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THE ORAL CONTRACEPTIVE PILL: AN ANALYSIS OF THE PORTRAYAL OF THE PILL ON PHARMACEUTICAL WEBSITES

by

SASIKALA NAIR

DISSERTATION

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

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Approved By:

Advisor

Date

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CHAPTER 1- INTRODUCTION

In today's world, the Internet has become a major source from where we receive information. The number of people who access the Internet for health information has increased in recent years. Health information has become the third most sought information on the Internet today (Choi & Lee, 2007). According to the Pew Research Internet Project (2013), 72% of Internet users in the United States have looked for health information online in the past year. The Pew Research Internet Project (2013) also states that women seek out more health information online than their male counterparts. Furthermore, the Pew Research Internet Project (2013) states that researching a drug that was being advertised was one of the major types of health information sought by online users who searched for health information.

In the United States, disseminators of health information not only include the medical community, but the pharmaceutical community as well. The pharmaceutical community uses the process of direct-to-consumer pharmaceutical advertising (DTCPA) to provide information about their drugs directly to the public. "DTCPA can be defined as an effort (usually via popular media) made by a pharmaceutical company to promote its prescription products directly to patients" (Ventola, 2011, p. 669). As of 1997, pharmaceutical companies started using pamphlets, television and the radio to provide information about their medical products directly to the consumer (Kelly, 2007). Previously, DTCPA was primarily through print and broadcast media; however, today pharmaceutical companies are using the Internet as one of their biggest platforms for DTCPA with almost a billion dollars being spent on Internet DTCPA alone (Liang & Mackey, 2011). As per data published as recently as 2015, even though pharmaceutical

companies have reduced their spending on television and radio DTCPA, they increased their spending on Internet DTCPA by 108.98% from 2005 to 2009 (Mackey, Cuomo & Liang, 2015).

With the increase in DTCPA through the Internet, many pharmaceutical companies have set up websites about the medications they manufacture. Internet DTCPA has numerous concerns that affect the welfare of the general public. One of the main concerns is that the information on the Internet is often not monitored by the Food and Drug Administration (FDA) to the same extent of print and broadcast media DTCPA (Woodlock, 2005). Therefore, individuals who are using the Internet to seek information about their drugs could become exposed to information that is not regulated and monitored as tightly as other forms of DTCPA information. DTCPA also tends to minimize the risks of the product being advertised (Kaphingst, Dejong, Rudd & Daltroy, 2004). Another main concern is the Internet allows information on the websites to reach a large number of people in a shorter time (Fox, Ward & O'Rourke, 2006). While this can be viewed as a benefit, in the case of Internet DTCPA, it holds the ability to reach a wider audience, therefore potentially impacting a larger number of people in a shorter amount of time with information that is not tightly regulated by the FDA. Moreover, with health information being widely sought out by consumers, Internet DTCPA also allows the pharmaceutical companies to reach these consumers directly through their own websites. This allows the pharmaceutical companies complete freedom to construct ideas about their products, impart messages to the consumers and shape people's attitudes and beliefs about their drug, through advertising. Due to Internet DTCPA being a relatively new phenomenon that is accompanied by multiple issues such as lack of regulation by the FDA, its ability to reach a large number of people of all ages, and its ability to market prescription medication, the topic of Internet DTCPA certainly warrants exploration.

In narrowing my dissertation topic, I felt that it was important to focus on a single product advertised via DTCPA websites: the websites of oral contraceptive pills (OCPs). Birth control practices remain an important phenomenon that has been studied both by both medical and sociological researchers, especially through large-scale studies (Frost, Singh & Finer, 2007; Jones, Mosher & Daniels, 2012). However, when women's birth control practices are studied in the sociological literature, the focus is often the use of birth control by women, along with the factors that influence their contraceptive choices/decisions. Researchers have less often studied the portrayal of the birth control itself. The oral contraceptive pill (OCP) commonly known as the pill is the most widely used form of contraception today among women of child bearing ages. The pill's popularity is also on the rise for non-contraceptive purposes, such as managing menstruation (Jones, 2011). When the pill is being used as a treatment for "menstrual problems", women could be adhering to messages about how their menstruation is problematic. These messages may come from pharmaceutical companies through DTCPA. The analysis of prescription drug advertising provides an opportunity for us to begin examining the portrayal of the OCP in online drug advertisements (DTPCA).

Purpose of the study

There are two major categories of OCPs manufactured by pharmaceutical companies in the United States today: traditional OCPs and extended-cycle OCPs. Traditional OCPs have existed since the conception of the OCP and they follow the

standard regimen of the woman taking 21 or 24 pills with hormones, followed by 7 or 4 non-hormone pills. During the time when the woman is on the non-hormone pills, she experiences a menstrual cycle. Extended-cycle OCPs, such as Seasonale and Seasonique are taken continuously for a few months, and the woman does not experience a menstrual cycle on them for at least three months (Bachmann & Kopacz, 2009; Bonnema & Spencer, 2011; Hicks & Rome, 2010).

Upon looking into previous sociological research, I learned that very little sociological research has been completed that examines the portrayal of OCPs through DTCPA. Moreover, previous sociological research has displayed an interest in mostly studying how extended-cycle OCPs are marketed to the public using DTCPA (Gunson, 2007; Mamo & Foskett, 2009). Based on my perusal of existing research on this topic, there has been no sociological research that has focused on the DTCPA portrayals of traditional OCPs exclusively.

Even though there were no specific statistics that could be found on the number of women taking the traditional OCP versus the extended-cycle OCPs, several traditional OCPs such as YAZ, Loestrin Fe and ORTHO TRI-CYCLEN LO have been on the list of top selling 200 drugs in the United States for many years (Bartholow, 2013; Bartholow, 2012; Bartholow, 2011; Bartholow, 2010). Therefore, it is beneficial to see how such an important drug, which is used by only women, is portrayed and characterized on the pharmaceutical websites. With the pill being so popular for its contraceptive and non-contraceptive functions, it is also helpful to analyze how the pill is being marketed to women online by the pharmaceutical companies that manufacture, promote, and sell these OCPs. This led me to the first purpose of this study: to

understand and describe the messages transmitted through the pharmaceutical websites via Internet DTCPA, which could be important in shaping women's attitudes about their bodies and their reproductive functions.

In the medical literature, menstruation is often seen as a problem that needs to be controlled rather than a significant part of women's biology (Houppert, 1999; Fingerson, 2006). Moreover, OCPs are also being used more frequently now than ever before for their non-contraceptive functions, such as menstrual management. At least 1.5 million American women now take the pill only for the main non-contraceptive function which is menstrual management (Jones, 2011). When the message is sent to women that all instances of menstruation are problematic, women who suffer from serious menstrual ailments which require medical treatment can be overlooked or minimized (Johnston-Robledo, Barnack & Wares, 2006). Additionally, sociological literature suggests that DTCPA is a driving force of medicalization, whereby conditions that are usually benign are now being treated with medicines (Conrad, 2007). This led me to the second purpose of this study: to investigate and report on how the medicalization of female bodily processes and functions occurs via the Internet DTCPA of traditional OCPs. I was interested in exploring whether traditional OCPs are also portrayed as altering or managing menstruation for the better, via online DTCPA. In order to attend to this second purpose, I looked to see how menstruation is portrayed on traditional OCP websites. Looking at how menstruation was portrayed on the websites not only served as an overall evidence of medicalization but also helped to further an understanding of how women's bodily processes are defined as problematic and negative via Internet DTCPA.

The two general research questions that guided this study are as follows: (1) How are traditional OCPs portrayed and characterized on their websites? (2) What evidence of medicalization is present on the websites of these OCPs? For the purpose of this study, only the websites of traditional OCPs were examined using a qualitative content analysis. I analyzed the websites of the following eight traditional OCPs: Beyaz, Generess Fe, Lo Loestrin Fe, Minastrin 24 Fe, Natazia, ORTHO TRI-CYCLEN LO, SAFYRAL and YAZ.

Organization of the Dissertation

Chapter One of this dissertation is the introduction chapter. Chapter Two of this dissertation consists of a review of the existing literature. This chapter also reviews the theoretical framework of medicalization. Chapter Three of this dissertation outlines the methodology that was used to conduct the study. It also provides a description of the coding categories that I examined during data collection and analysis. Chapters Four, Five and Six provides the results of the study. Chapter Seven is the discussion and conclusion chapter of this dissertation.

CHAPTER 2 - LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter provides a review of the literature which is relevant to this study. In particular, the objectives of this literature review were the following:

- 1) To explore the sociological literature on DTCPA
- 2) To explore the sociological literature on the theory of medicalization
- To discuss sociological studies conducted to-date exclusively on the DTCPA of OCPs

Women's Use of OCPs

Statistics show that the majority of women who are of reproductive age and who are using a form of contraception often prefer to use a reversible form such as the OCP. Currently, OCPs are the leading form of contraception used by women who are under the age of 34 (CDC, 2010). Of the top 200 selling drugs in the United States in 2011 and 2012, two traditional OCPs were on the list: Loestrin 24Fe, and ORTHO TRI-CYCLEN LO (Bartholow, 2013; Bartholow, 2012). Of the 200 top selling drugs in the United States in 2010, three traditional OCPs were on the list: Loestrin 24Fe, ORTHO TRI-CYCLEN LO, and YAZ (Bartholow, 2011). For the year 2009, four traditional OCPs were on the list of top 200 selling drugs in the United States: Ocella, ORTHO TRI-CYCLEN LO, YAZ, and Loestrin 24Fe (Bartholow, 2010).

In recent years, the popularity of the pill amongst women has soared further, due to the non-contraceptive roles it serves as well. The National Center for Health Statistics gathered data from 7,356 women between the ages of 15-44, through in-person interviews from 2006-2008. According to Jones (2011), this data, which was then published by the Guttmacher Institute states that 58% of women who are currently on the pill are using it for non-contraceptive reasons along with its main function of pregnancy prevention. Of these non-contraceptive reasons listed, 31% of the women were using it for menstrual pain management, and another 28% of the women were using it for menstrual regulation. Even among women who had never had sexual intercourse, 9% reported to using OCPs (Jones, 2011). The majority of these women were using OCPs for menstrual management (43%) and for menstrual pain (57%).

Traditional OCPs consist of 21 days of active pills, followed by a 7 day interval (Hicks & Rome, 2010). When a woman is on the traditional OCP, she menstruates during the interval after the active pills are done. In recent years, traditional OCPs have also become available in a 24/4 regimen (Bachmann & Kopacz, 2009). That regimen consists of 24 days of active hormone pills and 4 days of hormone-free pills. Menstruation occurs during the 4 days when the woman is taking the hormone-free pills. Extended-cycle OCPs are formulated in such a way that menstruation occurs only once every few months (Bonnema & Spencer, 2011). In 2003, the FDA approved Seasonale, which is an extended-cycle OCP. Seasonale is a 91-day regimen that has 84-days' worth of hormones which are taken without any break followed by a 7 day interval when the woman menstruates (The American Society of Reproductive Medicine, 2008). Approved by the FDA in 2006, Lybrel is another extended-cycle OCP. Lybrel consists of 365 days of active pills, therefore, allowing women to skip their menstrual cycle for a whole year (The American Society of Reproductive Medicine, 2008). Seasonique is similar to Seasonale, but instead of having 7 placebo pills, it has 7 pills that contain ethinyl estradiol (The American Society of Reproductive Medicine, 2008). Lo-

Seasonique is very similar to Seasonique, and allows for menstruation every three months (Bonnema & Spencer, 2011). Traditional OCPs work on the female body in a different manner than extended-cycle oral contraceptives.

History of DTCPA

The United States and New Zealand are the only two countries in the world that permit DTCPA (Liang & Mackey, 2011). The Food and Drug Administration (FDA) in the United States is the regulating body of DTCPA of medications. As per the FDA website, "Direct-to-consumer (DTC) advertising is a relatively new area of prescription drug promotion" (http://www.fda.gov/Drugs/ResourcesForYou /Consumers/Prescription DrugAdvertising/ucm071964.htm, Retrieved: January 2014). In the past, DTCPA consisted mostly of television messages and print messages in magazines or pamphlets available at physician's offices. Apart from traditional methods such as print and broadcast television DTCPA, Internet DTCPA has also started to become increasingly popular recently (Sheehan, 2007).

The Division of Drug Marketing, Advertising and Communications is the wing of the FDA that currently oversees DTCPA of prescription medications available in the United States. The code of federal regulations (CFR) was revised in April 2011 and provides the mandates for prescription drug advertising to the general public. According to the CFR. modes of advertisement are now defined by the FDA (http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.

cfm?CFRPart=202&showFR=1, Retrieved: January 2014) as the following:

Published journals, magazines, other periodicals, and newspapers, and advertisements broadcast through media such as radio, television, and telephone communication systems. Brochures, booklets, mailing pieces, detailing pieces, file cards, bulletins, calendars, price lists, catalogs, house organs, letters, motion

picture films, film strips, lantern slides, sound recordings, exhibits, literature, and reprints and similar pieces of printed, audio, or visual matter descriptive of a drug and references published (FDA, 2011).

Until 1980, pharmaceutical companies advertised drugs only to physicians, thus allowing physicians to be in complete control of the process. From 1981 to 1996, even though pharmaceuticals were still advertising drugs to physicians, consumers were allowed to obtain printed advertisements about the drugs. This led to consumers having some information about the drug, yet the physicians still held the upper hand in the knowledge about these drugs (Conrad & Leiter, 2008). It was only in 1997 that the pharmaceutical industry received permission to advertise drugs directly to the public (Kelly, 2007). In 1997, it was decided by the FDA that pharmaceuticals could market a medication with its name, specific uses, and the symptoms or illnesses it can treat using broadcast media direct to consumers, rather than just print media. This led to a surge in advertising of drugs on television. However, with the advancement of the Internet into American homes in the late 1990s, DTCPA of prescription drugs through the Internet started rising in popularity (Conrad & Leiter, 2008).

In 2003, pharmaceutical companies spent 59 million dollars on Internet DTPCA alone (Choi & Lee, 2007). The main reason for this surge in Internet DTCPA is the popularity of the Internet for many people who are seeking health and pharmaceutical information online. Health information is the third most sought out subject on the Internet (Choi & Lee, 2007). Moreover, among adults aged 18 and above, higher numbers of women used the Internet for obtaining and looking at health information when compared to men (Cohen & Adams, 2011). The Internet now serves as another important and popular platform for DTCPA, along with traditional methods of DTCPA.

Concerns Surrounding DTCPA

From a sociological perspective, numerous concerns surround DTCPA. DTCPA represents a marketing technique that aids companies in selling a serious product, such as medication, under the banner of informing the consumer of serious educational information (Wolfe, 2002). Moreover, there is concern that the information presented during DTCPA can often be confusing to the average person, who might not be fully aware of the scientific and medical terminology used during DTCPA (Kastner, 2005; Wolfe, 2002). In a study that looked at three television direct-to-consumer pharmaceutical advertisements, fifty adults who had a limited understanding of the topic were asked about their understanding of the advertisements. The study showed that risk information was not understood properly by the participants who had watched the three television advertisements (Kaphingst et al., 2004). Furthermore, people's educational levels and ability to retain information are different. Therefore, how an individual retains the information given through DTCPA, along with the message they receive, can be completely varied (Wilkes, Bell & Kravitz, 2000).

Additionally, DTCPA information is often advertised in such a way that often minimizes the risks of the medication (Hollon, 2005; Kritz, 2008). When there are commercials on television promoting a particular drug, less time is given to the discussion of risks when compared to the discussion of the benefits of the drug (Kritz, 2008). In a study of print advertisements that were part of DTCPA, it was found that benefit information was presented more clearly than risk information. The study also found that double the amount of benefit information was made available compared to the amount of risk information that was made available. Moreover, the study found that risk information was presented as harder to read when compared to benefit information (Abel, Neufeld, Sorel & Weeks, 2008).

Another concern about DTCPA is that it also attempts to sell life-styles to individuals, thereby medicalizing conditions that might not be a medical problem to begin with (Deane, 2010; Mintzes , 2002 ; Watkins, 2012). According to Barker (2008),

Direct-to-consumer pharmaceutical advertising specifically instructs patients to ask their doctor about particular drugs to treat many previously normal, banal, or benign "symptoms" (e.g., toenail discoloration, heartburn, diminished sexual drive in men) and to consider them as specific medical conditions or diseases (e.g., dermatophytes, acid reflux disease, erectile dysfunction). (p.22)

DTCPA, in addition, conveys the message that aspects of the person's lifestyle can become managed using a pharmaceutical intervention (Fox & Ward, 2008; Tone & Watkins, 2007). DTCPA imparts the message that medications can become the alternative for healthy lifestyle choices such as a good diet or exercise (Frosch, Krueger, Hornik, Cronholm, & Barg, 2007). Furthermore it drives consumers to seek out certain medications they saw during the DTCPA, believing they might be beneficial to them (Freudenheim, 2007). DTCPA also leads to medications being overused for conditions, which might not be safe for all consumers (Donohue, Cevasco, & Rosenthal, 2007). Women's bodily experiences such as menstruation are often subjected to the notion of being problematic during DTCPA (Deane, 2010; Gunson, 2007; Watkins, 2012). Since women are usually the primary caregivers of their families, DTCPA also specifically targets this aspect of women's lives during the advertising process (Sokol, Wackowski & Lewis ,2010). DTCPA uses societal ideals of female beauty and sexuality to target women more than men, by advertising medications like those that emphasize

anti-aging, thinness, menstrual freedom, and freedom from menopausal symptoms (Ferguson & Parry, 1998; Mintzes, 2002; Moynihan & Cassels, 2005).

Pharmaceuticalization is defined as "the process by which social, behavioral, or bodily conditions are treated, or deemed to be in need of treatment/intervention, with pharmaceuticals by doctors, patients, or both" (Abraham, 2010, p.290). DTCPA is seen as one of the methods through which pharmaceutical companies expand their markets, promote their products and sends messages to the consumer or potential consumer about the relationship between them and the pharmaceutical company. Sociological literature contends that the process of pharmaceuticalization has numerous dimensions. Pharmaceuticalization allows individuals to use medications for non-medical purposes even among healthy people (Bell & Figert, 2012; Dew, Norris, Gabe, Chamberlain & Hodgetts, 2014; Williams, Martin & Gabe, 2011). The main concern with pharmaceuticalization is that the process encourages the development and advertising of medications for conditions that are routine bodily functions, which can lead to drastic consequences. During pharmaceuticalization, pharmaceutical companies are engaging in the process of creating disease by allowing medications to be used more than necessary and treating all human bodily functions as medical problems (Bell & Figert, 2012).

The process of pharmaceuticalization also puts pressure on regulatory agencies to change or speed up the procedures that allow new drugs to be approved quickly (Williams et al, 2011). Internet DTCPA has allowed the process of pharmaceuticalization to enter people's homes today. "The home computer and Internet have provided a window for the pharmaceutical industry into people's domestic spaces, both for information about and purchase of pharmaceuticals via burgeoning online pharmacies" (Fox & Ward, 2008, p.856). Pharmaceutical companies use the process of cultivating fear of diseases among people and pharmaceutical marketing to make people anxious (Dew et al, 2014). According to Fox and Ward (2008), people's daily lives have now become pharmaceuticalized. Pharmaceutical companies are also focused on developing drugs that solve issues which are due to a person's lifestyle, such as obesity drugs, or drugs for addictions. This allows DTCPA to become a tool that furthers the process of pharmaceuticalization.

One of the drivers of pharmaceuticalization is medicalization (Fisher, Cottingham & Kalbaugh, 2014). During medicalization, human bodily functions that are usually benign or routine are seen as medical problems that require medical interventions to manage them (Conrad, 2007). The process of pharmaceuticalization thus uses this process of medicalization to encourage consumers to drive the process of pharmaceuticalization (Elbe, Roemer-Mahler & Long, 2014). Moreover, when there is a patient driven demand for drugs, this leads to consumerism. Consumerism is thought to further drive the process of pharmaceuticalization by creating larger markets for the drugs (Williams, Gabe & Martin, 2012). Williams et al (2011) further asserts that due to the process of pharmaceuticalization, consumers are encouraged to see minor health issues as serious issues, and also classify any risks as diseases, which leads to them seeking treatment.

What Do We Know about the Advertising of OCPs?

From the years when the pill was first discovered and made available to the general public (the 1960s) until 1980, the pill was marketed to women through their

physicians, via medical journals (Watkins, 2012). Initially these advertisements were mostly directed towards married women who were looking into family planning methods. The advertisements were mainly for physicians who reinforced prescribing oral contraception to women who were trying to avoid conception, thus reminding women of the main role of the pill, which was pregnancy prevention at the time (Watkins, 2012).

Even though there was awareness at the time that the pill could be used to regulate irregular periods, it was not the main reason for which the pill was marketed then. Occasionally, unmarried women who wanted to access the pill used irregular menstrual cycles as a reason to convince physicians of a medical reason that was noncontraceptive in nature, to be able to obtain the pill (Goldin & Katz, 2002). However the physician's role remained crucial in promoting the pill mostly for family planning purposes.

When the FDA eased the restrictions of drug advertising in the 1980s, pharmaceutical companies were able to employ enhanced advertising tactics about the benefits of OCPs. When DTCPA became accepted in 1997, the marketing of OCPs took a sharp turn in the 2000s (Watkins, 2012). Upon the entry of extended-cycle OCPs into the market, the main DTCPA strategy was to show that menstruation was unnecessary and menstrual suppression provided the perfect solution to a woman's menstrual problems (Gunson, 2007; Kissling, 2013). Contraceptives such as Seasonale started to become marketed primarily for its properties to manage menstruation (Mamo & Foskett, 2009). The next section on the theory of medicalization looks at the sociological literature on medicalization, which helps to understand how women's bodies are treated by the pharmaceutical and medical communities today.

Medicalization

Sociologists define medicalization in multiple ways. Parens states, "For the last thirty or forty years, sociologists have used the term medicalization to refer to the process by which 'non-medical' (or 'life' or 'human') problems become understood and treated as 'medical' problems" (Parens, 2013, p. 28). According to the work done by sociologists, medicalization has happened to female bodies' more than male bodies (Lorber, 1997; Riska, 2003; Rose, 2007). From a sociological perspective, when conditions become medicalized, it often allows the medical and pharmaceutical industry to produce and market drugs to individuals based on the medicalization of these conditions. Using medications for conditions that are otherwise normal for the human body allows society to redefine the concept of what is healthy and what is not (Conrad, 2007).

There are three steps that contribute to a condition becoming medicalized (Gabe, Bury & Elston, 2004). The first step is to receive support from the medical and pharmaceutical community about the issue including using medical terminology to define the problem (Conrad & Schneider, 1980). The second step is to develop medical intervention such as medications, thus making the problem more manageable. The third step is to determine how physicians and patients regard the problem, which is by now defined medically and has medical treatments to help (Conrad & Schneider, 1980).

In recent years, there has been an increase in medicalizing conditions that are otherwise considered normal functions of the female human body (Conrad & Leiter, 2008). The medicalization of menstruation (Houppert, 1999; Fingerson, 2006), the medicalization of pregnancy and childbirth (Brubaker & Dillaway, 2009; Oakley, 1984;

Riessmann, 1983), and the medicalization of menopause (Dillaway, 2005) are notable examples of women's bodily functions becoming medicalized. Conrad (2007) argues that pharmaceuticals have an increasing role in the process of medicalization today by medicalizing normal processes of the human body .These conditions then become advertised through direct-to-consumer advertising to the public (Conrad, 2007). This strategy helps them to increase their sales of their pharmaceutical products (Conrad & Leiter, 2004; Fox & Ward, 2008). Moreover, this process also makes medications seem like another normal household product and reduces the understanding that medications can have serious consequences to their consumption (Findlay, 2002).

Women's Bodies and Medicalization

In this section, I briefly explore the literature on the medicalization of women's bodies. For this literature review, my focus was primarily to discuss the literature on the medicalization of menstruation. However, I felt that it is important to demonstrate that along with menstruation, other normal female bodily processes are also being medicalized today. Women's bodies experience processes that are unique and exclusive to females, such as child birth, menstruation, and menopause. Numerous female bodily processes are socially constructed to be pathological for the woman's mental and physical well-being during medicalization. Childbirth is now seen as a normal medical event, rather than an event which the woman's body is designed for (Bergeron, 2007). Women are seen as patients instead of expecting mothers. Medical interventions and medical supervision during childbirth have become the norm in today's society (Parry, 2008).

