ORAL CONTRACEPTIVES IN JAPAN:

GOVERNMENT INFLUENCE ON MODERN-DAY PERCEPTION AND USE

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By

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On my honor, I, Alyssa Weaver, have not received unauthorized aid on this thesis. I have fully upheld the HONOR CODE of Colorado College.

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READER APPROVAL

This thesis project, written by Alyssa Weaver, meets the required guidelines for partial fulfillment of the Bachelor of Arts Degree in Asian Studies at Colorado College.

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Introduction

Oral contraceptives are widely available in America, but there are still debates surrounding their use. I am familiar with the debates surrounding oral contraceptives in America. I am also familiar with the stigma that is associated with taking oral contraceptives, and the lack of information readily available. However, while spending a semester abroad studying in Tokyo, Japan, I wondered what the discussion on oral contraception in Japan was like. I felt moderately familiar with Japanese society and culture, at least in Tokyo, and I thought that the discussion in Japan might be similar to that in America. But when I did some initial background research, I found the history of oral contraception in Japan was vastly different from the history of oral contraception in America. I was most intrigued by the fact that oral contraceptives were not approved until 1999 in Japan,[1] whereas they were approved in 1960 in America.[2] I decided that given these different timelines, it was likely that the discussion surrounding oral contraception in Japan was very different from the discussion in America, or at least based on a different foundation. But I wanted to know for sure. Upon returning to America, this became the topic for my senior thesis.

Throughout this thesis I define oral contraception to be any pill taken orally that contains hormones that inhibit conception in females. Most commonly the hormones these pills contain are forms of lab-produced estrogen and progesterone, and they are taken in a cycle of 21 days of active pills and seven days of placebo pills to mimic the natural monthly cycle of a woman's body. In this paper I will investigate how the history of oral contraception has led to the current thoughts and use of it in Japan. I will then demonstrate that the government has had a strong influence on how oral contraception

has been perceived by the public. I argue that it is the government's population agenda throughout history that determined its attitude toward and presentation of oral contraception. This presentation then determined public perception and knowledge of oral contraception. As I will demonstrate, incorrect public knowledge about oral contraception is widespread in Japan, and there is a very low rate of usage of oral contraception by Japanese women. I argue that this widespread misinformation and low usage rate of a reliable contraceptive option are points of concern, as Japanese women's contraceptive goals are not being met.

Chapter One: A History of Contraception in Japan

In order to understand oral contraception use and perception in Japan, I will first begin with an overview of contraceptive history in Japan. As in many countries around the world, forms of contraception in Japan were extremely limited pre-1800s. Initially, the only forms of birth control available were infanticide and abortion, and this was what women in Japan were forced to rely on.[3] Infanticide was not common, but due to a lack of other options "infanticide and abortion were silently accepted and justified by society … in times of natural calamity or as an unavoidable means of survival."[4] Abortion and infanticide were used among all classes – the upper class usually relied on abortion, while the lower class usually relied on infanticide.[5] In the Tokugawa Period (1603-1868) the government began condemning abortion and infanticide as immoral and an act of murder. In 1667 the government banned advertisement of abortion services, and in 1842 the government banned abortions altogether.[6] In the Meiji Period (1868-1912) abortion was even more harshly penalized, and was officially criminalized in 1880 in Japan's first modern penal code. In 1907 this law was modified to add jail time for both women receiving abortions and individuals giving abortions.[7]

When the Japanese government began criminalizing abortion and infanticide, alternative contraceptive options were just beginning to appear in Japan from the West. In the early 1800s the first two forms of birth control were recorded in Japan– the *kabutogata* and the *kawagata*. The *kabutogata* was a hard condom, while the *kawagata* was a condom made of leather.[8] Just prior to the Meiji Restoration of 1868, rubber condoms were introduced to Japan (likely by the Dutch). Around this time men in the Japanese navy and army were contracting venereal diseases at high rates, so condom use

was encouraged within the navy and the army.[9] However, among the Japanese public condom use was still extremely low.

After the Meiji Restoration of 1868, the idea of "good wife wise mother" (*ryōsai-kenbo*) was popularized by the government in Japan. This phrase emphasized that the man's duty to the state was to work, and that the woman's duty to the state was to have children and maintain the household in a way that benefitted her husband and increased the population of the country.[10] In fact, because it was so important for women to have children, they were encouraged to reproduce regardless of the damage it could cause to their bodies and the effect it could have on their health.[11] Contraception at this time was discouraged among the public, although resources at this time were gradually becoming more available. Japan began manufacturing condoms in 1909. However, in the early Showa Period (1926 – 1945) the phrase "population increase through more births" (*ume yo fuyase yo*) was popularized by the government.[12] To this extent, condoms were still restricted to military use only.

In the 1930s a new form of birth control began to emerge in Japan. An obstetrician-gynecologist (ob-gyn) by the name of Ogino Kyūsaku determined a formula for approximating the days in which a woman is fertile in each cycle. He later developed this into a method of periodic abstinence, which became known as the Ogino, or rhythm, method.[13] Around the time that the rhythm method was invented and popularized, Japan was experiencing the start of a birth control movement,[14] but the government soon ended this. In 1930 the government passed the Ordinance for the Control of Harmful Contraceptive Appliances, which banned all forms of contraception except the male condom.[15] Then, in 1937, the government banned the publication of information about

birth control.[16] Contraceptive choices were few in the 1930s due to these restrictive government policies.

In the 1940s reproductive rights were restricted even more. During the early 1940s the ideology of Eugenics was taking the world by storm – the idea that reproduction should be regulated so that only certain types of people are allowed to reproduce. The government still emphasized that women needed to reproduce, but due to Eugenics believed that only ideal types of women should be able to reproduce. In 1940 the National Eugenic Law was passed, which allowed for both voluntary and involuntary sterilization for those deemed unworthy of reproducing.[17] In this way, the government encouraged population growth, but ensured that the quality of the population would not be polluted by undesirable people.

In 1945 World War II officially came to an end, and Japan saw an insurgence in population growth coupled with an economic collapse.[18] This led to a nationwide panic about overpopulation and exhaustion of resources, and almost completely reversed the government's population goals. Instead of promoting childbirth, they began looking for ways to decrease it. The government therefore passed the Eugenic Protection Law in 1948, which made abortion legal for the first time since 1880. As the name implies, this law was still grounded in Eugenics, and maintained that only certain people should be allowed to reproduce. Therefore, women wanting an abortion had to have the procedure approved by multiple doctors and a committee, and could only go to designated physicians to receive the abortion. In practice, this actually limited access to abortion, but did (arguably) make it more safe. However, it is important to note that women themselves had no voice in the creation of this law.[19]

In 1949 the Eugenic Protection Law was revised, and allowed for abortion in cases where childbirth would harm the mother, either physically or economically.[20] The economic clause was (and still is) widely interpreted, because the law did not require women to explicitly prove that having a child would be a financial burden. In 1952 another revision was made that eliminated the need for women to appear before a committee, and gave the decision-making discretion to individual doctors.[21] Both of these modifications significantly increased the availability of abortion for women, although again women did not have a voice in either of these changes.

In the 1950s Japan began to put more effort into family planning. In 1953 the Japan Family Planning Association (JFPA) was formed and approved by the government, but the government refused to actually fund this program.[22] The JFPA therefore had to find a way to fund itself, which it did by making a deal with condom companies. Condom companies sold condoms to the JFPA for a fourth of the price, and in exchange the JFPA marketed these condoms to the public.[23] This became extremely successful, and condoms quickly became the most prominent method of contraception, with 68.1% of married women between the ages of 16-49 using them in 1969.[24] Additionally, although abortion rates had been increasing prior to 1955, they began to steadily decline after 1955 (Figure 1).[25]

Other countries began experimenting with more medically modern forms of contraception in the 1950s, specifically oral contraception. During this decade the United States performed experiments to determine how progesterone and estrogen, the two primary components of oral contraceptives, affect ovulation and menstruation in women, and to determine the efficacy and safety of orally administering these hormones.[26] Enovid

was developed using progesterone and estrogen, and was approved in the United States in 1957 for "cases of menstrual irregularities, including amenorrhea, dysmenhorrhea, and menorrhagia, as well as endometriosis… and infertility"[27] (see Appendix A for a definition of these terms). Searle, the company creating Enovid, later proved that this drug was also extremely effective at preventing pregnancy and that there were only minor side effects, so in 1960 the United States approved Enovid for contraceptive use as well.[28]

Britain had a similar approval process, but its British Family Planning Association (BFPA) decided to run tests of its own. Searle branded their oral contraceptive under the name Conovid in Britain. When the BFPA ran tests on Conovid, they discovered that a lower amount of progesterone was just as effective at preventing pregnancy, and also resulted in fewer side effects. Britain therefore approved a lower dose oral contraceptive in 1961.[29] The United States later followed suit, and approved the lower dose oral contraceptive in 1962.[30] However, a correlation with thrombotic complications (blood clots) quickly became evident. By August of 1962, 26 American women had reported having blood clots, and six of these women died of these complications.[31] By 1967, British researchers were able to quantify the risk of blood clots associated with oral contraceptives, and in 1969 many British medical journals as well as popular media published these concerns.[32] It was soon discovered that there were ways to increase safety – by using the low-dose pills, which had a much lower risk of thrombosis, and by screening women for risk factors.[33] Yet this is not what has stuck in Japan.

Complications from oral contraceptives came to light around the same time as the thalidomide epidemic.[i] Both oral contraceptives and thalidomide were two legally approved drugs that had resulted in severe side effects, and this created a distrust of prescription medication in Japan. All of the negative media coverage on these two issues created an especially strong distrust of oral contraceptives. Japan approved high dose pills containing progesterone and estrogen in 1957 for menstrual disorders,[34] but refused to approve lower dose pills for contraceptive purposes for a very long time.

