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Oral Contraceptives

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Acceptance of Senior Honors Thesis

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Abstract

Cyclic oral contraceptive and continuous oral contraceptives have many similarities yet a few distinct differences. One of the major differences between cyclic and continuous oral contraceptives is that cyclic oral contraceptive pills have twenty one active pills and seven inactive pills versus the new continuous oral contraceptive pills which have 28 active pills and no inactive pills. However, though cyclic and continuous oral contraceptives do have a few differences, both types of oral contraceptives affect a woman's body in similar ways. When choosing between cyclic and continuous oral contraceptives, it is important for women to be informed about the advantages and disadvantages of both continuous and cyclic oral contraceptive pills.

Also, over the years, there have been debates between religious groups regarding oral contraceptives. The two religions that have prominent views on this topic are Catholic and Protestant. A few followers from each religion will be chosen to represent the religious group as a whole regarding the topic of oral contraceptives. The Bible will also be used as a source and cited for its writing related to oral contraceptives, marriage, sex, and children.

Oral Contraceptives

The topic of oral contraception is often debated because of the varying views that so many have with regard to the use of contraceptive measures. Some hold to a traditional religious perspective that oral contraceptives are not acceptable, while others believe oral contraceptives as a plausible method of birth control, which furthers women's rights and health. However, regardless of a person's view of oral contraceptives, there are various misunderstandings about oral contraceptives. In paragraphs to follow, there will be information regarding oral contraceptives and their effect on a woman's body. This information is important for readers to understand in order to dispel common myths and misconceptions about oral contraceptives. Information will also be provided about the two different forms of oral contraceptives, cyclic and continuous. It is important to be well informed on the topic of oral contraceptives in order to make an accurate decision about the usage of this medicine. Also, there are varying beliefs on the topic of oral contraceptives held by people from different backgrounds. It is not the author's mission to change the view of the reader regarding oral contraceptives; rather, it is to help the reader make an informed decision about the use of oral contraceptives.

Target Organs of Oral Contraceptives

Oral contraceptives target a woman's sex organs, namely, the ovaries, uterus, and the vagina, with the primary target being the ovaries. The ovaries are reproductive organs within the abdomen of the woman, which are connected by the fallopian tubes. Within the ovaries are many ovarian follicles, which are at varying maturity levels. These follicles contain an immature egg, known as the oocyte. Each follicle goes through stages of maturation before it is ready to be released from the ovary. Each month the ovary

releases the oocyte from the matured follicle during a process that is known as ovulation. For a female who is in her reproductive years, this process of releasing an oocyte from one of her ovaries coincides with her menstrual cycle.

After ovulation, an endocrine gland develops from the ruptured follicle during the luteal phase. The endocrine gland is called the corpus luteum. The corpus luteum progresses through the fallopian tubes and into the uterus where it waits to be fertilized by a sperm. The corpus luteum's main function is to secrete progesterone, which helps to sustain pregnancy during the beginning stages. If a sperm does not fertilize the egg, then the corpus luteum gland will degenerate (Marieb, 2013). One of the functions of oral contraceptives is to prevent ovulation from occurring so that there is not an available egg to be fertilized by a sperm. If there is not an egg to be fertilized, then there will be no pregnancy.

Another way oral contraceptives inhibit pregnancy is by modifying the endometrium. The endometrial lining of the uterus typically thins in response to the hormones contained in oral contraceptives. The endometrium is the mucosal layer of the uterus. This layer plays a role in the fertilization process: "If fertilization occurs, the young embryo burrows into the endometrium (implants) and resides there for the rest of its development" (Marieb, 2013, p.1039). Thus, by oral contraceptives thinning the endometrial layer, there is greater difficulty with implantation for the young embryo. If the young embryo is unable to implant in the endometrium, it will not survive. Therefore, the thinning of the endometrium can also prevent pregnancy from occurring.

Another effect of oral contraceptives is thickened cervical mucus. Normally, before ovulation, the cervical mucus becomes thin and watery in order to help facilitate

the traveling of the sperm up the vagina and into the uterus. However, by taking oral contraceptives, the hormones in the oral contraceptive prevent the vaginal secretions from thinning. Thus, when the vaginal secretions stay thick and sticky, it makes it very difficult for the sperm to travel through the secretions. Thickened vaginal secretions are another way that oral contraceptives help to prevent pregnancy (Marieb, 2013).