Menopause is another natural process of the female body that has become medicalized (Dillaway, 2005). The female body is seen as suffering from certain deficiencies such as a deficiency of the hormone estrogen during this time (Kaufert & Gilbert, 1986). Thus, the 'hormone deficient' female now has to accept medical help to salvage her body, along with her mental and physical well-being (Kaufert & Gilbert, 1986). Menstruation is another process of the female body which has become so heavily medicalized that it is now 'treated' with hormonal methods such as OCPs, and it will be discussed in detail in the next section.

The Medicalization of Menstruation

Existing medical literature continues to portray menstruation as a disease or problem for women that needs to be fixed using medical intervention such as hormonal methods (Archer, Jensen & Johnson, 2006; Edelman, Lew, Cwiak, Nichols & Jensen, 2007; Ferrero, Abbamonte, Giordano, Alessandri, Anserini, Remorgida, & Ragni, 2006; Sulak, Buckley & Kuehl , 2006). Some of the terms used to describe menstruation range from 'losing blood,' 'feeling unwell' (Golub, 1983), to 'the curse' (Houppert, 1999). The medicalization of menstruation has led to the disparaging of the natural female process of menstruation by also viewing it as a hassle and problem that needs to be suppressed or stopped (Conrad, 2007). This process now has also allowed a stigma to be attached to menstruation, which then promotes doctors to prescribe medications to suppress menstruation as the women continue to perceive that aspect of their life as being flawed rather than natural (Johnston-Robledo & Chrisler, 2013). Due to the construction of menstruation as a problematic condition by the pharmaceutical and medical community, it is first 'treated' with pharmaceutical and medical interventions, using hormonal

methods, such as OCPs. Furthermore, the advertisers of these medical and pharmaceutical 'treatments' also claim that controlling menstruation has health benefits for women (Coutinho & Segal, 1999; Kissling, 2006; Rako, 2003). Some of the substantial health benefits from the medicalization of menstruation that are advocated by the pharmaceutical community include reduction of the number of menstruating days, reduction of anemia, reduction of menstrual cramps, and lack of other problems brought about by menstruation such as mood changes (Coutinho & Segal, 1999; Freeman, 2010; Harel, 2006; Lin & Barnhart, 2007; Panay, 2011; Shulman & Kiley, 2011).

The medicalization of menstruation comes with multiple concerns. One of the major concerns is that menstruation is a normal part of womanhood, and therefore, does not need any form of medical control that is also currently exerted over other processes of the female reproductive system such as childbirth or menopause (Bobel, 2010; Dillaway, 2005; Riessmann, 1983; Stubbs & Mansfield, 2008). Another concern is that the medicalization of menstruation allows for women's bodies to be controlled by medical professionals and pharmaceuticals. When the medical model dictates an issue as problematic or pathological, medical methods are usually developed to help the problem (Fingerson, 2006). Bobel (2010) discards the notion that menstruation is problematic and needs to be controlled, shortened, altered or managed by medications. Eliminating menstruation because it is a mere inconvenience is seen by feminists as being a perspective of the bio-medical model which labels menstruation as a hindrance to the modern day woman's lives rather than as a natural occurring process that women should embrace (Kissling, 2013).

The medicalization of menstruation and its treatment also paves way for larger medical problems for many women. The medicalization of menstruation does not support the assertion that menstruation is a natural occurring phenomenon which is essential and vital to what womanhood entails for every female (Stubbs & Mansfield, 2006). Hormonal treatments such as OCPs are often prescribed for women to manage their periods which should otherwise be reserved for women with severe menstrual disorders such as endometriosis, thus medicalizing the normality of menstruation with menstrual suppression as the treatment (Andrist, Hoyt, Weinstein & McGibbon, 2004). Furthermore, the medicalization of menstruation also labels menstruation as archaic, thus promoting pharmaceutical interventions such as OCPs to suppress menstruation (Rako, 2003). Rako (2003) has also criticized the labeling of menstruation as archaic and has often felt that medical professionals and pharmaceuticals, who are advocating for the medicalizing of menstruation, are causing larger reproductive problems for women by interfering with their natural anatomy. There are concerns that suppressing menstruation among all women might trivialize major menstrual disorders, such as amenorrhea that require medical intervention. When major menstrual disorders are overlooked or left untreated due to the medicalization of natural menstruation, women who require genuine medical treatment could suffer long-term reproductive repercussions (Johnston-Robledo, Barnack & Wares, 2006).

There are also concerns that women might not be as informed about the risks of the medicalization of menstruation as they should be (Society of Menstrual Cycle Research, 2007). Rako (2006) further states that using OCPs for managing menstruation lacks research about long-term risks and, therefore, might lead to larger problems for women in the future due to changes in hormone levels. The usage of hormonal methods for menstrual management might have already put millions of women at risk for various health related issues such as osteoporosis due to the fluctuation of protective hormones such as estrogen (Rako, 2006; Vanderhaeghe, 2011). Therefore, it is imperative for medical professionals and pharmaceuticals to be particularly careful when providing women with choices to control menstruation because it could be leading them into long term health-related issues (Society of Menstrual Cycle Research, 2007).

Sociological Studies on the DTCPA Portrayals of OCPs

Until now, the majority of studies on the usage of the pill have been conducted in the field of medicine. Medical literature has often labeled menstruation as a disease or problem for women that can be managed medically with hormonal methods such as the pill (Archer et al., 2006; Edelman et al., 2007; Ferrero et al., 2006; Sulak et al., 2006). In this section, two major studies, conducted from within a sociological framework until now on the DTCPA of OCPs exclusively, are discussed.

Deane (2010) analyzed television, print, and website advertisements by the pharmaceuticals that manufacture the two OCPs: YAZ and Seasonique. Her study then used 11 focus groups of 56 women who were students at a university in the southern United States to understand how they felt about the DTCPA of YAZ and Seasonique. Deane (2010) found that menstrual management was encouraged by the advertisements. Deane's focus groups revealed that women preferred to draw their own conclusions about menstruation and to make their own decisions about suppressing it, rather than having the medical community and pharmaceuticals promoting suppression

to them routinely. Deane also concluded that when menstruation was constructed through a bio-medical framework, this affected women's feelings and understanding of menstruation in a negative way, since women preferred to make their own decisions about menstruation (Deane, 2010).

A study was conducted by Mamo and Foskett (2009) that analyzed the 2003-2004 website, print and television marketing campaigns for Seasonale, an extendedcycle OCP. One of the main findings of their study was that the definition of menstruation was recreated during the advertising campaigns. With Seasonale's ability to reduce menstruation to four times a year, this reduction of menstruation was marketed as a happier and as an attractive experience for women (Mamo & Foskett, 2009). Due to the promotion of menstrual management during the advertising campaigns, the main function of Seasonale which is pregnancy prevention was overshadowed by the focus on Seasonale's ability to reduce a woman's menstrual cycle to four times a year (Mamo & Foskett, 2009).

Gaps in the Sociological Literature

Even though the sociological literature has the two studies mentioned above as having conducted research exclusively on the DTCPA of OCPs, there are some unanswered questions and gaps in the sociological literature about the topic of Internet DTCPA of traditional of OCPs. The sociological studies done by Deane (2010) and Mamo and Foskett (2009) show that OCPs facilitate menstrual management, thus, medicalizing menstruation. Deane had included one traditional OCP (YAZ) in her study and one extended-cycle OCP (Seasonique). Mamo and Foskett's study was conducted only on one extended-cycle OCP, Seasonale. Both their studies also looked at websites of the OCPs. However, only one traditional OCP formed a part of both studies, and two extended-cycle OCPs were included in the studies.

The literature search has demonstrated to us that numerous traditional OCPs such as Loestrin 24Fe, YAZ and ORTHO TRI-CYCLEN LO have been on the list of the top 200 selling drugs in the United States in recent years (Bartholow, 2011; Bartholow, 2012). This shows that traditional OCPs form an integral part of women's health care choices in the United States. Moreover, traditional OCPs work in a different manner on the female body than extended-cycle OCPs. Furthermore, with the increase in Internet DTCPA, it is beneficial to have a sociological study that looked only at pharmaceutical websites of traditional OCPs in an in-depth manner. While we can draw on some of the results from the studies conducted on extended-cycle OCPs, it was crucial to study traditional OCPs exclusively in order to further our own sociological understanding on how these traditional OCPs are represented on their own websites.

Additionally, it was also important to see how the medicalization of women's bodies exists through the DTCPA portrayal of traditional OCPs. We are aware that extended-cycle OCPs like Seasonale and Seasonique are designed to reduce the number of menstrual cycles to four times a year, and this is promoted during the DTCPA of these contraceptives. However, we have limited sociological knowledge on if traditional OCP websites are also promoting their products for menstrual management and what encompasses their views on the process of menstruation. Furthermore, we have limited understanding on how their views on the process of menstruation are imparted through their websites, which is an influential platform for many pharmaceutical companies today to reach out to the consumer population.

Chapter Summary

In conclusion, we are aware from the literature review that Internet DTCPA is becoming an important part of DTCPA and is on the rise (Charbonneau, 2010; Choi & Lee, 2007). We are also informed that during this time that very few studies have been conducted in the discipline of Sociology exclusively on traditional OCPs and their Internet DTCPA. The few studies conducted in the discipline of Sociology have focused on Seasonale and Seasonique, which are extended-cycle OCPs (Mamo & Foskett, 2009; Gunson, 2007). Deane's study involved one traditional OCP, which was YAZ (Deane, 2010). There is also knowledge from the literature review that women's bodily processes such as menstruation are often medicalized, and this can lead to the use of OCPs to manage menstruation (Kissling, 2013; Watkins, 2012). Therefore, a study such as this, which investigates the portrayal of traditional OCPs via Internet DTCPA, is an asset to the existing sociological literature in several areas - specifically, Internet DTCPA, medicalization, and women's reproductive health. The next chapter reviews the methodology that was used to conduct the study. It also discusses the sampling, data collection and data analysis procedures in detail

CHAPTER 3- METHODOLOGY

The primary aims of this study were to (1) evaluate the ways traditional OCPs are portrayed through Internet DTCPA and (2) to examine the medicalization present on the websites of OCPs. The data for this study came from the eight OCP websites that were available. I used qualitative content analysis procedures to conduct this study. Content analysis is defined as "an approach that examines written, visual, or spoken text" (Strand & Weiss, 2005, p.161). The goal of a content analysis is for the researcher to thoroughly examine data that is a form of communication (Flick, Kardoff & Steinke, 2004). The data can be in the form of books, websites, poetry, newspapers, letters, Internet blogs, and any other form of document (Babbie, 2005). Photographs, pictures, diagrams, and artistic representations can also be thoroughly examined via a content analysis (Babbie, 2005).

While I believed that the quantitative aspect of the data is important, I was further intrigued by being able to look at the data from a qualitative angle. In Sociology, the researcher makes sense of situations and words by giving them meanings (Ruiz, 2009). MacLure (2003) states that the analysis of texts involves paying close to attention to more than just the language. Furthermore, Ruiz (2009) also states that from a sociological perspective, data must be analyzed at the textual level and the contextual level. This study involved a thorough examination of not just the text and its surrounding context on the websites but also the images, videos and consumer incentives on the websites.

A qualitative content analysis also helps the researcher look at both the manifest and latent content of the data (Mayring, 2000). The manifest content refers to the data that is collected on a surface level. The latent content refers to the data has underlying meanings that might not be easily observable to the researcher (Babbie, 2005). Babbie (2005) states that when the text is analyzed during a content analysis, the researcher has to also look at the reasons why the message is being communicated by text along with what effect the textual messages are bringing to the reader. While providing statistical accounts of the data was important and allowed me to draw certain conclusions about the data, a qualitative content analysis allowed me to call attention to the messages conveyed through the different categories that were examined. Looking at the manifest and the latent content of the data also helped to make this study more qualitative in nature.

A qualitative content analysis also assists the researcher to identify numerous patterns and themes in the data, which then helps to obtain in-depth results from the data (Hsieh & Shannon, 2005). Since this study looked at eight OCP websites in detail, the qualitative content analysis helped to identify trends, differences, and patterns between the websites. As a researcher, I additionally looked for those trends and patterns to formulate themes that were beneficial in answering my research questions.

Sample

Even though there are numerous traditional OCPs on the market today, many of them do not have their own websites. Therefore, to conduct this study, it was important that the OCP had its own website that was set up by the pharmaceutical company and was available for analysis. I obtained the list of all the OCPs in the United States that have been approved by the FDA. Using the list, I was able to determine that eight of the

OCPs listed had their own websites. The table below shows the websites that were chosen for this study:

Name of the pill	Website address	Date accessed	Pharmaceutical company
Beyaz	www.beyaz.com	November 4, 2014	Bayer
Generess Fe	www.generess.com	November 4, 2014	Allergan
Lo Loestrin Fe	www.loloestrin.com	November 4, 2014	Allergan
Minastrin 24 Fe	www.minastrin24.com	November 4, 2014	Allergan
Natazia	www.natazia.com	November 4, 2014	Bayer
ORTHO TRI- CYCLEN LO	www.thepill.com	November 4, 2014	Janssen
SAFYRAL	www.safyral.com	November 4, 2014	Bayer
YAZ	www.yaz-us.com	November 4, 2014	Bayer

Table 1: Websites Chosen for The Study

Traditionally, oral contraceptives are packaged with 21 hormone-containing pills, and 7 days' of non-hormonal pills. A menstrual cycle happens for women during the course of her taking the 7-day pills (Association of Reproductive Health Professionals, 2008). Currently traditional OCPs are also available in 24 days of hormone-containing pills, and 4-day non-hormonal pills (Bachmann & Kopacz, 2009). An exemption status was received from the Wayne State University IRB to conduct this study on November 4th 2014. The websites of the eight OCPs were saved in their entirety on November 4th 2014, although some information was downloaded in September 2014 as well. All website text was also printed out to ease the ability to access, preserve, and analyze information. I began my analysis on the landing (home) page of the website and then systematically printed out the pages that were a part of every tab. I returned later to the website of Natazia to use and analyze the symptom checker tool again during March 2015. There was no change in the symptom checker tool from when it was first accessed in November 2014.

Analysis Procedures and Coding Steps

I began coding of the data with the process of open coding where I started looking for general dimensions in the data. The next step of coding was axial coding. Axial coding is defined as the step that helps to refine the already available concepts from open coding (Flick et al., 2004). However, during axial coding, I also looked for latent and manifest themes in the concepts/dimensions that become evident during open coding. The last coding step was selective coding. Selective coding is the coding process that helps to analyze the core categories of the study, after axial coding is done (Flick et al., 2004). The code sheet for the study is included in the Appendix.

Data was collected and analyzed in the following categories of information on the websites: Colors, Tabs for consumers and healthcare professionals, Slogans, Visual imagery, Videos, Frequently asked questions, Consumer incentives, Benefits and Risks. The presence of the medicalization of menstruation (and along with that, the simple portrayal of menstruation) was the last feature that was studied. Coding for each of these categories contributed fundamentally to answering my research questions. Color

is used by pharmaceutical companies to promote their products, and other researchers have documented that color may represent one of the most prominent marketing tools during DTCPA (Kenagy & Stein, 2001). For this study, I reviewed the colors of the text and the colors present on the background of the websites to obtain a thorough understanding of how color was used on the websites. The tabs for healthcare providers and consumers were also examined in detail. The most common types of tabs were outlined and analyzed.

Next, I examined slogans present on the websites. Slogans are a vital part of branding when it comes to pharmaceuticals (Ladha, 2007). According to Fransen, Fennis and Pruyn (2007), slogans of products are very important as they try to appeal to consumer on a personal level. They can often speak to the promotion of the person's wishes and desires by offering them a certain life-style or freedom, through the use of the product advertised. Slogans also function as a source of information about the product such as what the product can 'cure' or its 'primary function' (Ladha, 2007). Keeping this in mind, I also looked to see if there was a cure or primary function of the OCP promoted by slogans on the websites, and/or an offer of a certain life-style or freedom that could come from using the OCP.

According to Kaufert and Lock (1997), pictures of women who were healthy and beautiful were an integral part of pharmaceutical print advertising. In the past contraceptive websites have shown independent women who are young and have successful lives (Medley-Rath & Simonds, 2010). This led me to review all visual images present on the websites. When images of women were present, I examined the actions these individuals were engaging in. This was done in conjunction with observing whether the text surrounding the pictures correlated with sending a message about the contraceptive being advertised. I also analyzed product imagery on the websites. Furthermore, there was a video present on the website of Generess Fe. I assessed the images and the language present in the video to see how this particular OCP was portrayed in the video.

Analyzing the 'Frequently Asked Questions' section (when present) also provided evidence about how the pharmaceutical company depicts the OCP on their website. I looked to see if pharmaceutical companies used this section to repeat and reinforce some of their main objectives from their other sections. I also investigated the portrayal of consumer incentives (i.e., frequent buyer cards, coupons, etc.). According to Bhutada, Cook and Perri (2009), when consumers are exposed to coupons during DTCPA, they tend to develop favorable attitudes towards the particular drug that is providing them with the coupon. I wanted to see what incentives were advertised to the consumers and healthcare providers. Therefore, I analyzed the types of incentives and the language surrounding the incentives for each OCP.

To gain a deeper understanding on how traditional OCPS were portrayed during Internet DTCPA, I then examined the representation of benefits and risks on the website. The literature defines benefits as follows:

Benefits include the drug indications (what the drug treats) and level of effectiveness, advantages over similar medications or other positive medical claims about the advertised drug, and statements that link the drug with relief from various symptoms including 1) testimony from an actor or other spokesperson that his/her health care provider prescribed the drug to treat various symptoms and 2) a suggestion to ask one's health care provider about the drug if suffering from these symptoms (Baird-Harris, 2009, p.7).

Baird-Harris (2009) defines risks as, "the negative effects associated with use of the drug, including warnings, precautions, contraindications (when to not use the drug), adverse reactions, drug interactions, and references to situations in which one should seek medical attention while using the drug" (p.8). Keeping these definitions of benefits and risks in mind, I reviewed the types of benefits and risks presented on the websites. Previous research has also shown that during DTCPA, risks are often conveyed differently from benefits (Kaphingst et al., 2004). Ventola (2011) also states "most DTC ads emphasize drug benefits over risks" (p.674). Huh and Cude's (2004) states that on DTCPA websites home pages, benefit information was always at the top and center of the page, when compared to risk information that was most often placed at the bottom of the page. Based on this literature, I also examined the location of benefits and risks.

To answer my second research question on how medicalization is present on the websites, I began by studying each website for the presence of medicalization of menstruation. The literature review has shown that menstruation is pathologized into a condition that requires medical treatment and intervention (Coutinho & Segal, 1999: Lin & Barnhart, 2007; Harel, 2006; Panay, 2011; Freeman, 2010; Shulman & Kiley, 2011). From my standpoint, menstruation was viewed as a normal process of the female body. Therefore, any medical language showing deviance from the normal process was seen as an example of medicalization in this study. To achieve this, I formed two main categories that I analyzed further in detail: (1) Naming the problem; where I looked for the evidence of the menstruation being defined as an issue, problem, symptom etc. (2) Treating the problem; where I looked for evidence of medical treatments, particularly

OCPs as being the answer for menstrual problems and evidence of women needing medicine to help them with their menstrual problems. Furthermore, I examined the role of healthcare providers on the websites and whether women were encouraged to seek help from their healthcare providers for menstrual problems.

In order to see if menstruation was labeled as a condition that required medical treatment/intervention, I searched for words such as "heavy", "long", "lasts for", "pain", "cramps", "bleeding", "interfere", "normal", "loss", "discharge", "expulsion", "problem", "symptoms", "unpredictable", and "unregulated" on the websites. I also explored the context in which these words or terms were presented. The presence of the symptom checker tool on the website of Natazia was also examined. According to Ebeling (2011), symptom-checker tools promote and market consumers to "diagnose" themselves with illnesses. Therefore, it was crucial for me to analyze the symptom checker tool to see how menstruation was portrayed under the tool.

The literature review has shown that OCPs are usually given to manage menstruation, thus medicalizing menstruation (Deane, 2010; Gunson, 2007; Mamo & Foskett, 2009). To see if OCPs were recommended as a form of treatment, some of the words I looked for in the data were "treat", "help", "relief", "clinically proven", "manage", "reduce", "shorter", "lighter", "regulate" and "control". The existence of these terms suggests controlling and managing of menstruation thus giving me a clear indication of how menstruation is medicalized on the websites. To deepen our understanding on the process of medicalization on the websites, I examined the role of healthcare providers and their ability to treat menstrual difficulties. To see the role of doctors in the process of medicalization, I looked for terms such as "prescribe", provide", and "treat". To see if

consumers were encouraged to seek treatment with OCPs for menstrual relief, I looked for words such as "ask", "encourage", "help" and "request". The context in which these words or terms were presented was also explored during the analysis procedure.

Chapter Summary

This chapter outlines how websites were selected for this study, along with how the data was analyzed. Furthermore, I argue in support of using a qualitative content analysis as the methodology to conduct this study. The next three chapters showcase the results obtained from this study. Chapter Four presents the descriptive profiles of the websites. Chapter Five highlights the benefits and risks presented on the OCP websites. Chapter Six examines portrayals of menstruation and the medicalization present on the websites.

CHAPTER 4- DESCRIPTIVE PROFILES OF THE WEBSITES

In this chapter, I provide descriptive profiles of the websites I analyzed. The websites of the following traditional oral contraceptive pills were analyzed in detail: Beyaz, Generess Fe, Lo Loestrin Fe, Minastrin 24 Fe, Natazia, ORTHO TRI-CYCLEN LO, SAFYRAL and YAZ. A qualitative content analysis of the following features on the websites was conducted: Colors, Tabs for Consumers and Healthcare Professionals, Slogans, Visual Imagery, Videos, Frequently Asked Questions and Consumer Incentives.

Colors

Purple and white were the most commonly-used color schemes throughout the websites' layouts; specifically, four websites had a white layout and four websites had a purple layout. Beyaz, Generess Fe, Lo Loestrin Fe and YAZ had purple layouts, while Minastrin 24 Fe, Natazia, ORTHO TRI-CYCLEN LO and SAFYRAL were the four websites with white layouts. Purple, white and pink were the most commonly-used color schemes for texts across the websites. Three websites (i.e., Beyaz, Lo Loestrin Fe, YAZ) used the purple and white color scheme for text. A purple, white and pink color scheme for text was visible on two websites (ie, Generess Fe, ORTHO TRI-CYCLEN LO). The table below outlines the most significant colors on each of the websites.

Table 2	2: Co	lors
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Name of the pill	Background colors	Text colors
Beyaz	-Dark purple layout	-White -Purple
Generess Fe	-Dark purple layout -White layout	-Purple -White -Pink

Lo Loestrin Fe	-Light purple layout	-Black -Purple -White
Minastrin 24 Fe	-White layout	-Blue -Black -White
Natazia	-White layout	-Blue -Brown -Black
ORTHO TRI-CYCLEN LO	-White layout	-Pink -Black -Purple -White
SAFYRAL	-White layout	-Green -Grey -White
YAZ	-The entire layout starts with very light purple at the top, and fades to the bottom	-Purple -White

In order to calculate how often colors were present on the website, I utilized an online tool called "Colorfy It" (www.colorfyit.com, Retrieved: December 2015). "Colorfy It" is a free application that allows users to enter a website address and get the color breakdown of the website in return. The main strength of this tool is that it provides the number of times a certain color was found on the website. According to this tool, the most common colors on the eight websites were (with the number of occurrences in parentheses): white (present 319 times), purple (205 times), pink (49), blue (31), brown (16) and green (12). The individual breakdowns of website colors are as follows:

-Beyaz's most common colors were purple (found 18 times) and white (found 15 times).

-On the website of Generess Fe, purple was found 68 times, white was found 42 times and pink was found 23 times.

-Lo Loestrin Fe's website had the color purple 46 times and white 115 times.

-Minastrin24 Fe's website had the color white present 75 times and the color blue present 31 times.

-Natazia's website had the color white 8 times, the color blue 13 times and the color brown 16 times.