Contraceptive options continued to be debated into the late 1900s in Japan, especially oral contraceptives and abortion. The Eugenics Protection Law was a main source of discussion, but discussions about the law occurred almost entirely behind closed doors. Private interest groups, rather than public women's groups, fought for new adjustments to the bill, and it was not until the 1980s that women's activists and handicapped individual's groups got involved and argued for their own rights.[35] One of the most famous groups was the 中ピ連 (*chuupiren*), which stood for The Women's Liberation Federation for Opposing the Abortion Prohibition Law and Lifting the Pill Ban.[36] This group began in 1972 and was known for their radical feminism and special uniform of pink helmets. *Chuupiren* held publicity-seeking protests and demonstrations and used media attention in an attempt to further their cause.[37] Yet as with many other women's interest groups, they were not given a voice in the next round of changes. In 1996 the government modified the Eugenics Protection Law by eliminating the eugenics content and by changing the name to the Maternal Protection Law.[38]

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[i] Thalidomide was an approved drug prescribed worldwide to pregnant woman in order to help with morning sickness. However, birth defects resulting from consumption of this drug were severe, and the effects on pregnant mothers were devastating.

Women's groups in Japan in the 1970s, 1980s, and 1990s fought to have their voices heard and pushed for the legalization of oral contraceptives. Yet the government refused to legalize oral contraceptives for three reasons – concerns regarding a shrinking population, safety of the pill, and public morality. After the initial population increase following World War II in the 1940s, Japan's population began to decline, and a declining population was still an issue in the late 19000s. In the 1980s the Japanese government ran its own tests to determine the safety of oral contraceptives. The government concluded that "low dose [oral contraceptives] were effective contraceptives and that the incidence of adverse effects was low," yet continued to refuse legalization.[39] In 1991 Japan experienced a spike in HIV cases, which renewed fears about the spread of STDs and increased concerns that there would be an increased lack of sexual morals if oral contraceptives were approved.[40]

Despite the government's apparent concerns about safety and sexual morality, Viagra was easily approved by the Japanese government in just six months in 1999, with next to no government safety checks or discussions surrounding morality.[41] The hypocrisy of this decision and resulting public outcry pushed the government to legalize oral contraceptives in Japan. On June 16, 1999 the Health Ministry finally approved the use of oral contraceptives,[42] and oral contraceptives were available to the public three months later.[43] Although oral contraceptives are now legally available in Japan, the extended promotion of alternative forms of contraception and simultaneous resistance of approval by the government has had lasting effects on how oral contraceptives are perceived in Japan, as I will demonstrate in the following chapters.

Chapter Two: Popularity of Contraceptives in Japan

Oral contraceptives, along with the IUD and female condom, were finally approved in Japan in 1999,[44] which should have opened up a world of new opportunities for contraception use between men and women. Yet as I will demonstrate in this chapter, there has been little change in contraceptive knowledge and use in the last 20 years. Japan still relies on old, unreliable methods of contraception, despite other options being available. This, combined with Japan's high abortion rate, indicates a gap in the ability of currently used methods to meet Japanese women's contraceptive needs.

As I demonstrated in Chapter One, contraceptive methods (excluding abortion and infanticide) have been available in Japan since the mid 1800s. However, as of 2006, overall contraceptive use in Japan for married and single women of reproductive age was estimated at 54.5%, and even this was thought to be an overestimation.[45] Japan therefore has one of the lowest rates of contraception use among countries in the industrialized world.[46] And, while 54.5% claim to use contraception, in most research "a woman is 'using' a contraceptive method if she considers herself to be using that method" and does not guarantee she is using it regularly or consistently.[47] This means that many claiming to use contraception may not be using it consistently, and the old contraceptive methods they are using have a high risk of pregnancy with imperfect use.

Throughout the last 50 years or so, there are three methods that have consistently been the most popular forms of contraception for Japanese women: condoms, withdrawal, and the rhythm method. From 1950 onward, the Japanese government has conducted national surveys and collected data from individuals ages 16-49 on a variety of topics, one of which is contraception use. In 2014 a study analyzed data from these

surveys and found that from 1950-2014, condoms, withdrawal, and the rhythm method have remained popular (Figure 2). Another analysis of survey data from 1950-2004 confirmed that condoms were by far the most popular form of birth control, with the withdrawal method exhibiting a spike in popularity after 2000.[48] The use of modern forms of birth control has remained low, and appears to decrease leading up to 2000 (Figure 3). As of 2014, Japanese couples used condoms 83.4% of the time, withdrawal 19.5% of the time, and the rhythm method 8.3% of the time.[49] For comparison, oral contraception use in 2014 was no higher than 1.4%.[50] I will briefly demonstrate why older, unreliable methods of contraception are popular in Japan, and why newer, more reliable methods, specifically oral contraception, are not popular.

The rhythm method was developed and popularized in Japan in the 1920s and 1930s. In 1930 the government passed the Ordinance for the Control of Harmful Contraceptive Appliances, which banned all forms of contraception except the male condom. However, at this time condoms were not widely available to the public, and their use was highly frowned upon outside of the military. This therefore left women with only two forms of contraception to choose from: withdrawal and the rhythm method. The rhythm method was backed by science, and therefore may have seemed more credible to women at the time. Regardless, given the lack of options, it is no wonder that the rhythm method became a popular form of contraception at that time.

When condoms became more available in Japan, they easily took over as the most popular contraceptive method in Japan. As I mentioned in Chapter One, condom use was highly encouraged in the military starting in the late 1800s to prevent venereal diseases. In the 1940s, condoms started to become more popular among couples wanting to avoid

pregnancy, but at this time Japan was unable to manufacture enough condoms to meet the demands of its population size.[51] Then, in 1953 the JFPA was formed and the advertising deal with condom companies began. Around the same time, condom companies started another strategy for selling condoms: they created the role of "condom sales woman". Women in these roles would go door-to-door selling condoms to whomever was home, typically housewives, and could make as much as ¥200,000 - ¥500,000 ($2,000-$5,000) per month.[52] Because much of this income was based on commission, these women had an incentive to make as many sales as possible. Condom sales women discovered that if they spoke negatively of other forms of contraception, they were more likely to secure condom sales. According to one man's personal experience, a saleswoman promoted condoms by stating that "intravaginal chemicals cause frigidity, the pill causes severe eyesight problems after one year's use, and the IUD causes radical weight changes, can perforate the uterus, and is not very effective anyway."[53] Much of this is false, but made the buyer feel as if he or she had no other options besides the male condom.

These two sales strategies were extremely successful for many reasons. First of all, it made condoms a cheap and accessible form of contraception. When housewives bought condoms in the privacy of their own home, it reduced the embarrassment associated with going to a public place to buy contraception, and it allowed them to buy in bulk to further reduce the price.[54]Additionally, saleswomen spread the idea that all other forms of contraception had dangerous and unwanted side effects, which, as I will demonstrate, is a belief still held today. These successful strategies resulted in a dramatic increase in condom use in the 50s and 60s. In 1950 a national survey reported that only 35.6% of married women used male condoms. Just two years later, the same survey reported that

55.8% of married women were using condoms, and this number continued to rise – in 1969 the number was up to 68.1%.[55]

In contrast, oral contraception had almost exclusively negative publicity in Japan, and has never seen the same increase in popularity that other forms of contraception have. As I mentioned in Chapter One, oral contraceptives were developed in the 1950s, and the negative side effects of high-dose oral contraceptives came to light at the same time as the detrimental effects of thalidomide on pregnant women. When information about the side effects of the pill were discovered, both British and American media sensationalized the issue,[56] and this, combined with all of the media coverage about the negative effects of thalidomide, created a deep-seated distrust of medications in Japan. In 2000 a survey was taken to determine what the greatest overall fears were in Korea, Japan, and the United States. In Japan oral contraceptives were ranked as highly dreaded, right alongside prescription drugs, antibiotics, and aspirin. This study concluded that "the Japanese sample has great concerns about food and drug and their effects on people's general health and well-being."[57]

The government perpetuated the fear of oral contraceptives specifically by continuously claiming that they may not be safe each time they refused to legalize their use in Japan. By the time oral contraceptives were finally approved, this fear was so deeply ingrained that very few women had any interest in trying oral contraceptives as a form of birth control.[58] In 1975 it was noted that the fear of side effects from oral contraceptives was prevalent, but that women often could not correctly name the side effects. Women were more likely to list concerns regarding sterility after discontinuance, cancer, or deformed offspring in the future, while more scientifically proven side effects

such as thrombosis were hardly ever mentioned.[59] In a study done in 1999 right before the pill was legalized, 79% of both male and female participants said the main reason they disliked the pill was due to its negative side effects. However, in this same study almost 25% of men and women wrongly thought the pill increased the risk of STDs and HIV infection.[60] The fear of negative side effects was still very strong, but knowledge about the true side effects had not improved in the nearly 25 years that had passed. As of 2014, 49.8% of women were still likely to list side effects as the main reason for not using oral contraceptives.[61]

The side effects of oral contraceptives have been stressed in Japan, but education regarding the true side effects, as well as possible benefits, is very limited. Low-dose oral contraceptives are obviously used for contraceptive purposes, but can also be prescribed for "the treatment of several gynecological disorders such as dysmenorrhea, irregular or excessive bleeding [during menstruation], acne, hirsutism, and endometriosis-associated pain."[62] A study done in 2009 compared how oral contraceptives were used and perceived in Japan, France, and the United States. This study demonstrated that the most common reason for taking oral contraceptives in France and the United States was for contraceptive purposes, but in Japan the most common reasons were to regulate the menstrual cycle and to reduce severe menstrual cramps.[63] However, despite Japan using oral contraceptives for largely non-contraceptive purposes, Japanese women were less likely than either women in France or the United States to know about non-contraceptive uses.[64] This demonstrates a clear lack of knowledge about oral contraceptives in Japan.

There are many reasons for Japan's overall lack of knowledge about contraceptive options. First of all, women are extremely unlikely to get their contraceptive information

from a doctor or health care professional. A study done in 2009 demonstrated that doctors and medical professionals were the last place women went for information regarding contraception. The top sources of information were media (such as magazines, newspapers, and television) at 29.6%, friends at 26.5%, and the Internet at 16.8%.[65] An updated study done in 2014 found that the number one source of information was teachers and lecturers at school, at 40%. Although this was a significant improvement over media and word of mouth, health care workers still only accounted for 1-2%.[66]

It is significant that information acquired from doctors is so low, because it results in limited knowledge of contraception, which limits the types of contraception women feel comfortable and confident using. In 1975 it was found that if a wife relied on her husband for information (rather than a medical professional), she was significantly more likely to choose traditional methods over medical methods.[67] In addition, reliance on word of mouth or media coverage perpetuates negative information, and fails to inform women of the potential benefits. It was also found in 1975 that if women received their information from the media, they were more likely to be informed about contraception options, but were still more likely to choose use traditional methods.[68] This may indicate a lack of confidence in the knowledge these women received.

