UNDERSTANDING PATTERNS AND MOTIVATIONS OF WOMEN USING FACEBOOK FOR BIRTH CONTROL INFORMATION

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Master of Arts
Master of Public Health

by

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UNDERSTANDING PATTERNS AND MOTIVATIONS OF WOMEN USING FACEBOOK FOR BIRTH CONTROL INFORMATION

presented by Ashton Day,

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and hereby certify that, in their opinion, it is worthy of acceptance.

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Abstract

**Objective:** The purpose of this study is to determine the patterns and motivations for women to use Facebook for information on birth control.

**Methods:** A quantitative study was conducted among women between the ages of 18 and 44, who self-identified as birth control and Facebook users. Both a uses and gratifications approach and risk information seeking and processing model were used. Participants were recruited through email and social media. Data collected from the online survey was analyzed.

**Results:** Findings indicated that some women do use Facebook as a source for birth control information, however not a significant amount. Women were more likely to have Facebook friends post their experiences about birth control on Facebook, rather than seek out information or post their own experiences. These findings show that conversations are happening on this social media platform. Type of content and source of the post were found to affect the way women interpret birth control information. News sources were found to be least trustworthy, while health-related organizations were most trustworthy. Negative content posted by a friend sources was found to be more trustworthy than positive information. Age and income level were found to affect if women used Facebook to seek birth control information and how they interpreted such information.

**Conclusion:** Health professionals may be able to communicate with women more effectively about birth control by using Facebook. Recommendations including creating strategic plans that combat misinformation and encouraging organizations to join the conversation online are made that may improve access to reliable information and change health behavior.

**Keywords:** women, birth control, uses and gratifications, risk information seeking and processing, Facebook, social media, information.
Introduction

Women’s access to birth control in the United States has been debated among politicians for decades. Alongside the discussion on women’s rights over their reproductive systems, medical research has shown that birth control is fundamental to declines in maternal and infant mortality (Planned Parenthood, 2017).

According to a 2012 survey conducted by the Guttmacher Institute (2017), about 62% of all women aged 15-44 are currently using a method of contraception. Sixty-seven percent of those women use non-permanent methods of contraception including the pill, patch, implant, injectable, vaginal ring, intrauterine device and condoms. Twenty five percent of survey respondents relied on female sterilization, while eight percent relied on male sterilization (Guttmacher Institute, 2017). For the purposes of this study, birth control will be defined as methods including the pill, patch, implant, injectable, vaginal ring, and IUD. The term contraception will be used to include birth control and all other methods including condoms and sterilization.

While there are proven health benefits of women using birth control, the decision is filled with social and economic implications. The cost of birth control varies depending on type and health insurance plans involved, but some birth control methods can reach upwards of $600 per year (Palmer, 2012). This does not include the doctor’s consultations necessary to get a prescription, complete insertion procedures or follow-up visits. The combined health and financial consequences involved in deciding the type of contraceptive have led many women to reach out to their friends online for recommendations (Yeo, et al., 2017).

Facebook is the most popular social networking site and is used by roughly 79% of online Americans, according to a 2016 survey (Greenwood, 2016). The ability to create lengthy
posts and comments on another user’s ‘status’ allows for intimate sharing with ‘friends’ and strangers alike. The search feature also allows users to explore keywords that others have shared through posts. In addition, news and public health organizations have used the popular social media site to join the conversation with users and be the facilitators for information.

As of now there have been no studies that have examined why women seek out birth control information on Facebook and how they interpret the information they do find. Similar studies have found that people are interested in learning about sexual health information, and that learning information about contraceptive methods encourages safe sex practices. Young women were able to find specific advantages by using the Internet to learn more information on birth control, than other health topics (Borzekowski, et al., 2001). Several other studies have found that adolescents and young adults are willing to share health information on Facebook and other forms of social media, as long it is not about a sensitive topic. Such topics include those that are risk-focused, like sexual transmitted infections. Due to the stigma surrounding sexual health, many in the 15-29 age group fear posting about this topic (Byron, et al., 2013; Syn, et al., 2016). Other studies have facilitated the conversation around sexual health communication on Facebook by creating groups for young men and women to discuss health concerns such as condom use and birth control. In one study researchers discovered a majority of posts solicited advice in the form of asking for opinion, information, or problem disclosure (Yeo, et al., 2017). Most of the studies that analyze women’s contraceptive search on the Internet, and their discussion of sexual health on social media, have applied a quantitative approach through surveys and content analyses. These applied research methods aim to explore how both men and women use social networking sites to talk about sexual health, but do not examine why or how they interpret the information they get.
Determining the patterns and motivations for women using Facebook for information on birth control is important for public health organizations. If public health organizations understand where women are finding their information, they can better be part of the conversation. In addition, if these organizations understand how women interpret information on birth control based on the sources they are finding it from, then they are able to better adjust their messaging.
Literature Review

The purpose of this study is to determine the patterns and motivations for women to use Facebook for information on birth control. This study will use the risk information seeking and processing model as well as uses and gratifications theory to explore this issue. In order to explore why women find and interpret information on Facebook, it is important to gather background knowledge on birth control, unintended pregnancy, Facebook and how people discuss sexual health on social media. For the purposes of this study, the term birth control will be defined as methods including the pill, patch, implant, injectable, vaginal ring and IUD. These are all methods that are specifically made for the woman and are put into her body in one form or another. The term contraception will be used to include birth control and all other methods such as condoms and sterilization.

<table>
<thead>
<tr>
<th>Birth Control</th>
<th>Contraception</th>
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<tbody>
<tr>
<td>• Pill</td>
<td>• Pill</td>
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<tr>
<td>• Patch</td>
<td>• Patch</td>
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<tr>
<td>• Implant</td>
<td>• Implant</td>
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<tr>
<td>• Injectable</td>
<td>• Injectable</td>
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<tr>
<td>• Vaginal ring</td>
<td>• Vaginal ring</td>
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<tr>
<td>• Intrauterine Device (IUD)</td>
<td>• Intrauterine Device (IUD)</td>
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<td></td>
<td>• Male and Female condom</td>
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<td></td>
<td>• Sterilization</td>
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Birth Control

Women in the United States use a variety of birth control methods. National Health Statistics Reports describes contraceptive use among women aged 15-44 between 2011 and 2013 (Daniels, et al., 2015). The most common method was the pill at 25.9%. Other methods included female sterilization (25.1%), the male condom (15.3%), and long-acting reversible contraception,
IUDs, or implants (11.6%). The National Health Statistics Reports also describes contraceptive use among teenagers in the U.S. between 2011 and 2015. The report found that 99.4% of all sexually experienced female teenagers used at least one method of contraception (Abma, et al., 2017). The teenagers surveyed reported that the condom was the most commonly used birth control method (97.4%), followed by withdrawal (59.7%) and the pill (55.5%). The results from both of these reports show that many women use multiple methods of birth control at once, termed dual methods. For example, a woman could be taking the birth control pill but also use a condom during sexual encounters. Unmarried women, younger women and highly educated women were all found to have high rates of switching to dual methods (Grady, et al., 2002). It should also be mentioned that a woman picking one type of birth control method does not mean the same method will be used throughout the entirety of her reproductive years. A study published by the Guttmacher Institute found that switching contraceptive method types is common among both married and unmarried women (Grady, et al., 2002). Researchers concluded that method switching may be influenced by duration of the effectiveness, health risks and sexually transmitted disease prevention features of each birth control method. Because of this likelihood to switch, women are often seeking information on the benefits and possible consequences of various birth control methods.

Each birth control method has its own set of side effects, level of convenience and rate of effectiveness. Below is a chart that explains each of these for the various birth control methods that will be examined in this study.