-The colors white was found 30 times, purple 70 times and pink 26 times on the website of ORTHO TRI-CYCLEN LO.

-YAZ's website was shown to have the color purple 3 times and the color white 20 times.

-SAFYRAL's website showed the color white 14 times and the color green 12 times.

Previous research has shown that white and purple are popular colors on pharmaceutical websites during DTCPA, thus allowing female users to connect the product with positive associations (Charbonneau, 2010). Greenslit (2002) states that the colors pink and purple hold such high appeal that, in the past, pharmaceutical companies have also packaged drugs in pink and purple to appeal to female consumers. I also noticed that important sections of many websites usually contained the colors white, purple and pink. The websites of Generess Fe, ORTHO TRI-CYCLEN LO and Lo Loestrin Fe have the name of their OCPs written in purple. For slogans, a total of five slogans were written in purple or pink out of the total seven slogans. Generess Fe's website and Lo Loestrin Fe's website had one slogan each in purple. ORTHO TRI-CYCLEN LO's website had both their slogans in pink while Generess Fe's website had their second slogan in pink. Two websites had their entire text in purple.

These were the websites of YAZ and Beyaz. The most frequent color used for tabs were white, purple and pink. Four websites adopted this color scheme for their tabs. Lo Loestrin Fe and ORTHO TRI-CYCLEN LO's tabs were in the colors white and purple, Generess Fe's tabs were in the colors white and pink and Beyaz's tabs were entirely in purple. We can infer, then, that the use of white, purple and pink on these websites is purposeful in order to appeal to the female consumer.

There were two websites where none of the common colors were used. Natazia's website used the colors brown and blue as its main color scheme rather than white. purple or pink. Even though the background layout was white, the tabs were written in blue. The only slogan was written in brown. The name of the OCP and the hormonal dosages were also written in brown. SAFYRAL's website consisted of the colors green and white predominantly. Even though the background layout was white, the name of the OCP and the only slogan was written in green. Tabs were written in white against a green background. I observed that a photograph of the box SAFYRAL is contained in on the website. The box was white in color and the word SAFYRAL was written in green. The edges of the box were colored green as well. Similarly I observed the same about Natazia's boxed package. The name of the OCP was written in brown and the box was predominantly colored blue. Therefore, I could see that the colors of both these websites were the colors of the package the OCPs came in. As evident, there is strategic and very purposeful usage of color on the eight DTCPA websites analyzed. This is in agreement with Kenagy and Stein (2001) who state that color is one of the most important marketing tools for pharmaceutical companies.

Tabs for Consumers and Healthcare Providers

Website tabs were available for both potential consumers and healthcare providers. The number of tabs available for consumers was significantly higher than the number of tabs for healthcare providers. There were a total of 53 tabs that included information for consumers and only 15 tabs that included information for healthcare providers. The most number of tabs for consumers was present on the website of Lo Loestrin Fe which consisted of a total of 21 tabs. The most number of tabs for healthcare providers was on the website of Generess Fe which consisted of a total of three tabs. ORTHO TRI-CYCLEN LO's website had the second highest number of tabs for consumers which was a total 10 tabs but had only one tab available for healthcare providers.

The website of Beyaz had five tabs for consumers and two tabs for healthcare providers, Lo Loestrin Fe's website had two tabs for healthcare providers and Minastrin 24 Fe's website had only one tab for consumers but two tabs for healthcare providers. Natazia's website had five tabs for consumers along with one tab for healthcare providers. SAFYRAL AND YAZ's websites had two tabs for consumers and two tabs for healthcare providers per website. Below is a table listing the tabs available for both groups.

Name of the pill	Name of tabs that include information for consumers	Name of tabs that include information for healthcare providers
Beyaz	-Home -Important Safety Information -Sign Up	-Prescribing Information -Message to Healthcare Professionals
	-Information You Need to	

Table 3: Tabs for Consumers and Healthcare Providers (Tab Titles)

	Know	
	-FDA Safety Communication	
Generess Fe	-I am Generess	-Healthcare Professionals
	-About Generess Fe	-Patient Information
	-Changing to Generess Fe	-Prescribing Information
	-Generess Insider	
	-I am Generess Program	
	-Understanding Birth Control	
	-FAQs	
Lo Loestrin Fe	-Important Risk Information	-Patient Information
	-About Lo Loestrin Fe -About Lo Loestrin Fe -Taking Lo Loestrin Fe -Bleeding and Spotting	-Prescribing Information
	-What will my periods be like?	
	-Making the switch to Lo Loestrin Fe?	
	-Understanding birth control -Understanding Birth Control - <i>Contraceptive</i> <i>Options</i> -Tools & Resources -Tools & Resources -Savings card	
	-Mobile App -Lo Loestrin Fe education kit -Reminders -Body tracker tool -Chatting with your healthcare provider	

	-Lo Loestrin Fe brochure	
	-Request Lo Loestrin Fe	
	-FAQs	
Minastrin 24 Fe	-Important Safety Information	-Healthcare Professionals
		-Prescribing Information
Natazia	-Natazia Can Help With Heavy Periods	-For Healthcare Providers
	-Talk To Your Doctor About Heavy Periods	
	-Missed Your Pill?	
	-Heavy Periods? Take the Quiz	
	-Safety Information	
ORTHO TRI-CYCLEN LO	-About Ortho-Tricyclen Lo -Get to know ORTHO TRI-CYCLEN LO -How does ORTHO TRI- CYCLEN LO work -Getting Started -What to Expect -What if you Miss a Pill? -Talking to Your OB/GYN	-Healthcare Professionals
	-Important Safety Information	
	-FAQs	
	-Full Product Information	
SAFYRAL	-Information You Need To Know	-Message to Healthcare Professionals
	-FDA Safety Communication	-Healthcare Providers
YAZ	-Information You Need To Know	-Message to Healthcare Professional
	-FDA Safety Communication	-Full Prescribing Information

The consumer tabs can be grouped into a few main categories. The majority of the tabs were help-providing tabs because they provided material that further informed consumers in some way about the product under the guise of helping them. Information present under these tabs appears to be constructed in a purposeful manner to impart the benefits of the product to the consumers repeatedly (benefits and risks are discussed further in the next chapter). Another category of consumer tabs were product encouragement tabs. These tabs not only encouraged the product but also encouraged consumers to seek medical advice when they were accessed.

Through numerous tabs, the help-providing tabs informed consumers of the hormones in the OCPs. For example: websites of YAZ, SAFYRAL, and Beyaz had a tab that was "Information You Need To Know". When this tab was accessed, it brought the consumer to "Important Facts about Bayer's Drospirenone-containing Birth Control Pills" which provided a summary of basic facts about the hormones used in the OCPs along with the benefits and drawbacks of the three OCPs. The websites of Generess Fe, Lo Loestrin Fe and ORTHO TRI-CYCLEN LO had tabs that were specific to the product titled "About Generess Fe", "About Lo Loestrin Fe" and "About ORTHO TRI-CYCLEN LO". When these tabs were accessed, consumers were informed about the hormones in the OCPs as well as the OCPs functions. The "About Lo Loestrin Fe" tab when accessed provides the information "Lo Loestrin® Fe is a highly effective birth control pill with JUST 10 MICROGRAMS of daily estrogen. You get reliable contraception and some women may experience short, lighter periods" (www.loloestrin.com). "About Generess Fe" tab when accessed informs women "Generess Fe is a low-dose birth control pill that gives women short, lighter, predictable periods. And, it's highly effective

at preventing pregnancy" (www.generess.com). This section further expands that there "The 24 active pills contain 2 female hormones that your doctor knows and trusts: an called norethindrone" estrogen called ethinyl estradiol and а progestin (www.generess.com). When the "About ORTHO TRI-CYCLEN LO" tab was accessed, the consumer was asked to "Get to know ORTHO TRI-CYCLEN LO". Here, women are informed, "ORTHO TRI-CYCLEN® LO contains 25 mcg of estrogen. It contains two female hormones, an estrogen called ethinyl estradiol and a progestin called norgestimate" (www.thepill.com).

Another type of help-providing tabs consisted of one's providing general helpful information about birth control. Examples of such tabs were "Understanding Birth Control" (on the websites of Lo Loestrin Fe and Generess Fe) and "What if you Miss a Pill?" (on the website of ORTHO TRI-CYCLEN LO and Natazia). A third category of help-providing tabs specifically conveyed information about the menstrual benefits of the pill. Some of these tabs can also be classified as product encouragement tabs. There were four of these tabs present. These tabs were "Natazia Can Help With Heavy" Periods", "Talk To Your Doctor About Heavy Periods", "Heavy Periods? Take the Quiz" (on the website of Natazia) and "What will my periods be like?" (on the website of Lo Loestrin Fe). When the tab "Natazia Can Help With Heavy Periods" was accessed, women were informed about how Natazia helps to treat heavy periods. A symptomchecker quiz to see if women experienced heavy periods was available for consumers to take when the "Heavy Periods? Take the Quiz" tab was accessed. When "What will my periods be like?" tab was accessed, women were given details such as "Lo Loestrin Fe is an ultra-low-dose birth control pill that may give you the short, lighter periods that

you might be looking for when taking an oral contraceptive" (www.loloestrin.com). The fact that two websites included tabs to address menstrual management highlights pharmaceutical companies' efforts to advocate menstrual management benefits of the pill. The websites of ORTHO TRI-CYCLEN LO, Lo Loestrin Fe and Generess Fe had tabs titled "FAQs" where these sections were used to highlight all the benefits of the pill once again to consumers.

Other product encouragement tabs seem to have been constructed by the pharmaceutical companies for the purpose of encouraging women to seek medical advice. A total of three tabs were present in this category. With tabs titled, "Talking to Your OB/GYN" on the website of ORTHO TRI-CYCLEN LO, "Talk To Your Doctor about Heavy Periods" on the website of Natazia, and "Chatting with your healthcare provider" on the website of Lo Loestrin Fe, consumers are guided by pharmaceutical companies on how to talk to their physicians about their menstrual cycle and birth control needs. Two tabs also present the consumer with information about changing or switching to their product. For example, tabs titled, "Changing to Generess Fe" and "Making the switch to Lo Loestrin Fe?" are designed by marketers to gather new customer bases by convincing women to switch products. ORTHO TRI-CYCLEN LO's website also includes a tab called "Getting Started" that provides informational support for new users. Similarly, tabs such as, "Get to know ORTHO TRI-CYCLEN LO", "How ORTHO TRI-CYCLEN LO works?", "Taking Lo Loestrin Fe", and "Lo Loestrin Fe brochure" provided informational support directly to the potential consumer.

Pharmaceutical companies ensured that healthcare providers had their own tabs on all eight websites, so they don't need to look through the information intended for consumers. The tabs for health care providers appeared to have been set up in such a way as to make it efficient and easy for the health care provider to obtain technical information about the product. Under these tabs, healthcare providers are also offered samples and educational materials. Two types of tabs were commonly present for healthcare providers – tabs for prescribing information and tabs for patient information. While consumer tabs were accessible to anyone visiting the websites, two healthcare provider tabs had filters to ensure that access was only gained by healthcare providers. For Minastrin 24 Fe and Lo Loestrin Fe, the tab titled "Healthcare Professionals" provided me with a choice of stating if I was a U.S. Healthcare professional or not. The choice to go further was provided only for U.S. Healthcare Professionals. Therefore, I was unable to access the healthcare provider tabs for these two websites.

Five of the websites (i.e., Beyaz, Generess Fe, Lo Loestrin Fe, YAZ, Minastrin 24 Fe) had tabs that specifically led the healthcare provider to prescribing information as well. When these tabs were accessed, it led me to the full prescribing information. The material in the prescribing information consisted of indications, dosages, administration of the drug and adverse drug interactions. The material was clearly intended for healthcare providers due to the use of clinical and medical language. "Patient Information" was also a popular tab and was present on the websites of Generess Fe and Lo Loestrin Fe. When I accessed this tab on the website of Lo Loestrin Fe, I was once again led to the prescribing information that consisted of indications, dosages, administration of the drug and adverse drug interactions. For Generess Fe, this tab led me to the "Highlights of prescribing information" which summarized the key points on

indications, dosages, administration of the drug and adverse drug interactions for healthcare providers.

One of the most interesting features for healthcare providers was the presence of a tab that allowed the healthcare provider to access information about three OCPs under one link. This was present on the website of SAFYRAL through a tab titled "Healthcare Providers". When this tab is accessed, a visitor to the website views another table for "Women's Healthcare Resource", which provides access to samples and other resources for health providers. Healthcare providers had to register (with a login and password) in order to access this section in full. Information about three OCPs (i.e., Beyaz, SAFYRAL, and Natazia) was provided under this one link. Physicians were also given the option to request product samples here for all three products.

ORTHO TRI-CYCLEN LO's website tab for "Healthcare Professionals" had a similar structure, with sub-menus for providers underneath: "About Contraception", "About ORTHO TRI-CYCLEN LO", "Counseling Materials", "Important Safety Information", "Full Prescribing Information", and "Medical Information". All materials needed for the healthcare providers are provided on this webpage through these six sub-menus, which made it easier for providers to learn about and begin prescribing ORTHO TRI-CYCLEN LO after a few short clicks.

One of the main features of the tabs for healthcare providers that were observed is healthcare providers were directed to provide certain amount of information to consumers. The "Women's Healthcare Resource" section that provided information for Beyaz, SAFYRAL and Natazia also tells healthcare providers "Bayer Savings Cards are available to your patients. Please see www.BayerSavingsCard.com for full program details and restrictions" (https://www.womenshealthcareresource.com/index.php, Retrieved: January 2016). On the website of ORTHO TRI-CYCLEN LO, under the section "Counseling Materials", healthcare providers were informed to

Direct your patients to this site created just for them—an easy way to get information about a range of related topics, from how oral contraceptives work to prevent pregnancy to everything you want to know about ORTHO TRI-CYCLEN® LO. A click gets your patient to important information about how to take the Pill, what to do if she misses a Pill, and more (www.thepill.com)

The pharmaceutical company was encouraging healthcare providers to "direct your patients" to look at the website that has been created exclusively for consumers.

In conclusion, even though there were more tabs for consumers than for healthcare providers, consumer tabs functioned more to market the product (for its benefits) than inform consumers of technical information about the product. Healthcare provider tabs were set up to be sources of quick information about the products and was set up exclusively for the audience that understood the language of medicine. However, healthcare provider tabs did provide certain suggestions to the providers on how to provide patients with a certain resource such as the OCP's website or savings information.

Slogans

Three of the websites in this study did not contain slogans (i.e., Beyaz, Minastrin 24 Fe and YAZ). I analyzed a total of seven slogans that were present on the remaining five websites. In each case, it was clear that the slogans were for women (customers) visiting the site; there were no slogans specifically for health care providers (in provider-dedicated parts of the websites). Below is the table of slogans present on the websites.

Table 4: Slogans

Name of the pill	Slogans
Beyaz	-No slogans
Generess Fe	-Little pill. Big difference
	-Generess Fe is birth control with benefits
Lo Loestrin Fe	-Go Low with Lo Loestrin Fe
Minastrin 24 Fe	-No slogans
Natazia	-Natazia®, the First and Only Birth Control Pill Clinically Proven to Help Heavy Monthly Periods
ORTHO TRI-CYCLEN LO	-Reliable Birth Control.
	-Daily Assurance.
SAFYRAL	-Brought to you by Bayer, the same company that brought you YASMIN® (drospirenone 3 mg /ethinyl estradiol 0.03 mg)
YAZ	-No slogans

The slogans held prominent positions on the websites that allowed for consumers to view them immediately upon entering the websites. The top left corner of the websites was where five of the slogans were placed. They were the slogans of SAFYRAL which was "Brought to you by Bayer, the same company that brought you YASMIN® (drospirenone 3 mg /ethinyl estradiol 0.03 mg)" (www.safyral.com), Lo Loestrin Fe's slogan which was "Go Low with Lo Loestrin Fe" (www.loloestrin.com), one of the slogans of Generess Fe which was "Little pill. Big difference" (www.generess.com) and the two slogans of ORTHO TRI-CYCLEN LO which were "Reliable Birth Control" and "Daily Assurance" (www.thepill.com). Only two slogans were in the middle of the page: Natazia's slogan ("Natazia®, the First and Only Birth

Control Pill Clinically Proven to Help Heavy Monthly Periods") and Generess Fe's slogan ("Generess Fe is birth control with benefits").

All the slogans included how the pill can help potential consumers. This finding aligns with Ladha (2007)'s research that suggests that slogans work by giving out the main information about the product, such as what the product can cure or its primary function. Furthermore, the slogans emphasized functions of the pill, such as ability to manage menstruation and ability to prevent pregnancy. Three websites had slogans that referred directly to the pill's birth control benefits: Generess Fe, ORTHO TRI-CYCLEN LO and Natazia, Generess Fe used the slogan "Generess Fe is birth control with benefits" (www.generess.com) while ORTHO TRI-CYCLEN LO used the slogan "Reliable Birth Control" (www.thepill.com). Natazia also stated in their slogan that their product was the "First and Only Birth Control Pill Clinically Proven to Help Heavy Monthly Periods". Natazia's slogan is immediately followed by a question at the bottom that asks, "Do you experience heavy monthly periods?" (www.natazia.com). Natazia's slogan suggests that, while Natazia is a birth control, it can also be prescribed for women to manage their heavy menstrual cycles and that this secondary benefit might be as important as its birth control benefit. The verb "help" also implies that the pill provides women with assistance, aid, and relief from a situation. Thus, Natazia's slogan suggests that heavy monthly periods are a medical problem that requires treatment using a medicine. I discuss this idea further in a later chapter on medicalization.

Generess Fe's slogan is "Generess Fe is birth control with benefits," also highlighting for women that Generess Fe has more usages than just being an oral contraceptive pill (www.generess.com). These "benefits" are discussed in the text immediately under the slogan, "Generess Fe is the low-dose birth control pill that prevents pregnancy...while helping women in need." Specifically, it is stated that [a] 24/4 chewable, low-dose oral contraceptive, Generess Fe gives women short, lighter, predictable periods. And. highly effective at preventing pregnancy" iť s (www.generess.com). As with Natazia, Generess Fe's suggestions that a "short, lighter and predictable period" is "better" suggests that the pill can alleviate, relieve or fix menstruation. "Low dose" benefits were advertised on several websites, including Generess Fe and Lo Loestrin Fe. Low dosage was conveyed directly through the slogan, "Go Low with Lo Loestrin Fe," and this slogan was followed by the suggestion that Lo Leostrin Fe is "the only birth control pill with just 10 micrograms of daily estrogen" (www.loloestrin.com).

Overall, slogans contained direct references to birth control pills' positive qualities, and simultaneously used words and phrases that signified praise for the pill. Fransen, Fennis and Pruyn (2007) state that product slogans are very important as they are meant to appeal to individuals on a personal level. In my analysis, I observed that advertisers may attempt to create a personal and positive connection with potential customers through the use of slogan adjectives, for instance. In the slogan, "Little pill. Big difference", adjectives such as "little" to describe the pill but "big" to describe the difference suggest the large amount of positive change women can expect in their quality of life if they begin taking the pill (www.generess.com). The use of "reliable" in ORTHO TRI-CYCLEN LO's slogan, "Reliable Birth Control", exhibits the protective and fail-safe nature of the pill, perhaps allowing women to feel less vulnerable (www.thepill.com). The slogan "Daily Assurance" (ORTHO TRI-CYCLEN LO) shows

that the pill provides a woman with a consistent and regular guarantee about the product (www.thepill.com).

Based on my analysis, slogans play an important role in DTCPA. A slogan not only informs consumers about the primary function of the birth control pills (e.g., pregnancy prevention), but also makes consumers aware of other functions and benefits of the product (e.g., menstrual management, low hormone dosages). At times the slogans also suggest that the secondary benefits are as important as the primary function of the pill. Additionally, slogans allow the advertiser to connect personally with the consumer with the use of positive adjectives.

Visual Imagery

For visual imagery, the data fell into three categories. The first category was product imagery, or evidence of how the pill (the product itself) was represented visually on the websites. The second category was images of characters which were the representations of people on the websites. The third category was other imagery which consisted of any form of imagery that did not fit into the first two categories. I have also included non-person images, such as silhouettes, in the third category.

Product Imagery

Two types of product images were present on the websites – images of the box the pill came in and images of the actual pill pack itself. A total of 16 product images were present on the websites. The table given below outlines the number of product images for both consumers and healthcare providers.

Name of the pill	Total number of product images for consumers	Total number of product images for healthcare providers
Beyaz	1	1
Generess Fe	1	1
Lo Loestrin Fe	1	N/A – unable to fully access the healthcare providers section
Minastrin 24 Fe	1	N/A – unable to fully access the healthcare providers section
Natazia	1	1
ORTHO TRI-CYCLEN LO	1	1
SAFYRAL	2	2
YAZ	1	1

Table 5: Number of Product Images For Consumers And Healthcare Providers

Nine product images were present for consumers. Four of the websites (i.e., Generess Fe, Natazia, ORTHO TRI-CYCLEN LO and SAFYRAL) showed an actual photograph of their pill pack to consumers. For all four websites (i.e., Generess Fe, Natazia, ORTHO TRI-CYCLEN LO and SAFYRAL), consumers were also able to see the actual pill tablets in their pack. However, this was not possible for the two websites (i.e., Minastrin 24 Fe and Lo Loestrin Fe) as they only showed a diagram of the pill pack. Only two websites (i.e., Beyaz and YAZ) lacked a picture or diagram of the pill pack; however, the websites for Beyaz, YAZ and SAFYRAL included an image of the boxed packaging for the product. The name of the pill was the most visible aspect on the boxed package's images on the website.

Product images for both consumers and healthcare providers were placed in prominent locations on the websites. For consumers, four of the eight websites (i.e.,

Beyaz, YAZ, SAFYRAL and Minastrin 24 Fe) placed the images related to the product on the landing page itself. Three of the websites (i.e., SAFYRAL, Beyaz and YAZ) had the image at eye-level as soon as the page loaded, thus increasing its visibility. The websites for Generess Fe and Lo Loestrin Fe have a product image under the tab about the product. Natazia's image of their pill pack was under the tab, "Missed Your Pill?". It is also at the top right hand corner of the page thus making it easily visible to consumers. For consumers, ORTHO TRI-CYCLEN LO, the product image was placed under the tab "What If I Miss a Birth Control Pill?" and it was in the middle right hand corner middle of the page.

There were a total of seven product images specifically for healthcare providers. Generess Fe's website only provided a diagram of the pill pack for healthcare providers. It was in the "Prescribing Information" section and fell in the middle of the prescribing information document. However, the websites of ORTHO TRI-CYCLEN LO, YAZ, SAFYRAL, Beyaz and Natazia placed the product image in prominent places where healthcare providers could view them easily. ORTHO TRI-CYCLEN LO also showed an actual photograph of their pill pack to healthcare providers. ORTHO TRI-CYCLEN LO's package was also placed in the top right hand corner of the page for healthcare providers. It was beside the statement "10⁺ years and still going strong" and it was placed against the background of a smiling woman (head shot only). The visual of "10⁺ years" imparts a message of a well-established product (www.thepill.com). This message might also encourage healthcare providers to be more trusting of the product due to the fact it has been around for over a decade. This is in agreement with research

by Kodish (2009), which states that medication advertisements today focus on letting the audience symbolically build a trusting relationship with medications.

SAFYRAL showed a photo of the pill pack and the pill box under section for healthcare providers. It loaded at eye-level as soon as the section for healthcare providers was accessed. The websites of Natazia, SAFYRAL and Beyaz also showed the pill box under the "Women's Healthcare Resource" tab which only for healthcare providers could access. The images were placed promptly at the top of the webpage along with the name of the OCP, thus allowing the healthcare provider to form a visual understanding of the product.