Pharmacology of Oral Contraceptives

There are two different types of oral contraceptives: combination oral contraceptives that are comprised of estrogen and progestin and progestin-only oral contraceptives. Combination oral contraceptives are far more common and thus will be discussed in further detail. Combination oral contraceptives were first made available in the 1950s and continue to be known as a relatively safe and effective form of contraception, despite their common side effects (Lehne, 2010). As previously noted, the mechanism of action for combination oral contraceptives is inhibition of ovulation, thickening of cervical mucus, and modifying the endometrium (Lehne, 2010). All of these effects decrease a woman's level of fertility.

In general, oral contraceptives have been proven to be very effective in preventing pregnancy: "With perfect use, the failure rate is only 0.1% and even with typical use, the failure rate is only 3%" (Lehne, 2010, p.738). The effectiveness rate does drop somewhat if the woman is overweight. Lehne (2010) believes this is due to "decreased blood levels of the hormones, sequestration in adipose tissue, and altered metabolism" (p.738). Yet even with the slight decrease in effectiveness for overweight women, oral contraceptives are still more effective than many other birth control methods. There are many side effects to oral contraceptives, but severe side effects rarely occur. The most severe side

effects that can occur from the use of oral contraceptives are under the category of thromboembolic disorders. These thrombolytic disorders are due to the estrogen that is in oral contraceptive pills. Thromboembolic disorders include venous thromboembolism, arterial thromboembolism, pulmonary embolism, myocardial infarction, and thrombotic stroke. Certain risk factors place a patient at a higher risk for acquiring these severe side effects: heavy smoking, history of thromboembolism, thrombophilias, diabetes, hypertension, cerebral vascular disease, coronary artery disease, and surgery, where immobilization increases the risk of postoperative thrombosis (Lehne, 2010). Therefore, if a patient has one or several of these risk factors, the health care provider may consider an alternative form of birth control.

Consequently, teaching patients about the side effects and risk factors of oral contraceptives is vitally important. By teaching the patient to watch for side effects, the woman can come to the health care provider sooner to be evaluated and receive treatment. The patient needs to be taught to watch for signs of leg tenderness or pain, sudden chest pain, shortness of breath, severe headache, and sudden visual disturbances (Lehne, 2010).

Another area of patient education is promoting awareness of alternative benefits of oral contraceptives. Often patients assume the only reason to take oral contraceptives is to prevent pregnancy. However, there are many other benefits to oral contraceptives, including decreasing the risk of ovarian cancer, endometrial cancer, ovarian cysts, pelvic inflammatory disease, benign breast disease, iron deficiency anemia, and acne. Also, oral contraceptives decrease menstrual symptoms, decrease the intensity of premenstrual syndrome, and reduce the frequency of menstrual associated migraines (Lehne, 2010).

All of the above information is imperative for health care providers to teach their patients regarding oral contraceptives. It is important for the patient to understand why they are taking the drug, how the drug affects their body, and what side effects they need to watch out for while taking oral contraceptives.

Differences Between Cyclic and Continuous Oral Contraceptives

For several decades, cyclic oral contraceptives were the only form of oral contraceptives. However, in 2007, Lybrel was released, the first oral contraceptive that could be taken 365 days a year (FDA Approves Continuous Contraceptive, 2007). There is one main difference between cyclic and continuous oral contraceptives: the presence or absence of placebo pills. Cyclic oral contraceptives are available with 21 active pills and seven placebo pills. When a woman is taking the seven placebo pills, she will have withdrawal bleeding. With the continuous oral contraceptive, the woman takes active pills all year round and never takes placebo pills. Thus, she does not experience monthly withdrawal bleeding (FDA Approves Continuous Contraceptive, 2007). It is interesting to note that the main purpose for the withdrawal bleeding in cyclic birth control is due to cultural and societal pressures instead of biological reasons. There is no proven medical or biological benefit to having withdrawal bleeding. In an article from *Contemporary* OB/GYN, it states the point, "Of course, cyclic or monthly withdrawal bleeding when using hormonal contraception is not physiologically necessary. The traditional oral contraceptive (OC) cyclic dosing (21 days of active hormone, 7-day hormone-free interval) was chosen instead for its ability to mimic the natural menstrual cycle and to conform to 1950s societal pressures-not for its biological superiority" (Isley and Edelman, 2008, p.50). Other than the withdrawal bleeding, continuous and cyclic oral

contraceptives are actually very similar. Even the advantages and disadvantages of taking oral contraceptives are almost identical between the two categories, with only a few slight differences noted.