<table>
<thead>
<tr>
<th>Birth control method</th>
<th>Possible side effects</th>
<th>Ease of use</th>
<th>Pregnancy rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pill</td>
<td>• Nausea</td>
<td>Must take the pill at the same time daily for it to be most effective.</td>
<td>Ranges from 0.1% for perfect use to 5% for typical use.</td>
</tr>
<tr>
<td></td>
<td>• Headaches</td>
<td></td>
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<td></td>
<td>• Weight gain</td>
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</tr>
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<td></td>
<td>• Mood changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Breast tenderness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Method</td>
<td>Side Effects</td>
<td>Description</td>
<td></td>
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<td>--------</td>
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<td></td>
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<tr>
<td>Patch</td>
<td>Skin irritation, Menstrual irregularities, Tender breasts, Headaches, Nausea, Darkening of facial skin, Anxiety, Mood changes</td>
<td>Convenient to use as only have to apply a new patch every week for three weeks, take one week off, then repeat. Reported to be around 0.1%, however rates may be higher for women who weigh more than 198 pounds.</td>
<td></td>
</tr>
<tr>
<td>Implant</td>
<td>Menstrual irregularities, Headaches, Weight gain, Mood changes, Growth of facial hair, Acne</td>
<td>Requires a minor surgical procedure for both implantation and removal. It must be inserted by a doctor or APRN. Ranges from 0.2% in the first year to 0.5% in the third year.</td>
<td></td>
</tr>
<tr>
<td>Injectable</td>
<td>Menstrual irregularities, Delay return to normal fertility after use, Weight gain, Depression, Nausea, Tender breasts, Headaches, Change in sexual drive, Change in appetite</td>
<td>Must receive shot in the doctor’s office every three months. Around 0.3% during the first year.</td>
<td></td>
</tr>
<tr>
<td>Vaginal Ring</td>
<td>Vaginal infections and irritation, Headaches, Nausea, Cramping</td>
<td>The ring is inserted by the woman for three weeks, and then removed for one week before the process repeats. If the Ranges from 1% when used perfectly and 9% if not used correctly.</td>
<td></td>
</tr>
</tbody>
</table>
Women in the United States are able to receive birth control information from a variety of sources, one of which may be their physician or nurse practitioner. Researchers at University of California San Francisco’s School of Medicine conducted semi-structured interviews to determine what women value from their health care provider when deciding what contraception method to use (Dehlendorf, et al., 2013). Results showed that women value a friend-like relationship with their healthcare providers. They want to receive a complete list of options and side effects, while being fully in control of which method they choose. If a woman does not experience this type of relationship with her doctor it can be assumed that she will seek information on different birth control methods from other sources. Those are likely sources the woman can trust, which includes friends, family or those within a social network.

Women in the U.S. that have access to birth control have many options when it comes to picking a specific method. However, deciding what method is best for the woman’s lifestyle can be a daunting task. Therefore, it is important to learn the most information as possible for each
birth control method. Health care providers and facilities give this information to women through contraception decision support tools. A study out of BMC Women’s Health conducted a systematic review of contraception decision support tools (Wyatt, et al., 2014). Researchers found four overarching categories in all literature provided to women seeking contraception information. The categories included mechanistic, method effect, social/normative and practical. The mechanistic category includes how the method is used and whether a needle or hormones are used. The method effect category includes efficacy for pregnancy prevention and side effects, health risks and benefits and changes in the menstrual cycle. The social/normative category factored in internal and external influences into the decision-making process. The practical category includes a person’s ability to obtain the contraceptive method and compatibility with the individual’s sexual experience. It was noted by researchers that is important for attributes that matter to the individual be included in the decision-making process. It can be assumed from this research that women may seek information from outside sources if they are not satisfied with the information they gain from contraceptive decision tools or their doctor. Outside sources may include family members, friends or online databases. Women may also seek advice and recommendations from those in their social media networks. This is done in order for the woman to find all information relatable to her lifestyle in order for her to feel confident in her decision to use a certain birth control method.

**Unintended pregnancy**

Choosing to not use, or not being able to use, any method of birth control can lead to conceiving a child. Unintended pregnancies are reported by the woman to be either mistimed or unwanted and reflect the woman’s intention before she became pregnant (Santelli, 2003). The term ‘unintended births’ was first measured in the United States by a survey for the National
Fertility Study in 1965 (Ryder, 1971). According to a National Health Statistics Report, there are four standard categories used to measure and classify unintended pregnancy. The term ‘intended’ is used when the woman became pregnant near the time she wanted. ‘Mistimed by less than two years’ is used when the woman knew she wanted to become pregnant eventually, however the pregnancy came less than two years before the mother wanted. ‘Mistimed by two years or more’ is similar, however the pregnancy occurred at least two years early. ‘Unwanted’ is used when the mother did not intend on having the baby or did not want a baby of that birth order (Mosher, 2012). For the purposes of this study, the term unintended pregnancy will be used to describe all pregnancies that are mistimed or unwanted.

A report by the Centers for Disease Control and Prevention measured the amount of unintended births in the U.S. between 1982 and 2010 (Mosher, 2012). The amount of unintended pregnancies to Non-Hispanic Whites (22%) and Non-Hispanic Blacks (35%) both decreased during this time period. However, the amount of unintended pregnancies in Hispanic women increased from 29% in 1982 to 34% between 2006-2010. The report also found that only 23% of pregnancies in 15-19 year olds and 50% in 20-24 year olds were intended between 2006-2010.

Researchers and health officials have identified several benefits to preventing unintended pregnancy. Unintended births have also been found to be correlated with decreased satisfaction in relationships, depression and anxiety (Sonfield, et al., 2013). Another of decreasing unintended pregnancy is reducing the economic strain. It is estimated that public insurance paid for nearly 68% of the 1.5 million unintended births in 2010 (Sonfield, 2015). The cost per birth averages to be nearly $21 thousand when accounting for prenatal care, labor and delivery, postpartum care and infant care for the child’s first year. When also accounting for miscarriages and abortions that resulted from unintended pregnancies, the cost increases. By preventing
unintended pregnancies in 2010 alone, the United States could have saved nearly $15.5 billion. One simple way to cut the costs associated with unintended pregnancy is to inform, encourage and provide women with birth control methods.

Once women are adequately informed on the various types of birth control methods, they must then weigh their options and decide which to use. While there are many things to consider when picking a method, social and economic factors can contribute to a woman’s decision to use birth control at all. These include acquisition of a college education and employment, increasing earning power and experiencing longer marriages. Data has shown that planning or spacing births helps women reach education and career goals, which increases their income (Sonfield, 2015). Using birth control provides social and economic opportunities to women since they are able to take command of their reproductive health and family planning. These opportunities are a reason women are encouraged to use the best birth control for their lifestyle. However, access to getting birth control is not guaranteed for every woman in the United States.

Women in the U.S. can have limited access to birth control depending on age and financial status. A study conducted by Kumar and Brown (2016) summarizes existing access barriers to long-acting reversible contraceptives (LARC) for teenagers. The barriers included medical costs, consent and confidentiality of patients, providers’ attitudes and limited training and patients’ lack of knowledge or misconceptions. Researchers state that many of these barriers can be addressed by professional medical organizations, healthcare training programs or other interventions (Kumar, et al., 2016). Providing education to women on the different birth control methods could help make them feel confident in their knowledge in the various methods. This could also influence their confidence in their decision once they choose which method is best, which would likely reduce the amount of birth control switching. If women felt confident in the
information provided by their physician, they would also likely not seek birth control
information from outside sources.