Pharmaceutical companies used a variety of colors to differentiate their tablets and the product imagery illustrated this practice. Pharmaceutical companies used brighter colors for their hormone tablets when compared to their non-hormone (menstrual week) tablets. I was able to see pictures of the actual tablets for four of the pill packs – Natazia, SAFYRAL ORTHO TRI-CYCLEN LO and Generess Fe. For SAFYRAL, the pill pack was leaning against the actual box within which the product came and was placed on the top right hand corner of the landing page. The name, SAFYRAL, was written clearly on the pill box and it was also visible in the photo. Once again, the tablets were clearly visible in the image. There were 21 orange tablets and seven light orange tablets, with arrows indicating which tablet to take first (on top of the pill pack). The prescribing information informed that the 21 orange tablets contained hormones and the seven light orange tablets did not contain any hormones except for folic acid (www.safyral.com). Natazia's pill pack image was placed in the top right hand corner of the page. The word "Start" was written on the Natazia pill pack, exactly in the place where the consumer should begin the first of a month of tablets. There were two dark yellow tablets, five pink tablets, two red tablets, seventeen light yellow tablets and two white tablets pictured in the Natazia pack. Each tablet was numbered as "1, 2, 3, . . . 28", which indicates the day when the tablet should be taken, along with the two white tablets indicating the end of the pack (for days 27 and 28). Upon checking the patient insert present on Natazia's website about the tablets, I found the information below which confirmed that the non-hormonal tablets were white while the hormonal pills were in brighter colors (www.natazia.com).

2 dark yellow tablets each containing 3 mg estradiol valerate
5 medium red tablets each containing 2 mg estradiol valerate and 2 mg dienogest
17 light yellow tablets each containing 2 mg estradiol valerate and 3 mg dienogest
2 dark red tablets each containing 1 mg estradiol valerate
2 white tablets (inert) (www.natazia.com)

For Generess Fe as well, the name of the product was written on the actual pill pack's diagram. They also had the word, "Start," on top of the pill pack, showing in what order the consumer should take the tablets. Here, too, it was clearly visible from the photograph that the hormonal tablets have a different color from the tablets that do not have any therapeutic purpose. Furthermore, they had days marked from Sunday to Saturday to clearly indicate when the consumer should take each individual pill. Their pills consisted of 24 green pills and four brown pills which are the iron pills. The prescribing information states that "24 light green, round tablets (active) each containing 0.8 mg norethindrone and 0.025 mg ethinyl estradiol. 4 brown, round tablets (non-hormonal placebo) each containing 75 mg ferrous fumarate, which does not serve any therapeutic purpose" (www.generess.com). The hormonal pills were once again of a

brighter color than the non-hormonal pills. This is also true for ORTHO TRI-CYCLEN LO. It says above the photo of the pill pack "The 28-pill pack contains 21 "active" pills (7 each of white, light blue and dark blue) that contain hormones that you take for 3 weeks, followed by 1 week of "inactive" pills (green) that don't contain hormones" (www.thepill.com). Allowing for the visualization of the actual tablets on the websites allows for the pharmaceutical company to forge a better connection between the OCPs and the consumers. The consumers are able to see exactly what the product looks like through the product images that showed the actual pill packs.

Character Imagery

Five of the websites (i.e., Beyaz, Minastrin 24 Fe, SAFYRAL, YAZ and Generess Fe) did not include any characters. ORTHO TRI-CYCLEN LO, Lo Loestrin Fe and Natazia were the only three websites that contained images of characters. All of the characters were women except one which was that of a male who was with a female. There were a total of 31 images of characters on the websites. Eight images were on the website of Lo Loestrin Fe, six images were on the website of Natazia and 17 images were on the website of ORTHO TRI-CYCLEN LO. Seven images were repeated on the websites with four images repeated on the website of Lo Loestrin Fe, two images repeated on the website of Natazia and one image repeated on the website of ORTHO TRI-CYCLEN LO. Below is a table that outlines my findings.

Name of the pill	Appearance of the person	Setting/Scenery the person is in	Action/Actions the person is taking
Beyaz	-No person present	-None	-None
Generess Fe	-No person present	-None	-None

 Table 6: Character Images

Lo Loestrin Fe	-A female (face not visible)	-A water body, sky, land	-Skydiving -Her body is in the shape of L as she is descending and this L is used to write 'GO LOW'
	-A female (face not visible) Long hair flying in the wind Dressed in a swim suit	-A water body, sunset, rocks	-Diving into water -Her body is in the shape of L as she is descending and this L is used to write 'GO LOW'
	-A female (face not visible) -Dressed in winter clothing with a helmet	-Snow, trees, sky	-Snowboarding Her body is in the shape of L as she is descending and this L is used to write 'GO LOW'
	-A female (face not visible) -Dressed in athletic clothing	-Rocks, water, sky, trees	-Bungee jumping (from a cliff with a rope) -Her body is in the shape of L as she is descending and this L is used to write 'GO LOW'
Minastrin 24 Fe	-No person present	-None	-None
Natazia	-Young female's head shot only -Female appears to be of Caucasian descent -Long hair flying in the wind	-Sunlight, trees	-Smiling
	 Young female's head shot only Female appears to be of Caucasian descent Medium length hair 	-Buildings, people (appears a bit blurry)	- Making a side-ways glance and smiling

	 Young female's head shot only Female appears to be of Asian descent Long hair Young female's head shot only Female appears to be of Caucasian descent Long hair that is in waves 	-Sunlight, trees	-Looking directly and appears without any emotion -Smiling
ORTHO TRI- CYCLEN LO	-Headshots of three women -Appears to be Caucasian, Asian- looking and African- American -Two women have long hair. One has medium length-hair	-Wallpaper looking background	-Smiling
	-Headshots of three women -All three women appear to be of Caucasian descent -Two women have long hair. One has medium length hair.	-Wallpaper looking background	-Smiling, laughing
	- Headshot of a woman who appears to be of South Asian descent -She has medium length hair	-Sunlight, grass	-Smiling
	 Headshots of two women One appears to be Caucasian and the other appears to be Asian Both have long hair 	-Background is unclear	-Smiling

	-Photograph of a male and a female together -Both of them appear to be of Asian descent -He has short hair and she has long hair	-Background looks like a room but is not clear	-Smiling -Female is leaning into the male's chest and he has his arm around her
	 Headshot of a female who appears to be Caucasian She appears to have short hair or hair that is tied to the back 	-Trees	-Smiling
	-Headshot of two women who appear to be Caucasian -One has short hair and another has medium length hair	-Background is not clear	-Smiling -One woman has her arm around the other woman
	 Headshot of a female who appears to be African-American Her hair appears to be tied in the back but it could also be short hair 	-Building	-Smiling
	-Headshot of a female of who appears Caucasian -She has long hair	-In front of a banner but it is unclear what is written on the banner	-Smiling
SAFYRAL	-No person present	-None	-None
YAZ	-No person present	-None	-None

Of the 31 images, the faces of the characters were not visible for all eight images on Lo Loestrin Fe's website. However, the faces of the characters were visible for the rest of the images on the websites of Natazia and ORTHO TRI-CYCLEN LO, which made it possible to look at their racial backgrounds. For the 23 characters that were visible, they were of 22 young women who appeared to be in their 20s and 30s. A young male who appeared to be in his 20s was also present in one of the images. Caucasian-looking women were portrayed in majority of the photos. There were 13 images of Caucasian-looking women out of the total 23 images; of which the website of Natazia had the four images and the website of ORTHO TRI-CYCLEN LO consisted of the remaining 9 images. There were two images of Asian-looking women on the website of ORTHO TRI-CYCLEN LO. There were only two images of women who appeared to be African-American and two images of a woman who appeared to be South Asian. Both were on the website of ORTHO TRI-CYCLEN LO.

Even though the number of images of Caucasian-looking women was over half of the images present on the website, both Natazia's and ORTHO TRI-CYCLEN LO's websites portrayed faces of women who appeared to represent some type of racialethnic diversity as well. Jones, Mosher & Daniels (2012) show that Caucasian women are more likely to use the pill for contraceptive purposes, compared to Asian, Hispanic, and African-American women; therefore, pharmaceutical companies could be trying to appeal to their largest consumer base by using more images of Caucasian-looking women. However, the portrayal of women of color is significant because it shows that pharmaceutical companies are recognizing other racial-ethnic groups as consumers.

The website of ORTHO TRI-CYCLEN LO had three images which contained more than one person. Two images showed three women per image, two images were of two women per image and one image was of a male and female together. Neither Lo Loestrin Fe's nor Natazia's website contained images with more than one person. As

mentioned earlier, some images were also repeated twice. Natazia's website had two images that were repeated twice. They were the images of the Caucasian-looking female who was smiling and the Asian-looking female who was looking ahead without any display of emotion. The website of ORTHO TRI-CYCLEN LO has repeated the image of the woman who appears to be of South Asian descent twice. She appears to be smiling in the photograph. The website of Lo Loestrin has repeated the images of the woman diving into water twice, sky diving thrice and bungee jumping twice.

As stated previously, there was only one male present in all of the website images. This was on the website of ORTHO TRI-CYCLEN LO. This image also has the female leaning into the male counterpart while he is holding her in his arm. Her head is resting on his chest. Both of them are smiling. This picture fell under the menu item, 'What to Expect with ORTHO TRI-CYCLEN LO' (www.thepill.com). This section of the website details some of the things a woman may notice during her first three months on the pill: "If you've just started using ORTHO TRI-CYCLEN® LO, you're probably curious about the changes that could take place in your body. Remember that every woman's body is different, so experiences on a new birth control pill may vary" (www.thepill.com). It can be speculated that the male might be trying to be supportive of the female who is probably going through bodily changes as she might have just started on the pill. His arm around her and her leaning into him and resting her head on his chest can be viewed as actions of support.

Through the presence of characters on the websites, the pill is also portrayed as a product that provides women with certain life-style benefits. Themes of freedom and happiness emerged from an analysis of the life-style benefits portrayed on these three

websites. Images of women on the website of Lo Loestrin Fe portrayed women as having the freedom to be adventurous while using the pill, perhaps due to being free from contraceptive and menstrual worries. Four activities that the women were engaging in displayed a lifestyle of adventure (e.g., skydiving, diving into water, snowboarding and bungee jumping). A total of eight images showed female characters that were being adventurous. On the website of Lo Loestrin Fe, the skydiving images was presented thrice, the water diving image was presented twice, the bungee jumping image was presented twice and the snowboarding image was presented once. Furthermore, the text on the websites under these images reassured women that the pill allows them to manage the burden of a regular period and enjoy freedom and adventure. One of the sky diving images is present in the section titled, "Ready to go low?" along with the following text:

When taken as directed, Lo Loestrin Fe is highly effective at preventing pregnancy and can give you short, lighter periods. For Lo Loestrin Fe to be most effective, you should take Lo Loestrin Fe exactly as directed by your healthcare provider. Most women had a period that lasted less than 2 days per cycle on average. Most women had periods that were lighter than normal. (www.loloestrin.com).

Lo Loestrin Fe's ability to manage a woman's period was also shown in the text surrounding two other activities: snowboarding and water diving. The text under the snowboarding image states, "Lo Loestrin Fe is an ultra-low-dose birth control pill that may give you the short, lighter periods that you might be looking for when taking an oral contraceptive." (www.loloestrin.com). Furthermore, as the women engage in these activities, their bodies are making an L shape. Into this L shape, the words 'Go Low' is written to emphasise the low level of hormones present in Lo Loestrin Fe. As discussed in the medicalization chapter, a regular period is seen as an event of inconvenience that needs to be managed medically and as an issue that affects all aspects of the woman's well-being (Johnston-Robledo, Barnack & Wares, 2006). The medical literature has encouraged the use of OCPs to manage menstruation, thus imparting the message that women can lead happy and productive lives while being on the pill rather than dealing with the pain or suffering which can accompany a regular period (Andrist, Hoyt, Weinstein & McGibbon, 2004). When physical activities such as sky diving and bungee jumping are shown while informing women that their period can last on an average of two days while on Lo Loestrin Fe, pharmaceutical advertising infers that women can be achieved by using this birth control method.

The second theme that emerged within the analysis of life-style benefits is the theme of happiness. There were a total of 20 background images of nature throughout the websites. Natazia's website had four nature images, ORTHO TRI-CYCLEN LO's website had three nature images and Lo Loestrin Fe's website had 13 nature images. The most common representations of nature were trees which were shown a total of 5 times (twice on the website of Lo Loestrin Fe, once on the website of ORTHO TRI-CYCLEN LO and twice on the website Natazia). The following were the other representations of nature present on the websites : sun – four times (sunlight twice on the website of Natazia, once on the website of ORTHO TRI-CYCLEN LO and sunset once on the website of Lo Loestrin Fe), water and sky – three times each on the website of Lo Loestrin Fe, rocks – twice on the website of Lo Loestrin Fe and grass – once on the website of ORTHO TRI-CYCLEN LO.

Facial expressions were visible in many of the images on the websites. There were a total of 20 images of smiling women on the websites with 4 of them being on the website of Natazia and 16 on the website of ORTHO TRI-CYCLEN LO. There was only one image of a woman who was laughing and it was on the website of ORTHO TRI-CYCLEN LO. The image of the laughing woman was placed above the "Get to know ORTHO TRI-CYCLEN LO" section (www.thepill.com). The woman who is laughing is shown with two other women who are smiling. They are shown as happy, youthful and worry-free as they are getting to "know ORTHO TRI-CYCLEN LO". Women are reminded in this section that ORTHO TRI-CYCLEN LO has a low level of hormones but is very effective for pregnancy prevention and in giving them a predictable period.

Under one of the images of smiling women on Natazia's website, the text reads, "Natazia Is Indicated for Use by Women to Prevent Pregnancy. . . . Natazia is also indicated for treatment of heavy menstrual bleeding in women without organic pathology who choose to use an oral contraceptive for birth control." (www.natazia.com). There is also a second smiling woman portrayed under the heading, "How Well Does Natazia Work to Help Treat Heavy Periods?" (www.natazia.com). The text continues, "When taken as directed, prescription Natazia is highly effective at preventing pregnancy. But that's not all. Natazia is also highly effective at reducing heavy periods that are not caused by any diagnosed conditions of the uterus." (www.natazia.com). Readers of the websites are all being reassured that help is available in the form of OCPs and, thus, can solve their pregnancy worries along with their menstrual worries and place a smile on their face. Only one image was different from the happy images presented on the websites. On the website of Natazia, there is one image that portrays the Asian-looking woman looking unemotional and more neutral (there was no smile or laugh in the photograph). She was looking straight ahead as if she is trying to concentrate on something. This woman's image was under two menus that discussed heavy menstrual cycles as a problem. One of the sections was "Talk to Your Doctor About Heavy Periods" and the other section was "Heavy Periods? Take the Quiz" (www.natazia.com). These sections of the website describe heavy monthly periods and its "symptoms," such as soaking through tampons and experiencing restriction of daily activities. The image of a nonsmiling woman in these sections could be conveying a message that heavy monthly periods are a problem for women.

Other Imagery

When reviewing the websites, I also looked for any form of imagery that did not fit into the categories of product or human imagery. Imagery in this category included the silhouettes that were present only on the website of Generess Fe.

Name of the pill	Description of Other Imagery
Beyaz	-None
Generess Fe	 -Silhouette of a walking female in a black dress, high heels, bow, belt on her dress -In her hand is a box that says Rx -From the box, the following items appear: ♀, a graduation hat, a graduation diploma, a microscope, a woman's business attire in an office suit, a flower shaped bow, a tea pot set. -Silhouette of a female sitting down, in a sleeveless top and dark leggings with high heels

Table 7: Other Imagery

	 A magnified diagram of one pill surrounded by purple and pink stars A silhouette of a female walking her dog in high heels Wearing black pants, a full-sleeved top, is carrying a purse, and has a scarf on her neck Her dog is on a leash
Lo Loestrin Fe	-None
Minastrin 24 Fe	-None
Natazia	-None
ORTHO TRI-CYCLEN LO	-None
SAFYRAL	-None

Generess Fe's website showed three silhouettes of women engaging in a variety of activities such as walking a dog, walking alone, and sitting down. These women were surrounded by numerous items that signify female successes (and female identity is represented by the use of the sign ♀ which is one of the items floating around the image of the woman pictured on the website). As mentioned earlier, Medley-Rath and Simonds (2010) state that contraceptive advertising tends to portray women as accomplished, successful people. It is interesting to note in every silhouette, symbolic items are also pictured, just floating around; these floating items consist of the success-related items - a graduation hat, a graduation diploma, a microscope, a woman's business attire in an office suit. The majority of the items surrounding the photographs of women are symbolic of educational and paid work successes, such as graduation hat/diploma and an office suit It is unclear whether the microscope is symbolic of the pill as the culmination of science (a medical product developed through scientific research),

the scientific accomplishments in the field of women's health, or if it infers the success

of women in science.

Videos

Generess Fe's website was the only website with a video. Generess Fe's video is

titled "Watch Why We're Different," and the video is placed centrally on the website's

landing page. The transcript of the video (www.generess.com) is as follows:

We all make choices, some more personal than others. Birth control is really personal. But, what if your birth control choice could also help other women in need? Generess Fe does just that while providing short, lighter, predictable periods. For every prescription filled, a \$5 donation is made to the participating women's charity of your choice. Ask your doctor for Generess Fe, the only birth control pill that gives back. Generess Fe norethindrone and ethinyl estradiol chewable tablets and ferrous fumarate chewable tablets are not for everyone. You should not use Generess Fe if you are over age 35 and you smoke because of the increased risk of having serious heart related events. Generess Fe should not be used by woman at high risk of blood clots or those who have abnormal uterine bleeding, certain cancers, liver disease, high blood pressure or uncontrolled high blood cholesterol. You should not take Generess Fe earlier than four weeks after having a baby or if you're breastfeeding. Generess Fe will not protect against HIV or other sexually transmitted diseases. Please visit Generess.com to read the patient information and learn more about Generess Fe. (www.generess.com)

The video is also important for its imagery. Silhouettes of women on the website transform into actual women in the video. All four women shown were young and healthy. The first woman is coming out of a pharmacy and has a bag in her hand. A microscope and the pill pack come out of the bag, while the Q floats from the first woman to the second. The second woman is enjoying a cup of a coffee in a coffee shop when the symbol 'Q' lands in her palm. The video then shows a third woman running outside and the microscope lands in her palm. The video transitions to the image of a fourth woman who is sitting in her chair (who is then shown to open a window to a sunny day). The video then reverts back to the first woman who is still walking with the

bag in her hand. The first woman is in floral pattern dress with high heeled shoes. For the second woman, only her upper body is visible as she is sitting down. She is dressed in a shirt along with a sweater. The woman who is running is wearing appropriate exercise clothing. The woman who is sitting in her chair looking at the sunny day is wearing comfortable sleep wear. There are underlying themes of accomplishment and happiness thread throughout the video. For instance, all four women in the video are smiling, and either well-dressed professional-looking women or women engaged in healthy activities such as running and walking.

In addition, there is theme of the importance of harnessing science for one's own benefit because the microscope and the pill pack come out of the bag when the woman is leaving the pharmacy. This microscope travels to the third woman while the symbol Q floats to the second woman. This woman is shown again in the end walking with Rx bag in her hand. The video is demonstrating that the women are connected through the product Generess Fe by the movement of items such as the microscope and the symbol Q from woman to woman. Generess Fe therefore becomes the common link that that is connecting the women in the positive manner portrayed throughout the video.

It is important to note that the video begins by discussing the benefits of the pill, such as how Generess Fe offers both contraceptive and menstrual benefits. The idea that Generess Fe can also provide a problem-free life is portrayed through happy, smiling and active women in this video. When risks are being discussed in the video, however, women are portrayed as continuing to smile and engage in activities, such as having a cup of coffee and taking a walk. Images of concern are not presented alongside concerning health information (such as, "Generess Fe should not be used by woman at high risk of blood clots or those who have abnormal uterine bleeding, certain cancers, liver disease, high blood pressure or uncontrolled high blood cholesterol") (www.generess.com). Informing women about life-altering medical conditions while selling the image of a smiling woman removes the seriousness of the risks and side-effects being presented.

Frequently Asked Questions

Three websites (i.e., Generess Fe, ORTHO TRI-CYCLEN LO and Lo Loestrin Fe) had a "Frequently Asked Questions" (FAQ) section. In my analysis I found that one type of question was present most frequently among the FAQ sections: questions that provided answers on how the pill works. Some of these questions were (www.generess.com, www.loloestrin.com, www.thepill.com):

"How do I take Generess Fe?"
"When can I start taking Generess Fe?"
"How well does Lo Loestrin Fe work?"
"How do I take Lo Loestrin Fe?"
"What may be the effect of 2 days of pills with estrogen and no progestin?"
"Can taking the pill make my periods lighter and more regular?"
"Is ORTHO TRI-CYCLEN LO effective?" (www.generess.com, www.loloestrin.com, www.thepill.com)

Answers provided for these questions were worded so as to reaffirm the purpose and benefits of the pill. Even when FAQ questions were about the general workings of the pill, pharmaceutical companies took the opportunity to restate the major benefits of their products, such as low levels of hormones, pregnancy prevention and menstrual benefits. One of the other main points emphasized throughout answers to the FAQs is the fact that products introduce low levels of hormones to a woman's body (i.e., lower than in past decades of pill use). For instance, Generess Fe's website gives the following answer in response to the FAQ, "What is Generess Fe?"

Generess Fe is a low-dose birth control pill that contains 2 types of female hormones, an estrogen called ethinyl estradiol and a progestin called norethindrone. When taken as directed, birth control pills help to lower the chances of becoming pregnant. They do not protect against HIV infection (AIDS) and other sexually transmitted diseases" (www.generess.com).

The answer to "How does ORTHO TRI-CYCLEN[®] LO work?", also suggests that "ORTHO TRI-CYCLEN[®] LO delivers a low level of hormones to inhibit ovulation. If ovulation does not occur, your egg is not released, and you can't get pregnant." (www.thepill.com). Lo Loestrin Fe's answer to the FAQ question, "What is Lo Loestrin Fe", is:

Lo Loestrin Fe is a low-dose birth control pill that contains 2 types of female hormones, an estrogen called ethinyl estradiol and a progestin called norethindrone acetate. When taken as directed, oral contraceptives help to lower the chances of becoming pregnant. They do not protect against HIV infection (AIDS) and other sexually transmitted diseases." (www.loloestrin.com).

Because of previous medical problems associated with the pill, low dosages of hormones are seen as a benefit of some traditional OCPs in contemporary times.

Pregnancy prevention (as a benefit of the pill) is mentioned in all three FAQ sections, almost as if to remind customers of this reason for use. Generess Fe's website states, "When taken as directed, birth control pills help to lower the chances of becoming pregnant" (www.generess.com). Lo Loestrin Fe's website declares, "When taken as directed, oral contraceptives help to lower the chances of becoming pregnant" (www.loloestrin.com). ORTHO TRI-CYCLEN LO's website proposes, "If ovulation does not occur, your egg is not released, and you can't get pregnant" (www.thepill.com). As has been clear from previous sections of this chapter (and as I discuss further in other findings chapters), information about menstrual management benefits is also included among the answers to FAQs. In response to, "Is ORTHO TRI-CYCLEN[®] LO effective?" and "Can taking the Pill make my periods lighter and more regular?", the answers are

"ORTHO TRI-CYCLEN[®] LO offers a highly effective, low-hormone birth control pill with predictable periods" and "When you take ORTHO TRI-CYCLEN[®] LO, your periods may be more regular and more predictable. Your periods may also become lighter and possibly even shorter." (www.thepill.com). For the Lo Loestrin Fe FAQ, "What may be the effect of 2 days of pills with estrogen and no progestin?" the answer given was "A clinical study showed that taking estrogen for 2 extra days may make a woman's period short and lighter than normal." (www.loloestrin.com). The FAQ section, then, becomes another avenue through which the benefits of the products, such as their low level of hormones, pregnancy prevention properties and the product's ability to manage menstruation are conveyed to consumers.

Consumer Incentives

All of the websites studied included some form of consumer incentives. In the table below, I outline all consumer incentives presented on the websites. I have also included the incentives for healthcare providers in this table.