Traditional methods such as withdrawal and the rhythm method are extremely outdated and have the highest failure rates, yet continue to maintain their popularity in Japan. Even the condom has a relatively high failure rate when compared to more medically advanced methods. Data collected from the National Survey of Family Growth (NSFG) in the United States estimated failure rates of contraceptive methods when used perfectly and with typical use (Figure 4). It is important to note the high rates of failure of

condoms, withdrawal, and the rhythm method (here categorized as periodic abstinence): condoms had a perfect use failure rate of 2% and a typical use failure rate of 15%; withdrawal had a perfect use failure rate of 4% and a typical use failure rate of 27%; and the rhythm method had a perfect use failure rate of anywhere from 1-9% and no data available for typical use failure rate, but this would be expected to be much higher. In comparison, more medically advanced contraceptive methods such as oral contraceptives (referred to as the pill) and the IUD had perfect use failure rates of less than 1%, and typical failure rates of less than 10%. [69]

Japan is not using reliable contraceptive methods, and this has forced Japanese women to continue to rely on abortion as a contraceptive method. As discussed in Chapter One, abortion is legally available in Japan, and is relatively accessible due to the economic hardship clause in the Eugenic Protection Law (now the Maternal Protection Law). This, combined with the use of unreliable contraceptive methods, has led Japan to have relatively high abortion rates when compared to other countries of similar development. Figure 1 illustrates that abortions have decreased in Japan since 1955, but have remained at a steady level since 1994. In 2000, approximately 25% of married women in Japan had experienced an abortion (Figure 5). In 1995 it was estimated that only 36% of all pregnancies actually end in intended births in Japan[70] and it is therefore assumed that most of the remaining 64% end in abortion.

Japan has a long history of abortion, and this is partly because Japan has very little cultural or religious opposition to the practice. In fact, historically both abortion and infanticide were acceptable and were not considered "killing" in the same way that it is often spoken about in Western societies. Before modern medicine, infant mortality rates

were extremely high. Children often did not make it into adulthood, and thus Japanese society faced infant and child death relatively frequently. There were therefore three landmarks that were celebrated in a young child's life: reaching the ages of three, five, and seven.[71] At the age of seven a child became fully part of the human world, but prior to that it was believed the child was still a part of the spirit realm. "In premodern Japan, infanticide had been associated with the Buddhist doctrine of the transmigration of souls, according to which infants under the age of seven belonged to the gods. Infanticide [and abortion] therefore [were] not homicide but act[s] that returned the child to the other world."[72] A child killed through abortion or infanticide could later be reborn into a better life.

Infanticide is now illegal, and although abortion is now spoken of as "killing" in Japan,[73] there are still no large cultural or religious barriers that strongly prevent women from having abortions. In fact, the legalization of abortions in 1948 created a market for abortions, and an incentive for doctors to perform them. The Eugenics Protection Law allows only licensed ob-gyns to perform abortions, and abortions are not covered by insurance – as of 2000 they cost about ¥100,000, or $900 USD.[74] This means that ob-gyns can make a much greater profit from abortions than from other types of visits, so ob-gyns have historically been more motivated to perform as many abortions as quickly as possible in order to increase profit. [75] In addition, there is no motivation for ob-gyns to provide contraceptive education to either their abortion patients or their regular patients, as this would take time and reduce the amount of abortions they could perform while potentially decreasing future need for abortions.

Abortions are deeply ingrained and normalized in Japanese society, yet they are the single worst method of birth control that a woman can use. Abortions are first and foremost a surgical procedure, and therefore dangerous to a woman's health. In addition, it is an expensive procedure, and as I stated above costs about $900 out of pocket. (For comparison, oral contraceptives usually range from ¥1,000 - ¥5,000/month, or ¥12,000 - ¥60,000/year – that is about $120 - $600 USD/year).[76] On top of all of this, abortions are almost completely preventable. Why then does Japan continue to rely on traditional methods (and abortion) when there are so many other options available? I have presented some cultural and historical reasons in this chapter, but ultimately it comes down to the government's agenda, as I will demonstrate in Chapter Four.

Chapter Three: A Survey of Attitudes Toward Oral Contraceptives in Japan

While searching for research for Chapter Two, I noticed there is little research available after 2010 about thoughts and perceptions surrounding oral contraceptives in Japan. I therefore decided to conduct my own research, and designed and distributed a survey to gauge current perceptions and use of oral contraceptives in Japan. I first wrote this survey in English[ii], and then translated it into Japanese[iii] with the help of Japanese professors at Colorado College and Japanese friends from Waseda University. I then wrote a brief cover page to explain the purpose of my research and to explain participants' roles in my research. [iv]

Methods:

I surveyed both women and men, and distributed the survey both online and in person on paper. I asked men and women a few demographic questions such as their age, hometown, and level of education, and then questions about their knowledge and perceptions of oral contraceptives. I also asked women to answer questions about their personal use of oral contraceptives and other forms of contraception. I distributed the online cover page and survey through a Google Forms link that I sent to connections I made while studying at Waseda University.[v] This included mainly current or former Waseda University students. I distributed paper copies of the cover page and survey outside Exit 8 of Shibuya Station[vi] in Tokyo, Japan. I collected paper surveys in the hopes of obtaining a more randomized sample, however paper responses proved difficult

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[ii] See Appendix B: Oral Contraceptives Survey (English)
[iii] See Appendix C: Oral Contraceptives Survey (Japanese)
[iv] See Appendix D: Oral Contraceptives Survey Cover Page
[v] See Appendix E: for the English and Japanese text/post.
[vi] Exit 8 is also known as the Hachiko Exit, and has a large dog statue that is a popular gathering place.

to obtain. I collected 67 responses online and 14 responses on paper for a total of 81 responses. This included 55 women and 26 men. Participants under the age of 26 made up the majority of responses, with 19 participants in the 18-20 age range, 52 participants in the 21-25 age range, four participants in the 26-30 age range, one participant in the 31-25 age range, zero participants in the 36-40 age range, and five participants in the 45+ age group.

Analysis:

A few questions asked participants to pick the degree of agreement or disagreement with a given statement on a scale from 1-7 (see Appendix B and C). 1 was defined as strongly disagree, 4 as no preference, and 7 as strongly agree. I ran statistical analysis on the number of answers for each individual number. However, I also ran analysis on the total responses for any degree of disagree, neutral, and agree. All values from 1-3 were defined as some form of disagreement, while all values from 5-7 were defined as some form of agreement.

One fill-in-the-blank question asked participants what they thought the single most common reason for using oral contraception was. A few participants answered this question with multiple reasons, so only the first given answer was used in analysis. All answers given for this question were categorized into one of six categories: 1) prevention of pregnancy, 2) menstruation symptom and pain control, 3) prevention of menstruation, 4) regulation of menstrual cycle, 5) elimination of acne, and 6) don't know/no answer. These are the same categories I provided for the next question, in which participants were asked which uses of birth control they were familiar with. This same categorization was also used when women stated their own reasons for using oral contraception.

In the survey, women were asked what forms of contraception they were currently using besides oral contraception. For this question they were allowed to pick multiple forms of contraception. I used all answers in analysis. Additionally, women using oral contraception were allowed to pick multiple reasons when asked about their personal reasons for use. I again used all reasons in analysis.

Results:

85.2% of all participants agreed women should be able to use oral contraceptives in general, and 80.3% agreed women should be able to use oral contraceptives outside of marriage. However, general knowledge seems to be fairly limited. 75.3% of participants stated that the main use of oral contraception is for pregnancy prevention, and while this is true for most of the world, past research has demonstrated that in Japan the main reason for use is for menstruation symptom and pain control.[vii] Only 9.9% of all participants answered this question with menstruation symptom and pain control. Answers regarding whether or not enough information is available about oral contraceptives varied widely. 39.5% of participants agreed there is enough information about oral contraceptives available, 25.9% gave a neutral answer, and 34.5% disagreed that there is enough information available.

There is a clear gender difference in both knowledge and opinions regarding oral contraception. First, men were much less likely to know about non-contraceptive uses for oral contraceptives than women. The main reason for taking oral contraception in Japan is for menstruation symptom and pain control, and yet only 15.4% of men knew about this use, compared to 56.4% of women. Additionally, only 11.5% of men knew oral

[vii] As mentioned and cited in Chapter Two.

contraceptives could be used to regulate the menstrual cycle, compared to 67.3% of women (Figure 6). On all questions requiring participants to either agree or disagree with a statement, men were far more likely than women to say they had no opinion, and "no preference" was always either the first or second most picked answer by men. This all appears to indicate that men are not as well educated about oral contraceptives as women, or may not feel they have a reason to know about oral contraceptives.

Education also appears to be correlated with the perceptions and knowledge participants had about oral contraceptives. Individuals that had finished college were more likely than individuals who had finished only high school to pick that they strongly agreed with the statements that women should be able to use oral contraceptives in general, and that they should be able to use them outside of marriage. Additionally, participants that had finished college were more likely to know about every use of oral contraceptives than those that had only completed high school (Figure 7). Very few participants answered that they had finished some high school, completed junior college, or had a masters, so no conclusions can be drawn about those education levels. However, in comparing answers from individuals who had completed high school versus university, a higher level of education appears to be associated with a higher amount of knowledge about oral contraceptives.

Experience living abroad may also influence an individual's knowledge and perception of oral contraception. Participants who had lived abroad were more likely than those who had never lived abroad to know about all possible uses of oral contraceptives (Figure 8). Additionally, five out of the six women who stated they were currently using oral contraceptives had experience living abroad. In other words, individuals who have

lived abroad have a higher level of knowledge about oral contraceptives, and may be more willing and/or interested in using oral contraceptives themselves than individuals who have not lived abroad.

