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MENSTRUAL ATTITUDE AND TABOO

In-depth study on Japanese menstrual cup users

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ABSTRACT

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Although a variety of alternative menstrual products are gaining attention, especially in the Global North, alternative menstrual products such as menstrual cups are not well known in Japan. Open discussion about menstruation tends to be avoided, and there are a variety of cultural practices that contribute to making menstruation invisible and limiting awareness of alternative menstrual products.

The present study explored how menstrual attitudes are shaped using menstrual cups among Japanese women. Using in-depth interviews with eight young Japanese women, this study researched what kind of menstrual experiences Japanese women have through menstrual cups and how are attitudes toward menstruation and menstrual cup use related to sociocultural issues in Japan, particularly stigmatized menstruation. The study employed objectification theory (Fredrickson & Roberts, 1997), in which women attempt to maintain an idealized body forced by third-person eyes, and an integrated model of the menstrual experiences introduced by Hennegan et al. (2019) as the theoretical framework.

Interview results revealed that Japanese women generally view menstruation negatively, often associating it with discomfort and inconvenience. It was also suggested that the hygienic challenges of using menstrual cups in the absence of adequate hand-washing facilities, may hinder widespread use of menstrual cups. While menstrual cups serve to mitigate women's concerns about leaking menstrual blood, it was found that some participants still experienced leakage even with the use of menstrual cups. The study also revealed a lack of educational opportunities in understanding women's bodies through the usage of menstrual cups, which require close contact with the vagina. Many participants tended to avoid the topic of menstruation in public, especially in the presence of men, suggesting that the lack of menstrual education that separates boys and girls contributes to a sense of taboo.

While environmental concerns and cost-effectiveness were motivations for adopting menstrual cups, new perspectives were also revealed, with menstrual cups being used as an affirmation of women's bodies and sexuality. Using a menstrual cup allowed participants to engage more intimately with their bodies and facilitated open discussion about menstruation. This study suggests that increased awareness of menstruation as a daily part of life and the benefits of open dialogue may lead to a broader understanding of body positivity and healthier relationships with one's own body and others.

Keywords: menstrual cup, menstrual taboo, stigma, menstrual attitude, Japanese women

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1. Introduction

Globally, 1.9 billion people of reproductive age, including women, transgender men, and nonbinary people, have experienced menstruation (UNFPA, 2022). Approximately 800 million individuals between the ages of 15 to 49 menstruate each day (UNFPA, 2022). Menstrual cups are a reusable and cost-effective solution that has the potential to address period poverty (APHRC, 2010). Personally, since I started using a menstrual cup, I have become more attentive to my body and health. I suppose that using a menstrual cup can empower individuals to learn more about their own menstrual cycles. Despite the scarcity of academic articles on menstrual cups and attitudes toward menstruation in Japan, I believe that this research will contribute to a novel study in this field.

This thesis has been partly inspired by my own experiences, according to which a prevailing perception that menstruation is something to be concealed, and this belief is reflected in various aspects of society in Japan. For instance, when purchasing sanitary products, they are sometimes placed in colored bags to hide their contents from outside. This indicates that excessive consideration makes the visibility of sanitary products embarrassing. Additionally, in Japan, there are sanitary handkerchief pouches that are shaped like handkerchiefs and sold to avoid drawing attention to menstruation when going to the bathroom. Thus, the social environment has created a situation in which talking about menstruation in public is taboo. This, among other cultural habits, may reduce the opportunities to discuss topics regarding menstruation in daily life and limit access to information on alternative sanitary products. Various cultural reasons contribute to the lack of awareness and use of menstrual cups among many individuals, including physical limitations such as the absence of sinks in public bathrooms. In addition to the environment, Japan was placed 116th out of 146 nations in the World Economic Forum's

Global Gender Gap Report (nippon.com, 2022). Japan maintained a high level of gender equality in education and health out of the four categories but lagged in politics and economy. The fact that society does not have a widespread understanding of gender equality may also have something to do with the fact that menstruation has long been a taboo subject in Japan.

It is interesting how Japanese women came to start using menstrual cups in an environment where menstruation is taboo, and information is limited. I found objectification theory (Fredrickson & Roberts, 1997) as one of the theoretical frameworks to explain the relationship between menstrual taboos and menstrual cups among women. Since objectification theory has been widely adopted to introduce how women self-objectify their bodies based on third-person eyes (Fredrickson & Roberts, 1997), the theory might help to explain how women perceive their menstrual experience through menstrual cup use. Based on previous studies and the interviews that I conducted, I will examine what kind of experiences Japanese menstrual cup users have of using the menstrual cup and does the use influences their understanding of menstruation. In addition, I will seek how attitudes toward menstruation and menstrual cup use related to sociocultural issues in Japan, especially stigmatized menstruation (Johnston-Robledo & Chrisler, 2013). The study will contribute to finding out if the taboo environment affects the women's experience with menstrual cups in Japan. If there were difficulties in using menstrual cups, what kind of social and emotional difficulties did women face? This study seeks to examine whether menstrual cups have changed Japanese women's attitudes toward menstruation in light of the current context surrounding menstruation. By examining alternative sanitary products that have not been in the limelight in Japan, especially menstrual cups, which have been the focus of attention recently, this study

seeks to examine how menstrual cups can deform the attitudes towards one's body and menstruation.

The next chapter will be a literature review focusing on stigmatized menstruation, taboo menstruation, and the use of menstrual cups. This literature overview is then followed by a comprehensive description of the theoretical concepts in Chapter 3. Chapter 4 will explain research questions, data collection method, ethical considerations, and analytical process. Subsequent chapters 5 and 6 will present and discuss the results of the study.

2. Literature review

2.1. Stigmatized menstruation

In many cultures and societies, menstruation has been viewed as a matter that should not be made public. Johnston-Robledo and Chrisler (2013) argue that menstruation is a source of social stigma for women. According to Goffman (1986), stigma refers to any stain or mark that distinguishes one person from another within the discredited social category. Stigma is associated with various social categories such as race, sexuality, and disability (Goffman, 1986). He categorized stigma into three types: (1) physical deformities (e.g., scars, burns) (2) individual character blemishes (e.g., mental health disorder, addiction, homosexuality), and (3) tribal stigma (e.g., race, nationality, gender, and sexual orientation) (Goffman, 1986, 4). Stigma refers to any prejudice, negative attitude, or false belief associated with particular characteristics, situations, or health symptoms (Swaim, 2022). A survey of perceptions of menstruating women reveals a widespread belief that the reproductive organs have the power to provoke disgust-like reactions in others, changing a woman's personality and making them "crazy" which eventually contributes to the perception of menstrual blood itself is a stigmatizing "mark" (Johnston-Robledo & Chrisler, 2013; Roberts, 2020b). Johnston-Robledo and Chrisler (2020) argue menstrual blood fits Goffman's all three categories as a stigmatizing mark. It carries the message that the person in question has a physical or psychological flaw that detracts from their appearance or personal identity (Johnston-Robledo & Chrisler, 2013). Some even argue that menstrual blood is considered more disgusting than other bodily fluids such as breastmilk (Bramwell, 2001) and semen (Goldenberg & Roberts 2004). In addition, menstrual stigma reflects women's low social status and has important implications for

health, sexuality, and well-being (Johnston-Robledo & Chrisler, 2013). This stigmatized menstruation image has taken root in society as a menstrual shame and taboo. Furthermore, menstrual shame affects women's feelings about their bodies and women's attitudes toward menstruation (Schooler et al., 2005). Women's feelings and attitudes toward menstruation are associated with objectifying their own bodies (Roberts, 2004). The ideal sexually objectified female body is sanitized, hygienic, decolorized, deodorized, and thus devoid of any more creaturely or animalistic features like body hair, genitalia, or traces of internal secretions such as mucus or blood (Roberts, 2020a). Therefore, these widespread negative images and stigma surrounding menstruation can be found in many cultures and contexts through media and products (Johnston-Robledo & Chrisler, 2013).

Compared to some Western countries, for instance, Nordic countries, and the United States, where menstrual cups are more accessible and well-known, Asia still has a strong environment where menstruation is taboo (AFP, 2020). For example, in Indonesia, the use of menstrual cups and tampons is still limited because of cultural beliefs according to which women who have never had sex do not want to put anything in their vagina (AFP, 2020). In Indonesia, virginity is mystified and valued, and many women avoid tampons or menstrual cups because of a fear of "losing" their virginity (AFP, 2020). Therefore, not only menstrual cups, but even tampons are not well accepted. However, since Japan has a large non-religious population, the taboo against menstruation might be related to the character and culture of the Japanese people, rather than religious reasons. One example of an ethnic group close to Japan is China. China has a high percentage of non-religious population and a strong perception of menstruation as a taboo subject (World Population Review, 2022). In China, blood is sometimes connected to danger, suffering, and even death since it is thought to be extremely impure, and in some cases, menstrual blood may

even represent a dead, unborn fetus (Chu, 1980). Due to the belief that menstrual blood is impure and polluted, Chinese women perceive themselves as unclean and tainted, adhering to specific taboos to protect others, including their husbands, family, and the broader community (Chu, 1980). Consequently, women self-perceive as physically weakened during menstruation and view menstruation as something shameful promoting them to take measures to preserve their health and conceal their menstrual status (Chu, 1980).

Through the research on menstruation and cloth sanitary napkins in Japan, Ono (2009) describes how the perception of menstruation has changed over time. According to Ono (2009), menstruation was originally considered a mysterious phenomenon until the mid-Heian period (the Heian period was from 794 till 1192). At that time, menstruation was considered sacred reverence as a divine occurrence, since bleeding did not lead to death (Ono, 2000). However, over time, the view of menstruation as a mystical phenomenon faded, and it shifted towards the perception of menstruation as impurity, mainly in the aristocratic society of the Heian period. This perception may have started with the isolation of pregnant women in special huts during childbirth to prevent evil spirits from inhabiting them (Okiura & Miyata, 1999). This view of impurity associated with “kegare” (uncleanliness) gradually spread during the Muromachi period (1336-1573). The word kegare is originally from Buddhism and Shintoism and explains the idea that the time, objects, and bodies that we touch are unclean (Shogakukan Daijisen Editorial Department, 2012). The meaning later was adopted to describe the uncleanliness of menstruating women (Fukuzaki, 1996).

During the Meiji period in 1872, when Western culture was widely adopted, kegare and birthing huts were eliminated as uncivilized by the government. Later, the Ministry of Education, Culture, Sports, Science, and Technology popularized the use of clean gauze menstrual treatment methods for female students in school education and began instructing them to avoid exercising during the menstrual period in 1900. Consequently, women's bodies related to menstruation, pregnancy, and childbirth became objects to be controlled, examined, and treated by schoolteachers and physicians. Moreover, female students were instructed to refrain from exercise during the menstrual period, which required them to observe physical education at school during their period. Female students were obligated to inform their teachers about their menstrual periods. As a result, Ono (2009) points out that menstruation became an embarrassing interruption to daily life and a personal problem that should be concealed. (Ono, 2009)

Thus, menstruation became a personal problem that should be concealed as the Japanese government spread the concept of hygiene. In addition, Buddhist and Confucian ideologies were also involved in the background of the perception of impurity (Ono, 2009). Women's bodies were regarded as unclean in Japan under the influence of Chinese Buddhism starting in the 9th century because of childbirth and menstruation (Tan, 2020). The idea of impurity became more rigid in the 12th century when women were required to refrain from bathing until the seventh day after the onset of menstruation, even if the bleeding had stopped earlier (Tan, 2020). The introduction of Buddhism at that time exacerbated the discriminatory gender stereotypes surrounding the concept of blood pollution and required women to organize their daily activities and duties around their menstrual cycle to engage in social life (Tan, 2020). Although Japan has a large non-religious population nowadays (Kobayashi, 2019), it is also true that Buddhist and Shinto

ideologies have long been ingrained in people's lives. Therefore, it is likely that these traditional beliefs may unconsciously influence Japanese people's way of thinking in some way.

Menstruation has a history of stigmatization not only in Japan but also in Western countries. Attitudes toward menstruation have been extensively studied since the 1900s, including both quantitative and qualitative research. Although many different factors shape menstrual attitudes, religious perspectives have had one of the greatest influences on Western societies' attitudes toward menstruation according to Crawford (1981). Although biblical influences and interpretations have changed over the centuries, the Bible has permeated many of Western society's beliefs about menstruation (Crawford, 1981). In support of this, there is a history of menstruation being considered unclean by Christianity. For example, in the 7th century in England, menstruating women were denied admission to the church and forbidden to receive communion during menstruation (Crawford, 1981). There is an interpretation that the Old Testament scriptures consider menstruating women unclean, which made a man who slept with menstruating women also considered unclean for seven days thereafter (Fitzgerald, 1990). Phipps (1980) argues that the menstrual taboo based on the Hebrew Bible is one of the causes of women's persistent exclusion from high office in many Jewish and Christian congregations, organizations, and communities. In more recent years, after the invention of the tampon in 1933, its use was immediately attacked by the church, which claimed it threatened virginity (Toth et al., 1981). Not only in Christian society, the Qur'an, the holy book of Islam, considers menstruation a "painful condition," and in most contemporary Muslim societies, entry to mosques, prayer, sexual activity, fasting during Ramadan, and full pilgrimage to Mecca are all prohibited to menstruating women (Ahmed, 2015;

Haleem, 2011). The biblical and later Qur'anic view that menstrual blood is unclean, polluted, pain-inducing, and that menstruating women are cursed, became widespread worldwide (Gottlieb, 2020). Even in the absence of religious discourse, powerful aversion factors frequently teach menstruators to keep their distance from non-menstruators, both linguistically and spatially (Gottlieb, 2020). Thus, conventional expectations of taboo behavior extend far beyond the religious community centered on the Bible and the Quran. From a religious standpoint, women during menstruation have long been historically labeled as impure and unclean beings. Consequently, it is conceivable to envision the significant impact of this ideology on menstrual attitudes.