Another way to combat barriers women face when trying to access birth control is for
healthcare facilities and insurance companies to provide it for free. A study conducted at the
Washington University School of Medicine found that providing free birth control to women
reduced unintended pregnancies (Secura, et al., 2015). In addition, providing free birth control
also cut abortion rates to 62%, compared to the national rate of 78%. Long acting contraceptive
methods such as IUDs can be very effective, but often cost the most initially, ranging upwards of
$800. This form of birth control may not be covered by insurance. While birth control pills are
the most popular form of reversible contraception in the U.S., their effectiveness is dependent on
the woman’s ability to remember to take the pill and having access to refills (Daniels, et al.,
2015). It is important for women to understand all benefits and consequences of each birth
control method in order for it to be most effective. Giving women the choice of what type birth
control method is best for their lifestyle, and providing the method for free, or at a reduced cost,
can increase women’s health across the U.S., as well as decrease the number of unintended
pregnancies.

**Birth Control Policy**

Birth control access has regulated in the United States since it was first introduced to the
market. Margaret Sanger opened the first birth control clinic in the U.S. in 1916, but outrage over
the practice quickly led to a ban that wasn’t lifted until 1938. After the first oral contraceptive
was approved by the U.S. Food and Drug Administration in 1960, the Supreme Court ruled that
married couple’s constitutional right to privacy included the right to use birth control. It wasn’t
until 1972 that the Supreme Court legalized birth control for all citizens, regardless of marital
status. Since then, many forms of birth control have entered the market, giving women more options and the government more methods to regulate.

Before the passage of the Affordable Care Act in 2010, 28 states required health insurance plans to provide coverage for prescription contraception. The ACA expanded these requirements by mandating that private health plans cover 18 methods of birth control for women, as well as related counseling and services, for no out-of-pocket costs for patients (Taylor, et al. 2017). These out-of-pocket costs include copayments and deductibles.

The contraceptive mandate outlined in the ACA has given millions of women access to birth control. As of 2017 it was estimated that 62.4 million women were able to receive birth control without having to pay anything out of pocket. A study published in 2015 estimates that this saved women an average of $248 for intrauterine devices and $255 for the oral contraceptive pill each year (Becker, 2015). While it has been found that mandated birth control has increased access and decreased cost for women, other studies have explored the attitudes toward the regulations. A study published in the Journal of the American Medical Association found that about two thirds of survey respondents actually supported the regulation (Moniz, 2014). The support for mandated birth control is strongly divided by gender. Women’s support for mandated coverage is 13 percentage points higher than men’s.

Since the passage of the ACA in 2010, the mandated coverage for birth control has faced many political challengers. In 2014 the Supreme Court ruled that the mandate violated religious freedoms. This ruling allowed houses of worship and “closely held” private companies that have a “sincere objection to contraceptives to be exempt from providing birth control coverage (Liptak, 2014). The court ruled that the birth control mandated violated the Religious Freedom Restoration Act (RFRA), which became law in the 1990s. By siding with Hobby Lobby in 2014,
the Supreme Court ruled that RFRA protections apply to corporations as well as individuals. In addition, the Supreme Court also noted that the federal government could expand access to contraceptives in other ways that did not violate religious freedom of individuals or companies.

The Trump administration has tried to expand on the Supreme Court’s ruling by allowing more employers to deny women insurance coverage for birth control. In 2017 the Department of Health and Human Services issued two rules that allowed an exemption to any employer that does not want to cover contraception based on religious beliefs or moral convictions (U.S. Department of Health and Human Services, 2017). However, these rules were quickly followed by lawsuits and threats of lawsuits from Americans that disagreed with the change.

Historically speaking, opposition to birth control access is deeply rooted in religious beliefs and racism. Political parties in office have used their power to either enact or retract access for millions of women across the country, despite the government’s foundation of a separation between church and state. This has created a stressful environment for women who wish to use various birth control methods. Since their access to birth control is not guaranteed from one administration to the next, women must evaluate the risks for using certain methods, as well as not using birth control at all.

While the debate on birth control coverage has largely centered around private insurance, federal programs such as Medicaid and Medicare have also struggled to provide access. Medicare provides health insurance to people with permanent disabilities and end-stage renal disease, as well as those over the age of 65. Because of this, providing contraception is often overlooked for Medicare users. There is no federal requirement for Medicare to provide birth control methods or services for reproductive aged women enrolled in the program (Institute of Medicine, 2011). Medicaid is for low-income families or individuals and is run at the state level.
The ACA states that all incomes that are up to 133% of the poverty line can qualify for coverage through Medicaid. While this was enacted to expand coverage in Medicaid states, the Supreme Court ruled that not all states are not required to expand (Justia, 2012). By not requiring states to expand Medicaid, many have not developed their birth control offerings or family planning services. Medicaid does offer free birth control, however they are not required to cover all FDA-approved birth control methods. While the birth control method itself is free, a prescription from a doctor is required (Medicaid, 2018). Although women with Medicaid have access to birth control methods, they are not completely free due to the additional medical costs.

**Risk Information Seeking and Processing Model**

This study will employ a risk information seeking and processing model. This model was developed by Robert Griffin and colleagues in 1997. The model uses aspects of theory of reasoned action and theory of planned behavior to help explain how individuals seek and process information about health. The risk information seeking and processing model proposes that there are seven factors that influence how people will seek out risk information and the amount of effort given to critically analyze the information received. The seven factors are individual characteristics, perceived hazard characteristics, affective response to the risk, felt social pressures to possess relevant information, information sufficiency, one’s personal capacity to learn, and beliefs about the usefulness of information (Griffin, 1997).

Each factor mentioned by Griffin (1997) is also defined. Characteristics of individuals involve the demographic information such as age, education, gender and political orientation. Characteristics also involve socioeconomic status. Informational subjective norms also fall under individual characteristics. They are the opinions and influences of others that may motivate an individual’s behavior. Perceived hazard characteristics include personal risk, efficacy and trust.
Affective response to the risk include things such as worry or anger, that are believed to affect the intensity of information seeking and processing. Felt social pressures to possess relevant information are defined as things encouraged to learn more about from family, friends or other’s in the individual’s life. Information sufficiency involves the confidence one feels regarding the risk and how to behave in the face of the risk. Personal capacity to learn and beliefs about the usefulness of information go hand-in-hand in determining the individual’s personal interest in the risk and their ability to attain information gathered (Griffin, 1997).

**Uses and Gratifications Theory**

This study will apply uses and gratifications theory to determine why women use Facebook to seek information on birth control. Uses and gratifications theory (U&G theory) was first defined by Katz and colleagues in 1973. They defined U&G theory as, “concerned with the social and psychological origins of needs, which generate expectations of the mass media or other sources, which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications and other consequences, perhaps mostly unintended ones,” (Katz, et al., 1973, 510). The researchers also mention that the uses and gratifications gained from being exposed to a certain type of media can encourage engagement with such media. U&G theory statements help label categories in order to determine patterns of gratifications sought and gained from different forms of media.

The definition of U&G theory has been slightly adapted since it was developed. Papacharissi (2009) defined it as, “a psychological communication perspective that examines how individuals use mass media,” (137). This adaption broadens the definition in order for it to be applied to traditional media, such as television, as well as emerging technology such as Internet and social media use. Ruggiero (2000) states that two schools of thought have developed
through the evolution of U&G theory. One sees the audience as passive, whereas the second sees the audience as active. The active user theory has gained a greater following throughout the digital age, including social media. Followers of this school of thought believe that users actively choose what forms of mass media they use and participate in, based on the gratifications sought and received.

Social media websites offer uses and gratifications to their users, otherwise they would not use the platform. In-depth interviews were conducted by Whiting and Williams (2013) and found that people associated ten uses and gratifications with social media use. These included social interaction, information seeking, to pass time, for entertainment, for relaxation, communicatory utility, convenience utility, expression of opinion, information sharing and to learn knowledge about others. The findings from this study that show people seek information on social media could help explain why women seek birth control information on Facebook.