Age may also be correlated with knowledge and perception of oral contraceptives. As the majority of participants were 25 years old or younger, limited data is available for participants ages 26 and above, and few conclusions can be drawn about this age group. However all ten participants in the 26 and above age range either agreed with or had no opinion for the statements that women should generally be able to take oral contraceptives, and that women should be able to take oral contraceptives outside of marriage. Individuals ages 21-25 were most likely to strongly agree with these statements and picked seven on the scale over 40% of the time. Ages 18-20 were the most likely group to pick that they had no opinion regarding these statements.

All participants ages 18-20 picked that the main reason for using oral contraception was for prevention of pregnancy, and did not state any of the other uses as the primary reason. Participants in the 21-25 age group were more likely to know about other uses for birth control, with six participants stating that the main reason for using oral contraception was for menstruation symptom and pain control. Those ages 21-25 were more likely to have previous knowledge about the uses of oral contraception, and were more familiar with its use for menstruation symptom and pain control, regulation of menstruation cycle, and elimination of acne than those in the 18-20 age group (Figure 9). Lastly, participants in the 21-25 age group were more likely than participants in the 18-20 age group to agree that there was enough information available about oral contraceptives.

This all appears to indicate that the 21-25 age group is more educated about oral contraceptives than the 18-20 age group.

One thing that could account for the discrepancy in knowledge levels between age groups in this study is the fact that every female who answered that she was using oral contraceptives was in the 21-25 age group. No women in the 18-20 age range or 26+ age range reported they were currently using oral contraceptives at the time of this study. 100% of those ages 26+ were using condoms for birth control, and 89.7% of those ages 21-25 were using condoms. However, condom use for those ages 18-20 was only at 55%. Participants in the 18-20 age range were using other forms of contraception besides condoms and oral contraception, such as the IUD and hormone patch (Figure 10). This could indicate there is a shift in the younger generation from using unreliable contraception, such as condoms, to more reliable contraception, such as the IUD and hormone-based methods.

Six women stated they were currently using oral contraceptives at the time of this study. Interestingly enough, 66.7% reported using oral contraceptives for prevention of pregnancy. The second and third most common uses were for menstruation symptom and pain control, and to regulate the menstrual cycle, both at 50%. This high use for pregnancy prevention reflects a different trend in oral contraceptive use than past research has demonstrated. This may indicate a change in the purpose behind oral contraceptive use in Japan. Lastly, 50% of participants stated that they had faced hurdles when trying to obtain oral contraception, but 66.6% said that they had not been criticized for using oral contraceptives. This could indicate that the financial and/or medical barrier could be larger than the social barrier in Japan. 66.7% of participants using oral

contraceptives agreed with the statement that they were confident in their knowledge of uses and risks of oral contraception. This appears to be true, as five out of six participants using oral contraception knew about three or more possible uses. Those using oral contraceptives likely have adequate information about the contraception they are using.

Discussion:

This study has demonstrated that general knowledge about oral contraceptives may be improving in Japan, but there is still a gap in knowledge. Based on this study, knowledge varies based on a person's gender, level of education, and age. I only surveyed individuals who were 18 years of age or older, and who ought to have adequate knowledge of contraceptive options. However, men, those without a college education, and younger individuals were often not aware of many of the uses of oral contraceptives. In addition, only 39.5% of all participants agreed with the statement that there is sufficient information available about oral contraceptives. Although this study may indicate a shift to more modern contraceptive use by younger women, there is still more Japan can do to educate individuals about oral contraceptives, so that they can be aware of all contraceptive options. I will demonstrate in the next chapter how the government's population goals and resulting policies have led to the current perceptions and knowledge surrounding oral contraceptives, and how the government has the power to decrease the gaps in education that I have demonstrated still exist in Japan.

Chapter Four: Government Involvement in Oral Contraceptive Use

I have now given a detailed history of contraception in Japan, and have illustrated how this history has affected current contraceptive knowledge and use in Japan. I will now show how, historically, the government's goals and resulting policies laid the foundation for the knowledge and use of contraception, and how the government is ultimately responsible for contraceptive trends in Japan today. In addition, I will briefly demonstrate how contraceptive goals have affected contraceptive knowledge and use in other countries in order to further demonstrate that these trends are caused by government involvement. Because the government has such a great influence on public contraceptive use, I therefore argue it is imperative that the Japanese government figure out how to better serve its citizens' contraceptive and family planning needs.

As I discussed in Chapter One, the Japanese government implemented the Ordinance for the Control of Harmful Contraceptive Appliances in 1930. It is important to note that this law outlawed all forms of contraception except for condoms due to the government's desire to protect soldiers from venereal diseases. At this time the government wanted to increase population size in order to build military strength, and believed that by banning almost all forms of contraception women would be forced to have children. However, as I demonstrated in Chapter Two, women instead relied on the newly developed rhythm method. Later, condoms became more readily available to the public. Although the government did not directly promote the use of condoms among the populace, their refusal to fund the Japan Family Planning Association, and the JFPA's subsequent business deal with condom companies, caused condom use to skyrocket. Although oral contraceptives were developed in the 1950s and 1960s, the government

refused to make this form of contraceptive available, furthering the country's dependency on condoms. Condom companies also created the role of condom sales woman, which increased condom sales and use.

In 1949 abortions were made readily available to women through an adjustment to the Eugenic Protection Law that allowed for a woman to get an abortion for economic reasons. However, only ob-gyns were allowed to perform abortions. As I briefly mentioned in Chapter Two, this allowed for the creation of an abortion market, where ob-gyns could, and still can, make a profit off of performing abortions. In this system, the best way to maximize profit is by performing as many abortions as possible, and by not providing contraceptive information to patients, as this takes time to explain and could result in fewer abortions in the future. Because ob-gyns specialize in abortion, they have a very bad reputation in Japan, and it is assumed a woman is only going to see an ob-gyn if she is having an abortion or is pregnant.[77] In order to avoid this stigma, women in Japan do not go to see an ob-gyn unless they are pregnant or have "overt gynecological problems,"[78] and therefore have little opportunity to even attempt to discuss contraception with an ob-gyn.

Other specialties in Japan also do not educate women about contraceptive options, largely due to a lack of government incentive. A study done in 2004 showed that 60% of family physicians and general practitioners in Japan desired to provide contraceptive care, but only approximately 25% were currently doing so.[79] In Japan, preventative care, such as contraception education, is not covered by medical insurance. Therefore, "Japanese [family physicians and general practitioners] cannot receive pay even if they spend time providing preventative care such as contraception [education]."[80] The

government has created a situation in which ob-gyns, family physicians, and general practitioners are all motivated not to provide contraceptive education.

I demonstrated in Chapter One and Two that the government delayed the approval of oral contraceptives and purposefully perpetuated the fear and misinformation surrounding them. There were valid concerns regarding side effects when oral contraceptives first came out due to the high concentration of estrogen. The government consistently cited dangerous side effects as a reason for not legalizing oral contraceptives long after the initial problems had been addressed. This indicated to the public that the risk of oral contraceptives remained high when this is not the case. In fact, "several approaches have been implemented to improve the safety of hormonal contraceptives such as lowering the estrogen dose, modifying the estrogen type, selecting newer progestins, new administration schedules and alternative routes of delivery."[81] In addition, there are certain risk factors that are recognized and screened for when prescribing oral contraceptives, such as "smoking, high blood pressure, history of cardiovascular disease, and diabetes with vascular disease."[82] The combination of developing new formulations as well as screening for risk factors has made the risks associated with oral contraceptives far less than the risks associated with full-term pregnancy.[83]

Regardless of what the public's desires have been, the government's population goals have remained more or less the same over time – an increase in population. Initially this was to build military strength, but beginning around 1950 Japan began to experience a sharp decline in births. This led to fear of a declining population, which is still present today. In order to counteract this, the government has consistently been against

contraception, and did not approve oral contraceptives until 1999. However other countries have had very different contraceptive goals and therefore have a different story regarding oral contraceptives.

In the United States and Britain, oral contraceptives were seen as a way to make money, and were approved and put on the market relatively quickly. When information about the side effects of oral contraceptives came to light, the American government began discussions about their safety, and whether or not oral contraceptives should continue to be available to the public. However, American feminists actually argued against the government, stating that women were capable of making their own decisions regarding safety. It is argued that this opened up a public discussion on oral contraceptives in America.[84] After these discussions, both Britain and American decided to modify and regulate oral contraceptives more carefully, but to keep them on the market. Since then, various moral and political issues have repeatedly brought oral contraceptives to the forefront and have created a continued atmosphere of discussion regarding contraception. This type of public discussion has never been possible in Japan. Although there were some groups advocating for oral contraceptives in Japan, it was not on the same scale, and because the government kept oral contraceptives illegal for so long the public never had the chance to engage in discussion in the same way.

I would now like to briefly look at the contraceptive history in China to provide another comparison. China did not participate in the development of oral contraceptives and received this technology from the West like Japan. However, unlike Japan, China approved oral contraceptives relatively soon after the United States, and oral contraception use began in 1969.[85] China's use of oral contraception is even lower than

Japan, and in 2010 China had an oral contraceptive usage rate among married couples of just 0.98%.[86] Upon first glance it may appear that China's contraception use is even more inefficient than Japan's, but this is not the case. In 2010 China was still enforcing the one-child policy, and therefore the country used even more reliable methods than oral contraceptives. China often enforced forced sterilization in couples with one child, and in 2010 26.6% of women and 5.1% of males were sterilized.[87] IUD use was also very popular, and had a usage rate of 48.15% among married couples in 2010.[88] Condom use was low at 9.32%, and other more traditional and unreliable methods were virtually not in use.[89] China has continuously had the highest rates of contraception among married couples worldwide since 1983, and in 2010 89.2% of married couples were using some form of contraception.[90]

China approved oral contraceptives right around the same time as the United States and Britain, but its usage rates are closer to Japan's usage rates, albeit for different reasons. I therefore argue that it is not when the pill was approved that determines its use, but rather the context in which it was approved and how it was presented to the public by the government. China's government was extremely concerned with overpopulation, and thus its government-sponsored family planning programs that encouraged contraception forms that are even more efficient than oral contraceptives. Japan on the other hand has been concerned with under-population and has actively discouraged the use of contraception.