2.2. Menstrual cup as an alternative menstrual product

There has been a growing interest in alternative menstrual products over the past few years. Alternative menstrual products refer to menstrual cups, discs, period underwear, and cloth pads, which are reusable and sustainable (Koskenniemi, 2023). According to the United Nations Environment Programme (2021), sustainable menstrual products are substantively better than single-use menstrual products such as tampons and disposable pads concerning lower environmental impact. Besides the low environmental impact, alternative menstrual products are budget-friendly in the long run since they eliminate the need to buy pads or tampons every time, although the initial expense might be expensive. In addition, menstrual cups, reusable menstrual discs, and period underwear can be worn for extended periods of time, which may help to reduce the hassle of changing sanitary products frequently. In particular, the menstrual cup is made from medical-grade silicone,

and each cup lasts up to 10 years, so there have been cases being provided to women who cannot afford menstrual products in the Global South (Rashith, 2018).

Most of the menstrual cups used in the following studies are slightly different in form from current menstrual cups. Research on menstrual cups began around the 1990s and was mostly conducted for specific reasons such as dysmenorrhea (menorrhagia), menstrual blood loss, or hormonal balance, indicating that at that time they were not yet widely accepted by many people as a mainstream alternative menstrual product. In a previous study of 19 women in Australia, evaluating hormone levels in menstrual fluid collected with menstrual cups, it was confirmed that menstrual cups are well tolerated (Jian-Ping Zhou et al., 1989). Also, in a Canadian survey of 51 menstruating women, 23 (45%) indicated that they could accept menses cups as a way to cope with menstruation, and 29 (57%) indicated that they could accept using them for two or more cycles (Cheng et al., 1995). Other studies conducted by Gleeson et al. (1993) using a diaphragmatic menstrual cup in 10 women with normal menstrual flow and 12 women with dysmenorrhea found that 21 of the 22 women felt insertion was easy, while 16 found removal was cumbersome. All the dysmenorrheic women and 4 of the 12 women with normal menstrual flow were dissatisfied with the menstrual seal of menstrual cups. The study also reported that menstrual cups are not suitable for measuring menstrual flow because it does not collect menstrual blood efficiently. (Gleeson et al., 1993)

Despite some of the disadvantages of menstrual cups have been confirmed by several studies, scholars identified the utility of menstrual cups as alternative menstrual products. It has been reported that menstrual cups can collect three times more menstrual blood than disposable napkins or tampons (UNICEF, 2019). There have been reports of other

advantages, such as the ability to handle heavy menstrual flow (UNICEF, 2019). Besides, it helps to prevent the leaking of menstrual blood than using sanitary pads at least. For example, a study on Mooncup conducted by Stewart et al. (2010), one of the brands of menstrual cups, found that participants leaked 0.5 times less often and changed it 2.8 times less often per period than with regular menstrual pads. In addition, the menstrual cup prevents the odor emitted when menstrual blood comes into contact with air. One study found that a menstrual cup is a convenient solution for those who have trouble using regular sanitary products, which is also an available option for those who have disposal issues (George & Leena, 2020). For these reasons, I suppose menstrual cups have the potential to reduce the restrictions and hassles of menstruation for women and change the image of menstruation itself.

Menstrual cups are not as well-known as tampons and disposable pads, although they have a long history that was developed in the 1930s (Finley, 2006). According to a survey targeting 151 female university students aged 18-23 in the United States, only 33% of respondents were aware of the existence of menstrual cups before the survey (Grose & Grabe, 2014). One study conducted in Pakistan showed 88.6% of females from the general population and 57.6% of female healthcare workers were not aware of menstrual cups (Arshad Ali et al., 2020). Furthermore, even in Ganz's study of only medical students with physiological knowledge of menstruation, it was found that only about 60% were aware of menstrual cups (Ganz, 2022). A variety of studies show regional variations in awareness of menstrual cups worldwide.

Menstruation has been used for centuries to exclude women from the public sphere, leading to the image of inferiority and incompetence of women (Koskenniemi, 2023).

According to those who promote menstrual cup use, menstrual cups and other alternative menstrual products may have the potential to change the stigmatized menstruation (Koskenniemi, 2023). Many companies producing alternative menstrual products emphasize the benefits of using menstrual cups, which can relieve women of stress and change the negative perspective of menstruation into a more positive one. According to the research conducted by Koskenniemi (2023), which analyzed seven websites selling alternative menstrual products, most of them repeatedly stated that "the menstrual taboo" needed to be broken. These websites emphasize a positive attitude toward menstruation by showing that menstruation is a potentially empowering experience (Koskenniemi, 2023). It could be expected that women's negative attitudes toward menstruation would change if menstrual cups were to become more accessible and common menstrual products.

2.3. Menstrual cup use

The percentage of menstrual cup use differs from one country to another. According to a survey conducted in 2013, 68% of Japanese women were using disposable menstrual pads, while 27% were using tampons and reusable pads (Netresearch DIMSDRIVE, 2021). Regarding the survey on menstrual cup use in Japan, which was conducted by Baby Calendar Inc. in 2020, only 2% of respondents answered that they had experienced menstrual cup use among 3,412 respondents (Baby Calendar, n.d.). In contrast, the survey of women aged 15 to 45 carried out by Lunette found that 12% of women had used a menstrual cup in Finland (Abumi, 2019). In other countries for example in India, according to the results of the Fifth National Family Health Survey (NFHS-5), only 0.3%

of women aged 15 to 24 years use menstrual cups, 64.4% use sanitary napkins, 49.6% use cloth, and 15% use locally made napkins (IIPS & ICF, 2021). These differences may be due not only to physical reasons, such as lack of water, sanitation, and hygiene facilities (Shrestha et al., 2022), but also the lack of access to adequate information, various sociocultural backgrounds, such as influences of family, education, and society's perception of menstruation.

Studies on the use of menstrual cups have been conducted in different parts of the world. In a study of Iranian women aged 18 to 50 years old who used a menstrual cup more than 3 menstrual cycles, 98.6% of participants were willing to recommend menstrual cups to other women, although vaginal pain during the removal process was reported as a health risk when using menstrual cups (Gharacheh et al., 2021). Beksinska et al. (2015) conducted a randomized controlled trial (RCT) on 110 South African women aged 18 to 45 years with regular menstrual cycles, found that the group of women who used menstrual cups provided significantly better ratings in terms of comfort, quality, menstrual blood collection, and appearance of their menstrual products than the group of women who used menstrual pads or tampons. In another study, Howard et al. (2011) conducted RCT targeting 110 women in Canada aged 19 to 40 years who had previously used tampons as their main method of menstrual management. Overall satisfaction was higher in the menstrual cup group than in the tampon group, with approximately 91% of women in the menstrual cup group indicating that they would continue to use the cup and recommend it to others (Howard et al., 2011). On top of that, Howard et al. (2011) argued that menstrual cups are a satisfactory alternative to tampons and have the potential to be a sustainable solution to menstrual management with modest cost savings and a significantly reduced environmental impact compared to tampons. While the earliest

studies on menstrual cup development and research in other countries date back about 30 years, previous research on menstrual products in Japan has focused on topics such as the physical and psychological effects of wearing sanitary pads (Kaimura & Ueda, 2015).

Itaya et al. (2022) conducted research targeting 22 healthy Japanese midwives without organic disease of the uterus and no previous experience using a menstrual cup. The research adopted a mixed method, both qualitative and quantitative, to obtain participant feedback on the interventions of menstrual cup use. Menstrual Distress Questionnaire (MDQ) scores were collected as quantitative data and questionnaire description data after the use of menstrual cups were collected as qualitative data (Itaya et al., 2022.) MDQ is “a new tool for evaluating menstruation-related distress and provides a representative score of stress perception (Vannuccini et al., 2021:1107)”. Itaya et al. (2022) applied the Japanese version of the MDQ to participants before and after menstrual cup use to evaluate their menstrual symptoms to find changes in total MDQ scores while using conventional menstrual products and a menstrual cup. The research found out 60% of the participants who used the menstrual cup for the first time reported negative feedback, such as discomfort when using the cup and concerns about hygiene due to the need to touch the vagina directly. However, as a physical benefit of the menstrual cup, more than 70% reported easier dealing with menstruation due to the reduction of discomforts such as odor, leakage, dampness, and itching. While there are many benefits that menstrual cups bring to participants, the study also confirmed that they may have the opposite effect on women who have heavy menstrual flows to begin with (Itaya et al., 2022). Furthermore, the first studies on menstrual cups in the 1960s found that most women became accustomed to their use after a one to two-months adjustment period (Liswood, 1959; Karnaky, 1962; Pena, 1962; Parker et al., 1964). Therefore, results from previous research

indicate that although menstrual cups take a certain amount of time to get comfortable with their use, many women prefer to continue using them once they have become accustomed to them.

Regardless of the benefits of menstrual cups, it is not a popular choice for handling menstruation in Japan. Few Japanese women have been sharing their experiences with exported menstrual cups on their blogs. In fact, according to the answers from a questionnaire regarding menstrual cup awareness conducted by Itaya et al. (2022), 12 women had never heard of it at all, and only 5 women said they knew some, but none said they knew what it was like out of 22 participants. This result may be because most menstrual cups available in Japan have been imported from abroad and are primarily obtainable through online shops. However, menstrual cups made in Japan have also become visible in local pharmacies recently. It is considered that better accessibility will encourage people to consider using menstrual cups in Japan.

As these studies show, regardless of country or region, the use of menstrual cups can be painful at first during insertion and removal, but after experiencing approximately three cycles and becoming accustomed to it, the discomfort gradually disappears, and many people want to continue using them. On the other hand, there are some problems, such as the risk of aggravating severe menstrual cramps for those who have them to begin with. Thus, while menstrual cups may not be the best option for everyone, they can be useful in that they eliminate discomfort such as menstrual blood leakage and odor and improve the hassle of having to change sanitary pads each time. According to my knowledge, no research examined the use of alternative menstrual products in the context of women's wider experience and attitude towards menstruation, including the societal and cultural

context of Japan. Therefore, it is worthwhile to focus on Japanese women and explore how they are shaping their menstrual experiences through the use of menstrual cups.

3. Theoretical framework

3.1. Objectification theory

In the research on women's experience of menstruation, Hennegan et al. (2019) developed an integrated model of the menstrual experience through a systematic exploration of qualitative studies. The research captured the menstrual experiences of women and girls in low- and middle-income countries of over 6,000 participants from 35 countries. This model maps the distal and proximate causes of the menstrual experience to its impact on health and well-being. The research showed that the experience of menstruation included multiple themes: menstrual practices, perceptions of practices and environment, self-confidence, shame and distress, and containment of bleeding and odor. These components of the experience are interrelated, and factors negatively impact the lives of women and girls. The sociocultural background, which includes gender norms and menstrual stigma, affected experiences by limiting social support and knowledge about menstruation, and establishing internalized and externally enforced behavioral expectations. Impacts also include harm to physical and psychological health, education, and social engagement. Thus, the integrated model of the menstrual experience developed by Hennegan et al. (2019) is one suitable framework for researching the menstrual experience. (Hennegan et al., 2019)

Objectification theory has been employed to investigate women's attitudes and perceptions toward menstruation. This theory explains how women internalize cultural messages about their bodies and try to comply with obtaining rewards and avoid negative consequences (Bartky, 1990; Fredrickson & Roberts, 1997; Grose & Grabe, 2014; McKinley & Hyde, 1996). Objectification theory was first proposed by Fredrickson and Roberts in 1997 as a framework to comprehend women's experience being in a culture that sexually objectifies their bodies. They argued that the cultural environment of sexual objectification achieves colonization of the minds of many girls and women, resulting in self-objectification as a way of anticipating the rewards and punishments that would come from a culture that values their physical appearance above all else (Fredrickson & Roberts, 1997; Roberts, 2002; Roberts, 2020a). Moreover, Goldenberg and Roberts (2004, 2011) argue that sexual objectification and self-objectification threaten women's existence and lead us away from women's more creaturely functions. As confirmed in the integrated model of Hennegan et al. (2019), self-objectification is thought to underlie the influence of behavioral expectations enforced by others on the menstrual experience. Objectification theory has its roots in feminist scholars such as de Beauvoir (1952), Young (1990), and Kaschak (1992). Roberts and Waters (2004) explain that self-objectification involves women adopting a "third person" or "looking glass" perspective on their physical selves to anticipate and control their treatment, which partially replaces the "first-person" perspective. Thus, the "outside-in" perspective prevails over the "inside-out" perspective. Through these perspectives, women gain both direct and indirect knowledge that looks matter and that how others see them affects how they are treated, which has an impact on their social and economic outcomes. (Roberts & Waters, 2004)

The associations between self-objectification, body comfort, and negative attitudes and feelings about menstruation have been investigated primarily in a sample of middle-class white women (Johnston-Robledo et al., 2007). Coutts and Berg (1993) point out that many women have an androcentric view of menstruation, which is characterized by stigma, negativity, and sexual objectification associated with menstruation. Studies illustrated women with high self-objectifying tendencies have particularly negative attitudes toward menstruation (Johnston-Robledo et al., 2007; Roberts, 2004). Research targeted undergraduate women found that those with a higher tendency toward self-objectification were more likely to respond that it would be better to have no menstrual cycles and exhibited a positive attitude towards the elimination of menstruation with the use of continuous oral contraceptives (Johnston-Robledo et al., 2003). The societal messages surrounding the female body influence women's attitudes about their menstruation and choice of menstrual products since menstruation is viewed as an embarrassing and shameful problem that needs active management through various disposable products (Grose & Grabe, 2014). Therefore, interrupting the experience of self-objectification may transform socially constructed negative attitudes toward menstruation and allow women to make healthier choices regarding menstrual products (Grose & Grabe, 2014; Johnston-Robledo & Chrisler, 2013).

