Exploring Chinese Women's Menstrual Pain Experience Through a Cultural Lens

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Abstract

Dysmenorrhea, known as menstrual pain, can bring negative effects on women's daily activities, work, and academic performance. Previous studies have mainly focused on diagnoses, treatments, and associated challenges. This research adopted a cultural study perspective, investigating how culture influences women's perceptions and management of menstrual pain, as well as the barriers encountered by women during period cramps within a Chinese cultural background. This study collected 50 posts, interviewed 4 Traditional Chinese Medicine (TCM) practitioners, and interviewed 16 Chinese female users of the Little Red Book social media platform. Using feminist epistemology, Hofstede's cultural dimension theory, and intersectionality as theoretical frameworks, the study identified 5 main themes, namely: 1) Barriers to accessing menstrual health care and education; 2) Menstrual shame; 3) Empathy gap between males and females; 4) Perceived differences between Traditional Chinese Medicine and Western medicine; and 5) Unique pain management methods. This research contributed new research knowledge about menstrual pain experiences from a Chinese cultural perspective and raised awareness of menstrual pain in Chinese society. Investigating cultural influences on pain perceptions and management enables women to speak out about their experiences and highlights the deeply ingrained factors that impact women's health outcomes.

Keywords: dysmenorrhea, Little Red Book, online communities, Traditional Chinese Medicine (TCM)

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Chapter 1 Introduction

1.1 Research Background

Female menstrual cycle is a common and natural process that occurs in women's lives. Controlled by female hormones, menstruation causes regular bleeding that takes place approximately once a month in women who are not pregnant. However, for many women, the onset of their menstrual cycle is accompanied by various levels of disruption in their lives due to menstrual-related health issues, such as excessive bleeding, low back pain, headaches, fatigue, and more. Among different disruptions, dysmenorrhea, or menstrual pain, is the most common and frequently reported menstrual-related health issue. Dysmenorrhea is defined as a "severe, painful, cramping sensation in the lower abdomen" (Ju et al., 2014, p.104). The pain may lead to absences from school and work and can also restrict participation in social activities, significantly impacting women's lives.

However, today, the painful symptom of dysmenorrhea is often underestimated and considered a normal condition (Martire et al., 2023). In many cases, women are also facing challenges such as pain that is poorly treated by doctors and limited resources (Chen et al., 2018). Therefore, this research explores personal experiences and perceptions connected to menstruation. Specifically, this study looks at how women cope with and share their pain experience with an eye towards understanding the concerns and challenges they have been facing during the pain. To this end, this study has chosen an online health community as the primary research platform, which is a platform where individuals with similar experiences and concerns can come together to discuss health-related topics. Selecting the online health community as the main platform not only allows for a larger sample size and diverse perspectives but also

leverages the feature of anonymity, enabling women to openly discuss their experiences, which can encourage more honest responses.

This study focuses on participant experiences and online exchanges within an active menstrual health community that exists in a Chinese social media app called Xiaohongshu (Little Red Book). Within this community, users engage in discussions and exchanges about their experiences and attitudes towards menstrual management, creating a platform for open dialogue and shared insights. Therefore, this study harnesses the unique dynamics of this Little Red Book community to gain deeper insights into how Chinese women cope with dysmenorrhea, their unique needs, and the strategies they employ to manage the pain. This culturally specific context provides a valuable lens through which to explore the intersection of menstrual health, culture, and digital communication, contributing to a richer understanding of women's experiences in this cultural setting.

Therefore, the purpose of this research is twofold. First, this study aims to investigate how women in China engage in online communities, understand their motivations and activities performed in the community, and how they utilize the platform to address and manage dysmenorrhea-related challenges. Second, this study explores the broader implications of menstrual pain from a holistic perspective, viewing menstrual pain as a multifaceted issue deeply intertwined with cultural, societal, and gender dynamics. This study aims to shed light on how these factors collectively shape the experiences and responses of women dealing with dysmenorrhea within the Chinese context.

The above-mentioned key words, such as dysmenorrhea, online health communities, Little Red Book (LRB), and Chinese culture, are central themes that frequently appear in this study. To gain a better insight into these themes and understand the main objectives of this study,

the following sections introduce each definition accordingly. Second, this study briefly introduces the research method, the research motivation, the value of this research, and provides an overview of forthcoming chapters.

1.2 Key definitions

1.2.1 Dysmenorrhea: symptoms, impact, and prevalence

Female menstrual cycle normally starts in adolescent girls, and it represents female's physical and psychological transformation for motherhood (Kumbhar et al, 2011). Depending on everyone's situation, the average length of a period is 3 to 7 days, and the last period, which is called menopause, happens at around the age of 51 (Thiyagarajan et al., 2022). It's worth noting that the menstrual cycle often accompanies various health-related challenges. This study focuses on dysmenorrhea as its primary area of investigation.

In medical terms, dysmenorrhea is classified into two types: primary dysmenorrhea and secondary dysmenorrhea. Primary dysmenorrhea refers to pain caused by uterine contractions resulting from endometrial laceration (Sharghi et al., 2019). It typically occurs during adolescence, follows a predictable pattern, and usually lasts for 8-72 hours (Lacovides, 2015). On the other hand, secondary dysmenorrhea is caused by pathological conditions such as uterine fibroids (myomas), endometriosis, and congenital uterine anomalies (Berkley, 2013).

Millions of women around the world are affected by menstrual cycles, which negatively impact their physical, mental, and social well-being (Critchley et al., 2020). The prevalence of dysmenorrhea in women of reproductive age varies between 16% and 91%, with severe pain in 2%–29% (Ju et al., 2014). It negatively impacts women's quality of life and is the primary cause of absence from school and work (Chen et al., 2018). With its high prevalence and significant impact on women's lives, this study finds that dysmenorrhea is poorly treated by doctors,

academics, and even women themselves. A survey was given to 202 female students at a Spanish institution who had ever had menstrual pains. According to the findings, students often prefer to normalize the problem and believe it is not necessary to consult with a health expert (Ramos-Pichardo, 2020). In another case, due to worries about work productivity loss and financial burden, most Japanese women do not visit a gynecologist even when their pain is severe (Tanaka et al., 2013). Other reasons why women do not seek help include preferring self-management measures, having limited resources, thinking health providers would not offer help, considering the pain to be tolerable, feeling embarrassed, and being unaware of the treatment methods (Chen et al., 2018).

There is evidence that more and more women choose to self-manage the pain at home (Bharati et al., 2021). However, neglecting the pain may also lead to the oversight of other health issues. According to Li et al. (2020) and Lacovides (2015), ignoring the pain may increase the risk of developing other chronic pain conditions and fibromyalgia. Additionally, if women rely on self-treatment for an extended period, it may cause psychological and physical burdens, affecting their quality of life. Therefore, this study aims to further investigate the coping strategies employed by women. By listening to women's voices, this could help to understand the shortcomings of the existing medical system and resources, promote social attention to dysmenorrhea issues, and provide guidance for policymakers.

1.2.2 Online Health Communities on Little Red Book

In the Web 2.0 era, social media platforms such as Facebook and user-generated information sites such as Quora and Reddit have become a significant trend for consumers searching for health-related topics (Augustaitis et al., 2021). These platforms have become powerful tools for people to engage in online health communities and participate in relevant

discussions (Zhao & Zhang, 2017). Online health communities (OHCs) are virtual environments where individuals can share, exchange, and discuss health-related information (Min et al., 2021). It has the potential to transform the patient experience by offering them a place to get support and understanding, exchange advice with others who share similar experiences, and thus break the boundaries of time, geographic distance, and even social class (Zhou et al., 2022). In addition, patients find the content posted by other patients to be more trustworthy, and they feel comfortable seeking and sharing health information, ultimately saving time from waiting in the hospital (Zhou, 2022).

The online health community chosen for this study is a Chinese social media app called Little Red Book. Little Red Book is both an e-commerce and life-sharing platform that empowers users to explore, create, and share content pertaining to health, beauty, and lifestyle. As of 2019, it had achieved a user base exceeding 300 million registered individuals (Wang et al., 2022). The platform presents content in the form of a picture gallery, with each picture encompassing a diverse range of topics. These topics range from recommendations for beauty and cosmetics products to fashion tips, clinical advice, travel insights, entertainment suggestions, fitness recommendations, home decoration ideas, and much more. Moreover, the platform facilitates users in finding answers to various questions that women may have, such as “What medicines are effective for alleviating menstrual cramps?” “How can one clean false eyelash?” and “What should be ordered at the hottest new bubble tea chain?” (Zhou, 2023).

This study chose Little Red Book as the target research platform for two specific reasons. Firstly, the platform boasts a predominantly female user base, with women accounting for 85.35% of users as of 2022 (Chi et al., 2022). Secondly, this research has identified that female users on Little Red Book exhibit a high level of engagement in discussions related to the

menstrual cycle. By reading menstrual-related posts on LRB, this study notices that there are numerous posts containing hundreds or even thousands of comments, indicating highly active participation. In addition, users interact with each other by sharing their thoughts, feelings, and experiences either through individual posts or by contributing their thoughts to someone else's post. Their perspectives cover various aspects of menstrual pain, including its causes, symptoms, remedy tips, personal experiences, and clinical insights. Finally, compared to other social media platforms in China, such as TikTok and Zhihu (a Q&A platform), Little Red Book is more focused on experience sharing. This aligns with the goal of understanding how Chinese women cope with pain. In conclusion, the proportion of female users, active engagement on the topic, and the wealth of information and perspectives provided by the platform offer abundant sources for this study.

1.2.3 Chinese Culture: Traditional Chinese Medicine (TCM)

As mentioned, this study is conducted within a Chinese cultural context, and one of its goals is to examine how Chinese culture impacts women's perceptions of pain management. Upon the initial exploration of the online health community on Little Red Book, this study finds numerous posts related to pain management methods rooted in Traditional Chinese Medicine (TCM). Traditional Chinese Medicine (TCM) is a medical system based on "distinctive Chinese cultural theories and practices, has a long history of effective treatments, and has been in use for more than two thousand years" (Liu, 2022, p. 2). Traditional Chinese medicine includes herbal medicine, acupuncture, cupping, tui na, moxibustion, and more. It is an important aspect of Chinese culture due to its long history, popularity, and proven efficacy. Many Chinese people prefer TCM over Western medicine, as it is believed to "have fewer side effects and a recuperative effect on the body" (Xu and Xia, 2019). Traditional medicine has a complete and

different theory of menstrual pain treatment and prevention. There are several common diagnoses in Chinese medicine; the most common are energy stagnation, blood stagnation, or blood deficiency (Li, 2022). Accordingly, common self-management precautions include avoiding cold foods and drinks before or during their period, as well as exposure to physical colds (Zhou, 2023). Other suggestions include herbal medicine and acupuncture (Xie, 2014).