I have demonstrated that the government's population goals and resulting policies have led to high rates of use of unreliable contraceptive methods and low rates of use of more reliable methods such as oral contraceptives. I also discussed in Chapter Two how

this has resulted in high rates of abortion. Women in Japan rarely use adoption "due to beliefs that the mother-child bond should remain intact throughout a child's life. … Concerns about adoption … hinge on the idea that the adoptive child would not find a good home and might be neglected. The fear… is that a child might never fit into society because of a lack of contact with his or her 'real' family."[91] Therefore women are forced to choose between abortion and raising an unplanned child.

When an unplanned pregnancy is carried to term there are negative affects on both the mother and child. If the woman is in school when she becomes pregnant, she will be forced to take a one-year hiatus so that the reputation of the school isn't tarnished.[92] This deprives the woman of her education. A study conducted in Japan in 2006 demonstrated that there is a positive correlation between unintended pregnancy and the likelihood of mothers to report unhealthy habits such as smoking prior to pregnancy and registering the pregnancy at a later date.[93] Registering the pregnancy late often means the mother starts receiving prenatal care later, and both this and smoking can be harmful to the fetus. After birth, if a child was unplanned, there is a greater chance that there will be a lower "mother-child attachment" and that parents will feel less confident in their child rearing skills.[94] In a separate study done in 2005, there was also an increased risk of mothers of unplanned pregnancies "not denying the feeling of abusing a child."[95]

An unplanned pregnancy has significant consequences regardless of what route a woman in Japan chooses to take. Japan therefore needs to take more action in order to meet the contraceptive needs of its population. I have demonstrated that the government's population goals and resulting policies have had a great affect on what forms of contraception women are educated about, and what forms they choose to use. Therefore,

the Japanese government now has the power to inform the public about oral contraceptives, and ensure women are able to confidently choose them as a contraceptive option. Although oral contraceptive use is not in and of itself an issue, the combination of low oral contraceptive use and the lack of use of a better alternative is problematic. The Japanese government needs to do more to give women access to more reliable contraception, and to give them the tools and knowledge to make their own informed decisions.

There is currently no government regulation determining sex education or contraceptive education in schools. I had the opportunity to interview a midwife and a public health nurse while researching in Japan. The midwife stated that sex education in schools depends on the decisions of the education committee in each prefecture. Occasionally these committees may choose to give children a thorough sex and contraceptive education, but often they think children are too young and fear teaching them anything in detail.[96] Therefore, children receive very little education about contraception in school. Once women finish school they do not go to see a gynecologist and they do not get contraceptive information from their family doctor or general practitioner, meaning they do not get information from a medical professional. Lastly, individuals often cannot get information from their parents, as parents also are not well informed.[97] There is a complete lack of contraceptive education and formally available information, and Japanese women and men therefore have no opportunity to be properly informed about contraceptive options, such as oral contraceptives.

The government has the ability to make changes to both how sex education is taught in schools, and how gynecologists, family physicians, and general practitioners

educate patients about contraception. I mentioned earlier that ob-gyns, family physicians, and general practitioners all have no incentives to provide information about contraception. This may be true for nurses as well. During my interview, the midwife showed me that in a gynecology book that was 226 pages long, there was only one page on how to talk about contraceptives with patients.[98] Additionally, in these very brief guidelines for discussing contraception, almost all of the information about oral contraceptives discusses the risks.[99] Lastly, neither the Ministry of Health, Labor, and Welfare nor the Japan Society of Obstetrics and Gynecology have any requirements to provide family planning, rather it is merely recommended.[100]

Oral contraceptives are also not easily available in Japan. In a study done in 2009, 27.3% of women who had previously taken oral contraceptives stated that the reason they quit was because it was troublesome to get a doctor's prescription.[101] However, even after obtaining a doctor's prescription it is still very difficult to actually obtain oral contraceptives. A survey of pharmacies in 2003 found that only 15.1% of pharmacies had low-dose oral contraceptives in stock.[102] Of those that carried oral contraceptives, 69.2% only carried one type of oral contraceptive.[103] For women taking oral contraceptives for non-contraceptive purposes, the varying amounts of hormone can greatly affect the efficacy of the medication. If pharmacies only have a limited type available, this creates another barrier for women – obtaining the medication that matches their prescription. Again, the government has the ability to implement policies that would eliminate these barriers.

Women in Japan need access to more reliable contraceptives. It was estimated that the use of contraceptives in general reduced maternal deaths by 44% worldwide in

2008.[104] Use of a more reliable form of contraceptive in Japan can have similar benefits by reducing the danger women experience through either abortion or childbirth. Additionally, as I discussed earlier, oral contraceptives have undergone many changes that have made them safer for women. Research has been conducted about possible benefits of oral contraceptives, and "Use of [oral contraceptives] is associated with around 25% reduction in fracture risk among women in their 40s, as well as prevention of tumors such as benign ovarian tumors and a decreased risk in ovarian, endometrial, and colorectal cancers."[105] Oral contraceptives present a reliable contraception option, but also have the potential to improve Japanese women's lives in other ways.

I have now demonstrated that it was the government's agenda throughout history that determined its attitude toward and presentation of various types of contraception. This in turn led to the amount of knowledge the public had, and by extension the amount of usage of each type of contraceptive. This is especially true for oral contraceptives. While delaying approval of oral contraceptives, the Japanese government emphasized the potential dangers of oral contraceptives to the health of Japanese women, and this, combined with other pharmaceutical scares at the time created a deep-seated fear of oral contraceptives in Japan. Additionally, the government's push for the use of other forms of contraception, such as condoms, has created a huge market and dependency on these unreliable forms of contraception. Finally, these unreliable methods have resulted in high rates of abortion, and this is furthered by the moneymaking opportunities abortions provide. The government's involvement, and resulting chain of events are what have led to the widespread misconceptions and lack of knowledge surrounding oral contraceptives in Japan, as well as the low rate of usage of oral contraceptives. Yet it is obvious that

contraceptive goals of women in Japan are not currently being met. It is therefore imperative that the government find a way to better serve its citizens, and help them meet their contraceptive and family planning needs.

Conclusion

I began with asking how Japan's history regarding oral contraception has affected modern thought, perception, and usage of this medication. I initially noted that oral contraceptives were available in Japan long after they were available in America. This was part of a much greater picture in population goals of the country have had great effect on how oral contraception has been accepted into Japanese society and how it has been used by women to achieve their fertility goals.

As I demonstrated in Chapter One, Japan has a long history of birth control use. Initially infanticide and abortion were common, but beginning in the 1800s Japan began using different forms of condoms. Condom use and abortion remained popular forms of contraception, especially after the legalization of abortion in 1948 through the Eugenics Protection Law. Newer and more effective forms of contraception were invented, but the government pushed back strongly against these. Japan debated the use of oral contraceptives in the 1960s, just like in the rest of the world, but the Japanese government continued to deny their legalization until 1999.

As time has passed, little has changed in the patterns of use of contraception in Japan. Condom use is still extremely high, supplemented by mainly traditional methods such as withdrawal or periodic abstinence. Unfortunately this is not enough for women to meet their reproductive goals, and many Japanese women still have to rely on abortion. I demonstrated in Chapter Two how government promotion of alternative forms of outdated contraceptive methods has contributed to the low use of oral contraceptives. In Chapter Three I highlighted the continued gap in knowledge about oral contraceptives.

In Chapter Four, I demonstrated that government population goals and resulting policies determined what forms of contraception was available in Japan, and what the public felt comfortable using. I then briefly examined government involvement in the approval of oral contraceptives in the United States, Britain, and China. I demonstrated that the United States and Britain had different population and contraceptive goals, and thus approved and promoted oral contraceptives relatively easily in the 1950s and 1960s. China also legalized oral contraceptives in the 1960s, yet use between the United States and Britain, and China, varies greatly. These countries clearly demonstrate how influential government policy alone can be on the common people's choice of contraception.

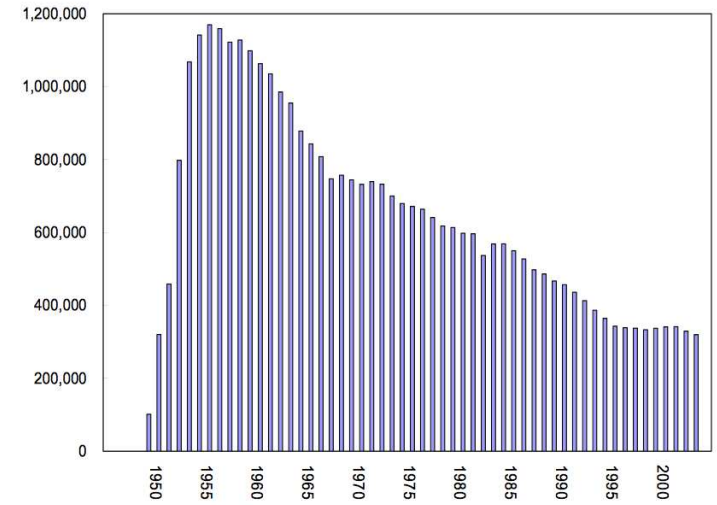
The Japanese government's historical refusal to legalize and educate the people about oral contraceptives has led to the low usage rates by Japanese women seen today. Women in Japan have a high rate of unplanned pregnancies, indicating a discrepancy between family planning desires and contraception use. I briefly discussed how unwanted pregnancies negatively affect Japanese women and children, both when the pregnancy is aborted and carried to term.

I argue that government involvement in family planning has the greatest influence on how well educated Japanese people are about contraceptive options, what they feel is safe and trustworthy, and what is most effective. I have demonstrated how government involvement has affected thoughts, perceptions, and usages of oral contraception, but have not extensively analyzed current government policy. Therefore, further research should be done to determine what the government is currently promoting in regards to family planning and contraception, and if its attempts are sufficient to meet the needs of

its people. Further research should also be done to determine exactly what Japanese women's family planning goals are, and how these goals can be accomplished. However, my research has sufficiently demonstrated that until the government makes more of an effort to promote efficient contraceptive practices, Japanese women will continue to experience high rates of unplanned pregnancy, at both personal and societal cost.