Milne and Barnack-Tavlaris (2019) researched to examine the extent to which message framing, prior perceptions, menstrual attitudes, and self-objectification predict attitudes toward menstrual cups and intrauterine devices (IUDs). The research collected 128 female undergraduates and they answered questions about their views toward the products, probability of using or promoting the products, attitudes toward menstruation, and self-objectification after being given either basic or benefit-framed information about

menstrual cups or IUDs. The result revealed that benefit-framed information and prior views were linked to more favorable attitudes toward both products. Favorable opinions for menstrual cups were predicted by positive thoughts about menstruation. In this study, self-objectification was measured using the Self-Objectivity Questionnaire (SOQ) introduced by Fredrickson et al. (1998). The SOQ is designed to measure the extent to which appearance-oriented females view themselves objectively. Attitudes toward menstruation were measured using the Menstrual Self-Evaluation Scale (MSES) introduced by Roberts (2004), which consists of items measuring attitudes and feelings toward menstruation. (Milne & Barnack-Tavlaris, 2019)

An experiment conducted by Roberts et al. (2002), studied the hypothesis that associating a menstruating status increases negative reactions toward women and promotes objectification of women. In the experimental design, the study participants observed a female research assistant dropping either a hair clip or a tampon. The result found that a female confederate received lower ratings for competence and likeability from the participants when she dropped the tampon than when she dropped the hair clip. Additionally, participants in that study were inclined to sit further away from the woman they thought was menstruating than the one whose hair clip they could see. (Roberts et al., 2002) This study suggests that disconnection in the concealment of women's menstrual status leads to both negative perceptions and social distance (Johnston-Robledo & Chrisler, 2020). According to Roberts (2004), women who self-objectify more than those who do not have more negative views and feelings concerning their menstruation. In a study that measured the relationship between self-objectification and women's menstrual self-evaluations, it was found that women who were more sexually objectified about their bodies were found to have more negative attitudes and feelings about their

menstrual cycles, including disgust and shame (Roberts, 2004). Regarding the study of social stigma on menstruation, Kowalski and Chapple (2000) carried out an experiment that interviewed 28 menstruating women and 30 non-menstruating women by a man who was either aware or unaware of the participant's menstrual status. The result indicates the male interviewer's knowledge of women's menstrual status restrained menstruating women's self-presentational motivation. The author explains the stigma associated with menstruation has an impact on how women see themselves and what their perceptions of other people think of them. Menstruating women may feel self-conscious and motivated to hide their menstrual status from others due to the stigma associated with menstruation. (Kowalski & Chapple, 2000) Previous studies have shown that self-objectification is one parameter that can be used to understand a woman's view of menstruation. In addition, Roberts and Waters (2004) mention objectification theory can be adopted as a feminist framework for therapists to help clients cope with a particular kind of self-loathing—disgust and shame about their physical selves such as their menstrual periods. As has been the case in previous studies, research on self-objectification has been primarily quantitative, but it may be possible to ask each of these questions in an interview as well.

3.2. Menstrual attitude and beliefs

Research on attitudes has been conducted primarily in the field of social psychology. Gordon Allport who is a well-known psychologist for the study of personality defined an attitude as being "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (Allport, 1967:8). According to Rosenberg and

Hovland (1960), "attitudes are predispositions to respond to some class of stimuli with certain classes of response" (p.3). Rosenberg and Hovland (1960) introduced three component view of attitude, which is called a tripartite model, explained that three types of response can be defined as affective (including evaluative feelings and preferences), cognitive (including opinions and beliefs), and behavioral (including overt actions and statements of intent) (Eiser, 1986). It is concluded that affect, behavior, and cognition are distinguishable components of attitude by Breckler (1984), however, it is not clear whether to what extent the three types of components of attitudes are independent or interdependent (Eiser, 1986).

Clarke and Ruble (1978) found through a study involving 54 pre-menarche girls, young post-menarche girls, and young boys, that menstruation was primarily associated with negative expectations and attitudes. When asked about their beliefs about the effects of menstruation on their activities and moods, most believed that menstruation was associated with physical discomfort, increased emotionality and mood changes, and disruption of social activities (Clarke & Ruble, 1978). Fitzgerald (1990) stated that this suggests that attitudes may be learned in the same way that attitudes toward other things are acquired, rather than developed from the direct experience of menstruation.

In addition to this, a study by Lei et al. (1987) comparing attitudes toward menstruation among 53 mother-daughter pairs showed that most young women viewed menstruation as an event not to be talked about, especially with men, and perceived it as not to be discussed. Thus, various studies indicate that menstruation has become associated with the image of something that should be kept secret and mysterious. As mentioned earlier, attitudes about menstruation are influenced by a variety of factors, including religious

background and surroundings, but Asso (1983) states that cultural attitudes and beliefs play an important role in the way menstruation is experienced by women. Fitzgerald (1990) also notes that Rosenthal and Jacobson's (1968) social expectations theory of menstruation, which is called the Pygmalion effect, can be applied to attitudes toward menstruation, suggesting that the attitudes and expectations women have toward menstruation influence their experience of menstruation.

One of the most commonly used measures for menstrual attitudes is the Menstrual Attitude Questionnaire (MAQ). The MAQ was developed by Brooks-Gunn and Ruble in 1980 and has been employed in various samples to examine attitudes toward menstruation. Prior to the MAQ, the Menstrual Distress Questionnaire (MDQ), which was invented by Moos (1968), was adopted widely to research women's menstrual experiences and premenstrual symptomatology (Hawes & Oei, 1992). Brooks et al. (1977) carried out the study with the MDQ and revealed that the women did not deny that menstruation had some effect, but they considered it somewhat positive and not very debilitating or predictable although most of the previous studies found women consider menstruation as a negative phenomenon.

One study conducted by Fitzgerald (1990) targeted female university students in New Zealand, found menstrual attitudes were multidimensional with each participant having the configuration of neutral, negative, and positive beliefs through the MAQ and interview. Similarly, it was found that social norms and expectations largely impacted menstrual attitudes (Fitzgerald, 1990). In another cross-sectional study conducted in Hong Kong to explore Chinese undergraduates' menstrual attitudes and beliefs, the research revealed that females tended to agree that menstruation is annoying but disagreed

that it should be kept secret (Wong et al., 2013). The study also found students studying health-related programs expressed higher beliefs about the prescription and prohibition of menstruation than those not studying (Wong et al., 2013).

Some research found similarities and differences in menstrual attitudes based on cross-cultural research. One study found that in the United States, women's attitudes toward menstruation were more negative than those of Indian women, who tend to view menstruation as a neutral phenomenon (Hoerster et al., 2003). According to Schooler et al. (2005), the survey aimed at 199 undergraduate women found that women who reported feeling more comfortable with menstruation reported more body comfort, more sexual assertiveness, and less sexual risk. On the other hand, Asian American undergraduate women reported less openness and more shame about menstruation than white women (Schooler et al., 2005). Women's attitudes, behaviors, and experiences with menstruation vary across different cultures and countries (Huang & Huang, 2019). Cultural attitudes and social practices toward menstruation are associated with women's education, attitudes, family environment, and beliefs (Kumar & Srivastava, 2011). These differences in attitudes toward menstruation by country and race provide a broader scope for further research.

When it comes to external factors, Amann-Gainotti (1987) mentioned families and cultural environments influence women's attitudes toward menarche. Amann-Gainotti (1987) noted that negative beliefs about menstruation are diffused by culture. He interviewed 258 adolescent boys and girls aged 11 to 14 in southern Italy using an open questionnaire method to investigate beliefs and attitudes toward menarche. Results indicated that a high percentage of both male and female subjects did not have

consistently accurate information. Half of the post-menarche girls gave a negative evaluation of their first menstrual experience, which was found to be due to a lack of prior information. On the contrary, maternal influence and cultural environment were factors that contributed to positive acceptance of first menstruation. (Amann-Gainotti, 1987) The quality, timing, and sources of preparation are all thought to influence attitude formation (Brooks-Gunn & Ruble, 1982), suggesting that surrounding influences and knowledge can alter menstrual attitudes. Literature has identified friends, family especially mothers and siblings, health and school programs, and books and other media sources to a lesser extent as the four main sources of menarche preparation (Abraham et al., 1985; Brooks-Gunn & Ruble, 1982; Matlin, 2000; Whisnant et al., 1975).

Scambler and Scambler (1985) conducted in-depth interviews with 79 women to ask open-ended questions about menstruation as a study of menstrual symptoms and counseling behavior. Participants were encouraged by the interviewer to express any positive or negative feelings about their menstrual cycle. The study suggested there are mainly three categories of menstrual attitudes: acceptance, fatalism, and antipathy. In the other research, a study of 133 female college students by Hays (1987) examined the relationship between menstrual attitudes and the use of menstrual euphemisms. Hays found that most of the subjects expressed negative feelings, only 5% reported positive, and the rest reported neutral feelings toward menstruation. In both studies, women's attitudes toward menstruation were categorized as positive, neutral, or negative. Fitzgerald (1990), however, criticized this categorization of the data as not allowing for interpretation of many of the meanings each subject gave to menstruation. Presumably, the subjects exhibited different combinations of attitudes toward menstruation, making it difficult to categorize them into a single attitudinal dimension (Fitzgerald, 1990).

Therefore, the advantages of a qualitative approach to explore in depth the meanings each woman gives to menstruation were not fully exploited in these studies.

In other research, Abraham et al. (1985) surveyed the attitudes, knowledge status, and habits of 1,377 Australian women aged 14 to 19 years regarding menstruation. The survey results indicated that the respondents did not have adequate information about menstruation, ovulation timing, discharge, and tampon use. Furthermore, 80% of respondents considered menstruation to be inconvenient or embarrassing. (Abraham et al., 1985) Thus, the reference literature has confirmed that the surrounding environment, friends and family, and the amount of knowledge about menstruation and health in general have an impact on attitudes toward menstruation. Therefore, in this study, in addition to questions about menstrual cup use, questions about external factors such as family, friends, and schooling were included in the interviews.

As discussed above, menstruation has been associated with negative connotations because of physical discomfort, emotion, and mood changes for women (Clarke & Ruble, 1978). Historically, menstruation has been stigmatized and kept secret based on religious background. However, nowadays, despite non-religious reasons, women try to hide menstruation and society helps to make menstrual blood invisible. As studies found cultural attitudes and beliefs play an important role in women's menstrual experiences (Asso, 1983), it is worth researching in other contexts, if sociocultural background provides taboo perceptions toward menstruation in Japan, where not many studies has not been conducted. As questioned in the MAQ, the MDQ, and cross-sectional studies (Brooks et al., 1977; Fitzgerald, 1990; Hoerster et al., 2003; Schooler et al., 2005; Wong et al., 2013), it is important to explore a variety of women's menstrual experiences

through in-depth studies. In this research, I will adopt the integrated model of menstrual experience (Hennegan et al., 2019) to study Japanese women's menstrual experience based on menstrual cup use and objectification theory (Fredrickson & Roberts, 1997) to explore how women self-objectify their bodies, internalize social messages and how is it associated with menstrual taboo in Japan.

4. Methodological framework

4.1 Research Question

Based on the literature review and context regarding the usage of menstrual cups and the stigma associated with menstruation in Japan, I formulated the following research questions. 1) What kind of experiences do Japanese menstrual cup users have of using the menstrual cup and does the use influence their understanding of menstruation? and 2) How are attitudes toward menstruation and menstrual cup use related to sociocultural issues in Japan, particularly stigmatized menstruation?

4.2. Data collection

Although most of the previous studies have been conducted with quantitative methods or mixed methods, such as questionnaires and interviews, this study focuses on individual experiences through interviews. The present study focuses on how menstrual cup use impacts menstrual attitudes and investigates the sociocultural context in Japan in which the participants formed their current attitudes toward menstruation. The research

examined how the participants have experienced and internalized menstruation in their past menstrual experiences and what external factors and sociocultural backgrounds such as education, social values, religious norms and social classes, and wealth distribution have contributed to their menstrual experiences.

I carried out individual interviews with eight young Japanese women to discuss their experiences of using menstrual cups, including how they initiated their use, their experiences while using them, and whether they had any impact on their attitudes or awareness towards menstruation. I conducted an hour to 2 hours of semi-structured interviews online from January to April 2023. A table of participants is provided below. I interviewed a total of eight young women for this study. The participants were cis-gender women with reproductive organs, born and raised in Japan, above 18 years of age, and had used the menstrual cup for at least three consecutive cycles, as it is commonly recommended that users need approximately three cycles to become accustomed to menstrual cups. Furthermore, I did not look for participants who had given birth, as childbirth can be a factor that influences attitudes towards menstruation, regardless of the use of menstrual cups. Although no age limit was set, the participants that I was able to reach were all in their 20s as a result. This can be attributed to the fact that menstrual cups themselves have only been known in Japan for a short period of time, and that the younger generation is less resistant to alternative menstrual products, and information is transmitted at a faster rate.