Advantages to Continuous Oral Contraceptives Compared to Cyclic Oral Contraceptives

Many of the advantages of taking continuous oral contraceptives and cyclic oral contraceptives are the same. However, there are some advantages to taking continuous contraceptives that make them more appealing to the consumer. These benefits are related to the absence of monthly withdrawal bleeding. With continuous oral contraceptives, a person can go a year or more without scheduled withdrawal bleeding. The Mayo Clinic outlines several benefits of delaying a period for a year or more (Mayo Clinic staff, 2012). One of the benefits includes when a woman has endometriosis, anemia, asthma, migraines, or epilepsy that is worsened by menstruation. Thus, without the monthly withdrawal bleeding, the woman will experience a lightening of symptoms in the above stated disorders. Another benefit of not having a period is to eliminate breast tenderness, bloating, or mood swings for the 7-10 days before menstruation. The elimination of these symptoms is because continuous oral contraceptives eliminate the monthly fluctuation in hormones that cause these symptoms. Another benefit of continuous oral contraceptives when compared to regular oral contraceptives is the prevention of headaches, or other menstrual symptoms during the week of taking the 7 inactive birth control pills. Also, for women who have heavy, long, and painful periods, it enables them to avoid these monthly symptoms by taking continuous oral contraceptives. From an economic standpoint, it is also cheaper not to have monthly

periods or withdrawal bleeding because a woman does not have to buy monthly hygiene products or pain relievers (Mayo Clinic Staff, 2012). Thus, due to continuous oral contraceptives maintaining a stable level of hormones in the body, a lot of the symptoms a woman experiences on a cyclic oral contraceptive are alleviated. Due to these advantages, a woman who is on a cyclic oral contraceptive s may want to consider changing to a continuous oral contraceptive. However, before the woman makes the switch to continuous oral contraceptives, it is important that she consider the disadvantages of this type of continuous oral contraceptives.

Disadvantages to Continuous Oral Contraceptives Compared to Cyclic Oral Contraceptives

The Mayo Clinic points out some of the downfalls to continuous oral contraceptives. One of the side effects of continuous oral contraceptives is breakthrough bleeding. Breakthrough bleeding is when a woman has unexpected bleeding while taking the active pills of her oral contraceptives. This is a common side effect, but it will likely decrease over time as a woman's body becomes used to the hormones of the pill (Mayo Clinic, 2012). Another disadvantage to continuous oral birth control is that it is more difficult for a woman to know if she is pregnant or not. Though it is uncommon for a woman to become pregnant on birth control, it can occur. So if a woman is experiencing morning sickness, breast tenderness, or unusual fatigue, she should take a pregnancy test at home and contact her doctor (Mayo Clinic Staff, 2012). Whereas, with having the withdrawal bleeding monthly, a woman has confirmation that she is not pregnant. This is an advantage to being on cyclic oral contraceptives. Though there are not many disadvantages to continuous oral contraceptives, it is important for women to be educated

about them so that they can make an informed decision regarding taking continuous oral contraceptives.

Misconceptions/Myths about Oral Contraceptives

In this section, the goal is to dispel many myths and misconceptions about menstrual suppression. Though many women are aware of menstrual suppression, there are still barriers in knowledge that make women uncomfortable with menstrual suppression. In an article from *Health Care for Women International* (2008), a study was performed to gain knowledge about young women's attitudes towards menstrual suppression. According to this study, the most common way women hear about menstrual suppression is through the media. In this study, the least common way women heard about menstrual suppression was from their families and in their health education classes (Rose, 2008). This is an educational problem. Media does not provide adequate information regarding menstrual suppression and oral contraceptives. Women need a more reliable source of education so that they can make intellectual and informed decisions regarding important topics relating to their health. Due to this lack of knowledge regarding menstrual suppression, the study reports that participants are not as willing to suppress their menstruation:

Fifty-eight percent of participants reported that they support women's rights to suppress menstruation; however, on the seven-point Likert scale question, the majority of the women (32%) reported that they were 'unwilling' to suppress their own menstrual cycles (M=3.25). Only 33% of participants indicated they were willing to suppress menstruation, but 68% indicated that they would be willing to suppress menstruation if there were no negative side effects to menstrual

suppression (M=4.88). In an open-ended question about factors that would affect their willingness to suppress menstruation, 'safety' (51%) was the most popular response followed by "none, suppression is not natural" (29%), 'if there were no fertility issues later' (5%), and 'price' (4%). (Rose, 2008, p. 693-694)

This study reveals the knowledge deficit regarding menstrual suppression. Thus, in paragraphs to follow, there will be a discussion of common reasons women choose not to suppress their menstruation and the facts regarding menstrual suppression.

In regards to the treatment of pain and disorders associated with menstruation, the best oral contraceptive for a woman to choose is continuous oral contraceptives. Since cyclic oral contraceptives still have monthly hormonal fluctuations and withdrawal bleeding, women can still experience uncomfortable pain and aggravation of disorders while being on cyclic oral contraceptives. By taking continuous oral contraceptives, the symptoms experienced with withdrawal bleeding can be further reduced (Dougherty, 2008).

Another reason women are more uncomfortable with menstrual suppression is that many women believe menstruation is natural and that it is unnatural to suppress it. Therefore, many women are more comfortable taking cyclic oral contraceptives due to the monthly withdrawal bleeding mimicking the typical menstrual cycle. The monthly withdrawal bleeding helps the woman to feel more natural by having the typical bleeding pattern. However, it should be noted that cyclic oral contraceptives are just as unnatural as continuous oral contraceptives: "In reality, the bleeding that occurs in the hormone free interval of birth control bills is not a menstrual period...The bleeding that occurs during the hormone free interval of cyclic oral contraceptives is not due to endometrial

buildup but rather results from hormone withdrawal and has no proven medical benefit" (Dougherty, 2008, p. 245). Thus, the purpose of withdrawal bleeding is to give a woman a false peace of mind that she is still having a menstrual period when in reality there is no medicinal benefit to it. Thus, it is important to understand that women on any form of contraceptive are altering their bodies' natural cycle of ovulation and menstruation. Therefore, if a woman desires to take an oral contraceptive, the monthly withdrawal bleeding should not be a deciding factor when choosing between continuous or cyclic oral contraceptives. A woman should also consider that "there is an absence of evidence to support regular menstruation as necessary, as well as an absence of evidence to suggest that suppressing menstruation is deleterious to a woman's health" (Dougherty, 2008, p. 245). Though menstrual suppression seems scary and foreign, there is actually no evidence to support it as being detrimental to a woman's health.

Another common reason women are afraid to take oral contraceptives, especially continuous oral contraceptives, is because they believe if they suppress their menstrual cycle, they will never be able to have a menstrual cycle or become pregnant when they decide to stop taking the oral contraceptives. This is a very common fear regarding oral contraceptives and menstrual suppression. Dougherty states results from a study in her article that "among women who stopped taking continuous oral contraceptives after one year, resumption of menses or pregnancy occurred in 38.5 percent of women within 30 days and 92.5 percent within 90 days" (Dougherty, 2008, p. 246). Dougherty also gives results to another study that "found the median time to return of menses was 32 days after a year of continuous oral contraceptives…" (Dougherty, 2008, p. 246). If a woman is worried about becoming pregnant or experiencing menses after prolonged menstrual

suppression, these two studies should help calm her fears. According to these two previously stated studies, it is common for women to become pregnant after menstrual suppression. Therefore, pregnancy and return of menses should not be reasons for a woman to avoid taking oral contraceptives. Other reasons that women decide not to take oral contraceptives are rooted in their religious views.

Catholic View of Oral Contraceptives

The Catholic religion is a tradition of Christianity that entails a devout commitment to sacraments, tradition, and a precise structure of leadership. The Pope is the leader of the entire Catholic Church and is thereby endowed with the authority to establish specific moral rules and standards for every individual Catholic congregation to follow. One clear moral standard set forth through generations of papal tradition has been a strong negative view regarding oral contraceptives (Dummet, 2010). Thus, unlike the Protestant tradition of Christianity, it is easier to tell where Catholics stand on the issue of oral contraceptives because all Catholics are obligated to uphold Catholic standards.