Figures

Figure 1: Number of Induced Abortions, 1949 -2003[106]



Source: Maternal Body Protection Statistics

Figure 2: Trend for contraception methods among all women in Japan between 1950 and 2014.[107]

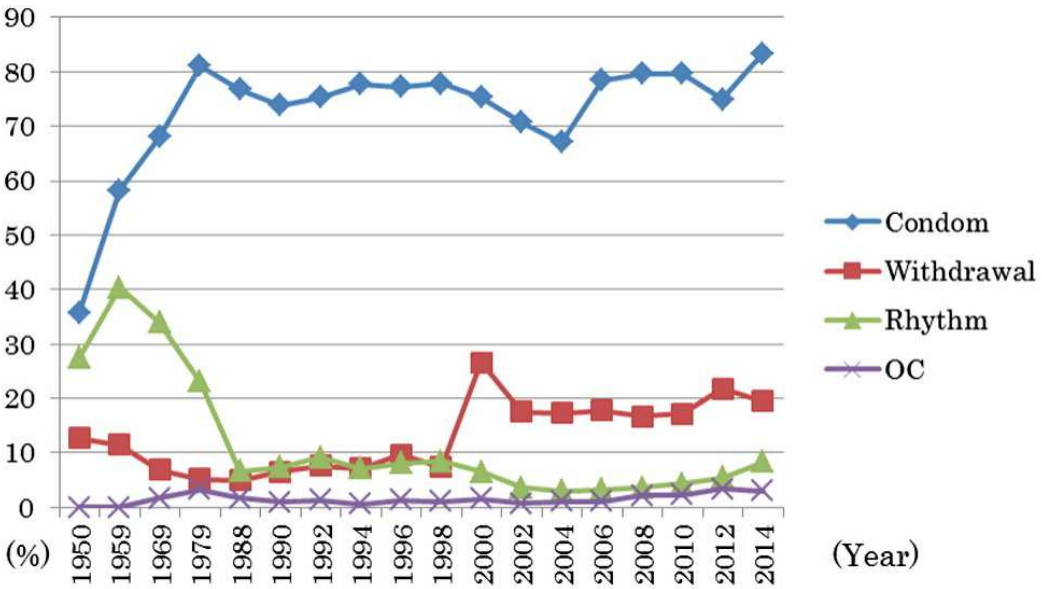


Figure 3: Contraceptive Methods among Current Users (Married Women)[108]

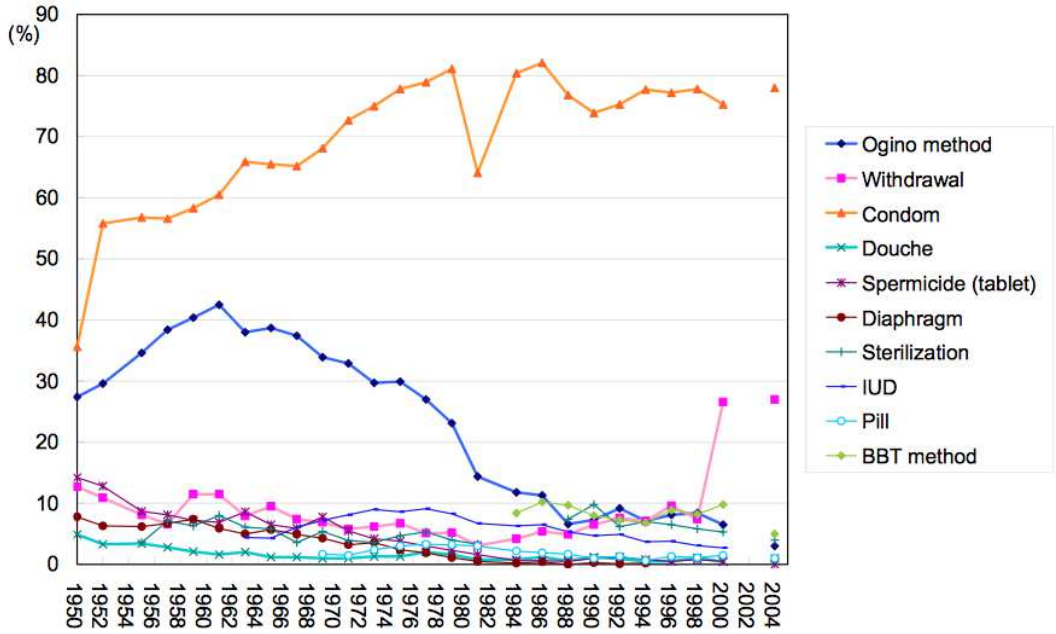


Figure 4: Percentage of women experiencing an unintended pregnancy during the first year of typical use and the first year of perfect use of contraception and the percentage continuing use at the end of the first year, in the United States.[109]

Method (1)	% of women experiencing an unintended pregnancy within the first year of use		% of women continuing use at 1 year[c] (4)
	Typical use[a] (2)	Perfect use[b] (3)	
No method[d]	85	85	
Spermicides[e]	29	18	42
Withdrawal	27	4	43
Periodic abstinence	25		51
Calendar		9	
Ovulation method		3	
Symptothermal[f]		2	
Postovulation		1	
Cap[g]			
Parous women	32	26	46
Nulliparous women	16	9	57
Sponge			
Parous women	32	20	46
Nulliparous women	16	9	57
Diaphragm[g]	16	6	57
Condom[h]			
Female (Reality)	21	5	49
Male	15	2	53
Combined pill and minipill	8	0.3	68
Ortho-Evra patch	8	0.3	68
NuvaRing	8	0.3	68
Depo-Provera	3	0.3	56
Lunelle	3	0.05	56
IUD			
ParaGard (copper T)	0.8	0.6	78
Mirena (levonorgesterel containing intrauterine system)	0.1	0.1	81
Norplant and Norplant-2	0.05	0.05	84
Female sterilization	0.5	0.5	100
Male sterilization	0.15	0.10	100

Emergency contraceptive pills: Treatment initiated within 72 h after unprotected intercourse reduces risk of pregnancy by at least 75%.[i]
Lactational amenorrhea method: A highly effective, *temporary* method of contraception.[j]

Figure 5: Percentage of Married Women Who Have Experienced an Induced Abortion[110]