Table 1: Participants details

Name	Age	Years of use of menstrual cup
Karen	27	8 months
Rin	24	1 to 2 years
Hana	25	2 years
Noa	28	2 years
Sara	25	2 years
Yui	25	2 to 3 years
Emma	28	3 years
Ann	27	6 years

*All the names above are pseudonyms.

I recruited participants using snowball sampling, and data were collected through the online video conferencing tool “Zoom” conducted in Japanese. I recorded the interviews for later analysis. The open-ended questions used in this study were adapted from previous qualitative research conducted by George and Leena (2020), to explore women's experiences of using menstrual cups independently, without any program interventions (George & Leena, 2020). The interview focused on participants' experiences with the menstrual cup and probes about conditions for starting, ease, difficulty, and comfort (George & Leena, 2020). I asked participants about their impressions of menstruation in general such as how they handled menarche, whether they had support from family or school during their first menstruation, menstrual blood flow, the number of days their period lasts, the stability of their menstrual cycle, and the presence of physical or psychological menstrual pain. In addition to that, I asked general questions regarding menstrual education at school, the image and perception of menstruation in Japan. Most participants reported experiencing some level of menstrual pain such as headache, abdominal pain, lower abdominal pain, back pain, irritability, and mood swings. Although

menstrual cups are sometimes adopted in some regions in Africa and low-income countries as a countermeasure for menstrual poverty among people who cannot afford disposable sanitary products (APHRC, 2010), none of the participants in this study had experienced the inability to buy sanitary products due to economic reasons. Seven of the participants work full-time at their respective companies. One participant identified as potentially bisexual, another as asexual or demisexual, and six identified as heterosexual. The majority of the participants had been using menstrual cups for 2 to 3 years.

During the process of searching for participants, I observed that many of the menstrual cup users were returnees from abroad or one of their parents from abroad. This is because menstrual cups are mainstream in some countries, especially in the Global North, and I think that the experience of living abroad, and their international background may have influenced their use of menstrual cups in some way. To focus on the sociocultural background of Japan and to study the influence of Japanese sex education and upbringing in Japan, I wanted to limit the participants to individuals who had both Japanese parents, received education in Japan, and did not have any experience of living abroad for an extended period during their childhood.

4.3. Ethical consideration

Since this is a highly intimate research subject, I made sure participants stayed unrecognized at any point of the research. I obtained informed consent through consent forms provided as Word files or PDF documents, which included the following descriptions:

1. The protection of personal data.
2. How the research results will be disclosed.
3. The benefits and disadvantages of participation.
4. Regarding withdrawing from the research.
5. Participation is voluntary so that participants do not have to answer the questions if they feel uncomfortable with any of the questions.

I explained to the participants that all recordings and transcripts would be securely destroyed after the study was completed. Participants' information will be reported in an anonymous manner using pseudonyms, and no personally identifiable information will be disclosed. The data confidentiality will be strictly maintained which means only the researcher will have access to the collected data. Participants can withdraw from the research at any point without mentioning the reason, and their decision will be respected without any repercussions. During the interviews, I asked about participants' personal experiences regarding menstruation and menstrual cups from the past to the present. I took care to create a safe and comfortable atmosphere in which the participants could comfortably share their individual experiences. Although I prepared questions beforehand, I tried to keep the interviews as informal as possible to elicit a wide range of diverse experiences from the participants.

4.4. Process of analysis

I adopted the thematic analysis presented by Braun and Clarke (2006) in this research to explore the variety of participants' menstrual experiences. Thematic analysis is an

analytic method to analyze inductive qualitative data and has been adopted in a wide range of research. First, content considered important for the research was coded from the transcripts created in Japanese and compiled into Excel and Word files. I first compiled all participant questions and responses into a table using Excel. From there, I extracted narratives that appeared relevant to this research and organized them by theme in a Word document. The themes for organization encompassed various aspects, including participants' menarche experiences, their previous use of menstrual products before adopting menstrual cups, the motivations behind their interest in menstrual cups, their initial impressions of menstrual cups, experiences related to menstrual beliefs encompassing physical and psychological pain, the process of becoming proficient in using menstrual cups, changes in self-perception after using menstrual cups, changes in their general perception of menstruation after using menstrual cups, and their perceptions of menstruation in the context of Japan. After familiarizing myself with the data, narratives from them that were deeply related to the research questions were analyzed. Based on the above themes, the final themes were divided into the following categories for analysis: the reasons for using menstrual cups, the experience of using the cup, post-usage changes, perceptions of using menstrual cups in Japan, and attitudes towards menstruation. After the process of analyzing the narratives and translating them into English, ChatGPT was partially used to translate them into English for inclusion in this study.

5. Findings

In the subsequent five sections of this chapter, I will present my findings. This chapter can be broadly categorized into two overarching themes: sections 5.1-5.3 examine a concrete exploration of the experiences associated with using the menstrual cup, while sections 5.4-5.5 provide a more focused examination of menstrual taboos, cultural implications, educational aspects, and other related topics as perceived by the participants. The initial section “Motivation for use” discusses the reasons behind participants' adoption of menstrual cups. The second section “Difficulties for use” examines the experiences participants had with menstrual cups by highlighting what was easy and difficult, comfortable, and uncomfortable for them. These initial two sections are mainly focusing on physical aspects of menstrual cup usage. Following these first two sections, I will explain what made participants change their awareness and attitudes toward menstruation and perception of their bodies in the third section “Changes after the use.” In the final two sections, I will explore participants' perceptions of menstruation in Japan and discuss the relationship between Japanese sex education and prevailing taboo awareness toward menstruation.

5.1 Motivation for use

The reasons for starting to use menstrual cups varied among the participants, including addressing itchiness, curiosity, cost reduction, dealing with leaking, and more. These reasons and benefits that participants answered were identified in the literature (Howard et al., 2011; Itaya et al., 2022). Karen had returned to Japan after two years in Australia

for work and she was having problems with itching because Japanese disposable sanitary products no longer fit her. As for Rin, she started to get interested in the menstrual cup because she leaked every time due to her heavy menstrual flow.

After returning to Japan, I started experiencing itching and discomfort during my period. It took me a while to find the right sanitary products in Japan, and they didn't seem to fit me. The itching continued, and I began to think that if I could just stop using pads, they would be so much better. Perhaps it was a combination of factors, like changes in materials used in products or the high humidity during the summer in Japan, along with wearing stockings. Well, I became aware of the symptoms and began to feel uncomfortable. That's when I became interested in menstrual cups. (Karen)

I didn't want to leak, at night. I felt like there was nothing I could do about that, like the first day, the second day, it would definitely leak. (Rin)

Like many participants, Karen said she became interested in menstrual cups not only for anti-itching but also as an environmentally conscious choice. Karen began using menstrual cups just as the Covid-19 pandemic spread disposable masks around the world. Concerns about consuming large quantities of masks and disposable menstrual products led her to make an environmentally conscious choice. Emma also started using a menstrual cup due to its eco-friendly nature. She had concerns regarding disposing of a lot of plastic products.

Well, I was quite interested in sustainability. During the pandemic, they were showing on TV how masks, for example, don't actually burn. So, I thought, maybe

sanitary pads don't burn either? That got me thinking, how long do these pads actually last? I believe we consume more menstrual products than masks, to be honest. Considering all of that, I started thinking that it wouldn't be uncomfortable for me to stop using them, and it would be better for the environment too. It's not like it costs a lot of money either. It's actually great! That's how I felt, you know.
(Karen)

I think the reason why I started using a menstrual cup was because I'm trying to be eco-friendly. I was aware that tampons and plastics were bad for the environment. At that time, I stopped using plastic cling wrap and switched to a reusable one. I was trying to eliminate as many of those plastic products around me as possible, so I decided to use menstrual cups. (Emma)

Besides the environmental considerations, Hana shared that she began using menstrual cups because of concerns about the chemical products that materialize disposable menstrual products, such as tampons and sanitary pads.

It is said that the genital area has higher absorbency compared to the skin on the face or body. So, even when it comes to touching, I thought there would be a significant difference in the amount that the body absorbs between briefly touching the face or hands versus touching a more sensitive area. I felt it would be better if I could avoid exposing sensitive areas to things, I don't want them to absorb.
(Hana)

In contrast, Sara expressed that the use of menstrual cups was one of the actions for women's sexuality. Her decision to start using the menstrual cup was related to her wish

to actively promote openness about menstruation.

I strongly believe that the sentiment of not being able to talk openly about things related to sexuality or our bodies must be eliminated. It's like there's this feeling of embarrassment or that it's considered dirty or something that should be kept hidden. It's been a topic that's always been kept at arm's length. Women have been labeled as impure or unclean because of it. But really, it's just a normal bodily function, so it feels strange not to talk about it. And maybe in the broader context of society, I considered how things have come to be that way. I felt that it's important to speak openly about menstruation and other related topics and to take action, whether it's using pads or menstrual cups. It's about embracing the significance of actively engaging with our sexuality and reproductive functions. Having the ability to make choices and try new things in that realm, I find that to be empowering. (Sara)

Sara began using a menstrual cup as a statement of her intention, emphasizing that menstruation is a natural phenomenon and that we should be able to talk about it more openly. Sara was very proud of this choice she was making regarding the female body. While Sara did not explicitly use the word "taboo," her narrative implicitly illustrated the taboo awareness surrounding menstruation in Japan. Roberts & Waters (2004) argue that women gain the knowledge that appearance matters, influencing how they are treated by others and impacting their social and economic outcomes, both directly and indirectly. Japan is a collective society, and many individuals may resist doing things that make them stand out (Kato, 2018). Therefore, challenging the norm by using a menstrual cup, a product used by only a minority of women in Japan, might be avoided. However, Sara

appreciated that even within such an environment, she made a conscious choice to use a menstrual cup, which in turn increased her opportunities for reflecting on her own body and the female body more broadly. While many participants began using menstrual cups for physical reasons, Sara's emotional reasons for using the cup were very insightful.

Most of the participants said that they became interested in menstrual cups when they became familiar with them through social media and magazines. Since menstrual cups have only become more well-known in Japan within the last two to three years (as my knowledge), most of the participants had been using them for a similar duration, except for Ann who happened to have purchased the menstrual cup in Germany when she was traveling. During the interviews, many participants commented on the "eco-friendly" nature of the product. This accounted for many of the reasons why the participants initially started using menstrual cups. Ann said that not only was it a reason for her to start using them, but it also made her more aware of the amount of waste she was throwing away.

I am really glad that I used it because I feel that I am reducing the amount of garbage. The initial expense was quite large, but when I think about it on a yearly basis, it doesn't cost at all, so I'm glad about that.... I've been using the one I bought 6 years ago, cleaning it. So, I don't even know when to buy another one (Ann).

In addition to being environmentally friendly, economic reasons were also mentioned when discussing the decision to start using menstrual cups. This was the reason mentioned by Noa, a former midwife, who heard about the menstrual cup from fellow midwives and tried them for the first time. However, she found that she could not insert them as smoothly at first as she had expected.

Well, I thought it was very economical. I like economical things, and I thought it would be nice if it didn't cost a lot of money, but it was surprisingly difficult to get it to work. I thought I would be able to use it well because I used to be a midwife, but surprisingly, I was not that good at it. (Noa)

Most participants learned about menstrual cups through social media except for Noa and Hana. Hana was recommended by her friend who regularly uses the menstrual cup. Most of the participants confirmed that they were motivated by physical reasons based on information they obtained from social media, such as financial reasons, anti-itching, and leakage prevention (Howard et al., 2011; Itaya et al., 2022). On the other hand, I found out that eco-friendliness nature and the meaning of women's affirmative action also played important roles in the motivation of some participants. While it is often argued that social media such as advertisements, magazines, books, and television play a role in shaping negative attitudes and beliefs about menstruation (Chrisler, 2008; Erchull, 2010), the interviews revealed a rather positive impact in some ways. Specifically, they appeared to encourage the use of menstrual cups among the participants.

5.2. Difficulties for use

Many participants stated that the menstrual cups took some time to get used to. As noted in literature reviews (Cheng et al., 1995; Liswood, 1959; Karnaky, 1962; Pena, 1962; Parker et al., 1964), for most participants it took less than three months to get used to it, but Ann said it took her six months.

The first time I tried it, it leaked really fast. I thought, "Oh, I can't use this for daytime. I often use it like that when I'm at home, as a practice.... Mine (menstrual cup) is the one with the rounded rim, so it has a ring. So, my friend and I were talking about the possibility of putting a string through it and pulling it out like a tampon. So, I started doing that. And then, I thought, "I don't know, maybe I've put in too deep already. I also read something that said it would be better to put it deeply in the vagina. It took me about six months to get used to it. (Ann)

Ann initially found it difficult to insert and remove the menstrual cup. Consequently, she, along with a friend who had also started using a menstrual cup, experimented with threading a string through the ring on the cup's rim for easier removal. After Ann learned how to use a menstrual cup, she recommended it to her friends, but they gave up using it halfway through because of the time it took to get used to it and the difficulty of insertion. From Ann's narrative, it can be anticipated that the difficulties in adjusting and the initial discomfort during insertion may deter many women from using menstrual cups. Ann mentioned that although it took some time, there was no pain during insertion, and the only problem was leaking.