An article from the *National Health Reporter* magazine notes that the Catholic Church is against all forms of birth control except for natural family planning. Specifically, "The Catholic Church is opposed to all artificial forms of birth control and supports natural family planning as the only method of birth regulation that does not interfere with the unitive and procreative aspects of marriage" (O'Brien, 2011, p. 3). The natural family planning that the Catholic Church supports involves a woman paying close attention to her cycle, and abstaining from sexual intercourse during the most fertile time of her cycle. The natural family planning method of birth control is unfortunately not as effective or convenient as are other forms of birth control (Davidson, 2012). It takes a fair

amount of education to teach a woman about how to record her cycle and vaginal discharge. After the woman understands how to record her cycle, she then has to practice abstinence during the times when she is most fertile and only have sexual intercourse during the time of the month when she is less fertile. This takes a lot of self-control. Also, for women who do not have a regular and predictable menstrual cycle, natural birth control methods can be very ineffective because it's harder to tell when ovulation is occurring. Thus, the natural family method of birth control supported by the Catholic Church is not nearly as practical, convenient, or effective for preventing pregnancy. However, the Catholic Church does have its reasons for negating all other forms of birth control.

One of the reasons the Catholic Church believes oral contraceptives should not be used for birth control is because of sexual health. The US Conference of Catholic Bishops and the National Abstinence Education Foundation disagreed with the new federal healthcare law that requires employers and insurance companies in all 50 states to pay for the entire cost of prescription contraceptives. The executive director of the abstinence education group, Valerie Huber, stated, "We don't want to see the sexual health of our young people compromised. We are concerned that if there isn't a policy correction, that will be the result" (Sheehy, 2010, p. 5). The US Conference of Catholic Bishops also did not approve of this new federal law regarding contraceptives. Catholic Bishop, Deirdre McQuade, made a statement regarding it. He said, "Married women can practice periodic abstinence. Other women can abstain altogether. Not having sex doesn't make you sick" (Sheehy, 2010, p. 5). The Catholic Church does not support oral contraceptives to the point that it sounds insensitive. McQuade did not make a great

effort to promote women's rights or give valid reasons for opposing the new federal law. In order to sound more genuine, McQuade could have included in his statement the promotion of natural family planning as a "better" alternative to oral contraceptives. McQuade could have also made the argument that the natural family planning method would save the government and tax payers a lot of money by not requiring tax money to go to the payment of birth control methods. Natural family planning is a free method of birth control. Therefore, McQuade holds a strong position on the issue of free contraceptives but he could have supported the Catholic bishops' position a little stronger. Interesting to note, a man named Michael Dummett, an advocate of birth control, believes that the position of the Catholic Church regarding contraceptives is flawed and incoherent.

Michael Dummet, a prestigious educator who has taught at many renowned colleges, including: Oxford University, Stanford University, Princeton University, and Harvard University holds the view that by the Catholic Church banning contraceptives, it throws the Catholic Church into moral confusion. Dummet uses Paul VI's encyclical *Humanae Vitae* as his basis for his argument. Dummet (2010) writes, "This encyclical greatly damaged the respect of the faithful for the Catholic Church's moral teaching in general, since many of them do not accept the ban on contraceptives, and in the confessional many priests surreptitiously collude with their rejection of it. But it has also damaged the integrity of Catholic moral theology" (p. 16). Dummet makes the point that many Catholic priests do not ascribe to the belief that all forms of artificial contraceptives are harmful. Thus, the moral theology of Catholicism is not accepted by all of its leaders. Without unity of belief among leaders, it does not give a clear message to the followers

of Catholicism. Dummet makes a point that the leaders of the Catholic Church need to be united on the issue of contraceptives in order to maintain the integrity of the moral theology. Further in Dummet's argument, he analyzes and critiques the position of the Catholic Church on contraceptives. Dummet believes the Catholic's stance on contraceptives is "indefensible." Though Dummet supports many areas of Catholicism in his article, he does critique the religion in the area of contraceptives and desires the leaders of this religion to better defend or change their view on contraceptive use.