Traditional Chinese Medicine (TCM) is essential to this study because it not only represents an integral part of Chinese culture but also reflects cultural theories and practices. From the perspective of TCM, this study provides opportunities to explore its prevalence and popularity among Chinese women, including their perceptions of TCM compared to other forms of medicine. Additionally, this study offers the opportunity to delve into the distinct approach TCM takes toward menstrual pain. By examining the role of TCM within the context of the online health community on Little Red Book, the study can gain deeper insights into the interplay between culture, traditional medicine, and women's experiences with pain management.

1.3 Online Ethnography: A Qualitative Approach

This study applies a qualitative approach, specifically utilizing online ethnography as its primary research strategy. Online ethnography refers to research that involves studying online communities and digital cultures (Varis, 2015). The goal of ethnography is to describe and analyze the lives, social worlds, and cultures of a group of people from their perspective through social interaction, with the purpose of discovering and analyzing cultural patterns (Hart, 2017). Hooley et al. (2014) state that online ethnography has a wide range of research strategies, including participant observation, interviews, surveys, and content analysis. To conduct online ethnography research, digital platforms such as blogs, social media platforms, and other forms of

media are required (Hooley et al., 2014). As previously mentioned, the platform chosen for this study is LRB. The platform and its content are publicly accessible without requiring user registration. An account is only necessary when a user wishes to interact with posts, such as posting, commenting, or liking.

One data collection method that this study uses is content analysis. Content analysis is a research technique that allows for making replicable and valid inferences from text (or other meaningful matter such as video, art, or images) to the context of their use (Krippendorff, 2018). In the case of Little Red Book, this study aims to collect the top 100 posts (those with the most likes and comments) posted between January 2022 and July 2023. The study not only examines the posts shared within the community but also analyzes the accompanying images and comments, with a focus on identifying the sentiments expressed within the posts. Conducting a content analysis could provide an opportunity for this research to examine the types of content shared within this community and explore how community members interact with each other. By analyzing content, content analysis reveals recurring topics, issues, and perspectives related to dysmenorrhea. Ultimately, this could help identify the most prevalent concerns and needs shared by users.

Interviewing LRB female users is another data collection method that this study applied. An interview is defined as the knowledge produced through an interaction between the interviewer and interviewee (or group of interviewees) (Brinkmann, 2014). The interview contains structured or open-ended questions to elicit responses that can provide insights into research goals (Mcleod, 2023). For this study, the interview is conducted online through phone calls and follows a semi-structured, in-depth format with prepared questions. A semi-structured interview refers to the respondents having to answer open-ended questions, allowing researchers

to gain in-depth insights and explore new themes (Jamshed, 2014). This study aims to interview 16 LRB users who have experience in the menstrual health community. This could provide deeper insights into their experiences with the community and pain management. Additionally, this study interviews 4 Traditional Chinese practitioners to gain valuable insights into their perspectives and practices related to menstrual health within the context of Traditional Chinese Medicine and Chinese culture. Exploring the views and methods of these practitioners can contribute to a comprehensive understanding of how TCM is integrated into Chinese women's experiences of pain management during menstruation.

1.4 Research Interest and Value

This research is motivated by the researcher's personal experience. The researcher has suffered from menstrual pain for over 10 years, and it has significantly impacted the researcher's life. Furthermore, a family member is studying Traditional Chinese Medicine (TCM), which has educated the researcher on managing pain through the lens of TCM culture. This personal experience and exposure to TCM-inspired the choice of research topic.

The value of this research lies in providing women who suffer from menstrual pain with an opportunity to express their experiences, needs, and concerns. It aims to raise greater social awareness among women, considering the high prevalence of dysmenorrhea, a condition women endure almost every month. Furthermore, by examining menstrual pain in China through a cultural lens, this research not only sheds light on the cultural factors influencing pain management but also offers insights into how traditional practices and beliefs intersect with contemporary experiences. Furthermore, focusing on the Chinese case could offer more diverse pain management methods. This study could provide new knowledge that women outside of Chinese culture could benefit from, offering alternative ways of treating pain.

1.5 Structure of the Thesis

This study is structured into six main chapters: Chapter 1: introduction, Chapter 2: literature review and theoretical framework, Chapter 3: methodology, Chapter 4: findings from content analysis, Chapter 5: findings from LRB interviewees, Chapter 6: findings from TCM doctors, Chapter 7: advanced findings and conclusions. Following this introductory chapter, the second chapter provides a review of relevant research literature to establish the study's background. The literature review delves into topics such as dysmenorrhea and online health communities while highlighting the research gaps within these areas. The final portion of Chapter 2 introduces the theoretical framework, which includes the Feminist Epistemology, Intersectionality and Hofstede's Dimensional Cultural Theory.

Chapter 3 introduces the methodological approach in this study. This chapter provides a more detailed explanation of the online ethnography approach, followed by descriptions of semi-structured interviews and content analysis. This chapter then presents the research questions and outlines the steps taken to collect the interview and content analysis data. Finally, it introduces the sample, population, and methods of coding the data.

Chapters 4, 5, and 6 include presentations of the results from content analysis of social media posts, semi-structured interviews with both LRB interviewees and TCM doctors. The researcher's findings are followed by an analysis and interpretation of the results.

In the final chapter of the study, this research provides advanced interpretations of the research findings by applying the above-mentioned theoretical framework. The conclusion reviews the previous chapters, findings, notes, and limitations. It also offers recommendations for future research, followed by discussions on topics related to the female menstrual cycle and dysmenorrhea.

Chapter 2 Literature Review

The first part of this chapter reviewed the topic of dysmenorrhea and online health communities. By presenting the relevant literature around dysmenorrhea and online health communities, this study highlighted and summarized the major research trends and examined their research gaps. In the second part of this study, three theoretical research frameworks were introduced, including feminist epistemology, intersectionality, and Hofstede's cultural dimensions theory.

2.1 Dysmenorrhea

2.1.1 Prevalence of Dysmenorrhea

The prevalence-related publications examined women who have experienced pain, covering aspects such as the symptoms, and impacts. Researchers around the globe conducted region-specific studies, including various age groups and occupations. For instance, a study at a Spanish university revealed that among 258 female students, 74.8% reported menstrual pain, with 38.3% experiencing severe and 58% experiencing moderate pain (Fernández-Martínez et al., 2018). In China's Hunan province, a study among female university students found a dysmenorrhea prevalence of 47.1% (Hu, 2020). Similarly, in a Japanese junior high school, 46.8% of 1018 female students aged 12 to 15 reported moderate to severe discomfort (Kazama, 2015). A Turkish survey involving 574 nurses indicated that 69.9% suffered from dysmenorrhea, with 86.9% reporting moderate to severe symptoms (Yöndem and Bilgin, 2022). In the Netherlands, research showed that nearly 85% of women experienced dysmenorrhea, with 35% reporting significant disruptions to their daily activities (Schoep et al., 2019). Moreover, a study among medical students revealed that 78.4% of female students experienced menstrual cramps, with a majority also reporting decreased energy levels and increased stress (Sima et al., 2022).

2.1.2 The cause of the pain

Literature explored various potential factors that contributed to dysmenorrhea. From a medical perspective, mainstream research suggested that the cause of dysmenorrhea was the excessive secretion of prostaglandins, which led to uterine contractions (Bernardi et al., 2017). Fajrin et al. discovered a significant positive correlation between the level of prostaglandins and the intensity of pain, which meant that the more prostaglandins a patient produced, the more severe the pain became (2020).

Despite the medical factors, scholars found that the supplemental intake of nutrients could help relieve menstrual pain. Research showed that increased consumption of fruits, vegetables, and fish oil could reduce pain because they contained many necessary vitamins and minerals, which could help reduce the overproduction of prostaglandins (Bajalan et al., 2019). Previous studies have also shown that the intake of vitamin D, vitamin E, and fish oil could improve menstrual pain (Naraoka et al., 2023).

Furthermore, researchers explored other factors related to pain, such as mental disorders, family history, smoking, and heavy menstrual flow. Pakpour et al. (2020) and Bajalan et al. (2019) showed that psychological disorders, such as depression, anxiety, and stress, might have a bidirectional association with dysmenorrhea, meaning that psychological disorders might have increased the risk of dysmenorrhea, and vice versa. Karout et al. (2021) demonstrated that family history could be a factor causing menstrual pain due to genetic susceptibility and similar lifestyles exhibited by their mothers. Qin et al. (2020) researched and found that smokers were 1.45 times more likely to develop dysmenorrhea than women who did not smoke. Additionally, one study showed that women who were sensitive to cold experienced menstrual pain (Matsuura

et al., 2021), but another study showed that there was no relationship between sensitivity to cold and pain (Wu et al., 2023).

2.1.3 Pain Treatment

Followed by pain factors, researchers developed a serious pain treatment for dysmenorrhea, ranging from medications to eating habits and lifestyles. Early studies discovered the effectiveness of Nonsteroidal anti-inflammatory drugs (NSAIDs), such as Aspirin, Naprosyn, and Ibuprofen, in relieving menstrual pain (Proctor & Farquhar, 2006). Although the use of NSAID drugs seemed to be effective, subsequent research showed that long-term use of NSAIDs would increase the risk of side effects such as headache, vomiting, and dizziness (Marjoribanks et al., 2015). A recent study also showed that the long-term use of NSAID drugs is associated with an increased risk of stroke (Lin et al., 2021). Furthermore, scholars researched the effectiveness of long-term use of Dienogest (DNG). It was revealed that the use of DNG for patients was evident and considered clinically significant (Osuga et al., 2020). However, in this study, researchers did not further explore the side effects of DNG, and whether it is suitable for everyone remains unclear.

Researchers explored several non-medical approaches to relieve period pain, including changing lifestyle and eating habits, taking herbal medicine, and acupuncture. Onieva-Zafra et al. (2020), in their study, found that women who followed the Mediterranean diet and consumed some of the typical foods were less likely to suffer from dysmenorrhea. The Mediterranean diet is characterized by high consumption of fruits, vegetables, moderate consumption of white meat, fish, and alcohol, and low consumption of sugars, red, and processed meats (Onieva-Zafra et al., 2020). However, the study is limited because this type of eating style might not be applicable to

all cultures. For some women in lower socioeconomic status, they might not be able to purchase fresh fruits, vegetables, and meat.