I didn't feel much pain or anything, right from the start. It was kind of like, really, the only problem was leakage. There were no other problems at all.... After about six months. Well, it gradually stopped leaking. It was like, "Oh, well, if this is it, then I guess it's okay. (Ann)

As same as Ann, most participants commented on the leakage.

Leakage is still happening. It still leaks more than a tampon.... Tampons don't leak. But I don't wear tampons for such a long time, so I take them off after 3 or 4 hours anyway. (For menstrual cups instead,) I have to put something on my underwear to keep it clean. I'm afraid I can't use a menstrual cup by itself. I'm afraid it would leak, and I'm probably not very good at handling the menstrual cup, but, well, I combine a menstrual cup with a sanitary napkin, cloth napkin, or menstrual underwear. (Noa)

As for leaking, I think on days when the amount is heavy, it absolutely happens. But there are days when the amount of blood is a lot but there is no leakage, so I guess it depends on whether the menstrual cup is firmly fitted into the vagina or not.... I don't care if it leaks or not, that's why I wear a cloth napkin. (Emma)

Almost all participants said they had encountered problems with leakage when using menstrual cups. Although some literature identified leakage issues of menstrual cups (Itaya et al., 2022; Stewart et al., 2010), the experience of the participants did not correspond to the most common findings from literature, where relative ease of use is emphasized. Many participants revealed that they use additional menstrual products such as pads or period underwear as a backup measure due to concerns about leakage or uncertainty about the proper insertion of menstrual cups. In addition to the leakage problem, some said that the first insertion was difficult due to the firmness of the menstrual cup.

At first, it was really difficult to use. It leaked a lot, and it didn't feel like what I expected. Taking it out was also very challenging, and inserting and removing it was really hard. It was different from what I had heard or expected. So, during

that time, I ended up using tampons quite a bit, using them in combination, like using them together, with more tampons alongside. (Ann)

It was difficult at first, and I didn't know how not to exert myself, so at the very beginning, it was very hard to insert it. So, I gave up and started with the softer menstrual cup. The first time I tried to put it in, it really didn't go in and it was painful. At that time, I thought I would never use it again. But now I don't have any trouble putting it in, even if it's hard. The only problem is that it leaks. (Emma)

In addition to the firmness issue, Hana said that she first inserted the menstrual cup too close to her vaginal opening because she was worried about what would happen if it went too deep and she could not remove it. However, this was causing her pain.

At first, I was worried that it might go deeper than I wanted, so I put it in very shallowly. I think I was a little uncomfortable and it hurt a little. I didn't know what it felt like to let it out at the beginning. I think I was trying my best to get it out while the menstrual cup was still unfolding. It was quite painful which eventually made me feel to hesitate to think about putting the menstrual cup again. (Hana)

In another example besides Hana, Rin shared that when she used a tampon, she was afraid to put it in too deep, so she put it in too shallow, which caused it to leak many times. In Japan, there is currently a lack of open discussions and educational opportunities in terms of alternative menstrual products such as menstrual cups, which require close contact with the vagina. Consequently, misinformation, such as the misconception that menstrual cups can become stuck into women's bodies if inserted improperly, tends to circulate, while proper knowledge seems to remain limited. In a content analysis study conducted on 28

booklets written by nurses and health teachers, it was found that there was a greater emphasis on the negative aspects of menstruation rather than the positive aspects (Erchull et al., 2002). Furthermore, it was observed that illustrations of female reproductive organs were often presented separately from the body's outline and references, which can lead to girls having difficulty understanding the positioning of reproductive organs and imagining their scale (Erchull et al., 2002). Thus, even educational materials such as booklets, depending on how they are presented, may lead to the reinforcement of stigma against female genitalia and create feelings of fear when using menstrual cups, which require contact with the vagina.

A lack of effective menstrual products can lead to leakage and abrasions in menstruating women, which can affect their health (Mason et al., 2013; Sebert Kuhlmann et al., 2019). van Eijk et al. (2019) state concern about the safety of sanitary products prevents women from trying the full range of products available. The fear of inserting menstrual cups too deeply into the vagina, which could lead to difficulties in removal, may result in some women using it incorrectly. This eventually could cause discomfort and ultimately lead them to discontinue its use, forming a recurring cycle of misapplication.

On the other hand, Noa not only experienced difficulties during insertion, but she also spoke of how difficult it was after insertion. She said that using the menstrual cup put pressure on her vagina, and she could not remove the discomfort for the first three months. In addition to Noa, Karen, and Hana described that they felt pressure on their vagina when they used the menstrual cup, resulting in close proximity to the toilet.

I think the first three cycles were a bit confusing for me. It felt really uncomfortable to insert it at first. It was like a feeling of needing to use the bathroom all the time

like I was being pressed. It was very unpleasant. But recently I've gotten used to it, and I don't feel that way anymore. But in the beginning, when I had that strong sensation of needing to go to the bathroom, I was like, 'What is this?' and found it a bit perplexing. (Noa)

There were several times when I felt discomfort while using the menstrual cup. I felt like I had to go to the bathroom a lot, maybe more than once an hour, because of the pressure depending on the position. (Karen)

At first, there were times when I was leaking. I felt some kind of pain, and I needed to go to the bathroom a lot. I felt like I was physically pushing my vagina. (Hana)

While some of the advantages were mentioned as reasons for not experiencing discomfort, odor, less waste, and saving money, several disadvantages were also mentioned. These disadvantages were related to the practicalities and functionality of menstrual cups and were also intertwined with the participants' relationships with their bodies. These narratives seem to reflect the societal messages surrounding menstrual blood, portraying it as unclean. As Goldenberg and Roberts (2004, 2011) argue, self-objectification can threaten women's existence and shift the focus away from women's more creaturely functions. Consequently, it is expected that participants unconsciously sought to distance themselves from menstrual blood by managing menstruation in a way that prevented them from feeling dirty or uncomfortable.

In contrast to the other participants, Hana expressed a sense of unnaturalness for her body to catch blood that would naturally come out of her body. Although Hana acknowledged that being able to stop menstrual blood completely inside the vagina is an advantage of

menstrual cups, she shared that she sometimes feels doubt about the concept of menstrual products even when using a menstrual cup because she tries to control her own blood flow as much as possible by herself and not to rely on existing menstrual products.

The principle of a menstrual cup is that it simply collects the blood which comes out of the body. I don't feel that there is any effect on the inside of my body, but I do feel that I am doing something that goes against nature, something that would come out in a few dozen minutes if I did it normally for several hours....There is no concrete evidence on the long-term effects yet, such as what will happen if I keep doing this, so I sometimes wonder if it's safe....I wonder if it's okay to have something so unnatural in the innermost part of my body for so long. (Hana)

Hana's perspective questioned the societal necessity of controlling menstrual blood with sanitary products. Centuries ago, there were no convenient menstrual products, and society considered menstruating as a period of rest (Okiura & Miyata, 1999). The development of menstrual products has eliminated the isolation of women from society during menstruation, allowing them to remain active individuals of society during their periods. However, the fact that menstruation must be concealed remains unchanged. Wood (2020) argue how the menstrual hygiene industry provides the tools necessary for the self-disciplined bodily project of concealing menstruation from others.

Noa and Sara also commented on the disadvantage of inevitably getting blood on their hands when taking it out and getting it dirty. For Noa, the inability to use the menstrual cup when wearing nail polish was sometimes perceived as a barrier.

It's hard to put the menstrual cup in when my nails are long, and I get blood in my

nails.... I don't use it in that case because it hurts to scratch myself and I don't want to get my nails dirty. I don't like it when I have just paid a lot of money for my nail polish. (Noa)

Other disadvantages mentioned by several participants were the high initial investment cost and the fact that it takes some time to get used to using the menstrual cup. In response to these issues, each participant tried to cope with it in their own way. First, many participants mentioned the lack of hand-washing facilities in private bathrooms in Japan, and most of them stated that they basically try not to change their menstrual cups while they are not at home, unless necessary. These narratives indicate that to change menstrual cups outside in comfort and security, facilities are needed to rinse menstrual cups in individual spaces. This need arises from the participants' conscious efforts to avoid the possibility of others seeing their menstrual blood if they were to rinse menstrual cups in shared sinks. Johnston-Robledo & Chrisler (2020) argue that menstruation is more like a hidden stigma than a visible one. Oxley (1998) describes this hidden stigma toward menstruation as a result of the great efforts women make to conceal it. The behavior of not changing menstrual cups outside as much as possible is probably due to the participants' perceptions that menstrual blood is not meant to be seen by others.

Some of the reasons given were that the amount of menstrual blood was relatively light, and it was not necessary to change in the first place. Noa and Rin also expressed reservations about the idea of washing the menstrual cup with tap water and putting it back into the vagina due to disinfection concerns. As a result, even if there was leakage, there were cases where some participants changed to tampons or changed only the pads which they used in combination with the menstrual cup. Some discomfort was related to

practicalities, such as lack of the hand-washing facilities, and participants' relations with their body including blood. In particular, participants internalized how women's body is considered "unclean" or "unpleasant" when they bleed or when they visualize their blood during their menstruation. As the ideal objectified female body is sanitized and devoid of creaturely features, such as blood (Roberts, 2020a), it seems participants were unconsciously perceiving how others view their bodies when they bleed and try to avoid negative impressions on them by removing the menstrual blood.

5.3. Changes after the use

The menstrual cups seemed to influence in various ways the participant's everyday practices around menstruation and experiences of menstruation in several ways. For instance, Emma said that she became more active during her period after she started wearing the menstrual cup. Yui also noted that the menstrual cup made a big difference in that she no longer had to repeatedly wipe menstrual blood in the bathroom when she was using a sanitary napkin, which she found to be a bother.

Well, there are still some leaks probably, yeah, but I think I am no longer afraid to be active and move around. I have become a little, well, yes, active...I become active, even during menstruation. (Emma)

I really hated the feeling of having to wipe again and again with toilet paper during menstruation to get rid of the menstrual blood. It was like I couldn't wipe it all up. It's like the blood dries up a little bit and sticks to the surface.... I remember now, I hated it so much. It was like finally being able to take a bath at night and feel

relieved when I could finally clean up. It was so stressful, so it was nice not to have that feeling.... with the menstrual cup, the blood doesn't stick around weirdly. I think that was the most revolutionary thing about the menstrual cup. Oh, I wish everyone would use menstrual cups. (Yui)

In addition, Emma mentioned that she felt lighter when going to the bathroom. Yui also felt differently when she used the menstrual cup instead of pads because of anxiety of leaks would no longer be a problem.

Since I started using a menstrual cup...I don't have to take a napkin or tampon with me when I go to the bathroom during my period. But there are times when, after going to the bathroom, I feel like, "Oh my God, I'm leaking so much," and I just have to go back to get a napkin. I would be lying if I said leaking never happened. But well, I used to bring a napkin or tampon just in case of leaking all the time when I went to the bathroom during menstruation, but now I don't need to bring anything. (Emma)

Using a menstrual cup has been great for me because I no longer have that sensation of "Oh, I just started bleeding." With disposable pads, I would be more aware of it, and it was quite uncomfortable for me personally. There would be a bit of anxiety until I could go to the bathroom, wondering if there were any leaks. But with the menstrual cup, I can insert it and not worry about it throughout the day. I feel it has given me more freedom and time where I don't have to be preoccupied with my period. (Yui)

As same as Yui, Rin also explained that she no longer needed to use a long disposable pad because of leaking. She used to use night pads even during the daytime due to the concerns of leakage.

I used to wear big pads like 360-degree covers (pads for night) even at noon because I was afraid of leaking. 21 cm of pads and other small ones were not enough. (Yui)

The change to using a menstrual cup has reduced the hassle of menstruation and allowed participants to move more freely. Ann, who originally started using the menstrual cup because it was eco-friendly, also stated that she no longer takes discarding waste for granted and has become more environmentally conscious.

Until I started using the menstrual cup, I had been taking out a lot of garbage...I thought that it was something natural, so I thought it was OK to use and dispose of it, but I guess I started to pay more attention to that aspect. I feel like I'm being environmentally conscious. (Ann)

In addition to the psychological change of being more considerate of the environment, Ann also described a change in the shortening of her cycle.

Usually, I mean, uh, before, it used to be, like, seven days, eight days, pretty long, but, when I use the pill, it's about five days.... I feel like it's a lot shorter since I started using that cup.... Even if I didn't use the pill, sometimes it was 5 days, sometimes 2 days. I've always bled a lot, but since I started using it, it seems to have decreased.... I think it is best to use it in combination (with the pill), but I

don't want to use it as much as possible, so even so, I feel like it has gotten shorter, and the amount of blood has decreased. (Ann)

Despite the absence of scientific evidence that menstrual cups shorten the menstrual cycle, some women experience shortened menstrual periods through menstrual cups (Donohoe, 2020). The possibility of a shorter menstrual period might be because of women's awareness of their blood flow volume (Donohoe, 2020). While it can be hard for women to measure menstrual blood when using pads or tampons, using a cup may enable them to perceive their blood flow volume differently (Donohoe, 2020). This suggests that Ann's view of menstrual blood has changed in some ways through the menstrual cup. It could be taken to mean that she realizes the amount of her own menstrual blood and spends more time dealing with it as she processes the blood that has accumulated in her menstrual cup. In addition to the physical changes Ann experienced, Sara shared that using a menstrual cup has positively influenced her perspective on menstruation. She emphasized that menstruation is not something that needs to be hidden or considered dirty, but rather a normal and factual aspect of women's lives. It shows that the menstrual cup seems to have made her question menstrual taboo.