Facebook

When Mark Zuckerberg developed Facebook in 2004, he had a simple idea of connecting friends through an online social network. Since then, Facebook has become the leading social media site in the United States. A 2016 National survey by Pew Research Center found that a vast majority of adults that use the internet are also Facebook users (Greenwood, et al., 2016). Facebook’s usage is more than double that of Twitter (24%), Pinterest (31%), Instagram (32%) and LinkedIn (29%). Researchers found that 75% of Facebook users visit the social media platform daily. It is reported that 64% of all White internet users, 56% of Hispanic users and 53% of Black users access Facebook at least once a day (Statista, 2018). The number of users on Facebook provides a solid population to be studied. The number of users on Facebook compared to other social media sites provides an increased chance of collecting a large sample size of
Researchers found that people use Facebook for six main reasons. Facebook was found to be used as a pastime, to give and receive affection, for fashion, to share problems, for sociability and to see and gain social information (Quan-Haase, et al., 2010). Women utilizing Facebook as a way to get birth control information is an example of using Facebook to share problems and to seek and gain social information. Another study disagreed with Quan-Hasse by arguing that there is only one simple reason why people use Facebook. These researchers concluded that Facebook use is motivated by the need to belong and the need for self-presentation (Nadkarni, et al., 2012). According to the researchers, the need to belong stems from an internal desire to connect with others and gain social acceptance. The need for self-presentation is a continuous process of managing such impression. The motivation factors of needing to belong and need for self-presentation are influenced by cultural backgrounds, sociodemographics and personality traits, and therefore are different for every user. These motivational factors could affect whether a woman chooses to use Facebook to seek birth control information or not. Cultural backgrounds, sociodemographics and personality traits not only influence whether a woman uses birth control and the type of method they choose, but it can also influence how comfortable they are when discussing such reproductive health items.

It can be assumed that Facebook has a large number of users due to the many features it offers. One feature of Facebook is that it provides social capital for its users. Social capital is defined as the benefits gained from social interaction (Vitak, et al., 2012). Vitak and Ellison (2012) conducted semi-structured interviews to find out how the participants requested and gave social support and information on Facebook. They found that status updates made it ‘easier’ for
users to exchange support-related messages with their network of ‘friends.’ Status updates also allowed users to reach a wide audience at once, rather than giving information to each individual. However, participants noted they were worried about their privacy when posting to their entire Facebook network, which limited the site’s usefulness for some users. The researchers also found that using Facebook to find information and bridge social capital was a common benefit to using the social media site. The benefits associated with social capital on Facebook may encourage women to seek birth control information through the site’s features. This study suggests that women may feel more comfortable offering suggestions to those asking for birth control information through the comments section on a user’s status update, rather than posting a status themselves.

As of January 2018, 8% of Facebook users in the United States are women between the ages of 18 and 24. These young women are leading the conversation on a variety of issues on the social media site. For example, Facebook reported that this age group posted about International Women’s Day three times more than other topics at the beginning of 2018 (Facebook, 2018). Facebook also reported that women are 40% more likely to create groups that are reported as meaningful to others. This shows that women are interested in having deeper conversations on Facebook, which may indicate that they are also already having or willing to have conversations about birth control.

As the popularity of Facebook has grown, many organizations and news outlets are using the platform to disperse information. A study by Oeldorf-Hirsch and Sundar (2015) found that in order for users to be involved with the news content posted, they must feel they will get feedback from others in their network. The study found that seeking others’ opinions increased the user’s involvement, more than just sharing one’s own opinion. The researchers also found that tagging
friends on Facebook allowed users to feel like they were fostering a community around the news content they were sharing (Oeldorf-Hirsch, 2015). A similar study out of Australia examined how Facebook users interacted with posts made by public health organizations. They found that Facebook posts that gave factual information or had a positive emotional appeal gained the most amount of user engagement. By contrast, conventional marketing techniques and messages from people of authority were found to discourage user engagement. However, this did not include celebrity endorsements (Kite, 2016). Although this study was conducted outside the United States, it shows that people are willing to engage with Facebook posts from public health organizations.

Due to the comfort level of some women, they may seek other ways to get birth control information than through posting statuses or searching on Facebook. One alternative to status posts is what Facebook calls direct messaging, which is similar to instant messaging. In the study conducted by Quan-Haase and Young (2010), researchers compared the uses and gratifications of Facebook with Instant Messenger. Facebook was found to be more centered on having fun and learning about the events in other people’s lives, whereas IM was found to be focused on relationship development and maintenance. However, the basis of this study relies on the assumption that Facebook posts are less intimate than messaging. This belief conflicts with the findings that women use Facebook status posts to seek information on birth control, which is an issue that is considered intimate. Therefore, it is important to ask women how they feel about posting birth control information online.

It should be noted that there are some barriers to using Facebook. These include lack of internet access, not having a mobile device or computer, or having some sort of disability that hinders a user. In addition, Pew Research Center reported that 42% of adult Facebook users said
they have taken a break from checking the social media platform, while about a quarter of respondents have deleted the Facebook application from their cell phone (Geiger, 2018). Several reasons for this are cited including increased activity surrounding politics, competition of other social media sites and the Cambridge Analytica data breach. While this may impact the number or research respondents for the 18 to 24 age group, there are still many users that are on Facebook and may be discussing things such as birth control.

**Talking about sexual health on Facebook**

Growing access to the Internet in the United States has opened up a portal of information on any given topic. Sexual health information that used to only be accessed through medical experts or extensive research is now provided with a click of a button. News organizations post reports on the side effects or latest horror stories of various birth control methods while health departments share where to find it and how to find reliable sources of information. This has allowed for women to be exposed to sexual health information online without actively seeking it out.

A survey administered to college students to determine what factors influence them to seek and share health information on Facebook found that participants generally preferred to passively scan health information, rather than actively seek or share the information (Syn, et al., 2016). Happening upon birth control information in a newsfeed can happen when a news source, public health department, organization, or other user shares information on Facebook. Participants were less likely to discuss health information on Facebook if the topic was highly sensitive, such as sexual health and sexually transmitted diseases. However, results showed that participants were more likely to answer family member’s or friend’s questions on Facebook. This evidence further suggests that women are more likely to comment on other women’s
statuses asking for birth control information. However, these results also suggest that there must be a certain level of familiarity with those seeking and giving information.

A study done in Sydney, Australia used focus groups to explore how 16-22-year-olds responded to seeing sexual health promotion on Facebook (Byron, 2013). The participants stated they were interested in learning about sexual health information, however they did not want health information to intrude in their daily social media use. These results suggest that Facebook users may not be accepting of others seeking birth control information on the site. The fear of intruding on other user’s experience may deter women from using Facebook to post statuses asking for such information. Participants in this study also expressed concerns about sharing sexual health messages with others due to the stigma surrounding such issues, especially sexually transmitted infections. Researchers concluded that sexual health information were more likely to be shared in personal conversations among friends, rather than through status updates to everyone in a user’s network.

Researchers have examined how women react to sexual health information found on Facebook. Researchers in Hawaii conducted a study to find out how female college students share human papillomavirus (HPV) vaccine information on Facebook (Zhang, 2015). Participants stated that they believed that Facebook is a good awareness tool, but they felt they needed more knowledge about the HPV vaccine to feel comfortable sharing the information. This study is considered a sensitive topic to some users, which increases reluctance to share information with others online. These findings could also be applied to birth control information. If women do not feel they are knowledgeable enough about certain birth control methods, they are less likely to offer advice. When sharing information, the participants in the study preferred forwarding information from news or informational resources online, rather than chatting about
the vaccine. This technique may apply to sharing information about birth control as well. It will be necessary to examine what type of resources women share when responding to birth control information. When conducting the study, researchers asked participants to disclose their age, relationship status and information about their sexual history. These are all factors that could influence willingness to share birth control information on Facebook, so collecting this information will be useful.

