school or work due to pain, family members encouraging concealment, medical professionals invalidating painful and heavy periods, and many, many more). As women's health brands on social media, knowing what I know about the complexities of menstrual stigma, it may be worthwhile to devote more time towards period content that is neutral, normalizing, or even positive. In this study, it was found that 74 videos are neutral or normalizing in nature, and 50 are positive in nature, meaning that these conversations do exist online in some capacity. Increasing access to this type of content is possible and could assist in rewriting some of the menstrual preconceptions that drive stigma.

Content Reception

The linear regression results for likes and comments on posts about menstruation show that period content receives both more likes and comments on average than non-period content. This result was unexpected. It was expected that online menstrual stigma would show itself in the regression results and result in period content being poorly received on social media. For the dissemination of menstrual health information, these results are hopeful. Although, due to the nature and time constraint of this study, these linear regression models did not take into account video length, posting time, hashtags, or sounds used. It is worth noting that these other factors may additionally play a role in the success of the sampled videos. Further research will be needed to examine the impacts of these other factors on engagement rates. With that being said, posting increased content about menstruation may be helpful for both women's health brands' social media success as well as for positive reception of menstrual health content online, and thus decreasing stigmatization. The regression model containing all eight content topics, shows that videos about miscellaneous period topics and stigma receive a statistically significant amount of likes more than the videos in the other categories. The miscellaneous category contains topics like late periods and pregnancy scares. These results may be in part due to the audiences receiving them. For example, a few of the accounts chosen are period tracking apps. According to one study in Brazil, around half of users on menstrual cycle tracking apps say they use them for pregnancy prevention.³⁶ Knowing this, when period tracking app brands on TikTok post about late periods and pregnancy scares, these videos may

appeal more to their audiences receiving them, that is, users of the apps with goals of pregnancy protection. These topics may appear more relatable to that specific audience. To further investigate this idea, more research would be needed to compare non-period tracking accounts with period tracking accounts for miscellaneous videos and their reception. Prior to the completion of further research, increasing content surrounding miscellaneous period topics may result in increased sense of community and normalization among viewers, resulting in feelings of social inclusion and increased mental health, and decreasing negative and shameful feelings around periods. The stigma video category is also a significant predictor of resulting likes. This result is unexpected, as videos talking about menstrual stigma may come off as controversial when they reach people who think that periods should not be talked about on the internet. The finding is exciting, meaning that discussing and addressing menstrual stigma is well received on TikTok. The conversation should continue, with increased content about stigma being produced. In similar stigmatized settings, surrounding HIV, community conversations have been shown to promote stigma reduction.³⁸ Doing so helps to normalize conversations about periods and even open up vulnerable conversations about stigma that might not have occurred otherwise, hindering the pathway between stigma drivers and manifestations.

Thematic analysis of the comment sections reveals three common themes: information seeking, period information sharing, and relatability. To the general public, the large number of comment sections containing comments like “relatable” and “this is me”, may not mean much, but in the context of menstrual stigma, it displays a sense of community and belonging. Feeling understood increases mental well being.³⁷ Secondly, the overwhelming presence of comments seeking information about periods and menstrual health signifies the dire need for more menstrual health information online. Unfortunately, due to the large social media presences of the accounts studied, it is often difficult for brands to answer health questions in the comments, and most information seeking comments go unanswered. One approach to combating this would be to increase diversity of content and posting volume, so that users may scroll through the TikTok account and more likely come across information that they wanted to learn. The last comment section theme that has a large presence is within period information sharing. This finding is unexpected, because as with other stigmatized topics, it is assumed that people do not wish to talk about them. These comment sections show that people are talking about periods, and that users do want to talk and share openly about their periods online. Creating more content that encourages sharing experiences could provide users with even more spaces to share. Additionally, some companies have started using community forum sites, dedicated

spaces for people to share experiences and ask questions. These comments prove the need for such spaces.