After starting to use the menstrual cup, it has become easier to talk about menstruation. Perhaps it's because I can bring up the topic of menstruation and discuss the menstrual cup. Using the menstrual cup has been a positive choice for me personally, and it has strengthened my awareness that it's normal to make choices about menstruation, women's sexuality, and our bodies. The sense that it's just a normal thing has greatly increased. It turns out that the perception of not knowing, needing to hide, or feeling embarrassed was just imposed on us. In reality,

there is nothing inherently good or bad, shameful or embarrassing about it. It's simply a fact that we have menstruation once a month.... I started talking about menstruation even in spaces where men might hear me around them. That kind of change, I think, might be a positive change that is happening. (Sara)

Women who self-objectify their bodies have more negative views and feelings about menstruation, such as disgust and shame, than those who do not (Roberts, 2004). Sara was aware that how menstruation is considered an embarrassing and secret phenomenon in Japan. It seems that through the menstrual cup usage, Sara strengthened her own perspective on how she wants to live with menstruation and her own body, rather than adopting the views of others towards menstruation.

Furthermore, Karen and Rin mentioned that menstrual cups helped them visualize their menstrual blood and that through confronting their vaginas, they began to take better care of their bodies.

It's kind of alarming to think about the amount of blood that comes out during menstruation. So, it's important to make sure we're getting enough of those iron nutrients, you know? That's why I started trying out supplements that I hadn't paid much attention to before. Well, the color of the blood can also vary depending on the month, and sometimes it can be really intense when it's painful.... Sometimes I feel like, "Hmm, maybe this month is a bit rougher than usual, and I might have stronger reactions." So, I try not to walk too much outside and take it easy for the day. It becomes kind of an indicator. Up until now, I used to think it was just a few days out of the month and didn't really think much about it in my actions. But now,

I'm more aware and I think, "Oh yeah, with this much blood coming out, no wonder it's tough to walk." It's good to have that self-awareness, I think. (Karen)

I think my perspective on my body has changed. I've become much better at truly facing and understanding my own body. (Rin)

In addition to being more attentive to their bodies, Karen, Noa, and Hana commented that the menstrual cups gave them a sense of relief.

The itching has gone away. I feel a sense of mental relief. I can visualize how much blood I'm losing each month, so I'm more proactive about taking iron and taking care of my body as much as possible during menstruation. (Karen)

For example, I have some peace of mind that I will be able to use the menstrual cup in case of a disaster. I feel more secure than if I had only known sanitary napkins as if I can use them no matter what happens. (Noa)

I think the thing that made me feel most relieved is that I don't have to refrain from going to the pool, hot springs, or traveling. Knowing that as long as I feel physically fine, I don't need to hold back because of my period. (Hana)

Menstrual cups may take some time to get accustomed to, but participants have reported increased awareness of their menstrual flow and a sense of relief knowing that they can be used as a sustainable menstrual product even in the event of a disaster. Karen felt a sense of mental relief because she could visualize the amount of menstrual blood and it gave her room to care about her body than before. On the other hand, Hana felt a sense

of relief because she could handle her menstrual blood with the cup easily even when she had some plans to hang out with her friends.

I didn't want to keep using disposable menstrual pads for my whole life. I thought it would be nice to avoid that if possible. The ability to use menstrual cups in places like hot springs or pools was a big factor for me. Even though I can control the discharge of menstrual blood to some extent, there are still times when unexpected situations occur, or I accidentally exert too much force on my body. In those moments, having something that I know I can rely on, even if I do not use it all the time, gives me peace of mind. I thought it would be quite helpful in many situations throughout my life. (Hana)

The reasons for feeling a sense of relief varied from person to person. Participants' narratives indicate that while the menstrual cups led to questioning menstrual taboos, they also served to conceal menstruation in that they prevented others from noticing it. This may be an expression of their desire not to let others know that they were menstruating or not to show their menstrual blood. Although menstrual cups allowed participants to visualize the amount and color of their menstrual blood, encouraging self-reflection on their bodies and health, they still functioned to conceal menstrual blood. Therefore, it can be said that menstrual cups, like conventional menstrual products and alternative menstrual products, have played a role in the phenomenon of menstrual taboos and menstruation as a secret. In a previous study, many women reported the need to keep clean during menstruation, and most women reported changing their daily activities during menstruation (Jurgens & Powers, 1991). Houppert (1999) invented the term "the culture of concealment" which describes how menstrual taboos and stigma shape

women's menstrual experiences, coercing them into feelings of menstrual shame and secrecy. This concept explains how sociocultural influences construct menstruation as not only taboo, shameful, and debilitating, but also invisible (Houppert, 1999). Supporting this, the commercialization of menstruation through feminine hygiene care continues to suggest measures for women to keep themselves "clean" and their periods a secret (Wood, 2020). By persuading women to hide their periods and offering their own products that make this possible, menstrual product companies reinforce the cultural attitude that menstruation is shameful and should be kept a secret (Wood, 2020).

Among the 8 participants, Hana was the only one who practiced the menstrual blood control method while using the menstrual cup. Menstrual blood control is a method of storing menstrual blood in the uterus and passing it out in the toilet like urine. Hana was working on controlling her own menstrual blood as much as possible in her daily life so that she could pass it out in the toilet by herself. Especially when she only used cloth pads, she felt the tension of potential leaks if too much menstrual blood accumulated. Through her training and acquired sensitivity, she became skilled in controlling the menstrual blood. This can be considered one form of vaginal trainings as well. Hana believed that in the past, people did not use disposable menstrual products like in modern times, and she thought that menstrual blood should be controllable with practice.

I thought that the modern human body had simply forgotten how to control menstrual bleeding, and I wondered if I could do it too. I tried it, and even now, although I don't think I'm perfect, to some extent, as long as I have a chance to go to the bathroom, I think I can control it to a certain extent. On the first or second day of my period, I slept for 8 hours at night, and when I woke up in the morning,

there was no stain, my vagina was unconsciously closed while I slept, and when I went to the bathroom first thing in the morning, a lot of blood came out. I don't have to worry about making a mess. (Hana)

As for menstrual cups, she admits that they are convenient, but she tries not to use them all the time to maintain her ability to control her menstrual flow.

It's convenient, but you know, with the menstrual cup, the blood is collected inside the body rather than flowing out, so you don't need the sensation of squeezing it out yourself. If I keep using it exclusively, I worry that I might lose the ability to release the blood to some extent in a daily sense. That's why there are times when I don't use the menstrual cup. When using the menstrual cup, there's no need to control the flow, whether to loosen or close it, as the menstrual blood is already contained. The menstrual cup is just one method, and I prefer to maintain a sense of being able to handle my period anytime, even without relying on it. If I don't use the menstrual cup for many years, I might forget the sensation, so I try to keep enough familiarity to use it without hesitation whenever needed. (Hana)

While menstrual cups and tampons offer the convenience of extended wear and the ability to feel comfortable with familiarity, they come with certain drawbacks. Unlike menstrual pads, menstrual cups do not provide a constant reminder of when menstrual blood is being released from one's body, potentially reducing one's ability to consciously control the menstrual flow. In addition, although individuals may be exposed to menstrual blood when changing menstrual cups, changing menstrual cups is less frequent than changing pads, so there is no need to carry a sanitary napkin when going to the bathroom. This may help keep menstruation under control and prevent people from knowing that they are

menstruating. In the following section, I will discuss how the participants understood menstrual attitudes, especially menstrual taboo in Japan, and how this was connected to the level of sex education in Japanese schools.

5.4. Taboo and education

In Japanese sex education, it is explicitly stated in the curriculum guidelines that "the progression of pregnancy must not be covered" (Ministry of Education, Culture, Sports, Science and Technology, 2017). As a result, students do not have opportunities to learn about sexual intercourse and other related topics. Unless there are special circumstances, teachers are not allowed to teach the process of pregnancy, which means there is no chance to learn about the act of sexual penetration. Due to the taboo nature of these topics in the field of sex education (Moult, 2013), it is not surprising that the act of inserting a foreign object into the vagina, such as using menstrual cups or tampons, is also stigmatized. Rin shared her confusing experience of not knowing where the vagina was located when she first used the menstrual cup. It took her about 40 minutes to insert a menstrual cup for the first time eventually.

At first, I was like, "Where is my vagina?" I wasn't sure where it was exactly. Sometimes, I would insert the cup partially but couldn't get it all the way in. I would think, "Huh? Where is my vaginal canal?" It made me realize how little I knew about my own body, so I started researching the structure of the vagina. I looked at medical diagrams or cross-sectional illustrations that show how the vagina is

structured. It was like studying for the first time, and it helped me understand better.

Then, I felt more confident about using the cup. (Rin)

Sara believed that menstruation should not be taught or handled in a cursory manner. She mentioned that separating boys and girls during menstrual education in elementary school was a mistake and that it further stigmatized the perception of menstruation. Likewise, Yui expressed that menstrual education should be conducted together including male students in the same classroom. Gender-segregated education leaves males too unaware of menstruation and creates an atmosphere that reinforces the notion of concealing menstruation. Since menstrual stigma is socially constructed, it can be dismantled by altering sociocultural norms (Olson et al., 2022). In other words, if the approach to education changes, the stigmatized view of menstruation might also change.

You know, something that has struck me recently is when they separated the girls and boys during the first education of menstruation in elementary school. That wasn't good. It made us think that it's not necessary to tell boys or that it's an embarrassing topic if they ask. That's the problem. It made me feel like it's a topic we should discuss secretly and in hiding. Separating the room was a real mistake, I think. When we only see it as a discussion limited to girls, it creates the impression that it's a topic that should be kept hidden from boys. (Sara)

I have friends who are active in the field of sex education, and when I talk to them, I hear that men's knowledge of sex and sexuality is much lower than I expected. I have friends who are active in the field of sex education, and when I talk to them, I hear that men's knowledge of sex and sexuality is much lower than I expected. I guess they don't have a chance to learn about it, especially because menstrual

education is often separated by gender. So, in that sense, I think it would be better to have menstrual education together. (Yui)

In addition to the initial menstrual education provided to only girls at elementary school, there is limited emphasis on other menstrual products, such as tampons, in the classroom setting. This contributed to difficulties in using different menstrual products. Ann used sanitary pads and tampons before using a menstrual cup but had been using tampons incorrectly for two years. Also, Karen was confused when she needed to use tampons because she had not learned how to use them properly at school education.

I probably started using tampons when I was in high school. But at that time, I didn't know how to use them. No one taught me how to use them. I was putting some kind of filter with, you know, something like that. So, I didn't understand why everyone said it was so comfortable. It was really painful. Why does it hurt so much? When I asked my friends about it, they told me I was using it in the wrong way.... I don't use it that much, only when I really have to move a lot. But when I moved, it really hurt. (Ann)

I didn't know how to dispose of it, and I hadn't received any education on how to use it or how to throw it away, so it was dripping blood. I was like, "What should I do?" "I shouldn't pour a tampon down the toilet, right?" I didn't know how to do it. Also, I really don't like the way the string comes out. (Karen)

Ann continued sharing her point of view of education with pointing out that Japanese sex education only focuses on disposable menstrual pads as menstrual products.

It seems that in elementary school health classes, they only talk about using pads as menstrual products. I feel that what is needed is education. When I read magazines from Europe or the United States as a high school student, there were many advertisements for teen-targeted tampons. I noticed that we don't see much of that in Japan, and it feels like I came to know about tampons at some point without really learning about them. There are now various options available, such as absorbent underwear and reusable cloth pads, which could be introduced in education. It might be beneficial to teach about these alternatives alongside menstrual cups, even though cups may seem more challenging to approach. (Ann)

In Japan, tampons are commonly sold with plastic applicators for easier insertion. However, Ann shared her experience that she used to leave the applicator inside her vagina along with the tampon, which resulted in a painful experience. Most participants considered that how sexual education was given in Japanese schools was problematic and it had an impact on how they had earlier understood menstruation. The lack of quality menstrual education leads to inaccurate beliefs, confusion, and negative views on menstruation (Guidone, 2020). Stubbs and Sterling (2020) suggest emphasizing menstrual education as an opportunity to give girls a more accurate and positive perspective on their genitals and sexual selves. As many participants insisted on the importance of comprehensive sex education and that menstruation should no longer be a taboo topic, such pain could have been avoided if women in Japan had more opportunities to learn about the proper use of sanitary products. As similar to Ann, Rin said that her older sister thought she got injured when she had her first period.

Well, you know, my older sister was the first one to experience the period, but she actually thought she was injured or something when it happened because she didn't have any knowledge about it. (Rin)

On the other hand, Emma gave the opposite opinion regarding her first menstrual education as memorable things to learn what it means to menstruate.