According to educators and scholars such as Dummet, the reason many Catholic parishioners are not unified in their view of contraceptives is because the Catholic Church and individual priests are not fully unified on their views. Add to this unity the fact that families often want more options than natural methods for contraception and it is clear why many Catholics are inconsistent in their views on birth control.

Protestant View of Oral Contraceptives

Modern research suggests that Protestant Christians have a diverse and varied perspective regarding oral contraceptives. In the paragraphs to follow the term 'Christian' will be used to refer to Protestant Christians who oppose Catholic traditions and base their faith and practice on biblical principles, justification by faith alone, and in the universal priesthood of all the believers. However, two widely publicized Christian couples have stated their views on oral contraceptives. The first person this thesis will address is the well-known pastor, Mark Driscoll and his wife, Grace Driscoll. Mark Driscoll is the preaching and vision pastor of Mars Hill Church in Seattle, Washington (Mars Hill Church, 2013). Mars Hill Church has thousands of members. Pastor Driscoll has messages available online and has also written many books during his career. His

newest book, written with his wife, has received a lot of media attention for its controversial topics. *Real Marriage: The Truth about Sex, Friendship, and Life Together,* is a book that discusses many issues regarding the topic of marriage, some more racy than others. In the book, Pastor Driscoll takes the time to specifically address the topic of contraceptives.

Pastor Mark Driscoll admits that birth control is a very sensitive subject for many Christians. But rather than shying away from the topic, Driscoll breaks birth control methods down into five distinct categories. The first category he writes about is couples who choose to not use any form of birth control. These couples believe that God will bless them with pregnancy when He chooses. They view birth control as interfering with God's plan. The second category encompasses couples who choose to do a natural form of birth control. In this category, husband and wife have sex during non-fertile times of the month and abstain from sex during fertile times of the month. The third category Driscoll states is the non-abortive birth control. This category contains male/female condoms, diaphragms, cervical caps, and male/female sterilization. Driscoll makes the point that categories one through three are acceptable and Biblical. It is very obvious that Mark Driscoll holds the standpoint that the best option for birth control methods are within the first three categories. He then gives much caution for the last two categories. He states, "To summarize, levels 1-3 are options for Christian couples to prayerfully consider without concern that they may terminate a fertilized egg and thereby take a human life. At the next level, we tread into murky waters that are more difficult to discern for Christian couples" (Driscoll, 2012, p. 196).

The next two categories, as Pastor Driscoll points out, are the more controversial categories for contraceptives. The fourth category of contraceptives is potentially abortive birth control methods. This category contains oral contraceptives. Mark notes that oral contraceptives are a very popular form of birth control in today's society: "Today fifty to sixty million women worldwide take the pill each day, and it is the most widely prescribed drug in the world" (Driscoll, 2012, p. 196). The reason oral contraceptives are so popular is because they are an easy, relatively safe, and effective form of birth control. Driscoll (2012) notes, "With careful use, fewer than 1 woman in every 100 will get pregnant in a year. With less careful use, 3 or more women in every 100 will get pregnant in a year" (p. 196). These statistics are very impressive. Even when a woman is not extremely careful, she is still highly unlikely to become pregnant. However, the controversy of the pill lies within the 1-3 women out of 100 who do get pregnant on the pill. For the women who do become pregnant on the pill, the fertilized egg may not be able to implant due to the pill causing a thinning of the endometrium. Thus, the pill can lead to death of the fertilized egg. For this reason, oral contraceptives are potentially abortive. Driscoll (2012) does not give a strong opinion on oral contraceptives, but does encourage that women should use oral contraceptives with caution: "As Christian leaders who are admittedly not medically trained, we do not encourage members of our church to use the pill, but also would not discipline a member for sin if she did, as this is a complicated and unclear issue" (p. 197). Therefore, Driscoll admits there is not biblical support to call oral contraceptives a sin; however, he does not recommend using them for birth control. Driscoll (2012) closes this section with a personal statement about his view and use of oral contraceptives: "Upon learning these

things many years ago, we stopped using the birth control pill out of conscience" (p. 197). Therefore, Driscoll states that he and his wife no longer use birth control, not because of biblical facts, but based on personal convictions.