Recent scholars have started to explore the area of electroacupuncture (EA). Electroacupuncture (EA) is a type of acupuncture where a small electric current is passed between pairs of acupuncture needles. Xue et al. (2023) proposed a detailed protocol on how to apply electroacupuncture to participants who experienced primary dysmenorrhea. Researchers showed that EA was a safe and effective way to treat menstrual pain; therefore, this area had the potential to decrease the reliance on NSAID drugs (Xue et al., 2023). Another study investigated a similar area, examining the effectiveness of electric stimulation therapy on dysmenorrhea. Research showed that electric stimulation therapy would have fewer side effects and be more cost-effective compared to patients relying on NSAID drugs (Sharma et al., 2023). Overall, the research area in electrical theory was relatively new and had not been widely applied to the public; therefore, researchers suggested future studies needed to provide more evidence and experimentation for this alternative theory (Xue et al., 2023).

2.1.4 Menstrual-related Issues

Studies revealed that in some cultures, such as India and China, people viewed menstruation as shameful or stigmatizing, leading to discrimination. Stigma refers to “any stain or mark that sets some people apart from others” (Johnston-Robledo and Chrisler, 2020, p. 182, as cited in Goffman). Beliefs towards the female menstrual cycle included considering it dirty, impure, and even a blemish on one’s character (Johnston-Robledo and Chrisler, 2020). Girls also expressed a sense of shame, fear, and embarrassment linked to their menstrual cycle (McMahon, 2011). As a result, only a small number of women chose to seek clinical help (Söderman et al., 2019).

Furthermore, extensive studies revealed that most women chose self-medication for reasons including clinical emergency use, experience with medicine, moderate and tolerable pain, cost savings, lack of time to visit, and easy access to non-prescribed medication (Bharati et al., 2021). Scholars found that women also encountered issues when they self-cared at home. These issues and barriers included limited access to accurate pain prevention methods, societal tendencies to silence and stigmatize conversations about menstruation, and concerns about the option between normalization and medicalization, among others (Chéileachair et al., 2022).

Scholars also noticed the issue of unequal access to menstrual hygiene products. For women from marginalized groups, low-income families, and developing countries, young girls were unable to afford hygiene products because they were too expensive for them (Kaur et al., 2018). Due to a lack of guidance from their parents and limited family income, girls had to resort to using unhygienic materials such as old cloth or strips from an old blanket (McMahon, 2011). The use of unclean products and a lack of knowledge could negatively impact girls' health and lead to other health problems. If neglected, this could result in reproductive tract infections (RTIs) and other vaginal diseases (Girod et al., 2017).

The inclusion of a menstrual leave policy for women sparked a debate within the discourse. Menstrual leave was a policy that granted female workers the option to take either paid or unpaid leave during their menstrual discomfort. However, researchers noticed that there were lack of policies trying to help with this problem (Levitt and Barnack-Tavlaris, 2020). On one side of the discussion, the decision for some women to miss workdays due to menstrual discomfort could lead to reduced productivity, ultimately impacting their own income (Sommer et al., 2016). However, on the other side of the discussion, enduring the pain during work could significantly impact women's overall health and performance (Raj, 2021). This revealed the

importance of establishing clear and comprehensive policies regarding menstrual leave, urging more companies and organizations to address this issue with diligence and equity (King, 2020, p. 151).

In summary, the existing literature provided valuable insights into the impact of dysmenorrhea, its prevalence, pain factors, and treatment, emphasizing the need for adaptive strategies to enhance the quality of life for women experiencing this condition. However, a critical research gap persisted in understanding how women practiced self-medication. Additionally, these studies lacked an understanding of their experiences, needs, and concerns during the pain, as well as whether society provided sufficient resources and attention to address these needs. Therefore, as suggested by Armour et al. (2019), future research should prioritize self-care interventions to gain a better understanding of women's requirements and the necessary resources. Finally, another research gap emerged as to how culture affected women's perceptions of pain management, given that different cultures might employ different approaches to menstrual pain management. This research aimed to fill the gap by investigating how culture has impacted women's pain management in a Chinese context. Ultimately, this study contributed to a more comprehensive understanding of effective pain management strategies for women across diverse cultural backgrounds.

2.2. Online Health Communities

As mentioned in the previous chapter, this study aimed to investigate how women participated in the online health community on LRB. Online Health Communities (OHCs) were virtual environments where individuals could share, exchange, and discuss health-related information (Min et al., 2021). In the context of traditional healthcare settings, such as hospitals, clinics, nursing homes, etc., waiting times for healthcare were often long, which could negatively

impact patients' health conditions (Saether et al., 2020). Therefore, the use of online health communities (OHCs) had been accelerated because they were more convenient and quicker, and they were not limited to specific times and spaces (Chen, 2023). They provided a space where individuals could seek support and encouragement from other community members (Abedin et al., 2020). Additionally, people who engaged in OHCs could help alleviate fear, anxiety, and depression because OHCs could create a sense of belonging, and shared visions could help people understand each other more easily (Tian and Wu, 2022).

Previous research explored various types of formats for Online Health Communities (OHCs), including web-based online health forums (OHFs), social media, and mobile apps. Online health forums (OHFs) consisted of text-based content separated into different topics created by anonymous users, enabling dynamic communication and interaction between users (Lederman et al., 2014). Social media platforms, such as Facebook, were also increasingly used by health communities. The information on social media platforms not only helped users quickly find self-medication approaches but also allowed them to share their feelings and emotions and build online networks (Eijk et al., 2013). Other research focused on mobile apps available in app stores. Such apps were specifically designed for health purposes in a wide range of categories, including fitness apps (for tracking users' physical condition), medical apps (for diagnosing and treating diseases), patient experience exchange platforms, and health monitoring apps (for tracking sleep cycles, sexual activity, pregnancy, glucose levels for diabetics, etc.) (Dijck & Poell, 2016).

Despite the existence of various formats of online health communities, scholars also explored users' behavior when participating in such communities. Different users exhibited different behaviors while engaging in online health communities. Among patients, the tendency

was to share more general knowledge (e.g., general health tips, hospital addresses) than specific knowledge (medical experiences and treatment plans) due to privacy concerns. However, specific knowledge was considered more valuable among users (Yan et al., 2016). Research also demonstrated that reciprocity, altruism, and empathy were important factors significantly influencing knowledge sharing among general users (Zhang et al., 2017). Furthermore, males and females exhibited different behaviors when engaging in health communities. Male users tended to post content that included more professional and medical terms, while female users expressed more feelings such as sadness and depression than their male counterparts. Additionally, males tended to focus more on the development of friendship networks compared to females (Liu et al., 2018).

In addition, different types of groups exhibited various behaviors and intentions within online health communities. For instance, pregnant women, who often faced limited offline social support and expressed dissatisfaction with healthcare services, found online health communities to be crucial for seeking informal and formal advice, reassurance, and emotional support from peers during pregnancy (Gui et al., 2017). Wang et al. (2021) revealed that most information seekers were female, and the topics of interest among women predominantly revolved around treatment, especially for menstrual-related issues such as menstrual delay, dysmenorrhea, and medication.

Scholars also demonstrated both benefits and drawbacks to online health communities. As mentioned, online health communities played a significant role in providing emotional support. In a cancer online health community, researchers found that influential members often convey effective and powerful words such as “good,” “hope,” “hugs,” “glad,” etc. (Biyani et al.,

2014). Additionally, they helped patients learn more about and recognize their diseases while providing access to various sources of treatment methods (Solberg, 2014).

However, research showed that online health communities had drawbacks. Solberg (2014) pointed out several ethical concerns in these communities. One concern was that the information online was not always accurate, and there might have been potential for misinformation and unpredictable results. Another concern was privacy, as users might have shared their personal medical history, the name of the hospital, and information about their doctors, potentially leading to information leaks.

The current research focused on different user behaviors and intentions within online health communities, such as gender-based differences and behaviors of specific groups (e.g., pregnant women, older adults). However, several research gaps were identified in this study. First, there was a lack of research on how cultural factors might have influenced users' behaviors and experiences within these communities. Therefore, this study aimed to fill the gap by exploring how culture impacted community engagement, information sharing, and support-seeking. This study was also intended to fill the gap by delving deeper into user-generated content and exploring its impact on users. Finally, there should have been more research in the field of ethical concerns in OHCs. Although research has addressed information accuracy and privacy, further research could have explored the extent of misinformation and its impact on users' health decisions.

2.3 Theoretical Framework

The literature review provided a basis and background for the research. This study applied feminist theory as its theoretical framework. Feminist theory is a framework for examining gender inequalities through social, cultural, political, and economic lenses to

understand systematic oppression and marginalization. This study utilized feminist theory as one of the frameworks aimed at uncovering the ways in which societal norms and healthcare systems may have contributed to the underestimation and inadequate treatment of pain. Feminist theory encompassed many branches across various aspects. This study applied feminist epistemology and intersectionality as the major frameworks. Additionally, to investigate how culture played an essential role in shaping women's self-medication experiences and their unique views toward dysmenorrhea compared to other cultures, this study applied a third framework: Hofstede's cultural dimensions theory.

2.3.1 Feminist Theory: Epistemology and Intersectionality

Feminist epistemology was one of the theoretical frameworks applied in this study. It referred to the study of knowledge in which knowledge reflected the perspectives of the knower (Anderson, 2000). Feminist epistemology played a crucial role in identifying how gender shaped people's perceptions and influenced the valuation and dissemination of knowledge within society (Maruska, 2017). This framework was interested in examining how the norms surrounding knowledge affected women and how these norms were implicated in systems of oppression (Grasswick, 2011). In essence, feminists believed that individuals possessed various social identities, including gender, race, class, and social relations. These identities, in turn, shaped their knowledge and understanding of the world, subjecting individuals to various norms that prescribed certain virtues, habits, emotions, and skills deemed appropriate for their roles in society (Anderson, 2015). In the context of this study, the application of feminist epistemology allowed for a critical examination of the ways in which women's knowledge and narratives regarding their experiences of pain had been systematically disregarded or silenced. By utilizing this framework, the research aimed to shed light on the various forms of knowledge and

perspectives that women held with respect to menstrual pain. It provided a platform to explore their understanding of how pain was perceived and addressed within society.