It remains in my memory that during elementary school, there was a discussion about what menstruation is and what does it means. Thanks to that, I never had thoughts like "maybe I'm sick" when I had menarche. I didn't have feelings of needing to hide something or being scared, so I think the sex education I received in elementary school was important. (Emma)

The participants recognized that the absence of comprehensive sex education could potentially impact how individuals manage their menstruation, including their consideration of using menstrual products such as menstrual cups. Some participants speculated that many people might feel resistance to the idea of inserting a foreign object into the vagina. According to a survey on sources of information about the appearance of the female genitalia, most of the surveyed women (85%) reported that the main source of information about the appearance of the genitalia was the Internet (Bartolomé et al., 2022). This suggests that knowledge about the female genitalia is not given importance in education and that misinformation from the Internet reinforces aversion to the female genitalia. Participants considered that people think the vagina and taboos are closely related, and that many people may have reservations about inserting something into the vagina, even though it is part of their own body. For example, Rin mentioned dental braces as an example and pointed out that even though it is the same mucous membrane, there

is a tendency to avoid inserting objects into the vagina.

For example, orthodontic treatment involves inserting something into the oral mucosa. If you think about it in the same way, you have to take off the cover, wash it, and put it back in, like same with dentures.... However, when it comes to menstrual cups, people feel hesitation, even though it's the same mucous membrane and a foreign object. When I think about it, there seems to be a stigma or fear associated with the vagina, like it's something unknown or not well understood. It's like there's an aversion to delving into it. While it may be physically challenging to see or understand the vagina, there's this strong sense of it being something you're not supposed to see. (Rin)

Rin herself said that before using the menstrual cup, she somehow had a taboo consciousness about the vagina and perceived it as something that should not be looked at. She also mentioned about her family's reactions as they found the idea of inserting something into the vagina, rinsing, and then inserting it again to be uncomfortable.

I think people concern about what to do if the menstrual cup becomes difficult to remove. If we had a better understanding of the structure of the vagina, there would be no doubt that it could be safely removed. It's the lack of knowledge and understanding about the vagina, including its anatomy and functions, that creates this uncertainty or discomfort. There is a lack of information regarding anything that involves direct contact with the vagina, which contributes to the stigma surrounding it. I think the stigmatization of the vagina is a big part of it. (Rin)

Rin felt that there is a perception that the vagina is something that should not be discussed in public settings, and she pointed out the lack of opportunities to learn about the vagina. She recognized that this lack of accurate information and knowledge ultimately contributes to the stigmatization of the vagina in society. Furthermore, Yui described that due to menstruation being taboo in Japanese society (Ono, 2009), she initially felt some hesitation when talking about it even within her family.

It's just that, even within the family, it felt difficult to talk about menstruation with my mother and older sister at first. It's like there's an unspoken taboo surrounding it in society. That feeling of taboo extends to conversations within the household, and I personally experienced it as well. (Yui)

In addition to that, Yui went to a girls' school during middle school and high school, where she found a relatively comfortable environment to talk about menstruation. However, she also experienced situations where discussions about menstruation were approached indirectly or in a roundabout manner. Kissling (1996) points out that teenage girls make efforts to avoid embarrassment by talking about menstruation with peers and it leads them to develop linguistic strategies such as menstrual euphemisms. It is assumed that the phenomenon of expressing menstruation distantly occurs not only in Japan but also in many other countries and regions.

Some girls at girl's school used indirect or euphemistic expressions like "girl's day" instead of using the word "menstruation." Although it's not wrong to say it clearly, it seems that this kind of approach might have been internalized unconsciously, creating a certain level of hesitation or discomfort around the topic. (Yui)

Rin mentioned that she did not take sex education classes seriously during her junior high and high school years. However, once she started studying feminism in university, she became aware of how little she knew about her own body.

It's not so much a natural feeling of disgust, but rather, I realized that societal structures have played a significant role in shaping that perception. Once I became more aware of it, I reflected on how little I knew, and it was a moment of introspection for me. (Rin)

As the participants' narratives indicate, Japanese sex education has had an impact on people's understanding and awareness of menstruation. Japanese education provides limited information about alternative sanitary products, and disposable sanitary pads still dominate the market in Japan. This lack of education may contribute to instances where individuals use tampons in the wrong way. Furthermore, teachers are not allowed to teach about sexual intercourse in schools, so they can only teach their students metaphorically, which may lead to the unconscious tabooing of topics involving sexual intercourse and reproductive organs. The next section discusses how participants perceive menstruation as a hidden topic in Japan.

5.5. Hidden menstruation

When participants were asked what they thought about the general image of menstruation in Japan, the general opinion was negative; Ann, Emma, and Yui mentioned that when they bought sanitary products, they were put in black bags so that they could not be seen from the outside.

I think it's totally fine to talk openly about it because it happens to everyone. But I still feel like society wants us to hide it. When you buy something at the supermarket, they put it in a black bag or a paper bag. I think it's more embarrassing that way. Some people, like men, still think menstruation is a dirty thing. I don't think Japan has changed that much since the old days. (Ann)

I think there is still a culture of not saying things out loud.... It is common for everyone to say in a low voice like, "I'm having my period..." or to hide the napkin in a towel when taking it to the bathroom. When you buy sanitary napkins, you can put them in a black plastic bag, and the idea that they are something to be hidden has been ingrained in you for a long time, or at least it was somehow taught to you by society, I feel that way. (Emma)

While I believe the situation has changed quite a bit, there still seems to be a lingering taboo around talking about menstruation. Personally, I feel like when I buy pads at the pharmacy, there's no need to hide them in paper or black bags. It's not something that should be concealed, you know? (Yui)

Noa and Sara pointed out that menstruation is considered something that should be hidden or taboo in Japan due to the societal norm of not discussing it openly and the preference to keep it hidden.

I guess it's taboo. Basically, people don't talk about periods. There is a feeling that it is better to keep it hidden. (Noa)

(Menstruation is) something to be hidden. Additionally, there seems to be a certain attitude where it's somewhat acceptable to make jokes or tease about it. You know

how sometimes men make comments like, "Are you on your period?" in a lighthearted manner. It's treated as something that can be casually dismissed or joked about. (Sara)

Menstrual etiquette requires women to hide their menstrual flow and to keep their menstruation private if they wish to be present in public spaces alongside men and women who are not menstruating (Laws, 1990; Young, 2005). Lee and Sasser-Coen (1996) point out that menstrual etiquette demands that women observe taboos against themselves through their own actions of silence and concealment. Karen mentioned that not only men but also women themselves must change their minds and be aware of their women's rights.

I think menstruation has become like a day of emotional instability for girls. Unless women themselves change their minds, I don't think the (negative) image of menstruation from men will change either. (Karen)

Karen's narrative shows the importance of changing women's own internalized attitudes that menstruation is not something to talk about with men to mitigate the taboo against menstruation. Oxley (1998) argues that the shift in cultural perspectives on menstruation is not the sole requirement; women need to exert more control over their feelings and experiences of menstruation to embrace themselves consistently every day of the month. This implies women should actively resist cultural norms and reduce the associated stigma (Johnston-Robledo and Chrisler, 2020). Moreover, Hana and Yui questioned the thinking that menstruation should be concealed, while it is a natural fact.

Something about that unspoken topic. It's a little strange that everyone has some similar knowledge and has encountered some of the same phenomena, and yet

somehow, it's as if it's a secret, a phenomenon that no one is allowed to tell anyone about. It would be fine to keep it a secret if nobody knew about it. But it's kind of hilarious that everyone knows about it and yet we all treat it like a shared secret. (Hana)

I mean, when you think about it, cisgender women with functioning uteruses, which is about half of the population, all experience menstruation. It's something that should be considered normal and natural. Yet, the fact that we still feel the need to hide it somehow perpetuates this slightly dirty or negative image that continues to exist in our everyday lives. In general, in our daily lives, it's not something that we often discuss with men or even among women. I wonder why that is. It's like, even though it's something that happens to a lot of people and is very common, there's still this tendency to make it seem like it doesn't exist or treat it as something impure. It feels like these perceptions still linger in subtle ways, even though menstruation is a natural occurrence. (Yui)

On the other hand, Noa shared that in her work, having a period was sometimes considered as a weakness, that made women work less, and to secure her career, she hesitated to be open about the issue. Noa explained that because her workplace is male-dominated, she finds it difficult for her boss or colleagues to understand her menstrual struggles.

I feel hesitant to talk about it because it might be perceived as a vulnerability, especially in the workplace. Even if I say I'm having a hard time with my period or something like that, men will have no choice but to tell me to take a break. But I concern that expressing such needs might be seen as a weakness or even hinder

career advancement. It's frustrating to think that something as natural as menstruation could impact opportunities for promotion or other advancements in my career. (Noa)

Hana also expressed that she might hesitate to talk with men regarding menstruation because listeners' reactions would be predictable.

I think there is a slight hesitation because I can anticipate the reaction of the listener to some extent. I know that they might be taken aback or surprised, so I have this preconceived idea of an unknown reaction, which can be a bit of a hindrance or obstacle. It's challenging to open up when you already know that you might be met with a negative response. So, there is a sense of feeling uneasy about sharing certain things regarding menstruation. (Hana)

Yui explained she used to hesitate to talk about her period, especially among men. She could not tell male friends that she would not go to the sauna due to her period when they went on a trip.

I could openly tell my female friends that it was because of my period. However, with my male friends, I hesitated, and I think I ended up saying something like I wasn't feeling well. It was just a reflex as if I couldn't say it straightforwardly. I guess my past experiences had influenced me, even though there was no reason to hold back. I remember saying I wasn't feeling well as a cover for having my period. (Yui)

According to the survey aimed at 55 British women, most women felt high self-consciousness and avoided engaging in activities such as swimming and sexual activities

during their menstruations due to the anxiety of how others would react to their menstrual blood (Oxley, 1998). This implies women managed menstruation as something distasteful to oneself to others which produced the awareness of menstruation as need to keep hidden (Oxley, 1998). As discussed with participants, previous research recognizes many women feel hesitation or comfortability to talk about menstruation, especially with men (Lei et al., 1987). Williams (1983) found that almost all participants, who were adolescent girls, agreed that girls should avoid talking about menstruation around boys. However, in other research, it was revealed females tended to agree that menstruation should not be kept secret even though dealing with menstruation is annoying for them (Wong et al., 2013). Considering participants' narratives regarding feeling hesitation to talk about menstruation with men, it seems that women's menstruation is objectified in Japan because social customs and practices make menstruation hidden. This may cause women to feel ashamed of their periods or feel the need to conceal them. Objectification theory points out that women objectifying themselves may limit their self-development and freedom of action (Fredrickson & Roberts, 1997). Johnston-Robledo and Chrisler (2020) claim that exclusive conversations held privately perpetuate the idea that menstruation is a shameful event that should be hidden from view and avoided in public discussions. This societal perception has resulted in a lack of open discussion about menstruation in public, with many considering it a taboo topic to be ashamed of. In fact, during the interviews, when I asked participants if they knew anyone who used menstrual cups around them, very few of them reported knowing anyone, except for Noa, a former midwife, Ann, and Hana. The limited discourse around menstruation among women indicates that their exposure to information about alternative menstrual products, such as menstrual cups,

cloth napkins, and menstrual underwear, may also be limited, leading to a lack of familiarity with such products.

6. Discussion

In the present study, I have conducted interviews with eight young Japanese women to explore how women in Japan have changed their menstrual attitudes as a result of using menstrual cups. To explore individual menstrual experiences, I asked how participants shaped their menstrual attitudes through the usage of menstrual cups and what external factors influenced their awareness of menstruation. The research questions were as follows. 1) What kind of experiences do Japanese menstrual cup users have of using the menstrual cup and does the use influence their understanding of menstruation? and 2) How are attitudes toward menstruation and menstrual cup use related to sociocultural issues in Japan, particularly stigmatized menstruation?

This study found a lot in common with existing literature. Many literatures revealed that women perceive menstrual experience as a negative phenomenon in general (Amann-Gainotti, 1987; Clarke and Ruble, 1978; Fitzgerald, 1990; Hoerster et al., 2003; Roberts, 2004; Scambler & Scambler, 1985). According to Hennegan et al. (2019) who introduced an integrated model of the menstrual experience, the experience of menstruation includes multiple themes: menstrual practices, perceptions of practices and environment, self-confidence, shame and distress, and containment of bleeding and odor. The interviews also included the above themes that Hennegan et al. (2019) described in the menstrual cup experience, which were very similar. These themes usually contribute to women associating with negative connotations with menstruation (Hennegan et al., 2019).

Similarly, many participants indicated negative impressions toward menstruation such as discomfort, causing some pains, as confirmed by their narratives that it is bothersome and not something to discuss openly in Japan.

When it comes to the negative impression of menstruation, objectification theory has been used to investigate women's attitudes and perceptions toward menstruation (Fredrickson & Roberts, 1997). This theory explains women are prone to internalize an observer's perspective as their primary perception of their physical self (Fredrickson & Roberts, 1997). Studies have shown that the constant monitoring of appearance associated with self-objectification increases feelings of shame and insecurity about one's body (Fredrickson & Roberts, 1997). Hennegan et al. (2019) point out that sociocultural context, including gender norms and menstrual stigma, influence menstrual experiences by limiting knowledge about menstruation and establishing behavioral expectations that are internalized and externally enforced. In this regard, the participants' stories about how they had internalized the ideas that it is taboo to talk about menstruation with men in Japan point in the same direction. In addition, the invisibility of menstruation in the workplace appears to be rooted in the aspect where women themselves self-objectify their menstruation as negative phenomenon. During the interviews, one of the participants who is working in a predominantly male-staffed workplace, expressed reluctance to take leave due to menstruation. This reluctance stemmed from the fear that taking leave during menstruation would lead to being perceived as vulnerable and could potentially hinder career advancement and maintaining one's position within the company. I assume this negative image associated with menstruation in the workplace is based on how society enforces women to keep an idealized body, which is attractive from third eyes. Female bodies are idealized, and sexually objectified (APA, 2007) and these images are portrayed

as “normal” on the average body, however, these images are highly manipulated as an ideal body in society (Roberts, 2020a). The use of these societal messages sends women to be attractive, which is a prerequisite for female personhood, and forces women to make a great deal of effort to look like normalized ideal body (Roberts, 2020a). Thus, many women try to tolerate menstrual pain without taking a proper break and continue working. This attitude seemed to be influenced by the internalized perception that taking leave due to menstrual pain would be seen as displaying vulnerability.