Name of the pill	Consumer incentives	For healthcare providers	Location of the incentives/coupons
Beyaz	-'Get the Bayer Savings Card' -Savings card available from the pharmaceutical company for consumer to download and print -Patients with insurance will pay no more than \$30 for each month's prescription -Patients without	-Savings cards can be printed for patients who needs the savings card	-At eye-level as soon as the page loads

Table 8: Consumer Incentives

Generess Fe	insurance will receive up to \$25 off their out of pocket expense for each month's prescription - 'Don't wait to talk to	-The healthcare	-At eye-level as soon
Generess re	your doctor. Pay no more than \$25 for your Generess Fe prescription with the Actavis Patient Savings Card!'.	provider can also provide the savings card to the patients	as the page loads
	-Savings card available for immediate download for the consumer		
	-Patients do not have to pay more than \$25 for a month's supply		
Lo Loestrin Fe	-'Pay no more than \$25 for your monthly Rx' -Savings card available for immediate download for the consumer	-The healthcare provider can also provide the savings card to the patients	-Right hand corner of the page -First tab on top
	-Patients do not have to pay more than \$25 for a month's supply		
	-Phone number to call for a card to be mailed to you		
Minastrin 24 Fe	-'Pay no more than \$25' -Savings card available for immediate download for the consumer		-At eye-level as soon as the page loads
	-Patients do not have to pay more than \$25 for a month's supply		

Natazia	 'Save on your monthly prescription for Natazia' Activate your Bayer Savings Card now Patients with insurance will pay no more than \$30 for each month's prescription Patients without insurance will receive up to \$25 off their out of pocket expense for each month's prescription 	-Savings cards can be printed for patients who needs the savings card	-Not at eye-level but below all the tabs on the left hand side
ORTHO TRI- CYCLEN LO	-'Join the LO-DOWN' -Consumers can sign up to receive information about the product, savings offers, and coupons) -Get your \$15-off coupon now! (this allows consumers to print the coupon if they have a printer)		-Very top of the page
SAFYRAL	-'Get your Bayer Savings Card' -Savings card available from the pharmaceutical company for consumer to download and print -Patients with insurance will pay no more than \$30 for each month's prescription -Patients without insurance will receive up to \$25 off their out of pocket expense for each	-Savings cards can be printed for patients who needs the savings card	-At eye-level as soon as the page loads

	month's prescription		
ΥΑΖ	 'Get your Bayer Savings Card' Savings card available from the pharmaceutical company for consumer to download and print Patients with insurance will pay no more than \$30 for each month's prescription Patients without insurance will receive up to \$25 off their out of pocket expense for each month's prescription 	-Savings cards can be printed for patients who needs the savings card	-At eye-level as soon as the page loads

Due to the placement of the incentives, consumers are able to see the incentives as soon as they enter the websites. Consumer incentives were placed at eye-level on five websites (i.e., YAZ, Beyaz, SAFYRAL, Minastrin 24 Fe and Generess Fe). Incentives were placed at the top of the page for ORTHO TRI-CYCLEN LO and Lo Loestrin Fe. Natazia was the only website where the consumer incentive was not placed in a prominent position but, rather, at the bottom of the tabs. The specific placement of the consumer incentives is purposeful as it makes consumers aware of the incentives as soon as they enter the website. Six of the websites (i.e., Beyaz, Generess Fe, Natazia, SAFYRAL, Lo Loestrin Fe and YAZ) also allowed consumers to get savings cards from their physicians as an extra option. In all cases, consumers are able to print coupons and/or obtain the savings card online (e.g., a link to "Get your Bayer Savings Card"), thus accessing savings immediately. Accompanying phrases, such as "Don't" wait to talk to your doctor" (www.generess.com) and "Join the LO-DOWN" (www.thepill.com) encourage the consumer to obtain the incentives/savings.

The text of the savings card/coupons included the monetary amount that could be saved, such as "\$25 off", "\$15 off", "pay no more than \$25" (www.loloestrin.com) and "pay no more than \$30" (http://www.savingscard.bayer.com). SAFYRAL's, Beyaz's, YAZ's and Natazia's consumer incentives were available for both patients with and without insurance, and the text surrounding the incentive made this clear: "[P]atients without insurance will receive up to \$25 off their out of pocket expense for each month's prescription" while "patients with insurance will pay no more than \$30 for each month's prescription" (http://www.savingscard.bayer.com). Minastrin 24 Fe, Lo Loestrin Fe and Generess Fe's incentives informs all patients that their prescription won't cost them more than \$25 a month as well. For example, Generess Fe's website states "Don't wait to talk to your doctor. Pay no more than \$25 for your Generess Fe prescription with the Actavis Patient Savings Card!" (www.generess.com). This allows the customer to realize that the cost of a prescription may not be prohibitive to its use. ORTHO TRI-CYCLEN LO was the only website that did not give a final figure on how much the product would cost. Their website says "Get \$15 off your prescription" (www.thepill.com). Such emphasis on cost savings on the websites is purposeful and is meant to influence customer decisions about purchasing the product. This is in agreement with Cline (2004) also found that financial incentives given during prescription drug advertising can be done to motivate the consumer towards purchasing the product.

Chapter Summary

In this chapter, I presented descriptive findings on the following aspects of the websites: Colors, Tabs for Consumers and Healthcare Professionals, Slogans, Visual Imagery, Videos, Frequently Asked Questions and Consumer Incentives. This chapter provided the characteristics of the eight websites in a detailed manner, so that readers can understand how each website constructed information present on its pages, and how the presentation of the information might contribute to the actual messages that women receive when accessing the websites. Upon an analysis of the basic information presented to women and healthcare providers on eight traditional OCP websites, it is clear that the websites are created and managed by the pharmaceutical companies so as to be appealing to individuals accessing the websites. The next chapter will review in more detail the information presented on benefits and risks.

CHAPTER 5- PORTRAYALS OF THE BENEFITS AND RISKS OF ORAL CONTRACEPTIVE PILLS

In this chapter, I will examine how the benefits and risks of OCPs are portrayed

on the websites. I begin this chapter by listing the major benefits and risks of the OCPs

as presented on the websites. This will be followed by a discussion of the location of

both benefits and risks on the websites, and an analysis of the language surrounding

these benefits and risks.

As of early 2014, the FDA did not have any regulations on how benefits and risks

should be presented during Internet DTCPA. In June 2014, a draft was released as

guidance for online platforms (http://www.fda.gov/ downloads/ Drugs/ Guidance

ComplianceRegulatoryInformation/Guidances /UCM401087.pdf, Page 2, Retrieved:

October 2015). It states

This draft guidance is intended to describe FDA's current thinking about how manufacturers, packers, and distributors (firms) of prescription human and animal drugs (drugs) and medical devices for human use (devices)that choose to present benefit information should present both benefit and risk information within advertising and promotional labeling (sometimes collectively referred to in this guidance document as "promotion") of their FDA-regulated medical products on electronic/digital platforms that are associated with character space limitations—specifically on the Internet and through social media or other technological venues (Internet/social media). (FDA, 2014)

However, the main limitation of this draft is it does not provide direction as to how products should be advertised on their own product websites. The draft further states "Please note that this draft guidance does not address promotion via product websites" (http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guid ances/UCM401087.pdf, Page 2, Retrieved: October 2015). Therefore, the way in which benefit and risk information is presented on the product websites such as OCP websites continues to remain unregulated.

Main Benefits and Risks of the Pill as Presented on the Websites

In this section, I list the major benefits and risks of OCPs presented on the websites. Given below is a table that outlines the main benefits and risks of the OCPs from the websites.

Name of the pill	Benefits listed on the websites	Risks/side-effects on the websites
Beyaz	 -Pregnancy prevention -Treat PMDD (Pre- Menstrual Dysphoric Disorder) -Presence of folate 	 -Smoking risk - Women over 35 who smoke should not use the pill. Women who smoke while on the pill can also increase their chances of life-threatening conditions such as blood clots, stroke and heart attack. -Other risks/side effects - Increased risk of serious conditions, including blood clots, stroke and heart attack. Increased risk in the first year of using the pill. Headache/migraine, menstrual irregularities, nausea/vomiting, breast pain/tenderness, fatigue, irritability, decreased libido, weight gain, and mood changes
Generess Fe	-Pregnancy Prevention -Low dose birth-control -Shorter periods, lighter periods, predictable periods	-Smoking risk – Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their risk of cardio-vascular side effects such as death, blood clots, stroke and heart attack -Other risks/side-effects - Increases the risk of serious conditions including blood clots, and serious heart-related events. Nausea/vomiting, headaches/migraine, depression/mood complaints, pain

Table 9: Main Benefits And Risks of The Pill on The Websites

		with menstrual bleeding, acne, increased weight, breast pain/tenderness, and anxiety
Lo Loestrin Fe	 -Pregnancy prevention -Low amount of hormones -Shorter and lighter periods 	-Smoking risk - Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their risk of cardio-vascular side effects such as death, blood clots, stroke and heart attack -Other risks/side-effects – Increased risk of serious conditions such as blood clots, stroke and heart attack. Nausea/vomiting, headache, painful menstruation, weight change, breast tenderness, acne, abdominal pain, anxiety, and depression
Minastrin 24 Fe	-Pregnancy Prevention -Shorter and lighter periods	 Smoking risk - Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their risk of cardio-vascular side effects such as death, blood clots, stroke and heart attack Other risks/side-effects – Increased risk of serious conditions such as blood clots, stroke and heart attack. Headache, vaginal infections, nausea, painful menstruation, breast tenderness, abnormal Pap smear, acne, mood swings, and weight gain.
Natazia	-Pregnancy prevention -Reduce heavy monthly periods	-Smoking risk - Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their chances of life-threatening conditions such as blood clots, stroke and heart attack

		-Other risks/side-effects - Increased risk of serious conditions such as blood clots, stroke and heart attack. Headache/migraine, breast pain/discomfort/tenderness, menstrual irregularities, nausea/vomiting, acne, mood changes, and weight gain
ORTHO TRI- CYCLEN LO	-Pregnancy Prevention -Lighter periods, shorter periods, predictable periods -Low dose birth-control	-Smoking risk - Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their risk of serious cardiovascular side effects -Other risks/side effects - nausea and vomiting, headache, nervousness, depression, dizziness, loss of scalp hair, appetite change, dizziness, vaginal infections and allergic reactions
SAFYRAL	-Pregnancy prevention -Presence of folate	-Smoking risk - Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their chances of life-threatening conditions such as blood clots, stroke and heart attack -Other risks/side effects – Increased risk of serious conditions, including blood clots, stroke and heart attack. Headache/migraine, breast pain/tenderness/discomfort, nausea/vomiting, mood changes and abdominal pain/discomfort/tenderness
YAZ	-Pregnancy Prevention -Treat PMDD	-Smoking risk - Women over 35 who smoke to not use the pill. Women who smoke while on the pill can also increase their chances of life-threatening conditions such

as blood clots, stroke and heart attack
-Other risks/side-effects - Increased risk of serious conditions, including blood clots, stroke and heart attack. Headaches, menstrual irregularities, nausea/vomiting, breast pain/tenderness, fatigue, irritability, decreased libido, weight gain, and mood changes
gain, and mood changes

One of the major benefits outlined on each website is the prevention of pregnancy. Pregnancy prevention was mentioned a total of 136 times across all eight websites. On the website for Generess Fe, pregnancy prevention was mentioned under all seven tabs present for a total of 36 times. The website of Natazia has a total of 21 mentions of the pill's ability to prevent pregnancy. The information is present in all of the tabs on the website. On the website of ORTHO TRI-CYCLEN LO, prevention of pregnancy is mentioned 25 times, under every tab present. Pregnancy prevention is mentioned as a benefit for a total of 41 times on the website of Lo Loestrin Fe. It is also mentioned under all of the tabs present. For the websites of YAZ, SAFYRAL, Minastrin 24 Fe and Beyaz, pregnancy prevention is not mentioned under any particular tabs. It is mentioned on the landing page itself. The websites of YAZ and SAFYRAL mentions pregnancy prevention as a benefit twice, Minastrin 24 Fe mentions it as a benefit four times and Beyaz mentions it at a benefit five times.

Another major benefit portrayed across five websites is the ability of the pill to provide a woman with shorter, lighter and more predictable periods. Menstrual benefits (i.e., shorter, lighter, or more predictable periods) were discussed a total of 91 times on the websites studied: YAZ (once), Beyaz (once), Minastrin 24 Fe (twice), ORTHO TRI-CYCLEN LO (13 times of which pain management was done twice), Natazia (32 times), Lo Loestrin Fe (22 times) and Generess Fe (22 times). Two websites had separate tabs created to discuss menstrual benefits of the pill. Specifically, Lo Loestrin Fe had a tab called "What will my periods be like?", and Natazia had three tabs named, "Natazia Can Help With Heavy Periods", "Talk To Your Doctor About Heavy Periods", and "Heavy Periods? Take The Quiz".

Being a low-dose birth control is stated as a benefit on three websites - Generess Fe, Lo Loestrin Fe and ORTHO TRI-CYCLEN LO. Lo Loestrin Fe's website mentions this benefit a total of 29 times on their website. Both Generess Fe's website and ORTHO TRI-CYCLEN LO's website shows this as a benefit six times. "Ultra-low-dose" and "low-hormone" are the terms used to signify the presence of a lower amount of hormones in the respective OCPs. Lo Loestrin Fe's website is the most focused on this benefit when compared to the other websites. Their slogan itself states "Go Low with Lo Loestrin Fe," which highlights that the OCP containing low levels of hormones is a major part of their DTCPA. The website also has a section titled "Could going lower be right for you?" within which it states, "Lo Loestrin® Fe is a highly effective birth control pill with JUST 10 MICROGRAMS of daily estrogen". In another section titled "Ready to make the switch to less estrogen?", women are informed "Go low with your birth control with Lo Loestrin Fe, an ultra-low-dose pill with JUST 10 MICROGRAMS OF DAILY ESTROGEN. Enjoy the benefits of reliable contraception with less daily estrogen than you get with other low-dose pills. Ask your healthcare provider about Lo Loestrin Fe and find out if going low might be right for you" (www.loloestrin.com). Women are informed

on the website that the OCP only contains "10 micrograms of daily estrogen". Furthermore, this information is written in capital letters to bring emphasis to it. Women are assured the pill works well with such low levels of estrogen by the usage of "reliable contraception with less daily estrogen" (www.loloestrin.com). Women are also encouraged to take advantage of this as the website states to "find out if going low might be right for you" (www.loloestrin.com).

The other two OCP websites did not emphasize their pill having a lower amount of hormones as much as the website of Lo Loestrin Fe. The website of ORTHO TRI-CYCLEN LO also has a section titled "Low Hormone Birth Control". The text states, "Do you want a birth control pill that gives you a high level of effectiveness and a low level of hormones?...ORTHO TRI-CYCLEN® LO delivers a low level of hormones to inhibit ovulation. If ovulation does not occur, your egg is not released, and you can't get pregnant" (www.thepill.com). Here, women are being informed that the pill is highly effective even with a low level of hormones. They are being encouraged to think about the OCP when asked "Do you want a birth control pill?" that has not only a low level of hormones but also has high effectiveness rates. The way in which the pill works is shown as a benefit for women as it demonstrates how the low level of hormones prevents pregnancy.

Generess Fe has a section called "Generess Fe, hormones you can trust". Furthermore, it states "Generess Fe contains a unique combination of hormones that your doctor knows and trusts. A low-dose birth control pill" (www.generess.com). Here women are not only being asked to trust the OCP for its low hormones, but are also being informed that their doctor knows and trusts the OCP for the same reasons. Women are shown that they can have confidence in the product because it contains "hormones you can trust" as well as "hormones that your doctor knows and trusts". It also states on the website "Generess Fe is a low-dose pill that's highly effective at preventing pregnancy" (www.generess.com). This once again demonstrates that even though Generess Fe is a "low-dose pill", it is able to prevent pregnancy in a "highly effective" manner thus still fulfilling its primary function well.

The presence of folate in the OCP is listed as a benefit on two websites – five times on the website of Beyaz and thrice on the website of SAFYRAL. The website of SAFYRAL says "Provide a daily dose of folate supplementation, which is recommended for women in their reproductive years. Folate lowers the risk of having rare neural tube birth defects in a pregnancy occurring during SAFYRAL use or shortly after stopping" (www.safyral.com). Beyaz's website states about folate supplementation; "Provide a daily dose of folate supplementation, which is recommended for women in their reproductive years. Folate lowers the risk of having rare neural tube birth defects in a pregnancy occurring during states about folate supplementation; "Provide a daily dose of folate supplementation, which is recommended for women in their reproductive years. Folate lowers the risk of having rare neural tube defects in a pregnancy occurring during Beyaz use or shortly after stopping" (www.beyaz.com). In both these examples, folate is being added as a benefit to women in the event they got pregnant while on the OCP or "shortly after stopping". There is no further explanation on the websites about this folate supplementation as a benefit.

Two types of risk information existed on the websites: (1) risks for smokers who used the OCP and (2) other risks/side effects. In the first case, website information includes a discussion of how smokers over age 35 should not smoke while using the pill. Some of the other risks commonly mentioned are blood clots, strokes and heart attacks. Other side-effects noted are headaches, nausea, weight changes and mood changes. The table below outlines all of the risks/side-effects present on the websites.

			1					VA	Tata
	Bey az	Genere ss Fe	Lo Loestr in Fe	Minast rin 24 Fe	Nataz ia	ORTH O TRI- CYCL EN LO	SAFYR AL	YA Z	Tota Is
Smoker's warning	2	7	16	2	12	20	2	2	63
Blood clots	4	8	51	4	35	12	7	7	128
Heart attack	8	0	51	4	28	12	4	4	120
Stroke	2	0	51	4	28	12	4	4	105
Serious heart- related events/ Serious cardio- vascular side- effects	0	8	0	0	0	24	0	0	32
Headaches/migr aines	1	8	19	1	7	12	1	1	50
Menstrual irregularities or pain	1	8	19	1	7	0	0	1	37
Nausea and/or vomiting	1	8	19	1	7	12	1	1	50
Breast pain/tenderness	1	8	19	1	7	0	1	1	38
Fatigue	1	0	0	0	0	0	0	1	2
Irritability	1	0	0	0	0	0	0	1	2
Weight gain or weight change	1	8	19	1	7	0	0	1	37
Mood changes including anxiety and depression	1	8	19	1	7	0	1	1	38
Appetite changes	0	0	0	0	0	12	0	0	12

 Table 10: Risks/Side-Effects Mentioned on the Websites

Allergic reactions	0	0	0	0	0	12	0	0	12
Loss of scalp hair	0	0	0	0	0	12	0	0	12
Vaginal infections	0	0	0	1	0	12	0	0	13
Dizziness	0	0	0	0	0	12	0	0	12
Abnormal pap smear	0	0	0	1	0	0	0	0	1
Acne	0	8	19	1	7	0	0	0	35
Libido changes	1	0	0	0	0	0	0	1	2
Abdominal pain or discomfort	0	0	19	0	0	0	1	0	20

In total, the websites offered 63 total mentions of smokers' risks. On the website of Lo Loestrin Fe, this warning was given in the middle of the website's landing page. It was repeated a total of 16 times throughout the different web pages on the website. The smoker's warning is present once at the bottom of the website for Generess Fe accounting for a total of 7 mentions. Natazia's warning to smokers was found at the very top of the website amounting to a total of 12 times. For ORTHO TRI-CYCLEN LO, warning to women who smoke appears twice on pages accessed under the "About ORTHO TRI-CYCLEN LO" tab – in the middle and the left hand corner. It appears only once on the web pages accessed under the remainder of the tabs on this website, for a total of 20 mentions. The websites of Beyaz, YAZ, SAFYRAL and Minastrin 24 Fe had the smokers warning repeated twice. Once was on the very top of the landing page and the second time was in the middle of the landing page.

Strokes, heart attacks and blood clots were the three most common risks of OCPs that were mentioned on the websites. Strokes were mentioned a total of 105 times and blood clots were mentioned a total of 128 times on the websites. As referenced in table 10, all of the websites except Generess Fe used the terms strokes and heart attacks to warn their consumers about this risk. The website of Generess Fe used the term "serious heart-related events" eight times to show that as being a risk of their OCP. ORTHO TRI-CYCLEN LO's website also used the term "serious cardiovascular" side-effects 24 times in conjunction with heart attacks, blood clots and strokes on their websites. Even though blood clots and heart attacks were one of the most common serious risks of the OCP that was mentioned on all the websites, the number of times this information was shared varied between websites, thus demonstrating that pharmaceutical companies are left to their own discretion during DTCPA about how often risks should be shared . For example, Beyaz's website and Minastrin 24 Fe's website mentions blood clots as a risk only four times on their website compared to the 51 times it was mentioned on the website of Lo Loestrin Fe. Heart attacks and strokes were only mentioned as risk four times on the website of SAFYRAL and YAZ but they were stated as risks 51 times on the website of Lo Loestrin and 28 times on the website of Natazia. The most common side effects mentioned were nausea/vomiting and headaches/migraines. They were mentioned a total of 50 times. Mood changes include anxiety/depression and breast pain/tenderness was mentioned a total of 38 times. Menstrual pain and weight gain/weight changes were mentioned 37 times. Acne was also a common side effect that was discussed a total of 35 times.

The tabs also containing risk information were presented differently when compared to the tabs presenting benefit information. Only two websites had tabs for safety information that was just as noticeable as their benefits tabs. ORTHO TRI-CYCLEN LO's was the only website that used the same size font for their "Important Safety Information" tab as their benefit tabs. Minastrin 24 Fe was the only website that had the text of the "Important Safety information" tab in a larger font than their tabs on benefits. Except Generess Fe, all of the seven other websites had tabs that were labeled, "Important Safety Information" or "Important Risk Information". Natazia, Beyaz, YAZ, SAFYRAL and Minastrin 24 Fe all placed the "Important Safety Information" tab at the top center of the landing page. On five of the websites (i.e., Natazia, Beyaz, YAZ, SAFYRAL and Lo Loestrin Fe), this tab was placed in the top right hand corner of the landing page. However, on the websites of Natazia, Beyaz, YAZ, SAFYRAL and Lo Loestrin Fe, the risk/safety information tabs were in a smaller font than the tabs that discussed benefits. This shows that even though these tabs are at the top of the landing page, the smaller font of these tabs could lead to them going unnoticed while consumers are accessing the websites, thus missing pertinent risk/safety information.

Placement of Benefit and Risk Information on the Websites

This section discusses how benefit and risk information are located on the websites. I found that benefit information held more prominent positions on the websites than risk information. Benefit information was also available at eye-level on all of the websites as soon as the site loaded. This is a contrast to how risk information is placed on the websites. The table below outlines the location of the benefit and risk information on the websites.

 Table 11: Location of Benefit And Risk Information on the Websites

Name of the	Location of benefit	Location of risk information
pill	information	
Beyaz	-Pregnancy Prevention - on the very top of the website, middle of the website	-Warning to women who smoke - Very top of the landing page
	-Treat PMDD (Pre-Menstrual Dysphoric Disorder) - At the top of the website, middle of the same website	-'Serious risks' section and 'Most common side effects in clinical trials' section - Falls towards the bottom of the landing page
	-Presence of folate - At the top of the website, middle of the website	
Generess Fe	-Pregnancy Prevention - Top and middle of the landing page, top and middle of the five out of the total web pages present	-Warning to women who smoke - Bottom of every webpage (however this appears on every webpage of this website)
	-Low dose birth-control - Top and middle of the landing page, top and middle of the five out of the total web pages present	-'Do not use Generess' paragraph and 'Most common side effects' paragraph - Bottom of the page (however this appears on every webpage of this website)
	-Shorter periods, lighter periods, predictable periods - Top and middle of the landing page, top and middle of the five out of the total web pages present	
Lo Loestrin Fe	-Pregnancy prevention - Top and middle of the landing page and every webpage present	-Warning to women who smoke - Middle of the landing page (however the risks appear on every page)
	-Low amount of hormones - Top and middle of the landing page and every webpage present	-'Do not use Lo Loestrin Fe' paragraph - 'Most common side effects' paragraph Bottom of the page (however the
	-Shorter and lighter periods -	risks appear on every page)

	Top and middle of the landing page and every webpage present	
Minastrin 24 Fe	 Pregnancy Prevention - On the very top of the website, middle of the website Shorter and lighter periods - Middle of the website 	-Warning to women who smoke - Middle of the landing page Repeated again towards bottom of the landing page -'Do not use Minastrin 24 Fe' paragraph and 'Most common side effects' paragraph - Bottom of the page
Natazia	 Pregnancy prevention – Top and middle of the landing page, on five out of the six web pages present Reduce heavy monthly periods - Top and middle of the landing page, on five out of the six web pages present 	 -Warning to women who smoke - Very top of the landing page on every page and once again under Safety Information -Important Safety Information about Natazia, including boxed warning - Middle of the webpage -'What are the most serious risks of taking Natazia ?' and What are the most common side effects in Natazia clinical trials?' - Bottom of the page (however the risks appear on every page
ORTHO TRI- CYCLEN LO	 Prevention - Top and middle of the landing page, top and middle all web pages present Lighter periods, shorter periods, predictable periods - Top and middle of the landing page, top and middle of all web pages present 	 Warning to women who smoke appears twice on pages accessed under the 'About ORTHO TRI- CYCLEN LO' tab - the middle and the left hand corner of every page accessed. Under other tabs, this warning only appears once 'Who should not take ORTHO TRI- CYCLEN LO?' and 'What are the possible side effects of ORTHO TRI-CYCLEN LO?' - Bottom of the page (however the risks appear on every page)

SAFYRAL	 -Pregnancy Prevention - on the very top of the website, middle of the website -Presence of folate - At the top of the website, middle of the website 	-Warning to women who smoke : Very top of the landing page -Middle of the page -'Who should not take SAFYRAL or Yasmin?' is written in bold font in a box -'Serious risks' section and 'Most common side effects in clinical trials' - Falls towards the bottom of the webpage
YAZ	 -Pregnancy Prevention - on the very top of the website, middle of the website -Treat PMDD (Pre-Menstrual Dysphoric Disorder) – At the top of the website, middle of the same website 	 -Warning to women who smoke : Very top of the landing page -Middle of the webpage - 'Who Should Not Take Beyaz or YAZ?' is written in bold font in a box -Falls towards the bottom of the webpage -'Serious risks' section and 'Most common side effects in clinical trials' section

Pregnancy prevention was mentioned as benefit and function of the pill first and at the very top on all the websites. Menstrual benefits of the pill were mentioned on all the websites except SAFYRAL. Menstrual benefits were usually listed immediately after the pregnancy prevention benefit or along with it. Menstrual benefits were also listed on the top and middle of the pages on the remaining seven websites. The placement of these benefits allowed for consumers to view this information easily as soon as they entered the website.