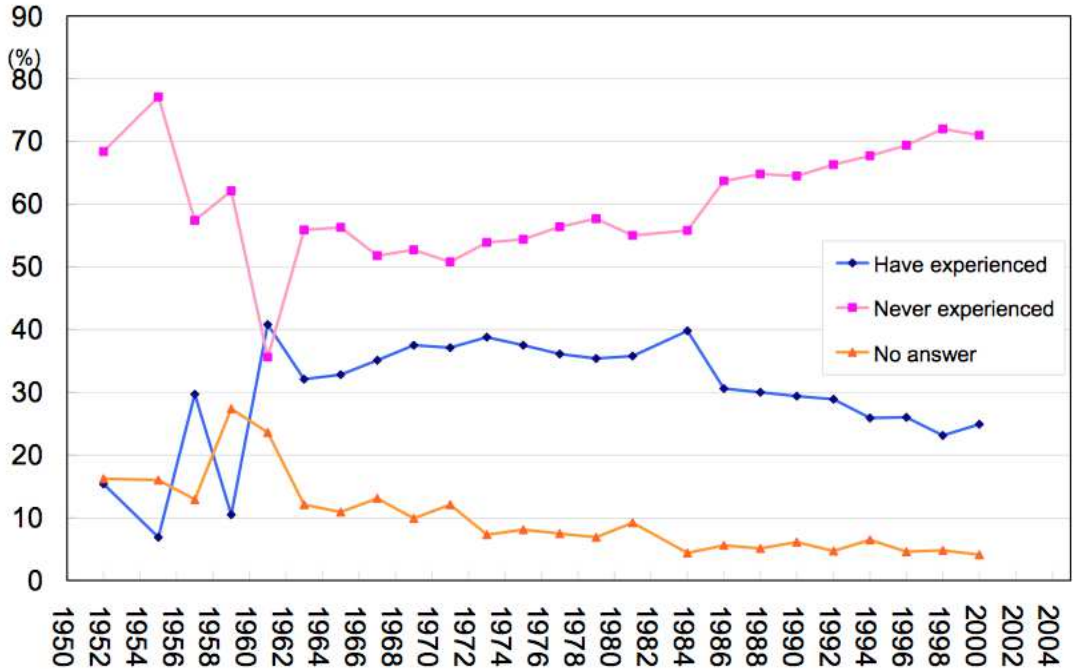


Figure 6: Knowledge of Oral Contraceptive Uses: By Men and Women

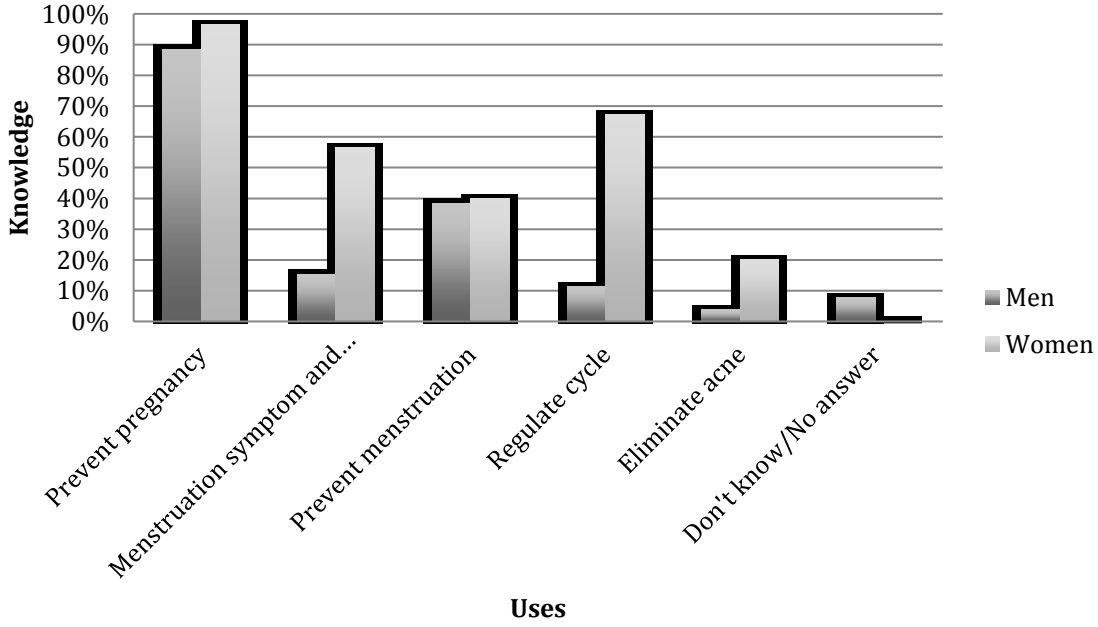


Figure 7: Knowledge of Oral Contraceptive Uses: By Completed Education Level

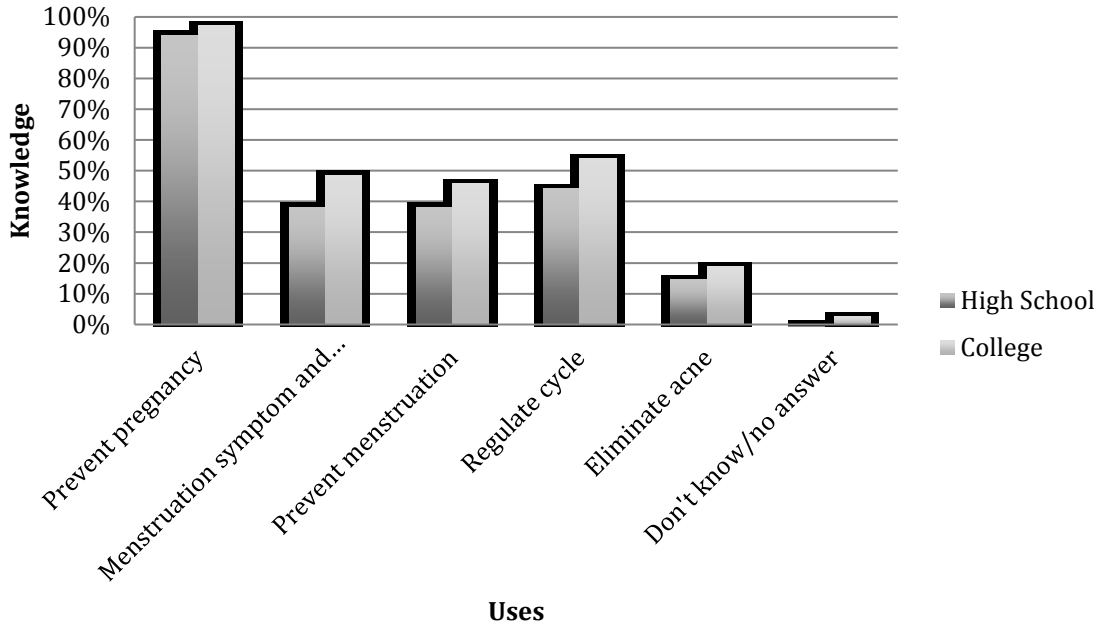


Figure 8: Knowledge of Oral Contraceptive Uses: By Experience Living Abroad

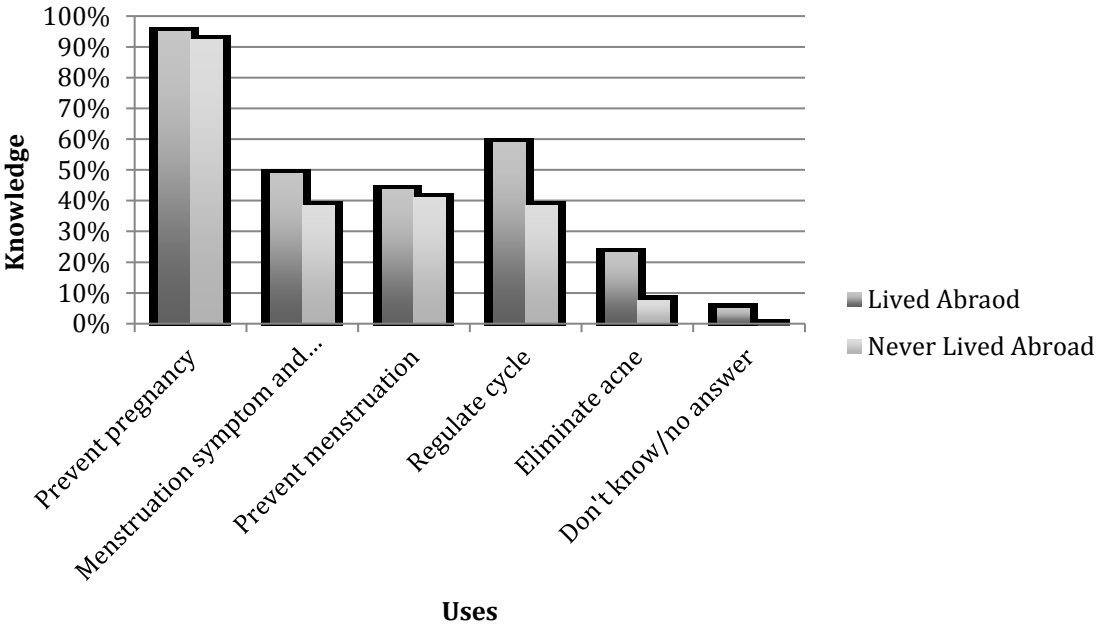


Figure 9: Knowledge of Oral Contraceptive Uses: By Age

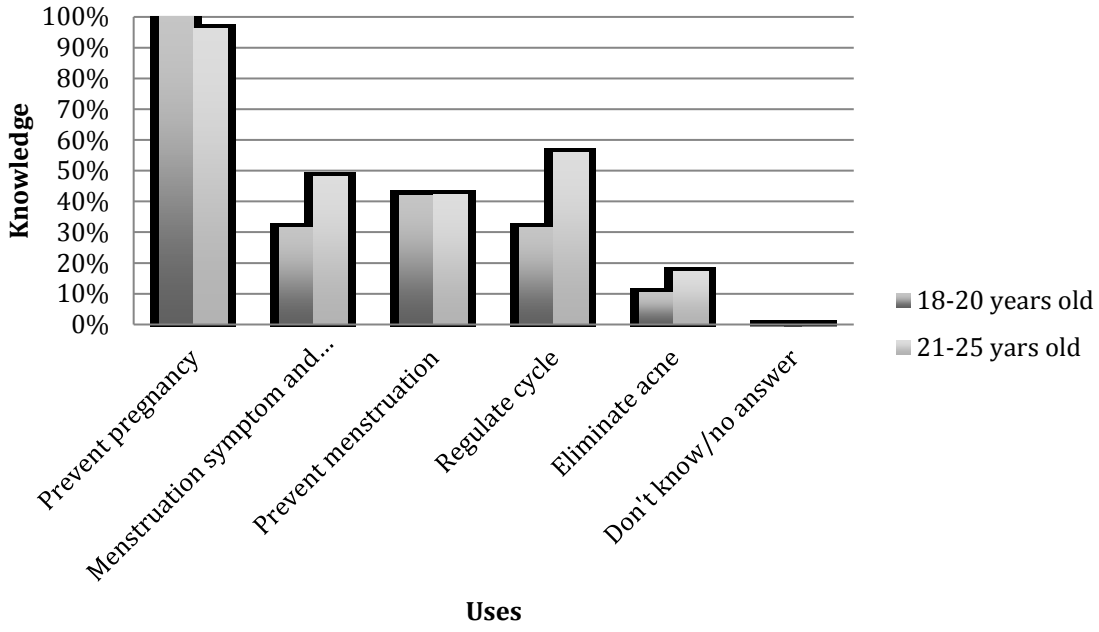
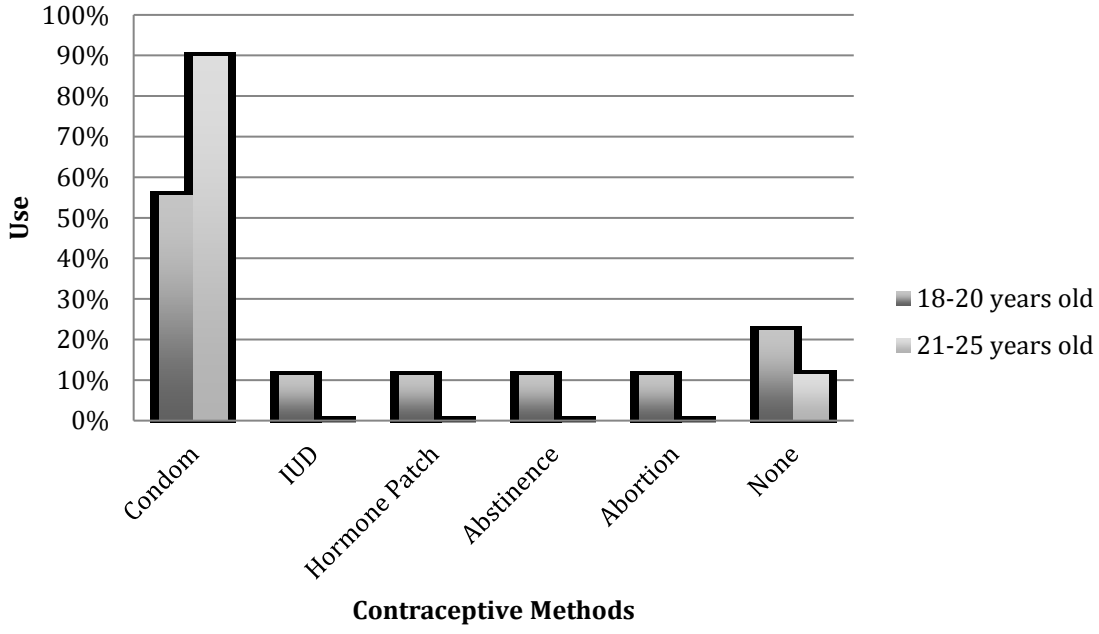


Figure 10: Personal Contraceptive Use: By Age



Appendix A: Definitions

Amenorrhea – Absence of menstruation

Dysmenhorrhea – Unusually painful menstruation

Endometriosis – A disorder in which endometrial tissue builds up outside of the uterus. This disorder often causes severe pain, and can result in fertility problems.