The second theoretical framework relevant to this research was intersectionality. When examining women's access to healthcare, it was important to consider intersectionality (Vohra-Gupta et al., 2023). The concept originated from black feminist theorist Kimberlé Williams Crenshaw in 1989. It was a metaphor for understanding how different forms of inequality and disadvantage overlapped, thus creating barriers (Carastathis, 2014). The theory acknowledges that individuals may experience multiple forms of oppression, including racism, classism, and sexism. Therefore, Crenshaw recommended that oppression not be understood as a single issue but rather that we should "challenge all forms of discrimination" (Crenshaw, 1989, p. 145). Within this framework, intersectionality had to "attend to the experience and meaning of simultaneously belonging to multiple intertwined social categories" (Else-Quest and Hyde, 2016, p. 157). These social categories could include race, age, gender, and social and economic status (Smooth, 2013).

Health researchers, policymakers, and practitioners were increasingly recognizing the significance of different factors in shaping the experiences and health outcomes of women and men (Hankivsky, 2012). By utilizing intersectionality, this study could investigate how factors such as race and socio-economic status compound healthcare inequality and disadvantage, driven by multiple sources of oppression. More importantly, by utilizing an intersectionality perspective, it helped to uncover multiple levels and power relationships, and showed how experiences were privileged and perceptions from affected populations; thus, it helped to provide "treatment opportunities, effective interventions, and necessary policy changes might be more clearly delineated and pursued" (Hankivsky et al., 2017, p. 82).

2.3.2 Hofstede's dimensional cultural theory

Since this study examined culture as a factor that influenced Chinese women's perception of dysmenorrhea and its management, for this reason, the third theoretical perspective was derived from Hofstede's dimensional cultural theory. Hofstede's dimensional cultural theory was developed by Dutch social psychologist Geert Hofstede in the 1970s. The theory aimed to distinguish how one cultural group differs from another in terms of values, beliefs, self-construal, personality, and behaviors (Smith & Bond, 2020). According to Smith and Bond (2020), Hofstede initially identified six dimensions. The first dimension was Power Distance (PDI), which represented how hierarchical power was accepted and maintained within a society. The second dimension, Individualism vs. Collectivism (IDV), reflected the degree to which members of society prioritized personal goals and their immediate family (Sent & Kroese, 2020). Next, Masculinity versus Femininity (MAS) involved gender role division and "the extent to which the use of force was approved by society" (Sent & Kroese, 2020, p.17). The fourth dimension was identified as Uncertainty Avoidance (UAI), which was based on a series of emphases on risk and security (Smith and Bond, 2020). In later publications, Hofstede introduced two more dimensions, including Long-Term Orientation vs. Short-Term Orientation (LTO) and Indulgence vs. Restraint (IND) (Smith & Bond, 2020). The LTO dimension examined a society's attitudes towards the past, present, and future (Sent & Kroese, 2020). For the final dimension, Indulgence captured the extent to which a society permitted the satisfaction of fundamental human desires, while Restraint represented a more controlled and restrained attitude towards impulses and cravings (Aleqedat, 2021).

Hofstede's dimensional cultural theory was applied in multiple ways within the current study. Previous research had utilized Hofstede's dimensions to analyze cross-cultural differences

in organizational behavior (Lo, Waters, & Christensen, 2017). Similarly, other scholars had applied the theory to examine personality traits across different countries (Migliore, 2011) and to investigate how culture influenced consumer purchasing behavior (Matharu et al., 2023). In the context of this study, Hofstede's dimensional cultural theory was valuable for examining the impact of culture on how women perceived and managed their menstrual cycle, as well as exploring cultural differences. For example, one of the dimensions, Masculinity versus Femininity (MAS), was useful in understanding how gender roles and cultural expectations shaped women's perceptions of menstrual pain. Also, examining the dimension of Power Distance (PDI) helped uncover how power dynamics influenced access to health resources among women. Additionally, the dimension of Individualism versus Collectivism (IDV) provided insights into how women collectively discussed and perceived pain within a shared cultural background. By utilizing Hofstede's cultural model, this study had the opportunity to further develop the cultural model in the field of health research and explore how culture as a factor played an important role in patients' self-care and clinical experience.

In conclusion, the theoretical framework provided a comprehensive view of women's perceptions of dysmenorrhea and how they managed it through the examination of three aspects: Epistemology, Intersectionality, and Hofstede's dimensional cultural theory. Epistemology allowed this study to understand how women acquired knowledge about menstrual management and what type of information they possessed. From an intersectionality perspective, this research could explore different factors such as class, gender, age, and culture that intersected and caused barriers when encountering dysmenorrhea. Hofstede's cultural model allowed this study to examine how cultural dimensions affect individual behaviors and societal attitudes towards menstrual health in China.

Chapter 3: Methodology

This chapter provided an overview of the research methods employed in this study. The following sections included an explanation of why online ethnography was chosen as the research method and how it related to this study. Additionally, a list of research questions, the data collection process and analysis were presented in the following sections.

3.1 Online Ethnography Research Design

This study utilized a qualitative approach, conducting an online ethnography to investigate female users on the Little Red Book online health community. Qualitative research provides deeper insights into a phenomenon. Unlike quantitative research, which requires collecting numerical data, qualitative research gathers participants' experiences, perceptions, and behaviors (Tenny et al., 2017). The reason for choosing qualitative research is because the current literature examining the challenges of menstrual pain predominantly employs quantitative methods, such as exploring the prevalence of dysmenorrhea. The phenomena such as experiences, behaviours and attitudes can be difficult to collected quantitatively, therefore, this study intends to fill the gap by using qualitative research to explain "how, why, or what [participants] were thinking, feeling, and experiencing at a certain time or during an event of interest" (Tenny et al., 2022, p. 1).

To investigate women's experience of menstrual pain, this study primarily utilized online ethnography as the main research method. Compared to other methods such as discourse analysis, online ethnography is more suitable. Discourse analysis involves "looking beyond the literal meaning of language, understanding the context in which social interaction takes place and exploring what was said, when and why" (Shaw and Bailey, 2009, p. 417). Jankowicz (2005, p.229) mentioned that discourse analysis could be used for listening to people's own narratives

of a situation. However, online ethnography is a qualitative research approach used for studying virtual communities (Hart, 2017), and it aligns more with the goals of this research. This method involves the researcher being directly immersed in the participant's environment (Tenny et al., 2022). The aim of this study was not only to focus on women's own experiences but also to examine how women support and interact with each other in a digital environment. By adapting ethnographic methods to the study of online communities, researchers aimed to explore and understand shared social behaviors and patterns (Hart, 2017). Although discourse analysis can discover women's experiences and their perceptions of menstruation, the use of online ethnography allows the researcher to immerse in the LRB online environment and observe how people interact with each other. Online ethnography could also be used for studying culture, as something is produced and reproduced through social interaction, including the process of developing rules, social norms, and so forth (Hart, 2017). In order to conduct a deep ethnographic analysis, researchers are required to gather richly contextualized and highly descriptive data (Hart, 2017).

Various methods could be employed when conducting online ethnography research, including content analysis, interviews, and participant observation (Forberg and Schilt, 2013). This study also applied content analysis and interviews as methods to collect data. However, instead of solely relying on the methods of content analysis and interviews, the choice of online ethnography helps observe cultural interactions between people. The internet served as a platform for people to interact, fulfilling their social and cultural needs, making online ethnography a valuable tool for engaging in participant observation and studying reciprocal social interactions (Steinmetz, 2012). By adopting online ethnography as the primary research method, this study examined an online health community on a Chinese social media platform

called Little Red Book. Conducting online ethnography in social media settings was particularly valuable in the case of online health communities for Chinese women. Empirical studies have shown that marginalized groups often relied on social media to disseminate messages, which helped uncover messages that were overlooked by traditional data-gathering institutions (Wang & Liu, 2021). Additionally, it allowed researchers to observe social interactions in specific times and spaces, enabling them to "address fundamental sociological questions related to community, culture, urban life, violence, activism, professional identity, health, and sociality" (Lane & Lingel, 2022, p. 319). Therefore, in this study, online ethnography enabled the researcher to immerse herself in the health community and discover issues and topics that might have been overlooked by Chinese women.

3.2 Research Questions

Drawing on the theories of feminist epistemology, feminist political economy of health, intersectionality and culture model, the research attempted to answer the following sub-questions:

R1: How do Little Red Book female users share information about menstrual pain and its treatment?

R2: What type of self-help choices are female users making based on the information they are acquiring from the app?

R3: How does Chinese culture shape and reflect the way that women perceive and manage the pain?

3.3 Method 1: Content Analysis

Content analysis was one of the research methods applied in this study. Content analysis is a qualitative research method that analyzes various types of data, including visual and verbal

data (Harwood & Garry, 2003). Krippendorff, a pioneer in the study of content analysis, defined it as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (2004, p. 18). The primary feature of content analysis was to describe the meaning of communications in specific contexts (Drisko & Maschi, 2016). Additionally, content analysis allowed researchers to discover patterns of individual and group behavior (Stemler, 2015). Therefore, this study aimed to collect dysmenorrhea-related social media posts in the Little Red Book menstrual health community and examine the types of posts that users shared and how they interacted with each other.

3.3.1 Social Media Post Collection

Collection. As mentioned in the earlier chapter, the data for this study was collected from a Chinese social media app called Little Red Book. First, the researcher purchased a web crawler service online on July 18, 2023, and the service team assisted in obtaining the data according to the researcher’s requirements. All the data was publicly accessible online, so the researcher was allowed to download the posts from Little Red Book. Initially, the researcher requested the crawling of 300 posts, and they were download and stored in an excel spread sheet. The decision to collect 300 posts was made because there were numerous advertisements on LRB, and not all posts could be used for this research. Therefore, this study decided to collect 300 posts for later data cleaning.

Several filters were applied during the web crawling of the posts. The researcher requested posts shared between January 1, 2022, and July 18, 2023. Additionally, only image-text-based posts were downloaded, while videos were excluded. This study excluded the analysis of videos due to time constraints and coding complexity. Additionally, most of the videos shared in video format are posted by influencers. Since this study aimed to explore the posts shared by

the public, only text-image-based content was considered. For each post, the researcher obtained the link to the post, the username of the individual user, the content of the post, images, like count, fan count, comment count, gender, location, and hashtags used.