The motivations for starting to use menstrual cups were often in line with those previously identified in literature reviews, such as environmental concerns, cost-effectiveness, liberation from the messiness of menstruation including leaks and discomfort, itching, and coping with heavy menstrual flow (Howard et al., 2011; Itaya et al., 2022). On the other hand, one participant found an affirmative meaning in using menstrual cups as a form of women's affirmative action. The participant found meaning in the act of voluntarily choosing a product related to women's sexuality and body and viewed it positively as a statement of her intention that menstruation is not something to be hidden. She also shared that using the menstrual cup has increased her opportunities to discuss topics related to menstruation in her daily conversations. This perspective was not identified in the existing literature which represents a novel aspect of the study. Although participants agreed with the usefulness of the menstrual cup as a tool to handle their period or a tool to show their affirmative opinion toward the period, it was also found that the lack of hand-washing facilities in the private room of the bathroom makes participants hard to change their menstrual cups outside in Japan. This hygienic issue may lead women to feel hesitant to keep using menstrual cups in Japan.

Participants experienced a variety of mental and physical changes when they began using the menstrual cup. For example, one participant expressed how her menstruation became easier and she became more active during her period. Similarly, participants experienced fewer concerns about leaking after they started using the menstrual cup, and how they were able to move freely during their periods. From these accounts, it seemed that menstrual cups played a significant role in liberating participants from the anxieties of leakage and the fears of others knowing about their menstruation. On the other hand, I found that most of the participants took 1 to 3 months to get used to menstrual cups and experienced leakage issues during those processes. In this interview, as well as in Itaya et al. (2022) study, results showed that participants felt discomfort when using the cups, as well as hygiene concerns due to the need for direct contact with the vagina. Regarding the direct contact with the vagina, one participant had trouble finding where the vagina is located in since the lack of opportunities to learn about her genital anatomy at school. This story tells the lack of sharing accurate information and knowledge of women's bodies at school which ultimately may contribute to the stigmatization of the vagina in society as the participant felt that the vagina is something that should not be discussed in public settings in Japan. Self-objectification serves the function of psychologically distancing women from their own nature as creatures, and in fact, several studies have shown that the more women self-objectify, the more they develop feelings of disgust and shame toward the reproductive functions of their bodies, including menstruation (Johnston-Robledo et al., 2007; Roberts, 2004). Therefore, the participant's awareness of her vagina as something she was not supposed to touch may be attributed to her self-objectification and the subconscious detachment, she maintained between herself and her reproductive organs.

The study found that although some participants began using menstrual cups as a way to counteract leakage, most participants still experienced some degree of menstrual leakage even with the use of menstrual cups. For many participants, this issue decreased as they became more used to using menstrual cups, but some individuals continued to experience minor leaks. Some of the participants' friends also reported that they had stopped using the cup due to the inconvenience of pain and leakage while they were getting accustomed to it. Although many advertisements for menstrual cups proclaim that they do not leak at all, it is clear that in reality many women still experience leakage even with the use of menstrual cups. It can be inferred that these emotions of leakage and uncertainty may hinder women's motivation to continue using menstrual cups. While it is true that users tend to experience less leakage and improve their familiarity with the product over time, for those who are new to using menstrual cups, experiencing leakage can raise doubts about the product's suitability and may even lead to discontinuation of use. It would be beneficial if advertisements acknowledged and promoted the fact clearly that leakage is a natural part of the learning process and a normal aspect of using menstrual cups.

Although some drawbacks were identified at the beginning of the menstrual cup use, participants acknowledged that it also had a positive impact on their attitude toward menstruation. Notably, one participant articulated that using a menstrual cup has positively influenced her perspective on menstruation. The narrative gave an intriguing revelation regarding the menstrual cups' capacity to enhance participants' visualization of their menstrual blood. In addition, participants began to take better care of their bodies since the menstrual cups requires them to confront their vaginas. Moreover, some of the participants described that the menstrual cups gave them a sense of relief since they do not need to worry about leakage problems, and they can use menstrual cups even in the

event of a disaster. Therefore, it can be interpreted that menstrual cups facilitated an understanding of participants' menstruation and their own bodies which provide women with opportunities to engage more intimately with their bodies.

When it comes to the general image of menstruation in Japan, participants broadly perceived it similarly. In Japan, people tend to avoid talking about menstruation in public. This is precisely the taboo consciousness that many of the participants spoke of, and it is a glimpse into the deep-rooted taboo consciousness surrounding menstruation that remains in Japan. While various external factors are involved, one significant factor that I found through interviews was sex education. In fact, Japanese sex education does not teach the process of pregnancy, including for instance the details concerning sexual intercourse, in schools (Ministry of Education, Culture, Sports, Science and Technology, 2017). In the field of sex education, such topics are considered taboo (Moult, 2013), and it is not surprising that acts involving the insertion of foreign objects into the vagina, such as the use of menstrual cups or tampons, may be stigmatized. As if to illustrate the stigmatization, one of the participants did not know how to use tampons and had been using them for two years with a plastic container in them. While tampons are mainstream in Western countries (Omar & Perkins, 1998), menstrual disposable pads remain the dominant choice for menstrual hygiene in Japan. Contrary to Western countries where tampon use rates are between 70 and 80 percent, only about 20 percent of women in Japan use tampons (Kinoshita, 2019). According to Tanaka (2013), one of the reasons tampons have not become widely used in Japan is the development of myths like "using tampons breaks the hymen" and "a broken hymen makes women hard to get married," which gave rise to prejudices towards women who use tampons. This bias was pervasive at the time in the educational setting (Tanaka, 2013). Moreover, it is anticipated that it will take some

time for menstrual cups to gain widespread acceptance in Japan where tampons are not the norm given the availability, high performance, and quality of sanitary pads, which require close contact with menstrual blood and the vagina.

The taboo awareness of menstruation in Japan already begun at elementary school since Japanese sex education only focuses on disposable menstrual pads as menstrual products. In addition, participants felt the separation of boys and girls during menstrual education in primary school was a mistake that furthered the stigmatization of menstruation. What those narratives from participants indicate is that the taboo awareness of menstruation in Japan, as perceived by the participants, already begins at the elementary school level of education. First, male students do not have a chance to learn about menstruation in elementary school. Although schools vary in how they conduct initial sex education, male students may spend time cleaning the classroom or doing other activities while their female counterparts are separated and taught about menstruation. Reflecting on this menstrual education, one participant criticized it for instilling the perception that menstruation is not a topic to be discussed in front of men. Several participants also mentioned that they do not talk about menstruation in front of men, possibly because they have internalized the cultural message that menstruation is not a topic to discuss with men. I interpret this situation as happening because society associates with how women self-objectify their bodies when they are in their menstruation. It is important to share appropriate knowledge for all students including male students in the same classroom setting from the beginning of menstrual education. Elementary school education has unconsciously internalized the perception that menstruation is not a topic that should be discussed in public.

Furthermore, one participant who attended a girls' school described how they used to discuss menstruation in a roundabout way in their conversations with her school friends at that time. I have also encountered several situations in Japan where people avoided using direct expressions by describing menstruation as a girl's day. A survey conducted jointly by the International Women's Health Coalition and the menstrual cycle app Clue, covering 190 countries, and receiving more than 90,000 responses, found that there are more than 5,000 menstrual slang terms in the world (Top euphemisms for "period" by language, 2016). For example, in English-speaking countries, the phrases "Code Red," "Monthly visitor," "Mother Nature," "Lady time," "Aunt," and "Red River / Sea" are often used (Top euphemisms for "period" by language, 2016). Ernster (1975) points out that negative cultural attitude is maintained and reinforced using terms. Thus, it is likely that women themselves objectify and internalize society's and others' perceptions that menstruation is bothersome and not something to be talked about openly, and women are stigmatized to the point that they do not even question it in their daily lives.

According to Koskenniemi's (2023) research on marketing alternative menstrual products, the sellers' websites declare periods as nothing shameful. Additionally, the websites encourage calls for equitable access to menstrual products and education, promote sustainability, and acknowledge the variety of menstrual experiences. However, Koskenniemi (2023) points out that despite those calls for openness, selling menstrual products helps to hide menstruation in a cultural environment that expects concealment. Oxley (1998) also mentions that advertisements for sanitary products focus on the desirability of concealment of menstruation. Because the culture conceals blood, menstrual blood relatively remains invisible. Whisnant et al. (1975) insist that the materials of sanitary products "tend to dictate what a girl should feel rather than helping

her to honestly explore and validate her subjective responses” (p. 819). It was very interesting that most of the participants expressed how menstruation is stigmatized in Japan although I did not use the word taboo or stigma in interview questions. Menstrual products, including menstrual cups, serve the role of concealing menstrual blood, and in this regard, menstrual cups do not differ significantly from other alternative menstrual products. Among the participants, one participant practiced menstrual blood control and she made efforts to minimize the use of menstrual products, including menstrual cups. It is anticipated that a greater need for women to engage more intimately with their bodies is required if they do not rely on conventional menstrual products. The ability to control menstrual blood without the use of menstrual products allows for the processing of menstrual blood even in environments where clean water or toilet facilities are not available. Future research is expected to investigate how the approach of confronting menstruation without using menstrual products is related to the taboo surrounding menstruation.

When I asked in the interview what changes were necessary for menstrual cups to become better known in Japan, participants said that to popularize menstrual cups, it was important to make menstrual cups more easily available in pharmacies and other stores and to increase awareness that menstruation is a normal topic of conversation. While access to menstrual cups has gradually improved with the availability of Japanese-made menstrual cups and similar products, menstruation is still seldom discussed in everyday conversations. It remains a private matter viewed as a personal issue for each woman. Thus, it is currently obscured and often hidden from public view. Matlin (1987) underscores this aspect of menstruation when she states: "Menstruation is important in the lives of women as a personal, private experience. Menstruation is also important as a

political issue that has influenced public policy” (p. 90). Wood (2020) notes menstruation has been established as a political issue by conceptualizing it as a disease and associating it with femaleness. In the context of Japanese history, considering menstruation as something that the government once regulated (Ono, 2009), it becomes apparent that menstruation has aspects that go beyond being a solely personal concern. When menstruation is viewed as not just an individual issue, it implies that each person's menstrual experience is unique and requires different forms of care.

Taboo attitudes, shame, and misinformation about menstruation undermine women's wellbeing and reinforce gender-based discrimination (UNFPA, 2018). This leads to a decline in women's economic participation and quality of life, puts women in an unequal position in the workplace, and in the worst-case scenario, delays in diagnosis, such as menstrual disorders known as dysmenorrhea (Seear, 2009; UNFPA, 2018). Hence, it is important to reduce the taboo against menstruation that is shared by society. Because menstrual cups require direct contact with menstrual blood and the vagina, they allow more time to confront one's own body, and any irregularities in menstruation (e.g., changes in color or quantity of menstrual blood) are easier to notice than with conventional menstrual products such as pads or tampons. Participants also said that they became more sensitive to their bodies and menstruation, and they felt more comfortable talking about menstruation than they were before use.

As can be seen from the Gender Gap Index, Japan excels in terms of equal access to education for both genders (nippon.com, 2022). However, there are many challenges when it comes to sex education. As indicated by the participants' voices, the misguided perception in the field of education that boys do not need to know about menstruation at

an early age contributes to the formation of unconscious taboo awareness among children later on. In this interview, I found that using menstrual cups, which are not yet a mainstream menstrual product in Japan, it became apparent that participants were engaging with their bodies, encountering blood and vaginas, and undergoing various menstrual experiences. As noted in self-objectification theory (Fredrickson & Roberts, 1997), women often perceive menstruation as something dirty and private, and try to avoid discussing it publicly. This stigmatized awareness of menstruation may be due in part to sex education in elementary schools. It would be imperative to promote the awareness that menstruation is not something dirty, but rather an ordinary and natural phenomenon. Furthermore, increasing an open discussion about such topics may lead people to a deeper understanding of how to engage with their own bodies, but also about their relationships with others.

This study has demonstrated that qualitative research can contribute to understanding the attitudes of Japanese women who use menstrual cups towards menstruation. A qualitative approach allowed for a detailed exploration of menstrual attitudes, uncovering additional beliefs that Japanese women hold about menstruation. However, this study had limitations due to its small sample size of 8 participants and a focus on individual menstrual experiences, which may not represent the majority opinion. Additionally, since this study focused solely on menstrual cups, it could not investigate how the use of other alternative menstrual products or low-dose birth control pills relates to the formation of women's menstrual attitudes. Future research should continue to explore women's menstrual experiences including these above aspects. Although I conducted this research through interviews to focus on individual menstrual experiences with menstrual cups, it can be studied through mixed methods such as questionnaires and interviews to understand more

broaden Japanese women's menstrual experiences in the future.

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