The last category Driscoll writes about is abortive murder. Within this category is the medication Mifepristone (RU-486), which works to end pregnancy by causing changes in the uterine lining and detachment of the pregnancy, softening and opening the cervix, and increasing uterine sensitivity to prostaglandin (Abortion Facts, 2008). All of these mechanisms of action by Mifeprisone lead to a termination of a pregnancy. Driscoll and many other Christian leaders clearly do not support this category of birth control. This category of birth control is unbiblical. God does not support murder, including murder of an infant in the womb. Biblical Christians should not choose this last form of birth control as a method to prevent a child from being born. At the end of this section on birth control categories, Pastor Driscoll gives a closing statement to summarize his opinions on birth control methods. He states, "In summary, we would support couples practicing levels 1-3 of birth control, urge those considering level 4 to prayerfully and carefully reflect on their decision, and oppose any couple considering level 5, unless there were extremely weighty extenuating circumstances, such as a tragic situation in which both the mother and her unborn child cannot both live, and so a choice must be made" (Driscoll, 2012, p. 198). In summary, Pastor Mark Driscoll does not support the use of oral contraceptives; however, he does not believe that it is a sin to use oral contraceptives. Now that there has been a discussion of a popular pastor and wife's view of oral contraceptives, the next Christian couple that will be discussed is Jim Bob and Michelle Duggar.

Another Christian perspective regarding oral contraceptives comes from the televised family, the Duggars. The Duggar couple is known for their large family and their traditional values. This couple, and their 18 children, have been televised on TLC and have gained a lot of views and spectators. In the book, *The Duggars: 20 and Counting*, Jim-Bob and Michelle Duggar talk about the experiences they have endured and enjoyed in their lives. The couple speaks candidly about their marriage, their children, and their faith. The Duggars even choose to share a story regarding their view of oral contraceptives. When the Duggars were in their first years of marriage, Mrs. Duggar used birth control pills in between pregnancies as a means for birth control. This practice all of a sudden changed due to a tragic incidence. When the Duggars found out that taking oral contraceptives contributed to the miscarriage of one of their children, the Duggars' view of oral contraceptives changed dramatically (Duggar, 2008).

While Michelle was taking birth control pills, she became pregnant. Sadly, during the third month of Michelle's pregnancy, she lost the baby. After hearing insight from the doctor about probable cause of the miscarriage, Michelle and Jim Bob decided to choose a different method of birth control: "When the doctor told us the miscarriage probably happened because she had conceived while still on the pill, we were devastated," (Duggar, 2008, p. 40). This is a very understandable reason for the Duggars to no longer choose to take oral contraceptives. The Duggars (2008) stated, "To us, it meant that something we had chosen to do, use the pill, had caused the end of the pregnancy" (p. 40). The Duggars bore the guilt of their miscarriage. They were devastated to believe that it was their fault for the pregnancy ending. However, the Duggars did not know that oral contraceptives could cause that result. If they were aware, they would not have taken oral

contraceptives for birth control in the first place. Therefore, the Duggars have a strong opinion regarding oral contraceptives based on personal experiences.

The situation that occurred to Mrs. Duggar is a popular argument against the use of oral contraceptives in the Christian community. This argument is that when a woman is having sexual intercourse while taking oral birth control, there is a chance that the pill could cause an abortion of a fertilized egg. This can happen if the woman does not take the pill properly. If a woman forgets to take her pill on a certain day or inconsistently takes her pill at various times of the day, it does not allow for her body to maintain therapeutic hormone levels. When the hormone levels of the pill are not at a therapeutic level, then ovulation is no longer suppressed and can occur. When ovulation occurs and the egg is released, then there is an egg that can be fertilized by a sperm. Therefore, if a woman continues to take the pill after fertilization has occurred, the pill can lead to death of the fertilized egg. However, this usually only happens when a woman's hormones are not being adequately suppressed by the oral contraceptives. Thus, if a woman is faithful to taking her pill at the same time every day, adequate suppression of hormones and ovulation will occur. With that said, many Christian or non-Christian pro-lifers are not willing to take this chance. Pro-life advocates believe conception happens when the sperm fertilizes the egg. Therefore, they believe that oral contraceptives can cause an abortion. Thus the physical benefits do not outweigh the moral risk of abortion. The Duggars use the Bible to support their view of oral contraceptives and children. In their book, the Duggars cite Bible verses as their basis for believing in the sanctity of life and the blessing of children. In the paragraphs to follow, there will be an analysis of what the Bible says regarding marriage, sexual practices, birth control methods, and children. It is

important for followers of God to not only consider beliefs held by different religions, but to ultimately base their opinions on the Word of God.