Data Screening. Since there were many ads in the LRB community, not all posts were used for this study. The researcher then started to screen the data. First, this study excluded all posts published by male users because most of the posts with declarations from male users were ads or brand accounts. After cleaning all the male users' posts, 247 posts were left.

The next step involved removing ads on LRB. On LRB, there were two categories of ads. The first category included direct ads, where there was a link to purchase a product below the post. The second category comprised soft sale ads, where the post resembled a user experience narrative without explicitly promoting a product. To identify these soft sale ads, one effective method was to check the original poster's fan base. If they had a substantial number of fans, say over 1,000, there was a likelihood that the post could be an ad. Generally, the more fans the poster had, the higher the probability that their post was an advertisement. Therefore, for all the posts that pointed to a specific product with over a thousand fans, this study counted them as potential ads and deleted them. After deleting all the ads, there were 156 posts left.

Subsequently, the researcher also deleted the posts posted by health professionals. This was because some health professionals may have come from health institutions or represented a brand, and they were still counted as ads. Additionally, they could not represent the public. The researcher also deleted all the irrelevant posts, such as those unrelated to the topic. Finally, after cleaning all the data, the researcher double-checked the cleaned posts, and eventually, there were 100 posts left. The selected posts included rich content about menstrual pain, and all of them were from general users with no apparent interest in ads.

Once the data had been cleaned, the researcher started to rank the data by popularity based on the number of likes and comments. The researcher used the sorting function, setting likes as the first criteria for ranking and comments as the second.

Result. After cleaning, this study obtained a total of 100 valid posts for analysis. The study aimed to analyze 50 of these posts, reserving the remaining 50 in case the data had not yet saturated (if new themes emerged after analyzing the initial 50 posts, this study would analyze the additional posts). Among the selected 50 posts, the time range between the collected posts was from January 15, 2022, to July 17, 2023. Additionally, among these top 50 posts, the highest engagement post garnered 44,886 likes and 8,500 comments, while the 50th post received 1,043 likes and 199 comments. In conclusion, all the collected posts were cleaned by excluding ads or any posts with selling or commercial purposes. These posts originated from individual users who shared content related to dysmenorrhea. Therefore, the data was considered valid for this study.

3.3.2 Social Media Data Analysis

In the study, inductive coding was used as the method for data analysis. Inductive coding involves observing raw data first and then generating concepts. In qualitative research, a "code," as defined by Saldaña, is often a word or short phrase that interprets the meaning of text for later purposes such as pattern detection, categorization, theory building, and other analytic processes (Saldaña, 2013, p. 4). After collecting data from both online material and interview transcripts, the next step was to codify and categorize, which involves arranging things in a systematic order, making them part of a system or classification, and categorizing them (Saldaña, 2009, p. 9). Once the codes were classified, the next step was to organize the codes into themes. This stage aimed to observe the grouped codes and investigate how these themes were linked together and how they contributed to the development of theory (Saldaña, 2009, p. 13).

This study utilized inductive coding to analyze posts, comments, and images shared by users in the community. For posts, the researcher examined the type of content that users shared and the tone in which it was written (e.g., informative, casual). In the case of images, the researcher categorized the types of images shared, including infographics, random images, or other relevant pictures. Regarding comments, the study specifically focused on the top 20 comments under each post and employed inductive coding to explore the types of comments users left and the tone they used. Overall, by identifying trends and patterns through coding, this research aimed to investigate the overall atmosphere of the menstrual health community.

3.4 Method 2: In-depth Semi-structured Interview

The second approach utilized in this study involved conducting 45-60 minutes of semi-structured interviews with participants using prepared questions. A semi-structured interview format allows respondents to answer open-ended questions, enabling the researcher to gain in-depth insights and explore new themes (Jamshed, 2014). The interviews were conducted via WeChat online phone calls due to geographic limitations.

As this research involved human participants, it adhered to the ethical protocols established by the University of Ottawa and obtained approval from the ethics review board. Participants received a consent form that outlined the study's objectives and methods. They also indicated their voluntary participation and the option to withdraw at any point. The data is protected by a secure cloud drive service, accessible only to the researcher and the researcher's supervisor. Overall, this study interviewed 16 LRB female users who participated in the menstrual health community, as well as 4 Traditional Chinese Medicine practitioners. The purpose of interviewing TCM practitioners was to better understand the relationship between culture and perceptions of the menstrual cycle.

3.4.1. Interviewee Recruitment

Recruitment criteria. Several criteria were considered to determine eligibility, including being female at birth and identifying as a woman; having a Little Red Book account; having experienced menstrual pain; having engaged in discussions related to menstrual health on Little Red Book (e.g., searching, posting, liking, commenting, etc.); having access to a phone and internet; and being able to provide informed consent and accurately respond to questions about the study.

Recruitment process. Initially, the researcher registered a Little Red Book account and shared a poster to recruit interested users, see appendix C. The poster clearly demonstrated the purpose of the study, the interview format, and the targeted participants. On the poster, the researcher provided contact information (WeChat number, email, and Canadian phone number) so that interested users could get in touch. In addition, participants also had the option to contact the researcher directly by sending a direct message on Little Red Book.

The recruitment process lasted for four days. The researcher began soliciting participants on Little Red Book on September 30 and concluded on October 3. After posting the recruitment message, the researcher received 70 likes, 67 people showed their interest in participating by leaving comments, and 36 people sent direct messages to the researcher and expressed their interest in participating. Since the number of interested participants exceeded the research requirements, the researcher proceeded with the selection process.

For those users who expressed interest in participating, the researcher initiated contact with them through the message box on Little Red Book. Initially, the researcher expressed gratitude for their interest in the research and posed a few questions based on the criteria mentioned above to determine whether they were a suitable fit for the study. To prevent potential

age bias and to ensure diversity among participants, the researcher also inquired about their age and location. Additionally, participants were asked to provide their geographic location. The goal was to expand the scope of the study and to gain a broader understanding of the issue.

After the selection process, a total of 16 participants took part in this study. Their ages ranged from 19 to 37, and they were primarily located in China, the United States, Canada, Hong Kong, Taiwan and the United Kingdom. Among them, participants had various occupations, including high school students, college students, and employed women.

Interview Process. After confirming the participants and obtaining their consent, the researcher added their WeChat numbers to schedule interview times and sent them the consent form. On the day of the interview, a demographic information sheet (see Appendix E) was sent to the participants for simplicity. Additionally, this research prepared a list of key questions (see Appendix D). The interview process was conducted in an open-ended and conversational style, allowing participants to freely share their experiences in their own words. Given that each participant had unique situations, the questions were adjusted as needed to suit their individual circumstances.

Each interview session was recorded for future analysis, and the researcher obtained consent from the participants for this recording. Following the conclusion of the interview session, the researcher might have follow-up questions in the future, and the participants agreed to be contacted for these additional queries.

Interview with TCM practitioners. In addition to collecting data from Little Red Book users, this research also conducted interviews with Chinese traditional medicine doctors to gain a deeper insight into menstrual pain from a unique cultural perspective. The interview approach for the traditional Chinese medicine practitioners was the same as that for the Little Red Book users.

All the interviews were conducted through 45–60 minutes WeChat online phone calls, and the practitioners were informed about the purpose and structure of the study. Prior to the interviews, the researcher sent a consent form and obtained their consent to participate in this study.

Four practitioners were identified through the researchers' family connections, comprising two female doctors and two male doctors. These practitioners had extensive backgrounds in Traditional Chinese Medicine (TCM) and operated their own clinics. The interview questions revolved around their TCM perspective on menstrual pain, their perceptions of the differences between TCM and Western medicine in this context, and their views on social resources and public awareness. The list below outlined the interview questions:

- In your opinion, what are the causes of menstrual pain?
- What do you consider effective methods for coping with menstrual pain?
- How do you believe Chinese culture influences how Chinese women perceive or treat menstrual pain?
- How do you view Western medicine? Have you noticed differences in how Chinese culture approaches and manages menstrual pain compared to other cultures? How do you perceive these differences?
- In your opinion, do you encounter difficulties accessing healthcare resources when dealing with menstrual issues within the current societal and medical systems? Do you think there is enough public awareness and attention to address menstrual health and menstrual pain as health concerns?
- What measures do you think society can take to improve the health and well-being of women regarding menstrual issues?

3.4.2 Interview Data Analysis

After interviewing all the participants (16 Little Red Book users and 4 Traditional Chinese Medicine practitioners), the researcher transcribed the interview recordings into a Word document using transcription software. Subsequently, the researcher listened to the audio recordings again while checking the transcripts to ensure accuracy. After organizing all the data, the interview transcripts comprised a total of 89 pages for the Little Red Book interviewees and 49 pages for the TCM practitioners. Both sets of transcripts were formatted with a font size of 12 and single spacing. With all the data prepared, the next step involved the analysis of the interview data.

To analyze the interview data, this study utilized the coding strategy by following the four-step approach outlined by Erlingsson and Brysiewicz (2017). The coding strategy involved the following steps: familiarization, coding, formulating codes, and developing categories and themes. In the first step, the audio recordings were transcribed into written text. As mentioned earlier, by listening to the recorded interviews, the researcher aimed to gain a deeper understanding of the participants' perspectives. In the second step, the text was divided into meaningful units. This research employed sentence-level analysis, condensing the meaning units to capture key ideas, themes, and patterns. For the third step, codes were assigned to group the condensed units. In this thematic analysis step, connections between codes were identified. In the final step, it involved "[sorting] codes into categories that answer the questions who, what, when, or where?" (Erlingsson and Brysiewicz, 2017, p. 94). In this study, all coding was conducted using an Excel spreadsheet. Through sentence-level analysis, key themes and sub-themes emerged from their responses. Chapters 4, 5 and 6 presented the findings and key themes accordingly.

3.5 Role of the Researcher

As Sutton and Austin (2015) suggested, qualitative studies aimed to understand "why people had thoughts and feelings that might affect the way they behaved" (p. 226). In qualitative research, the role of the researcher was crucial as it involved accessing the feelings and thoughts of study participants (Sutton and Austin, 2015). Therefore, the researcher's role was significant in this study as it required an understanding of pain to minimize emotional harm to participants, as well as proficiency in communicating in Mandarin.