Although Facebook statuses have been examined through many research studies, Facebook groups have also been found to provide a way in which users can talk about sexual health information. A study in China facilitated a conversation about sexual health by creating a Facebook group for young men and women to discuss health concerns such as condom use and birth control (Yeo, et al., 2017). The researchers then conducted a content analysis of the posts and comments made within the group. They found that a majority of posts solicited advice in a storytelling format in order to ask for opinion, information or disclose problems. Comments in response to the advice were found to be mostly supportive. These results suggest that those seeking birth information may use Facebook to do so in order to receive supportive and knowledgeable responses. The study found that women were more likely than men to post about the quality of their sexual experiences, their virginity of having sex for the first time. The results of this study contribute to the idea that women are comfortable with posting about their sexual health experiences and concerns online, and therefore more likely to seek birth control information on a public platform such as Facebook.

While the conversations about sexual health on Facebook have not centered around birth control alone, these research studies show that the site acts as a host to these personal topics. By exploring how people interact with birth control information specifically, health care providers
can better understand where these conversations are happening and how they can better interact with users that are searching for information.

Summary

This study will seek to understand the patterns and motivations for women to use Facebook for information on birth control. Based on the literature review conducted, there has been no similar study performed. To reach a conclusion on this topic, it is important to understand the number of women that use birth control and the access barriers they face in order to obtain it. Social and economic factors can play an important role when a woman is deciding what birth control mechanism is best. Women are often influenced by their doctor, friends and family members when making this decision. Since this study will examine why women talk about birth control on Facebook, it is important to understand the uses and gratifications users get from social media sites, especially Facebook. It is also necessary to examine how people discuss general sexual health issues online and on Facebook in order to get better insight into how birth control may be discussed. Together, this information provides a basis to determining the patterns and motivations of women using Facebook for information on birth control.
Research Questions

Although past research studies have examined how individuals talk about health on social media sites, there has been a lack of studies that examine why women use Facebook to seek birth control information and the variables that influence the way they interpret that information. This study seeks to answer those questions.

Research Question: What are the patterns and motivations for women to use Facebook for information on birth control?

RQ1A: Do women typically use Facebook to get information on birth control?
RQ1B: Why do women use Facebook to find and share birth control information?
RQ1C: Where do women search and/or find birth control information on Facebook?

RQ2: Do women make distinctions between the sources of information, be they journalistic, promotional or personal, in their searches?
RQ2A: Do women interpret information differently depending on the sources?
Method

A uses and gratifications (U&G) approach by Whiting and Williams (2013) was adapted for the design of this study. A probability sample survey was created online to obtain data. The questionnaire was used to examine the uses and gratifications women receive from using Facebook to find and share birth control information. Respondents were also asked a series of questions that sought to determine where women find birth control information on Facebook, how they distinguish between different sources and how they interpret birth control information. These questions represent the risk information seeking and processing model as they address health literacy.

Sample

The sample included women of reproductive age (between the ages of 13-44 years old), who use Facebook. Survey disbursement efforts specifically targeted women between the ages of 18 and 24. This is because nearly 60% of women in this age group reported an unintended pregnancy in 2011, making it the most prevalent group in the United States (Finer, et al. 2016).

In order to achieve the most representative sample as possible, the survey was distributed through public Facebook posts and groups. Other Facebook users were asked to share the link to the survey in order to gain access to a representation of various backgrounds. In addition, the survey link was also shared through email listservs, other social media sites including Twitter and Instagram, and through traditional word of mouth.

Policies and procedures defined by IRB were followed in this study to ensure the fair treatment of subjects. All participants were administered informed consent at the beginning of the online survey that explained participation is voluntary, and that all responses were anonymous.
The survey consisted of four sections to address all of the research questions. The first section collected demographic information from each survey participant. Respondents were filtered out of the survey if they were not female, if they had never used birth control, or if they had never used Facebook. The next section asked specifics regarding what type of birth control respondents have experience using, why they chose that particular form of birth control, and where they gathered information on those methods. The third section will help identify uses of Facebook, and if Facebook has ever been used by the respondent, or respondents of Facebook, “friends” to find information on birth control. The last section featured positive and negative posts about various birth control methods, from three different sources. Respondents were asked a series of questions about these posts to determine how their interpret information on birth control found on Facebook, and how that interpretation varies based on the source of the information.

U&G Theory

For the purpose of this study, the questions on the survey asking specifically about why women use Facebook to seek birth control information used a uses and gratifications theory model. The survey questions will first ask a series of general questions to help determine the gratifications sought (GS) by women that use Facebook. Each GS question was proceeded by the statement, “I use Facebook because,” and respondents were then asked to rate each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Items being rated were chosen based on prior studies that have examined uses and gratifications for Facebook use (Quan-Haase, et al., 2010). A subsequent component of the survey also asked GS questions, but were more specific to birth control information. The questions started with the statement, “I use
Facebook for birth control information because,” and respondents were then be asked to rate each of the items listed on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Correlation was calculated for each statement and Likert Scale selection.

*Risk Information Seeking and Processing Model*

The risk information seeking and processing model (RISP) was used to determine how women use Facebook to seek, share and interpret birth control information. The RISP model has been used in survey form to determine women’s risk response to sexual aggression on college campuses (Calhoun, 2012). For the purposes of this study, a Likert scale was used to ask participants how likely they are to use specific birth control methods after reading birth control information on Facebook. This was done in order to help determine if specific types of birth control information influence a particular behavior change.

*Measurement of Survey Variables*

Once responses are gathered from the cross-sectional survey, the data was analyzed to address each research question. Chi-square tests were used in order to determine the strength of the association between certain motivators and how they predict if a woman will use Facebook to ask for birth control information.
Results

The purpose of this study is to determine the patterns and motivations for women to use Facebook for information on birth control. To accomplish this it is necessary to understand if women search and/or discuss birth control on Facebook, and how they interpret information they do see.

The first section of the survey focused on collecting demographic information. Refer to table one for an overview of demographic percentages by category. After filtering out those that identified as men or other (16), and those who are not in reproductive age (18), and those who did not finish the survey, there was a total of 237 responses. It is important to note that respondents were further filtered in section two of the survey. Those between the ages of 18-24 made up 52.1% of total responses. The reminder of respondents fell into the 25-32 age range (23.3%), and the 34-44 age range (24.6%). The majority of respondents were white (80.3%), with Hispanic/Latino (7.6%), Black/African American (3.6%), and Multiracial/Multietnic, Asian, Native Hawaiian, and American Indian (totaling 8.5%) making up the remaining respondents. Data on marital status was also collected. 35% of respondents are married, 3.6% have been divorced or separated, and 61.4% have never been married. Respondents represented 38 states, with the majority of respondents being located in Missouri (39.6%).

Education and income level varied widely among survey respondents. All responders had at least a high school degree or equivalent. While 5.4% of survey participants did not continue into higher education, 31.8% have some college but no degree, 10.8% have an associate degree, 34.5% have a bachelor’s degree, and 17.5% have some sort of graduate degree. Household income levels varied widely, likely due to the wide array of state of residence and education...
level. About 16% of respondents made less than $20,000, 25.1% made between $20,000-$50,000, 27.8% made between $50,000-$90,000 and 30.4% made more than $90,000.

The second section of the survey focused on birth control use. Survey respondents were asked if they have ever used any form of birth control. One hundred and ninety-nine respondents answered yes, leaving 24 respondents filtered to the end of the survey. The next question asked participants if they have ever used Facebook. Two respondents answered no, leaving 197 remaining responders for the rest of the survey.