The smoker's warnings held more prominent positions on the websites compared to the rest of risks/side-effects information. Three OCPs had the smoker's warning in the middle of the landing page - ORTHO TRI-CYCLEN LO, Minastrin 24 Fe, Lo Loestrin Fe. On the website for ORTHO TRI-CYCLEN LO, the smoker's warning was presented on the left hand corner of the all the pages except the landing page. The Generess Fe website had the smoking risk placed at the bottom of the landing page. Thus, on four of the websites, the risk warnings were placed in the middle or the very bottom of the websites whereas information on benefits (i.e., pregnancy prevention and menstrual benefits) was placed at the very top of the page on these websites.

Only four OCPs (YAZ, SAFYRAL, Natazia and Beyaz) placed the smoker's warning at the very top of their landing page. Visitors to these four websites are able to view this warning immediately. However, it is important to note that all four of these pills are made by the same pharmaceutical company, Bayer. In 2008, the FDA issued a letter to Bayer informing them that their OCP, YAZ, was missing risk information of the pill during Bayer's DTCPA (http://www.fda.gov/downloads/Drugs/ GuidanceComplianceRegulatoryInformation/EnforcementActivitiesbyFDA/WarningLetter sandNoticeofViolationLetterstoPharmaceuticalCompanies/UCM143477.pdf, Retrieved: October 2015). Such warnings by the FDA could be the reason why YAZ, SAFYRAL, Natazia and Beyaz have the smoker's warning at the very top of their website landing pages. Still, the presentation of these warnings on the websites of Natazia and SAFYRAL are different than the presentation of benefits in that risk information appears in a smaller font when compared to benefit information. Furthermore, even though Natazia, Beyaz, YAZ and SAFYRAL had an "Important Safety Information" tab placed at the top center of the landing page, these tabs were in a much smaller font than the tabs that discussed the benefits of these OCPs.

I also examined the placement of information about other side-effects/risks. On all eight websites analyzed, information on other risks/side-effects was found only if one scrolled down, at the bottom of the websites. This was in stark contrast to the benefit information that was always at the top of the websites. The placement of side-effects at the bottom of the website pages may work to prevent a consumer from viewing this information easily as they access the websites. In the event that women do not scroll down to the bottom of the websites, they could overlook this information entirely. It could be argued that this is a very purposeful minimization of the side-effects of the pill.

Hicks, Wogalter and Vigilante (2005) state that finding risk information on drug websites usually requires mouse clicks and/or scrolls, while accessing information on drug benefits does not require this extra physical activity, because benefit information is present as soon as the website loads. Based on the results of Hicks et al.'s (2005) findings, I explored further to see if mouse clicks and/or scrolls were required to access information on most common side effects. I excluded the "Smoking Warning" in this analysis, as the placement of the smoking warning on the websites was more visible than information on other risks/side-effects. The table below shows the number of scrolls and/or clicks that were required to access other risks/side-effects information on the websites.

Table	12:	Number	of	Scrolls	and	Clicks	Required	to	Access	Benefit	and
Risks/	Side	-Effects Ir	nfor	mation							

Name of OCP	Benefits	Risks/Side-Effects
Beyaz	-None, information loads as soon as page loads	-Have to scroll down on landing page for side-effects/risk information
Generess Fe	-None, information loads as soon as page	-Have to scroll down on every page for side-effects/risk information

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	loads	-Number of mouse clicks: One click to enter tab 'About Generess Fe'. Scroll down required to reach 'What about side effects?'
Lo Loestrin Fe	-None, information loads as soon as page loads	-Have to scroll down on every page for side-effects/risk information -Number of mouse click: One click on link
		'Important Safety Information'
Minastrin 24 Fe	-None, information loads as soon as page loads	-Have to scroll down on landing page for side-effects/risk information
		-Number of mouse clicks: One click on link 'Important Safety Information'
Natazia	-None, information loads as soon as page loads	-Have to scroll down on every page for side-effects/risk information
		-Number of mouse clicks : One click on link 'Safety information'
ORTHO TRI- CYCLEN LO	-None, information loads as soon as page loads	-Have to scroll down on every page for side-effects/risk information
		-Number of mouse clicks : One click on link 'Safety information'
SAFYRAL	-None, information loads as soon as page loads	-Have to scroll down on landing page for side-effects/risk information
YAZ	-None, information loads as soon as page loads	-Have to scroll down on landing page for side-effects/risk information

All the websites required the user to scroll down for information on other risks and side effects. For the websites of ORTHO TRI-CYCLEN LO, Natazia, Minastrin 24 Fe, Lo Loestrin Fe and Generess Fe, one mouse click also allows for access to risks/side effects information. On the contrary, benefit information was visible as soon as all the websites loaded, thus not requiring one to scroll down or click to access this information. It can be argued that when consumers have to scroll through the websites or click to access risk information, they could potentially overlook the presence of this information. Therefore, quicker accessibility to all forms of risks/side-effects information would be beneficial to consumers who are accessing the websites. Furthermore, it would be advantageous for consumers if the risk information is placed in the same prominent locations as the benefit information.

Language Surrounding the Presentation of Benefits and Risks on the Websites

While analyzing the portrayal of benefits and risks on OCP websites, the language surrounding the benefits and risks on the websites were also analyzed in detail. I found that statistics were provided when benefits were discussed, but these statistics were noticeably absent in any discussion of risks or side-effects. When pregnancy prevention was portrayed as a benefit of the pill, terms like "highly effective" and "99% effective" were provided to show evidence of effectiveness. Pregnancy prevention is also discussed in a more clinical or scientific term on the websites. For example, on the websites for SAFYRAL, Beyaz, YAZ, and Minastrin 24 Fe, phrases such as "approved to prevent pregnancy", "prescription birth control", "99% effective" and "5% failure rates" provide a loose link to scientific evidence and medical approval. These phrases also hint that consumers should assume the truthfulness of this information. When menstrual benefits are discussed, very specific numerical data was provided to lend credibility to the information on the websites and to indicate exactly how beneficial the OCPs might be in altering women's cycles. For instance, Generess Fe's website declares that its usage leads to, "... predictable periods, starting for most women on Day 27" (www.generess.com), and Minastrin 24's website suggested that its

usage leads to periods "... averaging fewer than 3 days, by Cycle 6" (www.minastrin24.com).

When side-effects of the pill were discussed, detailed statistics were not provided. Even when serious risks such as heart attacks, strokes and blood clots are mentioned, there is no evidence provided directly from the clinical studies to show how many women or what percentage of OCP users have suffered from these risks/sideeffects. On the website of Natazia, there is a detailed discussion about the studies that have examined Natazia's ability to treat heavy menstrual bleeding. However, the side effects from the same clinical study are mentioned at the very bottom of the website without detailed data or statistics. Below is the text discussing the results of the study (www.natazia.com).

Results in women with heavy periods

Most women in the two studies described above suffered from heavy bleeding specifically (85%). For these women with heavy periods who took Natazia, menstrual bleeding was reduced over 90 days by an average of 72% in one study and 78% in the other. In comparison, women who took a placebo saw an average of 14% and 32% bleeding reduction in the two studies (see chart). (www.natazia.com)

Directly below the results, the most common side effects from the same clinical trial data were provided: "What are the most common side effects in Natazia clinical trials? The most common side effects were headache/migraine, breast pain/discomfort/tenderness, menstrual irregularities, nausea/vomiting, acne, mood changes, and weight gain" (www.natazia.com). The content of the text clearly shows how the beneficial results of a clinical trial are given more importance compared to results about risks or side effects.

Additionally, I found evidence of contradictory language when information on side effects is presented. For instance, the website of ORTHO TRI-CYCLEN LO states: "ORTHO TRI-CYCLEN[®] LO has a low occurrence of common side effects. All oral contraceptives are associated with serious side effects" (www.thepill.com). These sentences are written back to back on the website. It is noticeable that while the company is stating their product has a low occurrence of side effects, they are simultaneously emphasizing that all OCPs have serious side effects. There are no clinical studies or statistics cited to compare the occurrence of common side effects between other OCPs and ORTHO TRI-CYCLEN LO, and the absence of numbers allows this DTCPA information to be taken at face value by consumers who has to unknowingly accept the benefits without knowing full information on risks.

The website of Generess Fe declares that, "In clinical studies, weight gain, decrease in sexual desire, and mood swings occurred at low rates for women taking Generess Fe¹" (www.generess.com). Even though the side effects are mentioned and proclaimed as uncommon among users, there is no further explanation or justification of these statements. Furthermore, the superscript number 1 at the end of this statement only led to the prescribing information of Generess Fe and not to any more evidence of the "low rates" of the side effects. A superscript number was also found on a statement about Lo Loestrin Fe's side effects, after this statement: "It is preferred that women taking birth control pills choose a pill with lower doses of estrogen. This is because low-dose birth control pills are just as effective and have fewer side effects³" (www.loloestrin.com). However, here I found no immediate link to the source of the "LoLo Fact"

that, in a recent survey of a 1000 current/potential consumers of the birth control pill, it was found that "93% are interested in a pill with the lowest amount of daily estrogen and 78% worry about the amount of hormones they are exposed to through the use of pills" (www.loloestrin.com). Once again, the benefit information was readily available for women, with statistics provided, whereas the risk information did not come with equivalent numerical justification.

Some of the information on risks or problems with OCPs also blamed the individual consumer or patient. For instance, even though pregnancy prevention is lauded as a benefit of the pill on all eight websites, not taking the pill correctly and getting pregnant is shown as a failure of the consumer and not the failure of the pharmaceutical product. Generess Fe's website states, "Your chance of getting pregnant depends on how well you follow the directions of taking your birth control pills" (www.generess.com). The website of Natazia further suggests, "In order to be sure your birth control pill is going to be most effective, it's important to remember to take your pill every day, as directed. The power is in your hands. If you miss one or more pills, you could get pregnant" (www.natazia.com). In both cases, DTCPA includes a warning to the customer about proper use, almost presenting this information as a possible risk if women opt to use the OCP.

Chapter Summary

In this chapter I examined the information on OCP benefits and risks, as presented by the eight websites I studied. This chapter was divided into three main sections: major benefits and risks of OCPs on the websites, location of benefit and risk information on the websites, and language surrounding the presentation of benefits and

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risks on the websites. Pregnancy prevention and an altered menstrual cycle were presented as the main benefits of OCPs. Pregnancy prevention was mentioned a total of 136 times across the websites and an altered menstrual cycle was shown as a benefit 91 times across the websites. The pill containing a low dose of hormones was shown as a benefit of a total of 41 times on three websites (Lo Loestrin Fe, Generess Fe and ORTHO TRI-CYCLEN LO). Having folate in the OCP was listed as a benefit a total of eight times on the websites of Beyaz and SAFYRAL. Therefore, the total number of times benefits were mentioned was 265 times. Two types of risks were found on the websites: Smokers' warnings and other risks/side-effects. The smoker's warnings were mentioned a total of 63 times on the websites. Strokes, heart attacks and blood clots were presented as the three other most serious risks of the OCPs. Strokes were mentioned a total of 105 times and blood clots were mentioned a total of 128 times on the websites. Heart-attacks and/or serious cardio-vascular events were mentioned a total of 144 times on the websites.

Benefit information such as pregnancy prevention and menstrual benefits was presented at eye level on all of the websites. Menstrual benefits were directly underneath or with the information on pregnancy prevention. The warning to smokers was available on all websites and its placement was much more prominent than the placement of information on other risks/side-effects. Four OCPs (YAZ, SAFYRAL, Natazia and Beyaz) placed the smoker's warning at the very top of their landing page. Three OCPs (ORTHO TRI-CYCLEN LO, Minastrin 24 Fe, Lo Loestrin Fe) had the smoker's warning in the middle of the landing page. On the website for ORTHO TRI-CYCLEN LO, the smoker's warning was also presented on the left hand corner of the all the pages except the landing page. The Generess Fe website had the smoking risk placed at the bottom of the landing page. When other risks/side-effects information was presented, they were always placed at the bottom of the websites. Upon looking to see how many scroll downs or mouse clicks it took to access this information, I determined that all of the websites required the user to scroll down for information on other risks/ side effects. On the websites of ORTHO TRI-CYCLEN LO, Natazia, Minastrin 24 Fe, Lo Loestrin Fe and Generess Fe, one mouse click also allowed to access the information on other risks/side effects.

When I compared the language surrounding benefits and risks, I established that benefits were presented in more convincing language than the risks. Pregnancy prevention was portrayed as a benefit of the pill with terms like "highly effective" and "99% effective" given as evidence of effectiveness of the OCP. Furthermore, when menstrual benefits are discussed, "average of two days", "menstrual bleeding was reduced over 90 days by an average of 72% in one study" and "lasting under 3 days" are given as proof to show the OCP can help alter menstruation. Statistical language and clear data was absent when risks and side-effects were being mentioned. When side effects were mentioned, terms such as "fewer side effects" and "low occurrence of common side effects" were used to indicate the product had lesser side effects. However, there were no statistics given on how many women experienced these side effects while using the OCP. Up to this point, I have analyzed the benefits and risks of the OCPs as portrayed on their websites. The next chapter presents data on the medicalization of menstruation, as presented on the websites.

CHAPTER 6 - MEDICALIZATION OF MENSTRUATION ON WEBSITES FOR ORAL CONTRACEPTIVE PILLS

Conrad (1992) states that "Medicalization consists of defining a problem in medical terms, using medical language to describe a problem, adopting a medical framework to understand a problem, or using a medical intervention to "treat" it" (p. 211). This chapter has been divided into two major sections based on Conrad's definition of medicalization. The first section discusses the symptoms of menstruation and looks into how menstruation is seen as a problem in medical terms. The second section looks at how the symptoms of menstruation are treated using OCPs. This section also examines the role of healthcare providers in facilitating the treatment of these menstrual symptoms using OCPs.

Naming the Problem

While I analyzed the websites for OCPs and, therefore, contraceptive benefits of the pills should be primary, a major theme in my analysis is the medicalization of menstruation. Menstrual management was heralded as a major secondary benefit of OCPs on all websites, and medicalization of menstruation represented a significant aspect of the website's discussion of this secondary benefit. The websites I analyzed used three hallmark symptoms to define menstruation as a medical problem for women: heaviness of bleeding, length of bleeding, and unpredictability. Defining menstruation through negative symptoms also allows for websites to argue for intervention and treatment and OCP use is portrayed as the way to achieve a better menstruation. Thus, defining menstruation in negative terms (through symptoms) and then highlighting the need for treatment and intervention are the first steps in the process of the medicalization of menstruation on these websites. In the paragraphs that follow, I focus on the data collected from the study to illustrate this finding.

Heaviness as a Symptom

Heaviness of the menstrual flow was shown as a problem associated with menstruation. Generess Fe's website states, "... intensity of their periods ..." (www.generess.com). The usage of "intensity of their periods" depicts a form of suffering during menstruation that is hard to bear or intense for the woman. This also helps the pharmaceutical company to set the stage to help women deal with this "intensity". Reduction of this "intensity" to alleviate suffering during menstruation becomes the solution for the pharmaceutical company.

Natazia's website focused the most on the heaviness of menstrual flow being a problem with the word 'heavy' used 37 times on the website of Natazia as a symptom of menstruation. Natazia's website asks, "Have you ever wondered whether your heavy periods are "normal"—and whether there's anything you can do about them?" (www.natazia.com). There is no definition of what a "normal" period is or how long it might last; yet women are given the impression that a "heavy" period might not be "normal". Even though the website of Natazia does not give an explanation of what a "normal" period is, the majority of the discussion on the website is focused on "heavy periods". For instance, the questions given below are asked on the website to see if the woman is experiencing heavy periods:

Do you regularly soak through pads or tampons, and sometimes wake up in the middle of the night to change them? Are you afraid of having bleeding accidents in public? Are you concerned about how frequently you have to change pads or tampons during your cycle? Do you sometimes miss work or stay in at night because of your heavy bleeding? (www.natazia.com)

The most visible aspect of medicalization here is how menstruation is portrayed through a symptomatic lens. Women are being asked if they are suffering from the socalled symptoms of heavy menstruation, such as soaking through pads or tampons, waking up in the middle of the night to change them, high frequency of changing pads or tampons, worries about having bleeding accidents in public, or missing working or staying home due to heavy bleeding. These symptoms are not only physical but also are often based on perceptions of how problematic periods are for a woman's daily life. Asking women if they "miss work or stay in at night because of your heavy bleeding?" sends the message that the problem of heavy bleeding transcends into all aspects of the woman's life, and affects the quality of her work and social life (www.natazia.com). Because perception and subjectivity is built into these questions, it allows individual women to feel as if their periods might be "heavy" without knowing whether that is the case, encouraging them to define their own situation as problematic and potentially worse than "normal." The website of Natazia goes a step further to inform women with this information: "If your bleeding is heavier than normal, it's good to know that help is available. It doesn't matter whether you've been dealing with heavy periods for months or even years. And it doesn't matter whether someone else you know seems to have heavier periods and seems to manage just fine" (www.natazia.com). Here, women are encouraged to use medical intervention for their "heavy bleeding". Natazia furthers this with a symptom checker quiz, which will be discussed later in this chapter.

Length of Flow as a Symptom

Apart from heavy periods, length of flow is also shown to be a potential symptom of "abnormal" and untreated menstruation. Minastrin 24 Fe's website suggests that menstruation may be worth treating medically by stating "if it is unusually heavy or lasts for more than a few days" (www.minastrin24.com). However, there is no clarity as to what constitutes "unusually heavy" or "more than a few days". Women are left to guess whether their periods are longer than "normal" and therefore worthy of treatment. Importantly, though, the question of normality is planted in the minds of visitors to the website. However, a period that is "unusually heavy" or "more than a few days" is portrayed as a problem from a medical angle. This allows for establishing a way in which a period that is "unusually heavy" or "more than a few days" to become a treatable issue.

Untreated menstruation is defined as negative and abnormal on the websites of Lo Loestrin Fe and Generess Fe too. Generess Fe's website asserts that "Women also reported their periods to be lighter than normal" (www.generess.com). A similar statement was also mentioned on the website of Lo Loestrin Fe. It describes that "Most women had periods that were lighter than normal" (www.loloestrin.com). The term "than normal" was used nine times on the website of Lo Loestrin Fe and twice on the website of Generess Fe. Looking at the context, the term "than normal" is provided as a comparison of how regular menstruation is versus how the new menstrual cycle will be for women who are on the OCP. The term 'normal' therefore paints menstruation negatively and anything different from "than normal" is now considered better. The question of normality of one's menstruation is planted in the through the inference of "than normal" being considered better. However to achieve a menstruation that is different "than normal", women have to use a form of medical intervention which is the OCP.

Other Symptoms

Lack of predictability was also defined as a symptom of menstruation on the websites. The website of ORTHO TRI-CYCLEN LO describes a problematic period as one that that consists of "periods have been bouncing all over the calendar" (www.thepill.com). The usage of the phrase "bouncing all over the calendar" to describe menstruation hints that any large variations in the arrival of menstruation is inconvenient and perhaps challenging (www.thepill.com). Pain is also shown as a symptom of menstruation on the ORTHO TRI-CYCLEN LO website twice (www.thepill.com). The website states women experience "pain or other symptoms during menstruation". The website also uses the term "menstrual cramps" to denote painful menstruation (www.thepill.com). Menstruation is medicalized here with the usage of the word "symptoms". However, once again there is no clarification as to what "other symptoms" constitute of. Women are left to assume that menstruation is accompanied by "pain or other symptoms". This frames menstruation through a very medical lens where the pharmaceutical company is showing women that menstruation is accompanied by "symptoms", thus establishing a need to treat or alleviate these "symptoms".

Only three websites mention Pre-Menstrual Syndrome (PMS) on their websites: YAZ, Beyaz and ORTHO TRI-CYCLEN LO. Even on these three websites, there is a curiously limited and vague discussion of PMS, however. PMS is defined as "a less serious set of symptoms occurring before your period" on the websites of both YAZ and Beyaz (www.beyaz.com; www.yaz-us.com). However, there is no further explanation of what the "less serious set of symptoms" are. Immediately after this information, YAZ and Beyaz's websites state that their products are "not approved to treat PMS". The website of ORTHO TRI-CYCLEN LO states that bloating "is part of what healthcare professionals call premenstrual syndrome. The good news: bloating is often temporary and relieved by the arrival of menstruation" (www.thepill.com). Thus, all three websites that mention PMS are very careful to note that OCPs cannot be used to treat this syndrome. The focus of discussions of menstrual management is on managing the daily experience of menstruation, rather than conditions or syndromes sometimes associated with it. The literature shows that the medical and pharmaceutical community has been trying to medicalize PMS for almost two decades. According to Figert (1996), in 1986, PMS was added under the name Late Luteal Phase Dysphoric Disorder (LLPDD) in the appendix of the Diagnostic and Statistical Manual of Mental Disorders (DSM-3) as a mental condition. Even though there was strong opposition of placing a condition that only affected women into a psychiatric document, the medical and pharmaceutical community at the time strongly backed this decision. Placing LLPDD into the appendix was seen as a compromise from the medical community to the protest faced about labeling PMS as a medical issue (Knaapen & Weisz, 2008). "LLPDD/PMDD and its placement in the appendix can be plausibly seen as a tentative first step toward creating a new formally recognized psychiatric diagnostic category" (Knaapen & Weisz, 2008, p.127). Even now, as evident on the websites, women are being informed by these websites that PMS is "set of symptoms" (www.beyaz.com; www.yaz-us.com). So, there is no evidence that PMS is demedicalized due to the lack of in-depth discussion on the websites. The next section focuses on how the symptoms and problems caused by menstruation are reduced and treated using OCPs.

Treating the Problem

Treating the problem using medical intervention is an important aspect of medicalization (Conrad, 1992). Thus, establishing treatment for problematic health experiences (here, menstruation) is an essential step in the process of medicalization. In this section, I also examine the role of healthcare providers as the facilitators of medicalization, as portrayed on the eight websites I analyzed. During medicalization, healthcare providers continue to be in the frontlines as the experts in providing medical treatments (Conrad, 2005). During my analysis, I too found that the main role doctors held was that of the expert who could provide the consumer with medical direction and treatment. The websites encouraged women to ask their healthcare providers about their symptoms as well as the functions of the OCPs (and thus, the treatment). Women were encouraged to consult their healthcare providers a total of 13 times on the following websites: Lo Loestrin Fe (four times), Natazia (five times), Generess Fe (twice) and ORTHO TRI-CYCLEN LO (twice). Beyaz, YAZ, Minastrin 24 Fe and SAFYRAL's websites did not contain direct information that encouraged women to talk to their doctors. The use of "ask your doctor", "ask your healthcare provider," and "set up an appointment with your gynecologist or healthcare professional" are examples of the instructions women received to obtain expertise from providers, along the way to receiving OCP (www.loloestrin.com, the as treatment www.thepill.com, www.natazia.com).