The researcher for this study is an international student with Chinese citizenship who is fluent in both English and Mandarin. She is currently in the second year of her master's thesis program at the University of Ottawa in Communication, holding a B.A. with honors in Communication and Media Studies from Carleton University. The motivation behind the researcher's exploration of women's health stems from her personal experience with dysmenorrhea for over a decade. She understood the severity and misery of this condition, despite trying various pain management methods that provided little relief. While searching through various social media platforms and looking for potential solutions, the researcher discovered the widespread popularity of the topic of dysmenorrhea. This led her to realize that millions of women worldwide were experiencing the same issue. After conducting extensive research, the researcher also noticed a lack of societal attention to dysmenorrhea. Consequently, she decided to focus her work on this field with the goal of raising greater social awareness for women who suffer from dysmenorrhea.

The researcher had a longstanding interest in the fields of feminism, cultural studies, technoethics, and digital media. Throughout her previous experiences, she had been particularly drawn to exploring marginalized groups. Her university projects included investigations into the

digital divide among elderly individuals and the demonstration of authority within city structures, which in turn affect the social standing and classification of citizens. Additionally, her prior work experiences equipped her with valuable skills in social media marketing and metrics data analysis over the past three years. These experiences provided her with the knowledge of how to effectively utilize social media platforms.

3.6 Trustworthiness and Theoretical saturation

Faulkner and Trotter (2017) noted that data adequacy is crucial for ensuring valid data. One way to determine whether the evidence is sufficient is through theoretical saturation, which occurs when new evidence no longer provides new interpretations, and the data collected is enough to answer the research question and develop a theory. After reaching the initial targeted data, this study collected and analyzed additional data for testing until the data could no longer generate new themes. Another validation strategy involved having another person evaluate and recode the data to improve coding accuracy and avoid misinterpretation.

3.7 Research Notes and Records

The interviews were done using WeChat. The researcher shared a transcript of each interview with the participants and asked for their feedback. Furthermore, the researcher documented every aspect of the coding and interview procedures. This notetaking served two key purposes: it reduced the risk of forgetting information over time, and it provided valuable observations to draw upon during data analysis. The researcher’s notetaking contributed to a more trustworthy and credible analysis.

Chapter 4 Content Analysis of Social Media Posts

4.1 Introduction

In the realm of social media, content analysis not only reflects individual expression but also captures collective sentiments and cultural narratives. This chapter explored the posts shared by LRB users, shedding light on the types of content they typically shared within this community and how they engaged with other members.

As mentioned in the previous chapter, this study applied semantic coding as its primary analytical approach. Based on the number of likes and comments, the researcher collected the 100 most popular posts on LRB from January 2022 to July 2023. In terms of analysis, this study coded text, images, and comments. Additionally, beyond categorizing common themes, the research also investigated the tone and sentiment that appeared among the posts and comments. This comprehensive analysis uncovered the emotional tone, general attitude within the community, and identified the needs, concerns, and experiences of the community. Lastly, this study indicates the author who published the posts using "@user" followed by a number to preserve anonymity.

4.2 Presentation of Themes

During the coding process, themes began to saturate around the 50th post. After analyzing the 50th post, this study examined an additional 10 posts. However, as the themes remained saturated, this study ultimately used data from only the initial 50 posts. In total, five major themes were identified among these 50 posts, categorized by the number of shares as follows:

- Theme 1: Pain relief methods sharing (25 posts)
- Theme 2: Complaints about pain (15 posts)

- Theme 3: Menstrual-related knowledge sharing (6 posts)
- Theme 4: Personal painful experiences shared (3 posts)
- Theme 5: Personal reflection and motivational speeches (2 posts)

Among the 50 posts, the number of likes ranged from 1043 to 44,886, and the number of comments ranged from 199 to 8,544. The most popular post belonged to the category of "Complaints about Pain," which received 44,886 likes and 8,544 comments. The following sections provide descriptions of each theme, sub-themes, visual analysis, and comment analysis. The table 4.1 shows a summary of the themes.

Table 4.1

Summary of the Themes

Theme	Summary	Images Used	Comments Type	Sentiment
1. Pain Relief Methods Sharing	Posts sharing various pain relief methods, including life habits, dietary recommendations, painkillers, and health advisories.	Images related to the specific topic, like TCM dishes, painkillers, and infographics for general health advice.	Agreements, skepticism, questions about methods, and personal experiences sharing.	Encouraging, uplifting, grateful, interactive, and positive.
2.Complaints about Pain	Posts expressing complaints about menstrual pain and associated distress, often using humor and memes.	Humorous memes and texts related to menstrual pain.	Users sharing sentiments, describing personal feelings, sharing pain relief tips, and offering encouragement.	Frustration, misery, helplessness, humor, and high engagement.
3. Menstrual-related Knowledge Sharing	Educational posts about the menstrual cycle, causes of pain, activities to engage in or avoid, and painkiller warnings.	Infographics combining visual and textual elements.	Questions about menstrual cycle, shared experiences, and discussions on diverse perspectives.	Educational, informative, and interactive.

4. Personal Painful Experience Sharing	Posts describing personal experiences with severe menstrual pain, including emergency situations.	Possibly personal photos or relevant emotive imagery.	Empathetic responses, users sharing similar experiences.	Urgency, empathy, and caution.
5. Personal Reflection and Motivational Speeches	Reflective and motivational posts discussing societal attitudes toward menstrual pain, challenging norms, and expectations.	Screenshots of quotes from talks shows, and others' thoughts.	Empathetic agreements, users sharing related feelings and experiences.	Reflective, motivational, empathetic, and engaging.

Theme 1: Pain relief methods sharing (25 posts)

Posts related to pain relief methods were the most shared in the sample. Users shared various pain relief methods, including lifestyle habit tips (foot baths, acupressure), dietary recommendations (TCM dietary, eating durian, electrolyte drinks), painkiller recommendations, overall health advice, and hospital-seeking experiences. These posts outlined methods that users found effective for pain relief. For example, @user1 shared her recipe for making a soup that is good for menstrual health,

> "My mom said that girls drinking this during menstruation is good!!! The 'Red Sugar Egg Wine' that I've been drinking since I was young. ⭐ Warms the palace and dispels cold ⭐ Nourishes blood and beautifies the face! Sisters with light menstrual flow should drink a bowl of this, it's super comfortable, warming from head to toe!! You must let your boyfriends learn this, if we don't have boyfriends, we'll do it ourselves. Recipe see the picture #WhatToEatDuringMenstruation #RedDates #BrownSugar #EggWine #GirlsShouldTakeGoodCareOfThemselves" (Little Red Book, 2022).

One thing to note is that the word “sisters” used by members of the LRB community refers to all female users on LRB. The tone of these types of posts was characterized by an encouraging and motivational tone, urging users to take proactive steps to enhance their well-being. Additionally, some users expressed gratitude and appreciation in their posts because they had tried the pain relief methods mentioned in the community and found them useful. This tone conveyed a sense of thankfulness towards the community and its members for their support and advice. For example, in one post, @user2 expressed her gratitude,

> “I saw some sisters saying that durian can relieve menstrual pain, so I immediately looked it up…I didn’t expect it to work! It really alleviated a lot of pain!! We really have to say that netizens are amazing” (Little Red Book, 2022).

In terms of the pictures, most of the posts used relevant images based on the topic they wrote about. For example, among the TCM dietary posts, these posts usually included images of the finished dishes, which could be visually appealing and help users understand what the recipe should look like. In the context of drug recommendations, posts typically included images of the drugs themselves, which could be helpful for other users who wanted to seek the recommended medications when they visited a pharmacy. Additionally, there were posts related to general health advisories, where individual users shared a variety of methods and recommendations. Typically, users compile these methods into infographics, presenting the information visually for greater clarity and ease of understanding.

In general, within this type of post, the atmosphere in the comment section was interactive and positive. Most of the comments expressed agreement with the recommended

methods, while only a few held a skeptical sentiment or disagreed. For example, in a post related to electrolyte drinks as a pain reliever, some users found it useful and expressed their agreement, while others maintained a skeptical view, suggesting that such posts might be geared towards promoting the sale of electrolyte drinks. In another post concerning a Traditional Chinese Medicine (TCM) dietary recipe, one user disagreed with an ingredient used in the recipe, stating concerns about its impact on menstrual health.

Overall, whether in agreement or disagreement, this study observed a high level of engagement in the comment section, with most comments expressing a positive reaction. One common sentiment in the comments was an interactive and agreeable tone. This type of comment often included expressions of interest, such as “I want to try!” or “I’ve tried it, and it’s useful!” Additionally, appreciative comments like “Thanks for sharing” were frequently found.

Another type of comment involved asking questions. For instance, in dietary posts, many users inquired about the recipe, such as “Can I have this soup during my menstrual cycle?” and “How many grams of red dates should I put inside?” In drug recommendation posts, questions about the painkiller arose, such as “When should I take it?” “Are there any side effects?” and “How can I access this medication?” In response to these questions, either the post’s author or other users provided answers and engaged in further discussion.

The third type of comment revolved around sharing personal experiences. In response to posts where users shared their own experiences in dealing with pain, some users reciprocated by sharing their own experiences, detailing symptoms, and discussing factors contributing to their pain.

Theme 2: Complaints about Pain (15 posts)

The second type of popular posts were complaints. Users in the LRB community posted various complaints related to menstruation. Interestingly, complaints were the type of post with the highest likes and comments among the 50 posts. One common post was complaining about the pain and emotional distress during the menstrual period. For example, @user3 posted a complaint on LRB, stating, “It’s annoying; menstrual pain, get off the earth” (Little Red Book, 2022). In another example, @user4 posted,

> “When it comes to menstruation, I feel like I am going to pass out. I break out in cold sweats all over my body and can’t even move. It’s so uncomfortable and I want to die. Why do women have to go through this? Why do they have to have a uterus and experience menstruation, Aaaaahhh!” (Little Red Book, 2022).

Another type of complaint was about the ineffectiveness of painkillers by using a humorous style. For instance, as @user5 wrote,

> “It’s been an hour since I took ibuprofen, but my menstrual pain hasn’t eased at all. However, the arm that I strained while exercising a few days ago is no longer hurting. Dear Ibuprofen, you’re treating the wrong thing!” (Little Red Book, 2022).

Overall, these posts reflect the common struggles and challenges faced by individuals dealing with menstrual pain. The sentiments expressed in these types of posts included frustration, misery, helplessness, and humor, which highlighted their challenges and pain during

the period. Furthermore, this study discovered that there were five types of comments in complaint-related posts.