Of the 197 remaining survey participants after all filtering questions were answered, 69.5% currently use some form of birth control. The most common form of birth control used was the pill (30%), followed by the intrauterine device (IUD), male and/or female condom, implant, vaginal ring, injectable, patch and sterilization. When asked how long they have used their current method of birth control, responses ranged in popularity from more than four years (54.74%), 2-3 years (15.3%), 1-2 years (11.7%), six months to a year (7.3%), 3-4 years (5.8%), and less than six months (5.1%). Respondents were also asked to share what birth control methods they have used in the past. Multiple methods were allowed. Again, the most common responses were the pill and male or female condom, followed by the intrauterine device (IUD), injectable, vaginal ring, implant, sterilization, and patch.

Respondents were asked why they chose to use their current birth control method. Multiple answers were allowed. The most popular reason for use was ease of use, convenience, and recommendations from a health care provider. Number of side effects, recommendations from family or friends, and “other” were less popular responses. Respondents were then asked to check all the ways they have gathered information on the birth control methods they have used. The most common source of birth control information was a physician or health care provider,
followed by internet search engines, friends or peers, advice from a family member, social media, or other.

The third section of the survey tried to determine uses and gratifications for using Facebook, as well as if and how information on birth control is shared on the social media platform. The majority of respondents agreed at some level (88.21%) that they use Facebook to socialize with family and friends. Respondents also agreed at some level (82.65%) that they use Facebook to share their own life experiences with friends. Despite the special recommendation feature, respondents were split on if they use Facebook to get recommendations from family and friends, with only 50% agreeing on some level.

When asked if they had ever learned about birth control methods on Facebook, 56.33% stated no, 35.81% stated yes and the remainder of respondents weren’t sure. Respondents were then asked if they had ever searched for information on birth control methods within the Facebook platform. Again, no was the most common answer at 84.48%, followed by yes at 14.22% and not sure at 1.29%. Participants were also asked if they ever posted their own experience with birth control. No was the most common answer at 81%, while about 19% stated yes. While respondents themselves may not have posted or searched for information on birth control, they had seen others do so. When asked if a friend or family member posted their experience with a specific birth control method on Facebook, 43.1% said yes, while 40.52% said no. Nearly 16% stated they were unsure. Refer to Table 2 for results in graph form.

A total of 39 women stated that they had posted their own experiences with birth control on Facebook. Over one third of these women were 18-24 years old (37.5%), while 37.5% were 25-32 and 22.5% were 33-44 years old. No race, education level, or marital status was found to be statistically significant for posting birth control experiences. However, there was an
association found between income level and posting about birth control experiences (p-value = 0.0247).

For the purposes of this study, it is necessary to further analyze the survey respondents who reported that they have used Facebook to post about their own experience with birth control (Table 4) or have searched for information on birth control through the social media platform (Table 3). The majority of women that reported to have used Facebook to search for birth control information agreed on some level that they used Facebook to gather information because they want to know other women’s experiences (81.82%). Nearly 9% stated they agreed that they used Facebook for information because they don’t have access to health care provider, while 36.36% said they do not trust their health care provider. A majority of women (66.66%) also stated they used Facebook to gather birth control information for validation for using their current birth control method. Women who have posted their experiences with birth control on Facebook reported slightly different reasons for doing so. A majority agreed on some level that they use Facebook for birth control information because they want to know other women’s experiences (68.18%). About 9% stated they don’t have access to a health care provider and 34.09% said they do not trust their provider. About 46% of respondents that have posted their experiences with birth control agreed on some level that they use Facebook for birth control information as validation for using their current birth control method.

The fourth and final section of the survey gathered information on how women interpret birth control information on Facebook from various sources. Refer to Table 5 for more information on how women interpreted birth control information from various sources. The images used are public posts found on Facebook, with identifiable information of users that made the posts removed. Images of the post can be found in the Figures section. Each image was
followed by five statements that participants were asked to rank on a Likert-scale from strongly disagree to strongly agree.

The first image for interpretation was a positive Facebook post about Nexplanon (implant) from a “friend” source (Figure 1). Only 23.35% of respondents agreed on some level that they trusted this information, while 9.18% stated they would use this birth control method based on the information in this post. Nearly 44% of respondents agreed on some level that they would talk to their health care provider about this birth control method, while nearly 64% stated they would research more information on this method by using online resources. More than 61% of respondents stated they would ask their friends what their experiences were with this birth control method.

The second post was a negative post about Nexplanon from a “friend” source (Figure 2). The image of the “friend” source was the same as the positive Nexplanon post. Nearly 39% of respondents agreed on some level that they trust this information. Only 4.1% of respondents said they would use this birth control method based on this information. When it came to learning more about this method based on this post, 45.37% agreed they would talk to their doctor, 62.18% stated they would research online, and 62.38% agreed they would ask their friends about their experience.

The third post featured positive copy for a news story about the IUD (Figure 3). Forty percent of respondents agreed on some level that they trusted this information. Only 13.2% of respondents agreed they would use the IUD based on this post. A majority of respondents (56.35%) agreed on some level that they would talk to their health care provider about this birth control method. A majority of respondents also said they would research online for more
information on this method (67.86%) and ask their friends about their experience with the IUD (56.92%).

The fourth post was also from a news outlet, but with a negative story (Figure 4). Nearly 40% of respondents stated that they trust this information, yet only 5.16% agreed they would use this birth control method based on this post. Nearly half of respondents (49.23%) agreed they would talk to their health care provider about this method, while 60.73% stated they would research more information online, and 59.9% agreed they would ask their friends about their experiences.

The fifth and sixth posts had a neutral tone and were posted by health departments. The first post from a health department features an infographic on the implant and how it worked (Figure 5). Respondents generally agreed on some level (43.59%) that they trusted this information, and more than 15% stated they would use this birth control method based on this information. A majority of respondents agreed on some level that they would gather more information on this method from their health care provider (53.89%), from online sources (59.79%), or by asking their friends about their experiences (57.21%) based on this Facebook post.

A second post from a health department was included to stay consistent in the formatting of the survey. The second post from the health department was also a neutral infographic, but it provided information on a variety of birth control methods and how well they work (Figure 6). This post was found to be the most trustworthy according to respondents (64.4%), resulting in nearly 40% of respondents stated they would use a birth control method based on this information. Majority of respondents stated that this information would make them talk to their
health care provider (69.48%), research more information online (74.35%), and talk to their friends about their experiences (66.13%).

Following the series of interpretation questions, respondents were asked to rank what sources they trust when it comes to gathering information on birth control methods. Medical resources were ranked as the top source of information. Family members were most commonly ranked as second, while friends were commonly ranked third. News outlets were most commonly ranked as last on the trustworthy scale.

There was a statistical significance found between trusting friends for birth control information and age (p-value = 0.014). Based off this data, women between the ages of 25-32 were found to trust their friends the most. Education level also appeared to be associated with the sources that are most trusted for birth control information, with medical resources (p-value=0.009) and friends (p-value=0.011) being the most common sources. Income level was found to be associated with trusting family members (p-value=0.041), with those making between $30,000-$39,999 and $70,000-79,999 the most likely to rank them as the top trusted source. There was no significance found between race or marital status and source trust.

Lastly, respondents were asked to rank where they typically get all health information. Overwhelmingly, a physician or other medical professional was ranked as the most common source of information (86.49%). News sources and social media sites were often ranked last (61.09%). Education level was found to be associated with getting health information from family members (p-value=0.0136) and online sources (p-value=0.02442). Those with a bachelor’s degree were most likely to rank online resources as a common source for health information.
Discussion

The purpose of this study is to determine the patterns and motivations for women to use Facebook for information on birth control. Refer to Table 6 for key takeaways of the study in relation to the research questions. There has been little research using the uses and gratifications approach or risk seeking and processing model to better understand how women use Facebook for information about birth control.