The sampling of individual comments further illustrates the menstrual stigma themes that are present in society and culture, in social media content, and in the mindset of individual commenters. Individual comments show a general lack of information and education about menstruation, internalized, sexism related, and cultural menstrual stigma, and a sense of community (shown in chart 2). These comments show that menstrual stigma still exists in many different forms. There is work to be done on dismantling these extremely deep-running preconceptions, stereotypes, and myths. The idea that tampons, cups, and discs can affect virginity, another stigmatized social construct, is harmful and furthers sexual shame for adolescents and young adults. Many comments show that menstruation is still viewed as gross, foul-smelling, and inappropriate to discuss outside of the home. Some comments show that menstruation is still viewed as something that should not be discussed with men and should be concealed from men, when in reality, the dismantling of menstrual stigma in part relies on including men in conversations and in sex education classes that work to reduce the lack of information around menstruation. Certain questions and comments that show a general lack of information about menstrual health illustrate that sex education and current educational materials are failing adolescents and young adults. No adolescent that gets their period for the first time should think that they are dying. This is unacceptable, and is reason enough for women's health brands to continue putting out educational content on social media surrounding menstrual health. Chart 2 shows one positive comment: "Am I the only one happy on my period?" It was chosen to help visualize how few positive menstruation experiences are shared online, and to be a stark contrast among the sea of stigmatized comments. In all, the comment samples show that TikTok users carry stigma, lack educational resources, and desire online spaces where they are free to talk about menstruation. From a social media perspective, increasing menstrual health content can be fruitful for brands as well as users. From a public health perspective, comment sections show that social media can be a place for intervention.

Limitations

The limitations of this study are vast, mainly because TikTok research is extremely underdeveloped. Because TikTok is a short form video platform, virality and increased engagement rates may be in part due to the background sound chosen for the video. Trending sounds are a large feature of TikTok creation and it is very possible that a video may go viral more due to the use of a trending sound, than due to the content covered in the video. For this

reason, it is impossible to conclude that the engagement rates observed were solely based on the content of the videos. Additionally, the TikTok algorithm is something that has been known to change over time. Something that may have gone viral six months ago may not perform as well today due to differences in the algorithm, but not necessarily due to the content or educational needs of the users. Also due to the algorithm, the audience members and reception may be skewed. The algorithm tends to show videos that they suspect you will like, meaning that the videos may appear to have been more positively received than if the content was randomly distributed to users. Two things could have been affected by this: the comment section themes, as well as likes, comments, and engagement rates. On the other hand, it could also mean that the content is being distributed to users who already 1. Know that content (If it is offering something educational), and/or 2. Regularly interact with that type of content.

Additionally, no data was collected on the nature of the sounds chosen for videos, only if the sound was used to add humor to the video content. Background sounds range from popular music to audio from movie scenes, to humorous speaking audio tracks from other TikTok accounts. This fails to acknowledge how different sounds may be used for additional traction on TikTok.

Additionally, the results of this study may include confirmation bias. Due to the nature and timeframe of the study, all videos were analyzed by one researcher alone, meaning that the coding of themes was not overseen by additional researchers. As a result of this, the results are subjective based on one person's experience of the content, who had objectives and hypotheses going into data collection. As someone who has a lived experience of menstruation and menstrual stigma, these lived experiences may have contributed to how the videos were interpreted.

CONCLUSION

This analysis provides a new perspective on using social media for health messaging and public health interventions. Studies about TikTok are extremely limited and this analysis is one of the first of its kind to open up a new realm of research about the platform. Research about using social media in public health interventions is a relatively new field. There is much work to be done to conclude if social media interventions can be effective as a behavior and attitude changing tool. This analysis serves as a stepping stone for future research. Additional research needs to be done that takes into account other content factors: posting time, hashtags, length of videos, sounds used, as well as, since the platform is visual, characteristics about

people in the video, on screen text, on screen emojis, whether or not the videos feature a person, and more.

Ultimately, this analysis proves that the pathologization of menstruation is prevalent among both women's health brands and social media users. Overall, it was shown that women's health brands are making a conscious effort to disseminate menstrual health information through TikTok using educational methods. Throughout TikTok content, patterns of stigma and negativity are present, but are met with positive audience reception. Increasing TikTok content that directly addresses stigma and opens up hard conversations may be worthwhile for destigmatization efforts. Women's health brands still tend to paint menstruation in a negative light, or as an inconvenience. For the millions of people watching, it can reinforce negative menstrual preconceptions. For this reason, women's health brands should begin to reframe their menstruation content in a more neutral light, if they hope to reduce stigmatization. Starting to vary content by including more neutral, normalizing, and positive videos, can hope to slowly change menstrual attitudes.