The most commonly appearing type was when users tagged other users with whom they wanted to share their sentiments. The second type involved users describing how they felt about the pain. Their expressions normally start with “My cycle was like...”, “I felt so much pain when...”, and “My pain was like...”. The third type was when users expressed their own complaints about the pain, such as “It’s so annoying,” “I wish I will not be a woman afterlife,” “Why should women have to suffer this?” The fourth type was the experience sharer, who shared useful pain relief tips under the post, such as “I treat my pain by taking…” or “A doctor told me taking xxx is helpful.” The fifth type typically included users using warm language, such as “everything will be fine,” with hugging or heart-shaped emojis to encourage the author.

Theme 3: Menstrual-related knowledge sharing (6 posts)

Menstrual-related knowledge was the third theme found in the 50 posts. This type of post typically contained relevant information about the menstrual cycle, including details about the causes of menstrual pain, pain levels and symptoms, activities to engage in or avoid during the period, and warnings when taking painkillers. This type of post also included an encouraging message that recommended women take care of their bodies. For example, @user6 shared a menstrual pain levels self-assessment test. She listed the levels of pain from level 1 mild discomfort to level 6 intense pain, and at the end of the post she stated,

> “Remember to pay attention to your body’s needs and show yourself plenty of love. I hope all sisters can find the most suitable methods to relieve menstrual pain and enjoy the beauty of each day” (Little Red Book, 2023).

Another user shared general knowledge regarding menstrual health, and her post included frequently asked questions such as “What is the difference between primary and secondary dysmenorrhea?” “What is abnormal bleeding?” “What are the negative health impacts of an abnormal menstrual cycle?” and “How to treat menstrual pain from Traditional Chinese Medicine?” (@user7, Little Red Book, 2022).

When sharing menstrual information in general, this type of post usually adopted an educational and informative tone. In comparison to other types of posts, those related to menstrual knowledge were more likely to be presented as infographics, combining visual and textual elements. Furthermore, regarding comments, aside from users sharing their experiences, this type of post tended to attract more questions from users. Many of these questions revolved around inquiries related to the menstrual cycle, such as, “Can I drink brown sugar date water during the menstrual cycle?” or “Does a foot bath help alleviate the pain?” Both the author and other users often provided replies below these questions. Disagreements also arose in this type of post, with some comments expressing a skeptical view toward specific tips mentioned in the original post. This prompted interactive discussions among users, allowing them to share diverse perspectives.

Theme 4: Personal painful experiences shared (3 posts)

Differing from pain relief sharing and complaints, this type of post typically involves users describing their feelings and the entire process of experiencing pain. This included potential pain factors, the intensity of the pain, the actions they had taken, and the resulting outcomes. Among the 50 samples, three users shared serious and painful experiences on LRB. These posts vividly depicted their experiences, including instances where they had to call an

ambulance due to the severity of the pain. For example, @user8 described her friend's experience on LRB,

> "My friend experienced heavy bleeding during menstruation due to consuming cold food and catching a cold. The doctor said that if she had gone to the hospital later, she might have lost her life. She was rescued overnight. She usually drinks cold beverages and eats cold food. When she ate watermelon during her period, she quickly became ill. Don't say that consuming cold food is not necessary. Chinese people have their own digestive systems. So, sisters, you must take good care of your bodies. Health is the most important asset. Everyone should pay attention in their daily lives. After all, everyone's constitution is different. I hope all sisters have healthy bodies" (Little Red Book, 2022).

These posts employed an urgent tone, describing the causes of the pain and providing a sense of warning to alert other users. For instance, in a post titled "A Story of Going to the Hospital because of Menstrual Pain," the author recounted taking ibuprofen on an empty stomach, leading to nausea, and almost losing consciousness (@user 9, Little Red Book, 2022). A friend had to call an ambulance. The author aimed to remind other users not to take ibuprofen on an empty stomach. This post received 4,300 likes and 683 comments. In the comment section, many users shared similar experiences and expressed empathetic emotions, using phrases like "I totally relate" and "I had a similar experience that..."

Theme 5: Personal reflection and motivational speeches (2 posts)

The last theme that appeared among the samples was personal reflection and motivational speech. The tone in these posts appeared to be reflective and motivational. The authors conveyed

a sense of introspection and contemplation as they discussed societal attitudes toward menstrual pain. They shared personal thoughts and reflections, often expressing a critical perspective on how women were perceived in relation to their experiences of pain. The tone carries a motivational aspect, urging readers to reconsider or challenge these societal norms and expectations.

For example, in one post, the author stated that women were trained to endure the pain, and some advertisements about feminine products overestimated the pain, as @user10 stated,

> "Doctors say that the pain caused by dysmenorrhea is equivalent to a heart attack, and we have been enduring this pain for many years. In sanitary pad advertisements, it always says, 'Oh, you have your period, don't let bleeding stop you, hurry up and go out and exercise.' This is how we women are trained." (Little Red Book, 2022).

In another post, the author expressed the feeling that males could not relate to the pain, and they saw women in pain as weak. In @user11's post, she wrote,

> "I don't know about others, but the feeling when I have menstrual pain is like a strong hand gripping my uterus, vigorously crushing, and pulling it. This kind of pain is so unbearable that anyone who experiences it would find it hard to endure, right? And it's not being weak, is it?" (Little Red Book, 2022).

Different from pain management and experience sharing, this type of post highlighted the barriers and issues that they encountered in society. The sentiment in the comment section was typically expressed in an empathetic manner, with many users indicating they shared the same

feelings. They used phrases such as “I totally relate” and “I felt the same way.” Lots of users interacted with it, expressed how they felt, and shared relevant experiences.

Conclusion

The analysis of the 50 posts highlighted the community’s interactive and positive atmosphere. Overall, by reviewing the types of posts and comments, the most prominent theme that appeared in the LRB menstrual health community was the sharing of experiences, where users post their pain management methods in the community. This study also finds that the LRB community provides a space for Chinese women to openly discuss menstrual-related topics and offer each other emotional support. The comment section demonstrates a high level of interaction, with users sharing experiences of pain and tips for pain relief, as well as providing emotional support through kind words and hugging emojis. Additionally, users share relevant menstrual health knowledge, self-care experiences, and thoughts, encompassing a range of sentiments including humor, misery, education, and informativeness. The ability to share both text and images in the comments goes beyond some other platforms that only allow text sharing, such as Reddit and others.

Although this study found several debates in the comment section, setting aside the authenticity of the content shared, these debates precisely illustrated the diversity of thoughts. This helped promote broader discussions and inspired users to contemplate different viewpoints. In conclusion, the overall atmosphere in this community presented itself as an interactive and supportive environment in which users actively engaged in discussions, openly shared their thoughts, provided useful tips, and offered emotional support.

Chapter 5: Interview of LRB Users

5.1 Introduction

This chapter discussed the interview findings of the 16 LRB users. By employing coding methods to analyze interview responses, the researcher identified a total of 38 themes and categorized them into 5 Major themes. These themes include: 1) Menstrual Pain Experiences; 2) LRB Community; 3) Perceived Differences Between TCM and Western Medicine; 4) Resources; and 5) Public Awareness. These themes revealed individuals' pain experiences and pain management methods.

The identified themes revealed three levels of perception concerning dysmenorrhea-related issues, as depicted in Table 5.1. The first level was the individual level, which focused on how each person understood and coped with dysmenorrhea. The second level was the community level. At this level, the collective perceptions within the LRB community were examined, which suggested a collective understanding and shared perceptions of dysmenorrhea among community members. The third level was societal attitudes toward dysmenorrhea and the resources available for addressing the condition, reflecting a broader societal response. The following sections presented the interview data based on the three levels of perceptions, starting with personal experiences, moving on to community collectivist experiences, and finally to societal perceptions. This study presented the themes by using tables and direct quotes from participants. For confidentiality, each participant was assigned a unique letter to ensure anonymity.

Table 5.1

Three levels of perceptions

Individual	Community	Societal
• Personal experiences and perceptions	• Shared experiences and perceptions	• Societal attitudes, and resources

5.2 Demographic Analysis

Table 5.2.1 displays the participants' ages and their histories of dysmenorrhea pain. The age range among the participants spanned from 17 to 37 years old. The majority (56.25%) falls within the 21–25 age group, followed by 18.75% in the 26–30 age group. There were two participants under 20 and two others in the 31–37 age range. The second category represented the total number of years they experienced menstrual pain. Half of the participants experienced 5–10 years of pain, 3 participants (18.75%) experienced 1-3 years of pain, and 4 participants (25%) experienced more than 11 years of pain.

The third row represented the duration of pain for each period. 81.25% of participants expressed that the pain lasts 1-3 days; only 1 person experienced pain for less than 1 day, and 2 participants experienced pain for 4–7 days. In summary, the average age of participants was 24, and the average number of years they experienced pain was 9. For each period, they experienced pain for approximately 2.34 days.

Table 5.2.1

Overview of Participants' Age and Menstrual Pain Experience

Demographics	Categories	Number of Participants	Percentage
Age	15-20	2	12.5%
	21-25	9	56.25%
	26-30	3	18.75%
	31-35	1	0.06%
	36-40	1	0.06%

Years of menstrual pain	1-3 years	3	18.75%
	5-10 years	9	56.25%
	More than 11 years	4	25%
Duration	Less than 1 day	1	0.06%
	1-3 days	13	81.25%
	4-7 days	2	12.5%

***Descriptive Statistics ***

- Mean Age: 24

- Average Years of Menstrual Pain: 9

- **Average Duration of Menstrual Pain:** 2.34 days

However, one thing that needed to be noted is that the duration of the year also depended on their age. Therefore, this study calculated the average year based on different age groups. Since the age groups between 31-35 and 36-40 each consisted of two participants, this study merged these two categories and calculated the average. As shown in Table 5.2.2, this study found that the duration of menstrual pain increased with age, which means that as individuals got older, the length of time they experienced menstrual pain tended to increase.

Table 5.2.2

Average Length Based on Different Groups

Demographics	Categories	Number of Participants	Average length
Age	15-20	2	4.5 years
	21-25	9	8.2 years
	26-30	3	11 years
	31-40	2	18.5 years

Furthermore, Table 5.2.3 presented participants' residence backgrounds, beliefs, education, occupations, underlying health conditions, and their roles within the Little Red Book community. In this research, some participants lived in multiple locations. Among the 16 participants, four countries and six locations were identified: Mainland China, Taiwan, Hong Kong, the United States, Canada, and the United Kingdom. All participants were Chinese citizens, and they grew up in China; many of them had backgrounds of studying or working

abroad. The residence background was particularly important for interpreting resources and different perceptions of menstrual pain, as explained in later chapters.