The results of this study indicate that some women do use Facebook for birth control information, whether it be searching for information, interacting with posts made by their friends and family, or posting their own experiences. However, there was not a significant number of responders who do so.

A sub-goal of this research was to further examine the Facebook use behaviors regarding birth control information for women between the ages of 18-24, due to the high rates of unintended pregnancy among this age group. However, based on the data gathered, there was not a significant number of women in this age group who use Facebook to gather information on birth control. In fact, women between the ages of 25-32 were found to be just as likely to post their experiences with birth control on Facebook.

The 25-32-year-old age group also reported the highest percentage of women who have ever learned about birth control information on Facebook (52.2%; p-value=0.04155). One reason for this may be the generational difference between these age groups. According to the Pew Research Center, people between the ages of 18-24 are more likely to use other social media platforms compared to those within the 25-32 age group. This includes Instagram (75% vs. 57%) and Snapchat (73% vs. 47%) (Perrin, et. al, 2019). This may mean the younger generation
is discussing birth control methods on social media platforms other than Facebook, but more research is needed.

Interestingly, despite the 33-44-year-old age group being most likely to use Facebook to get recommendations from family and friends (p=0.04421), they were not found to be as likely to use Facebook to gather information on birth control. This makes sense given that this age group reported to be most likely to get birth control information directly from a healthcare professional.

While there was not a significant number of survey respondents that stated they have used Facebook to gather information on birth control, there is valuable information regarding the interpretation of information based on the source.

Despite Facebook being primarily used for social interaction, the Facebook post of a positive experience with birth control was found to be less trustworthy than the negative post. This could be because the “friend” source was controlled in this study, and therefore the individual responder did not have a connection to the poster. Although the positive post from a “friend” was found to be trustworthy, there was little difference between posts when asked if they would use the birth control method based on this information. The 18-24-year-old age group was found to be most likely to agree they would discuss the birth control method with their friends after reading the post from a friend source. This was found to be more likely for the negative post.

In general, news sources were found to be untrustworthy whether the information about birth control was positive or negative. This is despite using news sources that do not have a reputation as being political leaning or biased. However, it is important to note that those within the 18-24-year age group were most likely to trust the news source, compared with other age
groups. While a low percentage of respondents stated they would use these methods based off the news source, women agreed on some level that they would use the method based on the positive post, rather than negative post. The positive post also made women more likely to talk to their health care provider and/or research online about the birth control method features. More research is needed, but this may mean that framing of news may determine birth control use. Interestingly, negative news posts were found to increase the likelihood that a woman would talk to her friends about their experiences with the birth control method. This is especially true for the 18-24-year-old age group. Health organizations may want to keep this in mind when negative news stories about birth control are trending so that they are able to combat it with accurate information.

Posts from the health department were found to be overwhelmingly more trustworthy than those from the friend or news source. This may be because both posts just provided information on various birth control methods, rather than a positive or negative message, or because women tend to trust healthcare professionals more than other sources. Women agreed on some level that they would use the birth control method based on the post from the health department that focused on information about one particular method. The graphic posted about one method also made women more likely to speak with their health care provider and friends, or research on their own, compared to the post that featured information about multiple methods. This is important for public health organizations to consider when trying to communicate with women about birth control, so that they do not overwhelm their audience with too much information.
**Limitations**

This research aimed to examine the information seeking behaviors of women between the ages of 18 and 24. This is because nearly 60% of women in this age group reported an unintended pregnancy in 2011, making it the most prevalent group in the United States (Finer, et al. 2016). Although the majority of survey respondents represented this age group, there were not enough to be considered an accurate sample of this population with a 95% confidence interval (Census Bureau, 2018). More responses would not have only benefited the statistical significance of this research, but also could have helped provide more insight into the way women interpret Facebook posts about birth control depending on the source.

While this research was an important first step to gathering information on this subject matter, a mixed methods approach may be necessary in the future. Interviews or focus groups may be better tools to understand why women react to certain sources and content of Facebook posts regarding birth control information. This format may also be able to better understand how certain experience(s) with various birth control methods impact trust in a Facebook post.

Lastly, the examination of Facebook posts may have limited the scope of this research. While Facebook uses spans across ages and races, it is a platform that is struggling with public perception and controversy in recent years. Other social media platforms such as Twitter, Instagram and Snapchat may be more beneficial when specifically looking into health behaviors of the 18-24-year-old age group.

**Future Communication Strategies**

Based on these findings, health entities that use Facebook for sharing information on birth control may want to reconsider their communication strategies. Health-related groups were found to be the most reliable for birth control information, and therefore they should have
strategies in place to help reach as many women as possible with accurate information. There are several different approaches that health organizations can consider when trying to communicate with women on Facebook about birth control information. These include to have a proactive approach for the communicating with women in comment sections and posts, using micro-influencers, and producing interactive media.

A proactive strategy approach to communicating with women on Facebook about birth control information would be interacting in the comment sections of public Facebook posts made by users. By being part of the conversation within comment sections, these organizations are able to take a more proactive approach for disseminating birth control information and can also be more top of mind when women are seeking out sources for information. Strategy and procedures should be established so that appropriate resources are being shared and the health-organization is sharing one common voice and message.

If health-related organizations do not have a large following on Facebook or feel uncomfortable participating in comment sections, an alternative approach would be to hire a micro-influencer. This would be a local woman in the age range that the organization is trying to target. Ideally this woman would have a large social media following, but the most important aspects of the micro-influencer is that they are involved in the community and easily recognizable to the target audience. Influencers would post on Facebook about available resources for birth control, host live Q and A videos, create interactive content and represent the organization in public appearances. An example of an appropriate influencer on the national level would be Laci Green. Green has established a YouTube channel with 1.5 million followers where she discusses sexual health in a fun, honest way. Someone on the local level who is an
advocate for birth control access and women’s reproductive rights would fit into this role perfectly to further spread messages of the health organization.

The final, and perhaps most important, approach of a communication strategy should be creating evergreen informational content about birth control methods that can be ready to post after news is published regarding the method. This is a counteractive approach to help provide women with evidence-based information and will hopefully decrease the number of women that seek information from outside sources that are unreliable or inaccurate. It is recommended that this content not be generic Facebook status posts. Rather, this content should use interactive media such as visually appealing graphics, gifs, and videos. Ideally there would be a dedicated individual or team to create this content, however health educators could also be trained to execute communication strategies for this subject.

While a majority of women were not found to use Facebook for birth control information, some women were. It’s important to consider that this number may increase if birth control access was more limited if, for example, the Affordable Care Act was repealed, or if health insurance requirements were to change. These federal policies related to access could change the way women communicate about birth control methods on Facebook. Therefore, health-related organizations should be adaptable and frequently reevaluate their communication strategies.
Conclusion

This exploratory research sought to determine the patterns and motivations for women to use Facebook for information on birth control. A uses and gratifications approach and risk information seeking, and processing model were used. Based on the data gathered from an online survey, a significant number of women were not found to typically use Facebook to gather information on birth control. However, reasons for use were identified for those who do use Facebook for birth control information. Many women stated they used Facebook to learn more about other women’s experiences with birth control, or they wanted validation for using their current birth control method. Lack of access to a health care provider and lack of trust in said provider were also factors in seeking information on Facebook. While a small number of women stated they have searched for birth control information on Facebook or posted their own experiences on the social media platform, a little less than half of respondents said they had seen a friend or family member post their experiences with a specific birth control method. This shows that women are discussing birth control on Facebook, even if a significant number of participants of this research were not found to.

Content of Facebook posts and source were found to impact the way women interpret birth control information. In general, women were found to trust negative content more than positive when coming from a friend source. News sources were found to be untrustworthy regardless of content type. However, negative posts increased the likelihood of a woman discussing the birth control method with friends. Health department posts were found to be the most trustworthy, which may be because posts did not have a positive or negative spin.