The discussion of how OCPs alter and provide women with menstrual relief is set up in such a way that consumers are made aware of the importance of treatment/symptom relief. In other words, discussions of the menstrual benefits of OCPs also establish the goals of particular medical treatments. Providing women with "shorter periods" was one of the treatments offered by the OCPs to suggest that a woman can ensure her the problem of long periods can be made shorter by being on the OCP. "Lighter periods" and "predictable periods" were also discussed as advantages of medical treatment. Setting achievable benchmarks for women ("shorter," "lighter," and "predictable" periods) secures the need to treat women's menstrual symptoms and relieve them of seemingly cumbersome menstrual management routines. Messages of "relief" were quite common on the websites I analyzed. To analyze the relief messages imparted by the websites during DTCPA, I took each type of relief mentioned and categorized it by its main message. The table below shows how websites characterized the problems that needed to be treated and the goals or benchmarks (i.e., "relief") desired.

Name of the Pill	How the Pill Manages/Treats Menstruation	Type of Problem Solved
Beyaz	- Treat PMDD (Pre- Menstrual Dysphoric Disorder)	-PMDD is a menstrual related disorder
Generess Fe	 Shorter periods Lighter periods than usual Predictable periods Average length of cycle is four days Lighter periods over time Periods starts for most woman on the 27th day 	-Long periods -Heaviness of the flow -Variation of the blood flow's arrival

Table 13: How the Pill Manages/Treats Menstruation

	- Average intensity of the periods was lighter over time	
Lo Loestrin Fe	- Shorter periods	-Long periods
	- Lighter periods	-Heaviness of the flow
	- Lighter than normal	
	- Fewer than two days on average	
Minastrin 24 Fe	- Has the same bleeding profile as a discontinued OCP	-Long periods
	- Shorter periods	-Heaviness of the flow
	- Average cycle length is under 3 days by 6 th cycle	
	- Less bleeding	
Natazia	- First and only clinically proven to help heavy monthly periods	-Heaviness of the flow
	 Lighten heavy monthly periods 	
	- Treatment of heavy menstrual bleeding not caused by other conditions	
	- Reduces heavy periods	
ORTHO TRI-	- Predictable periods	-Variation of the blood flow's arrival
CYCLEN LO	- Lighter periods	-Heaviness of the flow -Decreases pain
	- Reduced menstrual cramps	
	- Shorter periods	-Long periods

	- Regulates menstrual cycle	
SAFYRAL	- No discussion of menstruation/any menstrual process	-None
YAZ	- Treats PMDD (Pre- Menstrual Dysphoric Disorder)	-PMDD is a menstrual related disorder

The Symptom Checker Quiz and Treatment

Natazia's website was the only website with a symptom checker quiz, titled "Heavy" Periods? Take the Quiz". This interactive feature makes Internet DTCPA unique, as the consumer is able to take this guiz to see if they are facing the symptom (and thus, "problem") of "heavy periods". However the guiz also goes one step further and sets the stage for medicalization by offering a clear treatment or solution to the problem. The introduction to the quiz asks, "Do you know the facts about heavy periods and Natazia®? Take our true/false guiz to find out. Talk to your healthcare provider to determine if your bleeding is heavier than normal" (www.natazia.com). From the introduction on, this guiz demonstrates all the aspects of Conrad's medicalization framework as follows: "Do you know the facts about heavy periods" (labeling the problem from a medical framework where heavy periods are the symptom), "and Natazia" (defining the available treatment or solution) and "Talk to your healthcare provider to determine if your bleeding is heavier than normal" (involve medical expertise to treat the problem). Here, I discuss the guiz to highlight how OCP websites define menstruation as negative (therefore naming the problem and beginning the process of medicalization), provide treatment (in the form of the OCP Natazia, thus continuing the process of medicalization) and inform consumers to seek the assistance of healthcare providers (therefore, completing the process of medicalization by involving experts to treat these menstrual symptoms using Natazia). The symptom checker quiz has five statements that are answered by using the answers "True" or "False". Given below is the quiz listed on Natazia's website, the statements that comprise the quiz are as follows:

- 1) Many women believe heavy periods are "normal" and do not seek treatment.
- Heavy monthly periods (also known as heavy menstrual bleeding) affect millions of women in America each year.
- Natazia is the only birth control pill that is also FDA-approved to treat heavy monthly periods.
- Soaking through one or more pads or tampons every hour, or even having to double up on protection, is considered a "heavy period."
- 5) Restricting daily activities due to heavy bleeding is something that all women

have to deal with. (www.natazia.com)

The website contends that the correct explanation to the first statement is "True" and

this explanation follows:

Although common, heavy periods should not be considered normal. Many women do not realize that they can get help, and some are too embarrassed to talk about it. Some women have always had heavy periods, so they feel this is just what their periods are supposed to be like. Talking openly about your heavy periods with your doctor or even a nurse during your office visit helps them better understand what you're going through, and can lead to treatment options that can help (www.natazia.com).

The explanation provided above implants in women the idea that their menstrual cycle could actually be "heavy". The process of medicalization is beginning here: heavy

periods are being described as a medical condition that should not be considered "normal", therefore labeling a bodily experience as negative and in need of treatment. A definition of a "normal" period is also not given, which lends to women's assumption that they might be "abnormal" too. "Some women have always had heavy periods" also disabuses women of their own assessments, and encourages them to second-guess their ability to assess their own levels of normality. Within the definition of heavy periods as abnormal, there is also mention of "treatment options that can help." In the explanation of what heavy periods are, then, women are also encouraged towards action, and towards seeing their health care provider to discuss the problem, which is another aspect of medicalization. Thus, the definitions of potentially negative and abnormal symptoms prescribe women's actions (i.e., visiting the doctor for treatment) as well. Visiting the doctor is suggested openly in the sentence "Talking openly about your heavy periods with your doctor or even a nurse during your office visit helps them better understand what you're going through, and can lead to treatment options that can help" (www.natazia.com). Women are being reminded that they can consult the experts (i.e. "doctor or even a nurse") for two main reasons – to inform the medical providers about the "heavy periods" and to also obtain "treatment" that will help.

The second quiz statement is "Heavy monthly periods (also known as heavy menstrual bleeding) affect millions of women in America each year" and the correct answer is also "True". The explanation for the answer states, "One of the most common health issues women report to their healthcare providers is heavy periods. In America, heavy periods affect more than 10 million women per year, or about one in every 5 women" (www.natazia.com). By using the term "health issue" to describe heavy periods,

the normality of periods begins to be questioned and the "problem" becomes defined within a medical framework. According to Arney and Rafalovich (2007), a "you-are-notalone-in-your-suffering mindset" is typically created through DTCPA. This mindset is conveyed through the advertisements and encourages consumers to think of themselves as part of a community of sufferers (Arney & Rafalovich, 2007). Numbers also remind women that they are not alone in their potential pain and suffering, and that they could be among the one in five women affected by this "health issue"; therefore, they should maybe consider their own experience as abnormal and in need of intervention. Therefore, the need for treatment is once again being established here.

The third quiz statement, also "True," suggests that "Natazia is the only birth control pill that is also FDA-approved to treat heavy monthly periods". Subsequently, the statement is explained:

Natazia is the only birth control pill approved by the FDA to help lighten heavy monthly periods not caused by another condition of the uterus, such as fibroids or polyps. For women who choose the Pill for birth control, Natazia could be a treatment option for those experiencing heavy periods (www.natazia.com).

The second component of medicalization is visible here in the form of establishing the need for treatment for symptoms, specifically in the promotion of Natazia. This discussion of treatment comes sequentially, after the discussion of the actual problem (and the lessening of women's expertise about what is normal or abnormal) in the first and second questions of the quiz. The fourth statement on the Natazia quiz is: "Soaking through one or more pads or tampons every hour, or even having to double up on protection, is considered a "heavy period" (www.natazia.com). The answer is given as "True", with the explanation that, "While it's important to talk to your healthcare provider about your heavy periods to ensure it's not something more serious, there may be treatment options that can help" (www.natazia.com). When women are also informed that "there may be treatment options that can help," women are also encouraged to see that the problem can be solved through medical intervention. As mentioned previously, the encouragement to talk to a healthcare provider is also another aspect of the process of medicalization; and there is a pressure to seek medical expertise for the problem, in addition to an intervention or treatment. Seeking expertise and seeking treatment, then, go hand in hand in securing the medicalization of menstruation.

The last statement on the guiz was "Restricting daily activities due to heavy bleeding is something that all women have to deal with." The correct answer is "False" and that answer is followed by this text: "If your life is significantly impacted by your heavy periods, it's time to talk to your healthcare provider. Restricting daily activities due to fear of "leaking" or bleeding through clothing isn't normal. It may be time to see what treatment options are available that could be right for you" (www.natazia.com). Here the symptoms of menstruation are given again in the form of "significantly impacted by your heavy periods", "restricting activities due to fear of "leaking", and "bleeding through clothing" (www.natazia.com). Women are informed that these symptoms "isn't normal" for them to experience. This last statement infers that there are also negative lifestyle consequences if women are experiencing these symptoms, further establishing the need for treatment. This need for treatment is imparted to women through statements such as, "It may be time to see what treatment options are available that could be right for you" (www.natazia.com). Women are encouraged to seek medical advice through the statement "....it's time to talk to your healthcare provider" (www.natazia.com). This portion has numerous elements of medicalization of menstruation in it such as defining

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and providing symptoms of a problematic period to the consumer, creating the need for treatment and actively telling consumers to seek treatment from the medical experts.

Treatment of Other Symptoms

In this section, I further discuss how the websites demonstrate the treatment of other symptoms of menstruation such as longer periods, heavier periods, predictable periods, menstrual pain and PMDD using OCPs. This section also covers how the need for treatment is established and the action that is often encouraged (i.e., seeing a healthcare provider) to obtain treatment. According to the U.S. Department of Health and Human Services, a woman's menstrual cycle (when untreated) can last for up to seven days (U.S. Department of Health and Human Services, 2009). However, the websites demonstrate that a shorter period is a benefit of taking OCP and it is also inferred that shorter periods should be a goal for women. Using medical intervention (OCPs) to reduce the actual number of menstruating days (shortening the cycle) was shown as a major form of relief on the websites, thus treating the problem of long periods and setting a goal or solution of "shorter" periods. Shorter periods as a way in which treatment is successful was discussed once on the website of Minastrin 24 Fe, once on the website of ORTHO TRI-CYCLEN LO, eight times on the website of Generess Fe, and 21 times on the website of Lo Loestrin Fe (total of 31 times). Three websites (e.g., Lo Loestrin Fe, Minastrin 24 Fe and Generess Fe) also provided information about exactly how short a woman's period can become if she takes that particular OCP.

Lighter periods were also discussed on five websites (Lo Loestrin Fe, Generess Fe, Natazia, Minastrin 24 Fe and ORTHO TRI-CYCLEN LO) as a goal or benchmark

that women should desire, and the relief or solution that OCPs bring. It was discussed in this context the following number of times: 19 times on the website of Natazia, 12 times on the website of Lo Loestrin Fe, eight times on the website of Generess Fe, once on the website of Minastrin 24 Fe and thrice on the website of ORTHO TRI-CYCLEN LO (total of 43 times). Predictable periods were shown as a relief provided on the website of two OCPs– ORTHO TRI-CYCLEN LO and Generess Fe. ORTHO TRI-CYCLEN LO's website focused the most on predictable periods as a way their OCP manages unpredictable periods when compared to the rest of the websites. The ability of the OCPs to provide a woman with predictable periods was mentioned seven times on their website and six times on the website of Generess Fe, for a total of 13 times.

A clear treatment plan was established by the pharmaceutical companies when it comes to using the OCP to provide women with a shorter, lighter and predictable period. Thus, treatment solves problems and creates better menstruation (i.e., better menstruation being the goal of treatment). One of the main steps of the treatment plan includes providing solutions for menstrual problems using the OCPs. Another aspect of the treatment plan that reinforces medicalization is to include the healthcare provider's expertise because women are not seen as experts on their own bodies. For example: Minastrin 24 Fe's websites tells women that if their periods are "unusually heavy" or "last more than a few days", women are asked to "Call your healthcare provider..." if this happens. Treatment using Minastrin 24 Fe's is described as providing women with "shorter periods averaging fewer than three days" (www.minastrin24.com), thus treating the problem of a longer period. Furthermore, "Lighter periods with less bleeding" is established as another form of proven treatment to help women with their periods

(www.minastrin24.com). All aspects of medicalization are visible here. Women are not only informed of the symptoms of a problematic menstruation to show that treatment is needed, they are asked to call their healthcare provider for help for the symptoms. Additionally, women are also told how treatment benefits them.

Similarly, the website of ORTHO TRI-CYCLEN LO informs women to ask their physicians "How do I know if my period is normal?" (www.thepill.com). Asking the physician, "How do I know if my period is normal?" shows that women should be concerned about their periods and should rely on physician expertise to determine whether their "period is normal" (www.thepill.com). The aspect of medicalization visible here is that women are taught to rely on the expertise of medical professionals about their own bodily experience. Furthermore, asking women to think if their periods are normal implants the idea of an abnormal period, and the need for treatment. Two ways in which treatment is successful for a period that might not be "normal" is suggested: One is that ORTHO TRI-CYCLEN LO can make the periods "shorter" and another is "predictable" (www.thepill.com). The two actions of medicalization happening here are encouraged are women having to consult their physician to determine the normalcy of their period (thus checking the symptoms by use of medical expertise). Another characteristic of medicalization occurring is the availability of solution to the problem in the form of a shorter and predictable period.

Furthermore, on the website of ORTHO TRI-CYCLEN LO, the establishment of a treatment method for this problem an unpredictable period is further conveyed through "Do you want a birth control pill that gives you a high level of effectiveness and a low level of hormones? How about one with these benefits and one that may provide more

predictable periods? Here's why ORTHO TRI-CYCLEN® LO may be right for you" (www.thepill.com). The usage of the term "right for you" sends the impression that there is a match between women's menstrual management problems and this particular OCP medication. Furthermore, women are clearly informed that the OCP is the solution for this problem as it makes their period more predictable. Women are being explicitly asked if they want a form of medical intervention that may "provide more predictable periods?". Medicalization is occurring here because of the offering of a clear medical treatment solution to the problem. This is further apparent in the quote "If your periods have been bouncing all over the calendar, you can look forward to a more predictable period with each month that you use the Pill. Remember to always take the Pill on time to keep cycles more regular" (www.thepill.com). Here, the treatment method for unpredictable periods is established clearly which is to "use the Pill" and "always take the Pill on time" (www.thepill.com).

As mentioned earlier, Natazia's symptom checker quiz portrayed all aspects of medicalization such as naming and treating the problem along with encouraging healthcare provider's expertise in the treatment portion. However, Natazia's website further states, "When you have concerns about your period, you should always tell your healthcare provider, even if you aren't asked first. Don't be afraid to let your healthcare provider know exactly what you're experiencing and how your periods impact your life" (www.natazia.com). Additionally, the website states "If your life is significantly impacted by your heavy periods, it's time to talk to your healthcare provider. It may be time to see what treatment options are available that could be right for you" (www.natazia.com). One of the main aspects of medicalization occurring here is not just informing women

their periods can be problematic, but also setting up the prescription of action. The prescription of action is set up in two ways - one way is to offer a clear treatment and solution to the menstrual woes by informing women that "treatment options are available". The second prescription of action is seeking the expertise of healthcare providers to support the need for treatment. In addition, "even if you aren't asked first" sends the message that women should seek advice from medical experts at every turn. Statements such as "you should always tell your healthcare provider" and "Don't be afraid to let your healthcare provider know exactly what your experiencing" informs women that they must seek that help about their period "concerns". This is again evident as Natazia's website states, "Talking openly about your heavy periods with your doctor or even a nurse during your office visit helps them better understand what you're going through, and can lead to treatment options that can help," and "Talk to your healthcare provider to determine if your bleeding is heavier than normal" (www.natazia.com). In both these instances, women are being taught to question their normality and seek help from doctors in order to establish bodily knowledge and treatment plans.

One of the questions listed for women to ask their healthcare provider on the website of Lo Loestrin Fe is, "Will Lo Loestrin Fe make my periods short and lighter?" (www.loloestrin.com). Two elements of medicalization are occurring here. Firstly, a clear treatment plan is being developed by the pharmaceutical company through having the consumer know if the OCP can treat their period and make it "short and lighter" (www.loloestrin.com). Secondly, the consumer is asked to involve the expertise of the healthcare provider in deciding if Lo Loestrin Fe is a good treatment for them. The ability

of Lo Loestrin Fe to solve menstrual problems for women is further highlighted on their website through a very own menu called "What will my periods be like?". Here a need for treatment using the OCP is established by pharmaceutical company by discussing how relief can be achieved from regular menstruation. Women are blatantly informed "Go low for short, lighter periods" (www.loloestrin.com). Then women are informed that they will experience a period "fewer than two days per cycle on average" if she takes the OCP (www.loloestrin.com). This information of "less than two days" was mentioned a total of five times on this website. The repetition of this information emphasizes the importance placed on this aspect of menstrual suppression. Furthermore, the repetition feeds the idea of a shorter period to women over and over again as being a major relief provided by the OCP. There is also an illustration of a purple drop with "<2 days" written in the drop. Next to this visual image is written the words, "Some women had a period that lasted LESS THAN 2 DAYS per cycle on average" (www.loloestrin.com). The use of capital letters for the phrase, "LESS THAN 2 DAYS," also demonstrates the emphasis placed on this advantage by the pharmaceutical company. The message here is that Lo Loestrin Fe is successful in shortening a woman's OCP to less than two days (i.e., effectiveness of treatment using the OCP) which allows women to not have to tolerate the problem of long periods and can achieve relief through treatment.

A clear treatment method is established on Generess Fe's website when it gives the solution of reducing the "average intensity" of menstrual flow by using their OCP. Generess Fe's website also affirms that, "Women taking Generess Fe had short periods—on average about 4 days. Women also reported their periods to be lighter than normal. Plus, they found their periods to be lighter over time." (www.generess.com).

This information is placed under the menu titled, "What can Generess Fe do for you?" indicating the fact that this OCP offers a concrete solution to problems associated with menstrual management. The main aspect of medicalization here is showing the consumer how Generess Fe can help treat their menstrual problem, thus establishing a clear treatment method. Another aspect of medicalization of menstruation evident on the website of Generess Fe is the encouragement for women to seek medical expertise. The website of Generess Fe states, "Ask your doctor about Generess Fe for pregnancy prevention with short, lighter, predictable periods—all in a low-dose pill" (www.generess.com). It is interesting to note that the consumer is being directed to ask about the product not only as a contraceptive but also a product that provides "short, lighter, predictable periods" (www.generess.com).

Another relief that was mentioned twice was menstrual pain management while on the OCP. It was mentioned both times only on the website ORTHO TRI-CYCLEN. It states on the website that "Menstrual cramps are usually less severe when you're on the Pill" (www.thepill.com). Furthermore, it attests that "The hormones in ORTHO TRI-CYCLEN[®] LO also help to regulate your menstrual cycle, so your periods may be more predictable and pain or other symptoms during menstruation may be encountered less frequently" (www.thepill.com). Multiple aspects of medicalization are evident here. Medical intervention (here, OCP use) brings relief from symptoms, and we read that the use of ORTHO TRI-CYCLEN LO can lead to "symptoms during menstruation [being] encountered less frequently". Women are informed exactly how the OCP can help menstrual cramps and bring relief – by making them "less severe". Therefore, another aspect of medicalization that is clear here is the specific treatment of the symptom using

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OCPs (i.e., an established treatment plan). It is also expanded to illustrate that the hormones in the OCP helps to regulate the menstrual cycle (regulation is the form of treatment) which leads to reduction of "pain or other symptoms during menstruation" (how the treatment alleviates the symptom). Medical expertise is also recommended as it says further "If you think ORTHO TRI-CYCLEN® LO may be right for you, set up an appointment with your gynecologist or healthcare professional to discuss whether you are a good candidate" (www.thepill.com). Another aspect of medicalization is visible here which is not only the encouragement of women to think about the match between their symptoms and the available treatment, but also the reminder that the healthcare provider must be consulted.

Only two websites discussed treating premenstrual dysphoric disorder (PMDD)

using their OCPs (YAZ and Beyaz). The websites for YAZ and Beyaz state:

What are Beyaz® and YAZ® prescribed for? For women who choose the Pill for birth control, Beyaz and YAZ are approved to: -Treat premenstrual dysphoric disorder (PMDD) -Beyaz and YAZ are not approved to treat Premenstrual Syndrome (PMS), a less serious set of symptoms occurring before your period (www.beyaz.com; www.yaz-us.com)

According to the latest edition of the Diagnostic and Statistical Manual of Mental

Disorders (DSM-5), PMDD is now officially classified as a psychiatric disorder (Gotlib &

LeMoult, 2014).

The decision to move premenstrual dysphoric disorder to the main body of DSM-5 was based on evidence that 2% to 5% of menstruating women experience a unique depressive disorder that begins following ovulation, remits within several days of menses, and leads to significant interference in daily life. A diagnosis of premenstrual dysphoric disorder requires at least five clinically significant symptoms that occur repeatedly during the premenstrual phase of the cycle and that remit at or shortly after the onset of menses (APA, 2013). At least one symptom must reflect disturbance in general mood: mood lability, irritability, dysphoria, or anxiety. In addition, individuals must endorse at least one of the following physical/behavioral symptoms: anhedonia, difficulty concentrating, lethargy, appetite changes, sleep changes, overwhelmed feelings, and physical symptoms. These symptoms must have occurred in most of the menstrual cycles during the past year and must be severe enough to cause marked impairment in work or social functioning. (Gotlib & LeMoult, 2014:196)

Earlier, in this chapter, I discussed the controversy that led to adding LLPDD into the appendix of the DSM-3 as a mental illness. According to Knaapen and Weisz (2008), one of the key players who wanted this change was pharmaceutical companies because "pharmaceutical companies needed specific diagnostic categories around which to develop and sell their products" (p.127). When the DSM-4 was created many years later, LLPPDD was changed to PMDD (Knaapen & Weisz, 2008). As per the literature given above the latest DSM-5, it is clear that PMDD is now seen as a medical condition that affects menstruating women in a psychiatric manner. Despite PMDD being included in the DSM-5 as a significant condition, there is no expansion of the information about its symptoms on the current websites of both YAZ and Beyaz. One of the main facets of medicalization is treating the problem that is defined by medical terms. Even though PMDD is not defined by medical terms here (in the form of symptoms), medicalization is visible because it says that YAZ and Beyaz are able to treat PMDD. The establishment of a clear treatment method using the OCPs allows for the matching of condition (PMDD) to its solution (treatment using OCPs). Furthermore, it is clear that pharmaceutical companies have mentioned earlier they are not approved to treat PMS but approved to treat PMDD. This shows that since the medical community has backed off labeling PMS as a medical condition and have established PMDD now as the medical conditions instead, pharmaceutical companies are being careful that the treatment they are providing aligns with the medical diagnosis.

Chapter Summary

In this chapter, I examined evidence of the medicalization process, as present on eight OCP websites. Numerous features of medicalization became visible within the data on these websites. First, naming the problem in medical language was evident in the text on the websites. OCP websites portrayed symptoms of menstruation and determined that those symptoms were potentially negative and abnormal. Second, websites also defined solutions for the problems of menstruation and suggested matches between menstrual symptoms and medical treatments, through the advertisements for OCPS. Third, website text indicated that medical providers, not women, were experts on women's bodies, and that women should consult these experts whenever possible. Women are told to take the OCP "as directed by your doctor" and "see what treatment options are available" which demonstrates that doctors are considered as the authority that should be consulted about this matter. Phrases such as "tell", "ask" and "talk" are used to encourage women to bring their menstrual problems forward to their healthcare providers. The next chapter presents a summary of the findings in this dissertation and potential conclusions of this research, in addition to the contributions and limitations of this study and future recommendations.