Women's health brands should continue posting menstrual health content, as it receives positive audience support through more likes and comments. Users use the videos to share their experiences and shared understanding in the comments. The brands have created online communities where users feel open to share candidly about experiences that historically hold incredible stigma and shame. Keeping this conversation going is essential to destigmatization efforts. Although some comment patterns reinforced social stigmas, the majority of comment sections are being used for information seeking, sharing menstrual management tips, expressing relatability and community, and sharing experiences. This finding implies that social media platforms can be used as community health tools. With the overturning of *Roe v. Wade*, I can expect to see increased restrictions on sexual health education in schools, further increasing the need for creative educational resources that discuss puberty and menstruation, a hole that social media platforms may be able to fill. Alongside education restrictions, the criminalization of abortions makes it more important than ever to increase menstrual health knowledge.

This study shows that although menstrual stigma presents itself in many ways online as a result of the pathologization of menstruation, attitudes are slowly beginning to change. In order to keep going in this direction of destigmatization, it is important to acknowledge that social media may be a powerful tool for public health messaging. Brands are talking about periods online and community members are responding positively. People are talking about things that even 20 years ago would have been taboo to talk about. Period Tok can move us

closer to a world without menstrual stigma, as long as I keep liking, commenting, sharing, and talking about periods.

To reiterate, why all this fuss about destigmatization? Because a world without menstrual stigma is also a world with: fewer vulvar and vaginal infections and disorders, fewer urinary tract infections, less menstrual workplace discrimination, comprehensive menstrual health education in all schools for all genders, less shame, free and reduced price period products available to anyone who needs them, less school absenteeism, fewer uterine conditions that go undiagnosed, less pain, increased economic opportunities for women, less social isolation, improved self-esteem and autonomy around female genitalia, less risky sexual behaviors, improved mental health, and many many more. Although social media may seem insignificant in the broader scheme of destigmatization, its role remains integral in the framework of societal change.

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RÉSUMÉ

Le rôle des réseaux sociaux dans la déstigmatisation de la santé menstruelle : Une analyse des marques de santé féminine sur TikTok

Cette étude examine comment les marques de santé féminine utilisent TikTok pour communiquer des idées sur les menstruations, et identifie et analyse la perception de ce contenu par le public. Le projet découle de la stigmatisation significative et de la désinformation entourant la santé menstruelle. Bien que les menstruations soient une fonction corporelle normale, les gens hésitent à en parler ouvertement, ce qui entraîne un manque d'information sur les règles et leur gestion.

Pour mener cette recherche, j'ai réalisé une analyse de contenu sur les réseaux sociaux pour 4028 vidéos courtes de dix marques de santé féminine sur TikTok, en me concentrant sur les vidéos qui traitent spécifiquement des menstruations. Parmi celles-ci, j'ai analysé 549 vidéos pour leur contenu, leurs thèmes et leurs mesures d'engagement du public, y compris les mentions "j'aime", les commentaires et les taux d'engagement. J'ai inclus toutes les données du 24 juin 2022 au 1er avril 2024, couvrant divers sujets tels que les soins de santé, la stigmatisation, les produits menstruels et le contenu éducatif.

Les résultats révèlent que le contenu sur la santé menstruelle reçoit généralement un engagement positif - plus de mentions "j'aime" et de commentaires que leurs homologues non liés à la santé menstruelle. Cependant, de nombreuses marques continuent de présenter les menstruations de manière négative ou comme un inconvénient. Les vidéos traitant de la stigmatisation menstruelle reçoivent un engagement utilisateur plus élevé, ce qui indique que les attitudes sociétales concernant la stigmatisation des règles peuvent être en train de changer. Les utilisateurs utilisent les sections de commentaires pour partager des conseils, des expériences et rechercher des informations, montrant un besoin accru d'espaces communautaires éducatifs et sécurisés en ligne.

En conclusion, TikTok peut être une plateforme précieuse pour diffuser des informations sur la santé menstruelle et remettre en question les stigmatisations existantes. Pour poursuivre ces efforts, les marques de santé féminine devraient continuer à produire divers contenus sur les menstruations qui soient neutres ou positifs. Elles devraient encourager la conversation sur la stigmatisation et les expériences menstruelles. En raison du climat politique croissant entourant l'éducation à la santé reproductive, les plateformes de médias sociaux comme TikTok peuvent être un espace approprié pour les messages sur la santé menstruelle.

Mots-clés: Santé menstruelle, Réseaux sociaux, TikTok, Santé féminine, Déstigmatisation