Hirsutism – Abnormal, male-pattern hair growth on women.

Menorrhagia – Excessively heavy bleeding during menstruation.

Ob-gyn – An abbreviation for obstetrician-gynecologist – a doctor who specializes in women's reproductive health.

Appendix B: Oral Contraceptives Survey - English

Oral Contraceptives Survey (Female)

Demographics:

1. Age:

18-20 21-25 26-30 31-35 36-40 41-45 45+

2. Hometown:

_____

3. Highest completed level of education:

Some high school, no diploma High school Associate's degree

Bachelor's degree Master's degree Professional degree

4. Have you ever lived in a foreign country? Yes / No

Research Questions:

5. I think women should be able to use oral contraceptives.

1 2 3 4 5 6 7
1 - STRONGLY DISAGREE 4 – NEUTRAL 7 - STRONGLY AGREE

6. I think women should be able to use oral contraceptives outside of marriage.

1 2 3 4 5 6 7
1 - STRONGLY DISAGREE 4 – NEUTRAL 7 - STRONGLY AGREE

7. What do you think is the most common reason for women to use oral contraceptives?

_____

8. Are you aware of the following reasons for using oral contraceptives?

Avoid pregnancy Yes / No

Menstruation symptom and pain control Yes / No

Prevent menstruation Yes / No

Regulate Cycle Yes / No

Eliminate Acne Yes / No

9. I think there is enough information available to the public about all of the uses and benefits of oral contraceptives.

1	2	3	4	5	6	7
1 - STRONGLY DISAGREE			4 – NEUTRAL			7 - STRONGLY AGREE

More questions on the back.

10. Excluding oral contraceptives, what forms of birth control do you currently use? (Circle all that apply)

Condom IUD Injection Hormone patch

Sterilization Abstinence Abortion None

11. Do you use oral contraceptives? Yes No

If you answered yes to #10 please answer the following questions

12. What do you use oral contraceptives for? (Circle all that apply)

Avoid pregnancy Menstruation symptom and pain control

Prevent menstruation Regulate Cycle Eliminate Acne

Other:_____

13. I have experienced problems obtaining oral contraceptives in Japan.

1	2	3	4	5	6	7
1 - STRONGLY DISAGREE			4 – NEUTRAL			7 - STRONGLY AGREE

14. I have been criticized for using oral contraceptives in Japan.

1	2	3	4	5	6	7
1 - STRONGLY DISAGREE			4 – NEUTRAL			7 - STRONGLY AGREE

15. I feel confident in my understanding of the personal risks, benefits, and usages of oral contraceptives.

1	2	3	4	5	6	7
1 - STRONGLY DISAGREE			4 – NEUTRAL			7 - STRONGLY AGREE

Oral Contraceptives Survey (Male)

Demographics:

1. Age:

18-20 21-25 26-30 31-35 36-40 41-45 45+

2. Hometown:

_____

3. Highest completed level of education:

Some high school, no diploma High School Associate's degree

Bachelor's degree Master's degree Professional degree

4. Have you ever lived in a foreign country? Yes / No

Research Questions:

5. I think women should be able to use oral contraceptives.

1 2 3 4 5 6 7

1 - STRONGLY DISAGREE 4 – NEUTRAL 7 - STRONGLY AGREE

6. I think women should be able to use oral contraceptives outside of marriage.

1 2 3 4 5 6 7

1 - STRONGLY DISAGREE 4 – NEUTRAL 7 - STRONGLY AGREE

7. What do you think is the most common reason for women to use oral contraceptives?

_____

8. Are you aware of the following reasons for using oral contraceptives?

Avoid pregnancy Yes / No

Menstruation symptom and pain control Yes / No

Prevent menstruation Yes / No

Regulate Cycle Yes / No

Acne Yes / No

9. I think there is enough information available to the public about all of the uses and benefits of oral contraceptives.

1 2 3 4 5 6 7

1 - STRONGLY DISAGREE 4 – NEUTRAL 7 - STRONGLY AGREE

Appendix C: Oral Contraceptives Survey - Japanese

避妊に関するアンケート　（女）

人口統計：

１．年齢：（答えに丸を付けてください。）

１８−２０歳　　２１−２５歳　　２６−３０歳　　３１−３５歳

３６−４０歳　　４１−４５歳　　４５歳以上

２．出身：（都道府県の名前と市町村の名前を書いてください）

_____

３．学歴：（一つの丸を付けてください。）

高校を終わりませんでした　　高校を卒業しました

短期大学卒業　　大学卒業　　修士　　博士号

４．外国に住んだことがありますか。　はい／いいえ

研究の質問：

５．女性は経口避妊薬（ピル）を使っても良いと思います。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

６．女性は結婚外で経口避妊薬を使っても良いと思います。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

７．経口避妊薬を使うもっとも一般的な理由は何でしょうか。

_____

裏にもっと研究の質問があります。

８．以下の経口避妊薬を使う理由を知っていますか。（知ってる物の全部を選んでください。）

☐ 妊娠を防ぎます

☐ 生理の病徴と痛みを治めます

☐ 生理を止めます

☐ 月経周期を一定にします

☐ ニキビを減らします

９．経口避妊薬の使い方と利点の情報を十分に集められます。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

１０．経口避妊薬の他に、避妊のために使っている物はありますか。（使っている物の全部に丸を付けてください。）

コンドーム／スキン　避妊リング　注射　ホルモンパッチ

不妊手術　禁欲　中絶　避妊を使いません

１１．あなたは経口避妊薬を使っていますか。　はい　／　いいえ

１１問で「いいえ」を答えたら、以上です。ありがとうございます。
１１問で「はい」を答えたら、次の質問を答えてください。

１２．自分の経口避妊薬の使う理由は何ですか。（使っている物の全部に丸を付けてください。）

妊娠を防ぎます　生理の病徴と痛みが治まります　生理を止めます

月経周期をコントロールします　　ニキビを防ぎます

他：_____

１３．日本で経口避妊薬を買う時、ハードルがありました。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

次のページにもっと研究の質問があります。

１４．日本で経口避妊薬を使うことによって、批判を受けたことがあります。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

１５．経口避妊薬のリスクと利点と使い方を知っています。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

以上です。ありがとうございました。

避妊に関するアンケート　（男）

人口統計：

１．年齢：（答えに丸を付けてください。）

１８−２０歳　　２１−２５歳　　２６−３０歳　　３１−３５歳

３６−４０歳　　４１−４５歳　　４５歳以上

２．出身：（都道府県の名前と市町村の名前を書いてください）

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

３．学歴：（一つの丸を付けてください。）

高校を終わりませんでした　　高校を卒業しました

短期大学卒業　　大学卒業　　修士　　博士号

４．外国に住んだことがありますか。　はい／いいえ

研究の質問：

５．女性は経口避妊薬（ピル）を使っても良いと思います。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

６．女性は結婚外で経口避妊薬を使っても良いと思います。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．
１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

７．経口避妊薬を使うもっとも一般的な理由は何でしょうか。

＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

裏にもっと研究の質問があります。

８．以下の経口避妊薬を使う理由を知っていますか。（知ってる物の全部を選んでください。）

☐ 妊娠を防ぎます

☐ 生理の病徴と痛みを治めます

☐ 生理を止めます

☐ 月経周期を一定にします

☐ ニキビを減らします

９．経口避妊薬の使い方と利点の情報を十分に集められます。（一つの丸を付けてください。）

１．　２．　３．　４．　５．　６．　７．

１＝全く同意しません　４＝特に意見はありません　７＝強く同意します

以上です。ありがとうございました。

Appendix D: Oral Contraceptives Survey Cover Page

The following information was provided to all participants, whether online or on paper. Participants online had to agree to this statement before proceeding to the research questions. Participants on paper were asked to read a page containing only this explanation before proceeding to the next page containing the research questions.

English:

The results of this survey will be used to inform a bachelor's degree thesis on oral contraceptives in Japan. All participants must be 18 years or older. Only general demographics are requested, and no identifying information is required. All participants will remain completely anonymous for this research. In addition, participants may choose to quit this survey at any time. If you would like more information, please contact Alyssa Weaver at a_weaver@coloradocollege.edu.

Japanese:

これは学士の卒論のためのアンケートです。卒論は日本の経口避妊薬について研究しています。参加者の全員は１８歳以上でなければなりません。アンケートの中で人口統計だけをお願いしています。識別情報はお願いしていません。いつも参加者の全員が匿名です。その上、このアンケートを答える間に、いつでも辞められます。もっと情報がほしかったら、a_weaver@coloradocollege.edu でアリッサ・ウィーバーに連絡してください。

Appendix E: Request for Online Survey Participation

I posted the following on social media platforms Facebook and Line (Timeline). I also sent this message privately to friends I made while at Waseda University and my host family through Facebook Messenger and Line (Chats). I only sent this message in Japanese, but am providing an English translation here.

Japanese:

今年私は卒業論文のために研究をしています。研究は日本の経口避妊薬についての研究です。研究するために、日本語で避妊に関するアンケートを書きました。もし興味がある場合はアンケートに協力してください。

ウィブサイトのリンクは：https://docs.google.com/forms/d/e/1FAIpQLSd7-c443W3aNe9_jq3Nn_kzfavvlf6YDNKvokSheJePZp9Q4Q/closedform です。

このアンケートには男性用と女性用の質問があります。また、このアンケートは参加者全員が匿名です。日本人の友達に私のアンケートを広めてください。

English:

This year I am doing research for my thesis. My research is about oral contraceptives in Japan. In order to conduct this research, I have written a survey in Japanese. If you are interested, please take my survey.

The link for the survey is: https://docs.google.com/forms/d/e/1FAIpQLSd7-c443W3aNe9_jq3Nn_kzfavvlf6YDNKvokSheJePZp9Q4Q/closedform.

This survey has questions for both men and women. All participants will remain anonymous in this survey. Please spread this survey among your friends.

Notes

Notes to Introduction

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