Biblical View of Sex, Birth Control, and Children

The Bible clearly has a moral viewpoint regarding sexual immorality. Sex before marriage is clearly wrong in the Bible. In Hebrews 13:4 it states, "Let marriage be held in honor among all. And let the marriage bed be undefiled, for God will judge the sexually immoral and adulterous." God calls men and women not to defile the marriage bed by pre-marital sex or sex with someone other than their spouse. Therefore, if a woman is taking oral contraceptives in order to prevent pregnancy outside of marriage, God clearly does not support this action. God does not promote sex outside of marriage, so He certainly does not support women taking pills to prevent pregnancy outside of marriage. However, the question beckons, what does God say about sexual practices or birth control inside a marriage?

One of the popular verses cited in the Bible regarding birth control is in Genesis 38: 6-10. In these verses, it talks about a man named Onan. Onan was told by Judah to have sex and produce offspring for his brother's wife so that she could carry on the name of her husband and Onan's brother. However, Onan did not obey Judah's request. In Genesis 38:9 it states, "But Onan knew that the offspring would not be his. So whenever he went in to his brother's wife he would waste the semen on the ground, so as not to give offspring to his brother" (ESV). It goes on to say that God was very displeased with Onan and killed him due to his actions. Many Christians interpret this passage as though God killed Onan because he spilled out his semen on the ground instead of in the woman. This contraceptive practice is called coitus interruptus. Coitus interruptus "requires that

the male withdraw from the female's vagina when he feels that ejaculation is impending. He then ejaculates away from the external genitalia of the woman (Davidson, 2012, p. 84). Due to Onan's death, many Christians use this passage to support their view that pouring semen on the ground is a wrong form of birth control and should not be used. However, this is a misinterpretation of Scripture. God is upset with Onan because he refuses to impregnate his brother's wife because he does not want to give his potential offspring to his brother and wife. Onan wants to keep all of his offspring to himself. Onan's selfishness and disobedience leads to his death. Thus, this Scripture passage does not pertain to appropriate or inappropriate contraceptive practices. The Scriptures are actually very vague in regards to birth control methods. There are no specific references to God-approved birth control methods. In regards to birth control methods, every person having sex has to realize that there is a chance of pregnancy. Though God does not have a lot to say in regards to birth control, He does have a lot to say about children.

Throughout the Bible, several passages reference the value and importance of children. The classic passage that is often quoted in reference to children is Psalm 139: 13-16. This passage talks about how God formed each person in his or her mother's womb. The passage also mentions that each person's body is "intricately woven." Psalm 127:3 states, "Behold, children are a heritage from the Lord, the fruit of the womb a reward" (ESV). While Jesus was on the earth, He made children a priority in His ministry. In Matthew 19:14 Jesus states, "Let the little children come to me and do not hinder them, for to such belongs the kingdom of heaven" (ESV). God holds children in high esteem and views children as a blessing. This concept is important for women to remember when choosing a birth control method. With contraceptive use, there is always

a chance that the woman can become pregnant and have a child. If a couple truly does not want a child, they should remain abstinent. Abstinence is the only birth control method that has no chance of pregnancy.

In regards to the Bible, God does not give humans specific birth control methods that He approves or disapproves of. God merely states that He created sex for both pleasure and procreation. The only area that is easily identified in the Bible regarding sex is that God views premarital sex, homosexual sex, and adulterous sex as sin. Also, through Jesus' ministry, God shows His strong love for children. Other than that, Biblically speaking, each couple has to make their own decision regarding birth control methods. In James 1:5 it states, "If any of you lacks wisdom, let him ask God, who gives generously to all without reproach, and it will be given him" (ESV). Therefore, Christians should prayerfully ask God for wisdom regarding the topic of birth control methods.

In closing, oral contraceptives have been a highly debated topic ever since their release in the 1950s. Each person and religion holds an opinion regarding oral contraceptives. Even though everyone holds an opinionated view on oral contraceptives, not all are adequately informed about their view of oral contraceptives. This thesis has served as a means to educate readers about the history, pharmacology, advantages/disadvantages, misconceptions, and religious views regarding oral contraceptives.

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