CHAPTER 7 - CONCLUSIONS

Because DTCPA is increasingly used to market pharmaceutical products, it provides important messages to consumers, and these messages include an emphasis on the freedom to choose and change their lives by purchasing the advertised product (Schudson, 2013). Previously, DTCPA operated primarily through print and broadcast media but, today, pharmaceutical companies are using the Internet as one of their biggest DTCPA platforms (Liang & Mackey, 2011). According to The Pew Research Internet Project (2013), searches for drug information were one of the major types of health-related searches on the Internet. Many pharmaceutical companies have established websites about the medications they manufacture. In this study, online DTCPA websites for traditional OCPs (i.e., 21 or 24 hormone pills followed by 7 or 4 non-hormone pills) were examined utilizing qualitative content analysis techniques.

Eight traditional OCP websites were included in this exploratory study. These eight websites advertised the following OCPs: Beyaz, Generess Fe, Lo Loestrin Fe, Minastrin 24 Fe, Natazia, ORTHO TRI-CYCLEN LO, SAFYRAL and YAZ. The two research questions that guided this study were: (1) How are traditional OCPs portrayed and characterized on online DTCPA websites? (2) What evidence of medicalization present on these online DTCPA websites?

Major Themes from the Study

One of the major themes that arose from the study is that descriptive colors, images, slogans and consumer incentives helped pharmaceutical companies appeal to their female audience. In addition, some descriptive characteristics promoted the OCPs'

benefits, to further encourage prospective consumers to consider traditional OCPs. Purple and white were the two colors most commonly found on the websites. While purple is shown to appeal to female audiences when it comes to drugs, white is also a popular color used within online DTCPA (Charbonneau, 2010; Greenslit, 2002). Therefore, pharmaceutical companies are aligning with color choices that have been proven effective in the past. Slogans relayed information not only about the benefits of the OCPs, but also the product's effectiveness. Benefits of the OCPs were conveyed through slogans such as "Generess Fe is birth control with benefits" and "Natazia®, the First and Only Birth Control Pill Clinically Proven to Help Heavy Monthly Periods" (www.generess.com; www.natazia.com). Another slogan is "Reliable Birth Control," followed by "Daily Assurance" on the website of ORTHO TRI-CYCLEN LO (www.thepill.com). Generess Fe's slogan, "Little pill. Big difference," suggests that even though the OCP is not difficult to take, it can help women make changes in their lives for the better (www.generess.com). Use of terms such as "reliable", "little", "big", "first and only", "clinically proven", "help" and "assurance" imparts a message the OCP is failproof, likeable and trustworthy for women.

Images of women on the websites suggest that OCP users are happy, free from burden, and active. The images on the websites showed women engaging in the following activities: smiling, laughing, sky diving, water diving, snowboarding, bungee jumping, walking the dog, walking with a box that says Rx, jogging, having a cup of coffee and relaxing at home. Some of the items that surrounded the images were the symbol Q, a graduation hat, a graduation diploma, a microscope and a female business suit, inferring success in paid work and education. Medley-Rath and Simonds (2010)

also propose that contraceptive DTCPA depicts women as successful people who are doing well for themselves. Women depicted in online DTCPA for these eight OCPs are smiling and relaxing. A sense of adventure is imparted through the images of women who are snow-boarding, sky diving, water diving and bungee jumping. Moreover, it is inferred that these women's lives are unaffected and uninterrupted by the worries of pregnancy and/or menstruation, thus sending a subtle message to women that a traditional OCP prescription allows them the freedom to control their own lives and stay free from burden. Therefore, images function to not only promote the product but also appeal to female audiences by projecting the possible lifestyles and successes that are possible if women are prescribed and take a traditional OCP.

The websites I analyzed also made it very easy for prospective consumers to take advantage of consumer incentives (available immediately upon entry to the websites in most cases), thus increasing the attractiveness of OCPs. With the exception of the website for Natazia, all of the other websites placed consumer incentives at eyelevel or at the very top of the homepage of the websites. Furthermore, the consumer incentives could always be downloaded online and used right away. Much of the look and feel of the DTCPA websites, such as the colors, images, slogans and consumer incentives, is constructed purposely to appeal to women as soon as they access the websites. Overall, the eight DTCPA websites are constructed to efficiently and effectively promote the likeability and affordability of OCPS, in addition to the primary benefits of OCPs.

The second theme that emerged from this study, then, is the importance placed on the benefits of traditional OCPs and, relatedly, how benefits were given more importance than the risks and side-effects of OCPs on these online DTCPA websites. Four types of information about documented drugs benefits were present on the websites: pregnancy prevention, menstrual benefits, low amounts of hormones, and presence of folate. Pregnancy prevention was the only benefit that was mentioned on all the websites (for a total of 136 times). Except for the website of SAFYRAL (which did not mention menstruation), all seven other websites showcased the menstrual management benefits of OCPs (i.e., shorter, lighter and predictable periods for a total of 91 times). Low dosages of hormones was mentioned as a benefit on three websites (for a total of 41 times): Lo Loestrin Fe, ORTHO TRI-CYCLEN LO, and Generess Fe. The presence of folate was mentioned as a benefit on two websites (for a total of eight times): SAFYRAL and Beyaz.

Two types of risk information were present on the websites I analyzed. The most important risk information included the warnings given to smokers who are using the OCPs (mentioned a total of 63 times across all eight websites). The second type of risk information was about other, varied medical side effects of OCPs. For example, serious cardio-vascular events such as heart attacks, strokes and blood clots were mentioned as risks on all the websites (totaling 144 mentions for cardio-vascular events including heart attacks, 105 times for strokes and 128 times for blood clots).

Benefit information was always placed at the top or middle of the home pages of websites, compared to side-effect information that was placed at the bottom of all eight websites. This supports Huh and Cude's (2004) findings on the placement of benefit and risk information. The only exception that the websites of YAZ, Beyaz, Natazia and SAFYRAL placed warnings to smokers in a prominent position, at the top of the home

page on these four websites. Some of the other most common side-effects were headaches/migraines, vomiting, nausea, mood changes and acne. Information about these side effects was found at the very bottom of the home page on the websites that I studied. This is of particular concern because this information could be easily overlooked when websites are accessed, but it seems that this placement is very purposeful. Moreover, benefit information was repeated quite frequently across menus and types of text on the websites, whereas risk information was not repeated as often.

It is also interesting to note that there was no discussion on these eight websites of the dangers of high dosages of estrogen (to parallel the discussion of the benefit of low dosages of hormones), although the discussion of low dosages of hormones on a few websites certainly hints that high dosages are harmful. The medical literature advocates for lower dosages of estrogen, for instance, when stating that a "reduction in estrogen in newer preparations [of OCPs] has helped to reduce the incidence of prothrombotic and prohypertensive side effects" (Chadwick, Burkman, Tornesi & Mahadevan, 2012, p.4). Pharmaceutical companies creatively share beneficial information while downplaying parallel risks on their DTCPA websites, and pay keen attention to how benefit information - instead of risk information - is shared.

Another way that information on risks was minimized was in the language used on these DTCPA websites. When benefits were discussed, detailed numerical data was provided to paint benefits in a positive light, such as "99% effective," or "menstrual bleeding was reduced over 90 days by an average of 72% in one study and 78% in the other" (www.loloestrin.com; www.natazia.com). However, when risks were discussed, such detailed statistics were not provided to the consumer. During my analysis, it became clear that risks were designated by a general lack of importance, when compared to the emphasis placed on benefits.

The third theme found in the study is that pharmaceutical companies emphasize and reinforce the medicalization of menstruation, specifically by naming menstruation as a problem, offering OCPs as a form of treatment for menstrual problems, and encouraging women to view their healthcare providers as experts on menstruation and menstrual management. It has already been suggested in existing literature that DTCPA is a driving force of medicalization, whereby conditions that are usually benign are now being treated with medicines (Conrad, 2007). Menstruation was defined a "problem" for women on the websites through the usage of terms. For instance, untreated menstrual flow was defined as possibly "heavy", "unusually heavy", "more than a few days [length]" and "bouncing all over the place". In addition, on some websites, having to double up on menstrual protection, restricting daily activities, bleeding through clothing; missing work and staying home were also listed as possible menstrual problems. Johnston-Robledo, Barnack and Wares (2006) agrees that the biomedical model constructs menstruation as a condition that needs to be managed medically, and also as an inconvenience that affects other facets of the woman's well-being. My findings confirm Johnston-Robledo, Barnack & Wares' findings.

Offering OCPs as treatment for menstrual problems and promoting healthcare providers (especially doctors) as experts were prevalent actions on the websites. Two of the websites studied also had tabs that discussed menstruation exclusively (i.e., Lo Loestrin Fe's tab "What will my periods be like?" and Natazia's tabs "Heavy Periods? Take the Quiz", "Natazia Can Help With Heavy Periods" and "Talk to Your Doctor About Heavy Periods"). The websites in this study hailed OCPs for their ability to provide women with shorter, lighter and predictable periods (three related yet separate benefits garnered from treatment). Menstrual benefits gained through OCP treatments were discussed quite commonly on the websites (i.e., shorter periods were mentioned 23 times, lighter periods were mentioned 53 times, and predictable periods were named 13 times). The treatment of PMS was not highlighted on most websites, but PMS was described as a set of (not so serious) symptoms on the websites of YAZ and Beyaz. However, these websites informed women that OCPs were "not approved to treat PMS" (www.beyaz.com; www.yaz-us.com). Treatment of PMDD was discussed as a benefit twice on the websites of YAZ and Beyaz without explanation of what constitutes PMDD, thus potentially leaving consumers to make their own assumptions about PMDD versus PMS. There should be further research into the ways in which PMS and PMDD are characterized with online DTCPA (i.e., in advertising forums within which women/consumers cannot ask for additional information).

Within these eight websites, pharmaceutical companies informed women explicitly to ask their health care providers about OCPs as a treatment for their menstrual problems. This was evident in phrases, such as "Ask your doctor about Generess Fe for pregnancy prevention with short, lighter, predictable periods—all in a low-dose pill" (www.generess.com), and "If your life is significantly impacted by your heavy periods, it's time to talk to your healthcare provider. It may be time to see what treatment options are available that could be right for you" (www.natazia.com). It is already documented that the treatment of menstrual problems using hormonal methods such as OCPs is encouraged both by the medical and pharmaceutical community (Coutinho & Segal, 1999; Freeman, 2010; Harel, 2006; Lin & Barnhart, 2007; Panay, 2011; Shulman & Kiley, 2011); thus my analysis confirms this finding that OCPs are characterized as a specific treatment option.

Women were also encouraged to consult their healthcare providers a total of 13 times on the websites. Pharmaceutical companies are setting up an ideal patient-doctor relationship, within which women (the patients) consult medical experts (i.e. doctors) about processes that they once dealt with on their own. However, Hoffmann and Tarzian (2001) state, "The feminist literature is rife with examples and criticism of women's voices not being heard or considered credible in the male-dominated health-care system" (p.20). Furthermore, feminist literature shows that women have a hard time trusting their physicians due to their voices being unheard (Sherwin, 1992). When pharmaceutical companies ask women to trust their doctors as medical experts and speak to them about their "menstrual problems", they are reinforcing the concept that physicians are ultimate expert in women's bodies rather than the woman herself. The well-documented reality is, though, that physicians and women often do not have an ideal or trusting relationship.

There was also evidence of professional dominance within my data on the Natazia website. Natazia's website states "Talking openly about your heavy periods with your doctor or even a nurse during your office visit helps them better understand what you're going through, and can lead to treatment options that can help" (www.natazia.com). In this case, the phrase "or even a nurse" indicates that the doctor should be women's first choice for a medical expert when dealing with problems of menstrual management. Hartley (2002) proposes that, "Physician professional

dominance can be understood as the ability of the medical profession to exert control over potentially competing professional groups, as well as over the larger institutional domain" (p.180). According to the theory of professional dominance, then, physicians are considered to have the main role in diagnosing illness and treating women's menstrual problems. Pharmaceutical companies have the power to reinforce professional dominance, in this case through online DTCPA.

Limitations of this Study

For this study, I used qualitative content analysis techniques to illustrate the portrayal, characterization and medicalization present on the DTCPA websites for eight traditional OCPs. One of the major limitations of this study is the small number of websites that were studied. By using only eight websites for this study, I may have missed important variations in online DTCPA websites for OCPs. Only eight traditional OCP websites were available to be analyzed at the time this study was proposed, however. Even though these websites were analyzed in detail, it still remains a very small sample size. With online information constantly changing, this study also experiences the limitation that some of the content might not be available for consumers today in the way it was available in 2014, when data collection took place. In addition, because of time and space constraints I did not engage in as much comparison of the eight websites as could have been possible; therefore a more comparative second study is needed. Nonetheless, in-depth textual data was gathered from the eight websites in an unobtrusive manner, making this a very feasible study.

A third limitation of this study is that three OCPs experienced a change in pharmaceutical company ownership, between Fall 2014 and the time that this

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dissertation was completed. When data collection occurred, Lo Loestrin Fe, Generess Fe and Minastrin 24 Fe were manufactured by Actavis Pharma. Today, all three of these OCPs belong to the pharmaceutical company Allergan, due to the merger of Actavis Pharma with Allergan in 2015 (http://www.allergan.com/news/news/thomson-reuters/actavis-completes-allergan-acquisition, Retrieved: March 2016). This change of ownership could be significant for this study, as this change in ownership might change how the same OCPs are advertised through the DTCPA websites now.

Another limitation of this study is that the data were collected and analyzed before the Affordable Care Act mandated that insurance companies cover the entire cost of OCPs. As of July 2015, with some exceptions for religious employers and certain health plans, insurance companies are now required to cover OCPs entirely (http://obamacarefacts.com/obamacare-birth-control/, Retrieved: March 2016). Following this new mandate, the advertisement of OCPs could be different. Finally, researcher bias is another drawback of qualitative research. I was aware of the subjective of the nature of qualitative research before the study began and, therefore, tried to remain as objective as possible when analyzing the data. In order to achieve this, I had a second individual look at the website data and coding strategies to confirm that my data analysis was accurate. This process ensured that I remained as objective as possible during the data collection and analysis process. To be fair, DTCPA advertising of any pharmaceutical product may follow a particular format and stress benefits over risks. DTCPA advertising is utilized to sell pharmaceutical products and, therefore, we may find very similar findings if we visited DTCPA websites for heart medications, prostate medications, cold medications, etc. A future researcher could

engage in a comparative study to see if DTCPA advertising always medicalizes to the same degree regardless of type of product, or if products related to women's health may be more medicalized by DTCPA than other products

Future Recommendations

I have several recommendations, both for research and future DTCPA policy. One of the major findings of this study was that risks are portrayed differently than benefits within online DTCPA. Because the FDA leaves online DTCPA somewhat unregulated at the current time, pharmaceutical companies determine how to portray risks and benefits on their websites. Researchers have an opportunity to show their findings to policymakers and urge the FDA to force pharmaceutical companies to share information on risks and side-effects in more prominent ways within DTCPA, parallel to how benefits are portrayed.

The results of this study show that online DTCPA websites for traditional OCPs define menstruation as problematic, and recommend these traditional OCPs as a treatment for menstrual problems. When presented to prospective consumers, DTCPA for traditional OCPs purposely does not include information about how many women experience menstrual difficulties or what is "normal" about menstruation (and therefore what should maybe be left untreated); instead the focus is on how OCPs can be a treatment and solution to these vaguely defined menstrual difficulties. Yet, according to the research literature, there are concerns that women might trivialize major menstrual disorders, such as amenorrhea, that require medical intervention, if untreated ("normal") menstruation is always defined as something problematic (Johnston-Robledo, Barnack & Wares, 2006). Concerns also exist that women might not be fully advised about the

risks of managing menstruation through the use of OCPs (Society of Menstrual Cycle Research, 2007). Furthermore, we lack research on the long-term risks associated with using OCPs for menstrual management (Rako, 2006; Vanderhaeghe, 2011). There is much still to research about the use of OCPs, and the DTCPA recommendations that women receive about both menstruation (as a problem) and OCPs (as a form of treatment for menstruation) should be of larger concern to us.

A future research study that shows women the contents of DTCPA websites for traditional OCPs, and then collects their opinions and understandings of what is presented, would be helpful in determining what prospective consumers are actually learning about pregnancy prevention, menstrual management, traditional OCPs, medicalization, healthcare providers, and other related subjects through DTCPA. A long-term study that also looks at women who have used traditional OCPs primarily for their menstrual benefits versus pregnancy prevention benefits can enhance our knowledge about the use of traditional OCPs.

While previous studies have been completed on the nature of online DTCPA websites for extended-cycle OCPs such as Seasonale, this study brings the focus back to online DTCPA websites for traditional OCPs. In the future, more comparative analysis of DTCPA for extended cycle and traditional OCPs should be undertaken as well, because there has been little attempt to compare these two sets of OCPs so far. DTCPA for other birth control methods has not been analyzed enough either, so varied types of comparative research can be explored in the future.

The Internet has become another platform for DTCPA (Liang & Mackey, 2011). One of the concerns about online DTCPA is that the Internet allows information to reach a very large number of people of all ages in a very short amount of time (Fox et al., 2006). Online DTCPA is also unique, as prospective consumers are exposed to information about prescription drugs around the clock and in the privacy of their own homes, with no opportunity to engage more actively with the information that is presented to them. Another important concern is that the information on the Internet is often not monitored by the FDA, which makes online DTCPA different from other forms of DTCPA (Woodlock, 2005). This provides pharmaceutical companies more freedom to impart messages to online consumers. Because of these issues, online DTCPA certainly warrants further research.

APPENDIX

CODE SHEET

Categories Examined

- 1. Color of the websites
- 2. Presence of tabs for consumers
- 3. Presence of tabs for health care providers
- 4. Slogans on the websites
- 5. Visual Imagery on the websites
- 6. Videos on the websites
- 7. Frequently Asked Questions
- 8. Consumer Incentives for consumers and healthcare providers
- 9. Types of benefits present on the websites
- 10. Types of risks present on the websites
- 11. Location of benefit and risk information on the websites
- 12. Language surrounding benefit and risk information on the websites
- 13. Medicalization on the websites Naming the problem
- 14. Medicalization on the websites– Treating the problem
- 15. Medicalization on the websites The role of healthcare providers

Categories Examined	Search terms/phrases/criteria
1. Color of the websites	Different colors – Yes/No Main colors on the websites (list all) Colors of the text on the websites (list all) Frequency of color schemes Frequency of colors present
2. Presence of tabs for	Tabs– Yes/No Type of tabs present

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consumers	Frequency of consumer tabs in total Function of tabs present – helping the consumer, information providing to the consumer, encouraging the consumer (check all that apply)
3. Presence of tabs for healthcare providers	Tabs – Yes/No Type of tabs present Frequency of healthcare provider tabs in total Function of tabs present – helping the healthcare provider, information providing to the healthcare provider, encouraging the healthcare provider to prescribe the medication (check all that apply)
4. Slogans on the websites	Messages that convey message of the product in a larger font upon entry to the site – Yes/No Frequency of slogans per website Adjectives present (list all) Cure mentioned – Yes/No
5. Visual Imagery on the websites	Photos, diagrams, cartoons, silhouettes – Yes/No Product Imagery – Yes/No Types of product imagery – Pill pack, pill box (check all that apply) Frequency of product images present Is pill visible in the pill pack? Yes/No People Imagery – Yes/No Male and or female images – Yes/No Race of people imagery – Caucasian, African-American, Asian, South Asian, Hispanic Location – Outdoor/Indoor Location – Nature or not (list all if nature is present) Actions being engaged in – Physical activities, Relaxing, Smiling, laughing (list all) Frequency of people imagery Location – Outdoor/Indoor Actions being engaged in – Physical activities, Relaxing, Smiling, laughing (list all) Frequency of other imagery Location – Outdoor/Indoor Actions being engaged in – Physical activities, Relaxing, Smiling, laughing (list all) Frequency of other imagery
6. Videos on the websites	Videos – Yes/No Male and or female images – Yes/No Location – Outdoor/Indoor

	Actions being engaged in – Physical activities, Relaxing, Smiling, laughing (list all) Frequency of images present in the videos
7. Frequently Asked Questions	FAQ section – Yes/No Frequency of FAQ sections per website Types of questions present – help providing, product encouraging (check all that apply)
8. Consumer Incentives	Consumer incentives for consumers – Present or Not Consumer Incentives for healthcare providers – present or Not Frequency of incentives present for consumers and healthcare providers Description- "Coupon", "% off", "No more than", "Savings"
9. Benefit information	Yes/No
10. Portrayal of pregnancy prevention as a benefit	Description - "Prevent", "Prevention", "birth control", "contraceptive", "approved to prevent pregnancy", "prescription birth control" Frequency of this benefit for consumers
11. Portrayal of menstrual benefits	Description – "Lighter", "Shorter", "Predictable" Frequency of this benefit for consumers
12. Risk information	Yes/No
13. Portrayal of Smoking risk	Description – "Warning", "Smokers" Frequency of this risk for consumers
14. Portrayal of other risks/side-effects	Description – "Risks", "Side effects", "Other risks", "other side-effects", "common risks", "common side-effects" Frequency of these risks for consumers
15. Location of benefit and risk information	Location – Top of the page, middle of the page, bottom of the page (check all that apply)
16. Medicalization – Naming the problem	Description – "symptoms", "heavy", "long", "lasts for", "pain", "cramps", "bleeding", "normal", "bleeding", "loss", "discharge", "expulsion", "problem", "unpredictable", "interfere", "heavy", "long", "pain", "unregulated (check all that apply)

17. Medicalization – Treating the problem	Description - "treat", "help", "relief", "clinically proven", "manage", "reduce", "shorter", "lighter", "regulate", "control", "less than" (check all that apply)
18. Medicalization - The role of healthcare providers	Description – "ask", "encourage", "request", "prescribe", provide", "treat", "help" (check all that apply)

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ABSTRACT

THE ORAL CONTRACEPTIVE PILL: AN ANALYSIS OF THE PORTRAYAL OF THE PILL ON PHARMACEUTICAL WEBSITES

by

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Internet Direct-to-consumer pharmaceutical advertising (DTCPA) continues to be an important, popular and rising platform for pharmaceutical companies to market their products to consumers. The purpose of this study was to determine how traditional oral contraceptive pills (OCPs) are portrayed on the pharmaceutical websites during Internet DTCPA. This study also looked to see how women's bodies and the process of menstruation were medicalized on these websites. Eight traditional OCP websites were analyzed using a qualitative content analysis. The findings suggest that website characteristics such as color, slogans, consumer incentives, images and videos are created in a strategic manner to show consumers about the positive and fail-proof aspects of the OCPs. Benefits such as pregnancy prevention, menstrual management and low amount of hormones took priority over the risks/side-effects of OCPs on the websites. The only risks/side-effects that were emphasized on the websites were the warnings given to smokers who might be using the OCPs or will begin to use the OCPs. Medicalization was also present during the Internet DTCPA of traditional OCPs. The results demonstrate that menstruation is defined through a symptomatic lens on the websites as being heavy, long, unpredictable and painful. Treatment of menstruation is encouraged to achieve main benchmarks such as a shorter period, a lighter period and a more predicable period. The role of doctors continues to be that of experts who will provide women with treatments using the OCPs to manage their menstrual cycles.

AUTOBIOGRAPHICAL STATEMENT

I grew up in Toronto, Canada. I received an undergraduate degree in Psychology from the University of Toronto in 2003. I also completed a second major in Women's Studies at the University of Toronto. My master's degree was received from Lakehead University in Thunder Bay in 2006. This degree was a M.A. in Sociology with a specialization in Women's Studies. During this time, I was the recipient of the A.B. Chen Graduate Scholarship in Sociology and the Special Entrance Graduate Award. I also served as a graduate assistant for the following courses: *Women, Health and Medicine, Sociology of Health and Illness*, and *Sociology of the Family*. I received my doctorate in Medical Sociology from Wayne State University in Detroit in 2016. I have over ten years of experience working in the field of mental health, suicide prevention and psychiatric crisis intervention. My research interests are in women's health, health policy and mental health.