The results of this study should be taken into consideration when women’s health organizations are crafting strategic communication plans. These organizations are considered
most trustworthy, and therefore must be proactive in their dissemination of information. Facebook posts can be used to combat misinformation and provide reliable information when negative news stories are trending. Health organizations can also be proactive by joining the conversation and providing information resources in the comment section of public Facebook posts. More extensive strategies should be considered if access to birth control was limited due to political changes.
References


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college students’ perspectives on sharing HPV vaccine information through
Table 1

<table>
<thead>
<tr>
<th>Demographic Categories</th>
<th>Valid Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>18-24</td>
<td>52.1</td>
</tr>
<tr>
<td>25-34</td>
<td>23.3</td>
</tr>
<tr>
<td>35-44</td>
<td>24.7</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>80.3</td>
</tr>
<tr>
<td>Black or African American</td>
<td>3.6</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.9</td>
</tr>
<tr>
<td>Asian</td>
<td>2.7</td>
</tr>
<tr>
<td>Native Hawaiian or Pacific Islander</td>
<td>0.9</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>7.6</td>
</tr>
<tr>
<td>Multiracial/Multiethnic</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
</tr>
<tr>
<td><strong>Education level completed</strong></td>
<td></td>
</tr>
<tr>
<td>Less than high school degree</td>
<td>0</td>
</tr>
<tr>
<td>High school degree or equivalent (e.g. GED)</td>
<td>5.4</td>
</tr>
<tr>
<td>Some college but no degree</td>
<td>31.8</td>
</tr>
<tr>
<td>Associate degree</td>
<td>10.8</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>34.5</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>Household income</strong></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>12.1</td>
</tr>
<tr>
<td>$10,000 - $19,999</td>
<td>4.5</td>
</tr>
<tr>
<td>$20,000 - $29,999</td>
<td>6.3</td>
</tr>
<tr>
<td>$30,000 - $39,999</td>
<td>8.5</td>
</tr>
<tr>
<td>$40,000 - $49,999</td>
<td>10.3</td>
</tr>
<tr>
<td>$50,000 - $59,999</td>
<td>7.6</td>
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<tr>
<td>$60,000 - $69,999</td>
<td>5.4</td>
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<tr>
<td>$70,000 - $79,999</td>
<td>6.7</td>
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<tr>
<td>$80,000 - $89,999</td>
<td>8.1</td>
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<td>$90,000 - $99,999</td>
<td>4</td>
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<tr>
<td>$100,000 - $149,999</td>
<td>14.3</td>
</tr>
<tr>
<td>More than $150,000</td>
<td>12.1</td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>35</td>
</tr>
<tr>
<td>Widowed</td>
<td>0</td>
</tr>
<tr>
<td>Divorced</td>
<td>3.6</td>
</tr>
<tr>
<td>Separated</td>
<td>0</td>
</tr>
<tr>
<td>Never married</td>
<td>61.4</td>
</tr>
</tbody>
</table>

Total number of responses                      237

Demographics of survey respondents by percentage of category.
Table 2

<table>
<thead>
<tr>
<th>Using Facebook for birth control information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learned about birth control methods on Facebook</td>
</tr>
<tr>
<td>Searched for information on birth control methods on Facebook</td>
</tr>
<tr>
<td>Ever posted own experiences with birth control on Facebook</td>
</tr>
<tr>
<td>Friend or family member posted experience with birth control on Facebook</td>
</tr>
</tbody>
</table>

Uses of Facebook for gathering information on birth control.
Table 3

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Want to know other women's experiences</td>
<td>80%</td>
</tr>
<tr>
<td>Don't have access to health care provider</td>
<td>40%</td>
</tr>
<tr>
<td>Do not trust health care provider</td>
<td>40%</td>
</tr>
<tr>
<td>Validation for using current birth control method</td>
<td>70%</td>
</tr>
</tbody>
</table>

Reasons women search for birth control information on Facebook.

- Want to know other women's experiences
- Don't have access to health care provider
- Do not trust health care provider
- Validation for using current birth control method

Percentage of women that have searched for information and agree with the statement.
Table 4

Reasons women post about their own experiences with birth control on Facebook

- Want to know other women’s experiences
- Don’t have access to health care provider
- Do not trust health care provider
- Validation for using current birth control method

Percentage of women that have posted their own experiences and agree with the statement

Reasons women post about their own experiences with birth control on Facebook.
Table 5

Percentage of women that agree with the statements regarding Facebook posts with birth control information.

Percentage of women that agree with the statements regarding the corresponding Facebook post with birth control information.
<table>
<thead>
<tr>
<th>Research Question</th>
<th>Results</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do women typically use Facebook to get birth control information?</td>
<td>No</td>
<td>Overall, this data does not show a significant number of women use Facebook to gather information on birth control. However, there are certain women who are, especially among particular age groups and income levels. Therefore, it is suggested that health related organizations establish communication plans in order to provide birth control information on the Facebook platform.</td>
</tr>
<tr>
<td>Why do women use Facebook to find and share birth control information?</td>
<td>Women want to learn about other women’s experiences with birth control methods and want validation for the current method they are using.</td>
<td>While there are a variety of reasons why women may use Facebook to find and share birth control information on Facebook, these were the most common responses. However, it is important to note there were some women who felt they used Facebook because they did not have access to a health care provider or they did not trust their health care provider.</td>
</tr>
<tr>
<td>Where do women search and/or find birth control information on Facebook?</td>
<td>Most women encounter birth control information on Facebook from posts made by their friends and family.</td>
<td>Based off this research, a majority of women do not actively search out information about birth control on Facebook. However, women do recall seeing information posted by others in their “timeline,” or “Facebook feed.” More research is needed to better understand specifically where women are gathering birth control information on Facebook.</td>
</tr>
<tr>
<td>Do women make distinctions between the sources of</td>
<td>Yes</td>
<td>Women were found to distinguish between sources</td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>Summary of key findings. The results of these questions better determine the overall purpose of this study, which was to determine the patterns and motivations for women to use Facebook for birth control information.</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-----</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Do women interpret information differently depending on the sources.</td>
<td>Yes</td>
<td>In general, women stated they trust their medical providers the most when it comes to gathering information on birth control. Family was also strongly trusted followed by friends. News sources were found to be least trustworthy. This trust level likely influences a woman’s interpretation of birth control information.</td>
</tr>
</tbody>
</table>

| ... | ... | ... |

...
Figures

Figure 1

I have the Nexplanon and I love it. Haven’t had my period in over a year and gained like 10 lbs when I first got it (needed that since I was 100 lbs). And it lasts up to like 4 years and painless.

Positive Facebook post about implant birth control method from a “friend” source.
After countless hours of crying and begging doctor after doctor to take it out, it's finally done, and 10x worse than it was supposed to be. What should've taken 20 minutes took 2 hours. I should've been able to be awake for the procedure but it was too deep and I ended up going under general anesthesia. Ladies, please be mindful of what you put in your bodies. I made one decision and for the past year and a half have been miserable because of it. Just take the pill. Use protection. If you don't want a kid, get on anything except Nexplanon. #SayNoToNexplanon — in Burlington, North Carolina.
There's a cheap new IUD on the block: the Liletta, whose entire purpose is to help address the growing class gaps in birth control and make IUDs -- which can cost $1,000 or more -- affordable to all.
Figure 4

An investigation uncovered unsettling complications related to a popular birth control implant, as it has ended up in dangerous places including lungs, chest and vital arteries.

Popular birth control implant has potential to go missing in your body

Negative Facebook post about IUD from a news source.
Neutral Facebook post about one specific birth control method from a health organization source.
Neutral Facebook post about multiple birth control methods from a health organization source.