Table 5.2.3

Demographic Chart 2

Residence Background	China Mainland (16)	Taiwan (1)	Hong Kong (1)	United States (5)	Canada (6)	United Kingdom (1)
Beliefs	Buddhism (2)					
Education	High school (2)	Bachelor (8)	Master (5)	PhD (1)		
Occupation	Student (11)	Office Worker (4)	Unemployed (1)			
Underlying Health Conditions	Uterine Adenomyosis, Endometriosis, Gallstones, Depression (4 years) (1)	Depression, Anxiety (1)	fever of unknown origin (1)	Endometrial hyperplasia (1)		
LRB Participation Type	Observer (16)	Contributor (5)	Publisher (4)			

In terms of beliefs, only two participants follow Buddhism. The study also identified participants at different education levels, including high school, bachelor's, master's, and Ph.D. Most of them are students, with only four currently employed, and one participant is unemployed due to health issues. In addition, the study also investigated participants' health conditions. Four participants reported experiencing health issues, including uterine adenomyosis, endometriosis, gallstones, an unknown origin fever, endometrial hyperplasia, and mental health problems such as depression and anxiety.

Finally, the role on Little Red Book reflected how participants engaged in the menstrual health community, and this study defined three types of activities on LRB: observer, contributor, and information publisher. An observer referred to participants who only browsed posts without

commenting or interacting, but they might have liked or collected posts. A contributor engaged by commenting, answering questions, and sharing experiences in the comment area. An information publisher shared menstrual-related information on their user page. This study found that for some participants, they took on more than one role. Overall, most of the participants (11 out of 16) were observers, 5 users enjoyed commenting and discussing, and 4 users liked to share information.

5.3 Presentation of Themes

Theme 1: Menstrual Pain Experience

This theme delved into participants' experiences with menstrual pain, encompassing the symptoms they encountered, the methods they used for pain treatment, and their attitudes towards painkillers.

Category 1: Symptoms. One category that emerged in the theme of menstrual pain experience is symptoms. This study found that participants experienced different levels of pain accompanied by other symptoms during the menstrual period. Except for abdominal bloating, this research found an additional 9 types of symptoms accompanying the pain, including lower back pain, vomiting, low energy, diarrhea, fainting, cold sweats, paleness, needles, and chest pain.

Only two participants experienced mild pain during their periods. Participant T described that she did not experience the pain often, but when it started, she felt cold and needed to lie down. She also said that the first time she experienced menstrual cramps, she completely lost consciousness and fainted. Participant G demonstrated that although she often experienced uncomfortable feelings and mild pain in her lower abdominal area, she had to stay in bed and could not do anything.

The rest of the interviewees all reported that they had experienced intense pain. Three interviewees vividly described their feelings during her period,

> "When the pain started, it was like there was a blender inside my stomach, controlling my entire body. Sometimes, when the pain became intense, I might vomit, and I might also have diarrhea" (Participant R excerpt).

> "In more severe cases, I cannot even get off my bed and walk, even go to the bathroom becomes a very difficult task. Sometimes during the most painful moments, my tear is out of the control, so it's like crying and experiencing the pain at the same time" (Participant H excerpt).

> "I experienced both vomiting and diarrhea, I felt that my whole body started to have cold sweat, and I felt uncomfortable for both lying down or standing up. During my period, I avoided eating or drinking water because they made me nauseous" (Participant W excerpt).

In summary, participants expressed diverse responses to the symptoms. In common, all of them had to endure the physical pain brought on by their periods. As severe pain limits participants' activity, their normal lives are heavily influenced by their menstrual cycles.

Category 2: Methods of Treatment. When asking the question, "What were your treatment methods for menstrual pain?" This study found that a total of 32 methods were adapted by 16 interviewees. These treatment methods included those applied during the pain as well as

preventive methods utilized before the period. As shown in Table 5.3.1, the number after a method represents how many participants have applied that method. This study found that Chinese women incorporate a diverse range of pain relieving methods. These included conventional medical practices, such as taking painkillers and seeking medical advice, as well as traditional Chinese therapies like herbal medicine, acupuncture, and acupressure. In terms of dietary practices, respondents reported strategies such as avoiding cold foods and drinks, consuming red dates, and brown sugar hot water, and maintaining healthy eating habits. Participants also mentioned lifestyle adjustments, such as taking foot baths, staying warm, avoiding hair washing during pain, and other approaches like increasing exposure to sunshine, using heat compresses, and massage.

Table 5.3.1

Summary of Pain Treatment Methods Mentioned by Participants

Category	**Treatment Methods**				
Western medicine	Taking pain killer (16)	Seeking for doctors (7)	Body examination (3)	Take birth control (3)	
TCM	Seeking for TCM (8)	Chinese herbal medicine (7)	Acupressure (5)	Moxibustion (3)	Chinese herbal tea (3)
	Chinese dietary (3)	Acupuncture (2)	Chiropractic (1)		
Eating habits	Avoid eating and drinking cold (9)	Red dates and brown sugar hot water (8)	Avoid eating spicy (2)	Drink gingers hot water (2)	Avoid caffeine consumption (1)
	Healthy eating habits (1)				
Lifestyles	Foot bath (4)	Keeping body warm and wear extra clothes (3)	Avoid washing hair or taking shower	Gym workout (2)	Do not stay up late (1)

			during pain (2)		
	Yoga (1)	Avoid intense work out (1)			
Other	Heat compress (10)	Lie down and rest (4)	Sleep (2)	Cocktail (1)	Exposure to sunshine (1)
	Massage (1)				
Total number	32				

Based on the table, taking painkillers was the most popular approach among the participants, with all 16 interviewees having used painkillers for pain relief. However, participants held different opinions regarding painkillers. Some believed that painkillers were effective, while others thought that they could not completely stop the pain. Additionally, some held the view that painkillers did not have any side effects, while others believed that they were bad for health and could cause side effects. These perceptions were further analyzed in the next sub-theme.

The second most popular approach was heating compression (putting a hot water pad around the lower back and abdomen area), and this method was mentioned by 10 participants. However, the effectiveness of applying a heat pad was perceived differently among the interviewees. Participants I and E perceived that a heat compress was useful in stopping cramps in the lower back, while participant G believed that a heating pad was not effective for her.

The third popular method was to avoid eating and drinking cold during the period, as some participants perceived that “drinking or eating too much cold could make the pain intense,” as expressed by participant S. For some participants, they even avoided drinking and eating cold for their entire lives. According to participant H, she said,

> "I've been avoiding eating and drinking cold things during my period for more than 10 years. I continue to avoid them even when I'm not in my cycle. Sometimes, in a scorching 40-degree summer, I still prefer to drink hot water and avoid eating ice cream. Despite these precautions, I still experience pain, but I persist in avoiding cold foods and drinks."

However, participants G and D had different perceptions. They believed that coldness did not directly affect their pain because their experiences had shown that whether they drank or ate cold items, the pain would not disappear. Nevertheless, most participants shared the common belief that it was necessary to avoid consuming cold beverages and food during their menstrual periods. When the researcher asked about how they knew drinking cold beverages during period is bad for their health, many participants explained that they received this advice from their parents, Traditional Chinese Medicine (TCM) doctors, and friends. As participant B said,

> "I've received advice from my parents, doctors, and the people around me to avoid drinking cold water during my menstrual period. I've also seen many online posts discussing the potential harm of consuming cold beverages. While I can't explain the exact reasons, it does seem that consuming cold beverages and food tends to intensify my pain."

Category 3: Perceptions of Painkillers. In response to the interview question, "Have you taken painkillers? And how do you perceive painkillers?" All participants shared their

experiences with painkillers, focusing on their effectiveness, concerns about side effects, and their family's attitudes toward these medications, as shown in table 5.3.2.

Table 5.3.2

Painkiller Usage and Perceived Attitudes

Whether taking	Try not taking (3)	Must take (13)		
Effectiveness	Effective (9)	Not effective (1)	Effective in release, but cannot 100% release the pain (4)	
Whether concern of side effects	No concern of side effects (3)	Concern of side effects but have not experienced yet (4)	Concern of the side effects and have experienced side effects such as resistive and dependency (4)	Value pain is greater than the side effects that the painkiller bring (3)
Whether family support	Yes (0)	No (11)		

Based on their responses, 13 participants indicated that they had to take painkillers during their period, while 3 participants said they tried not taking the painkiller. For those who took painkillers, most of them perceived painkillers as the most effective and quickest way for pain relief. However, some participants mentioned that painkillers could not guarantee a complete elimination of the pain. For instance, participant E expressed, "after taking it, I didn't feel better immediately. For the rest of the day, I needed a heat pad and had to lie on my bed, waiting for several hours as the pain gradually decreased."

For participants who attempted to avoid taking painkillers, they expressed concerns about potential side effects. This study identified three distinct attitudes towards painkillers among the 16 interviewees. One group of participants perceived painkillers as potentially harmful to their

health, leading them to minimize their usage. Their primary concern revolved around the fear of increased dosage and dependency. For instance, participant B noted a gradual escalation in dosage over several years, starting from half a tablet to six tablets. Regarding other side effects, participant D shared that she experienced symptoms such as drowsiness, dizziness, and an irregular heartbeat after taking ibuprofen.

Another group of participants acknowledged the potential side effects but prioritized pain relief over these concerns. As Interviewee A said, "I felt that medication definitely had side effects, but compared to excruciating pain, I accept side effects." Participants D, J, and H also accepted side effects, recognizing the necessity of managing pain while balancing work and study commitments. The final group perceived painkillers as having no side effects. For example, participant S said, "If you feel pain, then you need to take it. I didn't think there was any harm to your body."

Overall, interviewees' responses presented their diverse attitudes toward painkillers. Even though the greatest percentage of participants took painkillers, the highest percentage of participants also expressed concern about the adverse effects of painkillers. In addition to the participants' own concerns about side effects, they also indicated that their families shared negative perceptions of painkillers, and these views were consistent. All participants mentioned that their parents perceived painkillers as harmful and potentially causing side effects. Participant R said,

> "I was told by my parents that painkillers have side effects, such as dependency and being detrimental to health. My parents advised me that if I could endure the pain, then it's better not to take them."

Similarly, Participant K shared that her parents discouraged her from using painkillers, stating,

> "My mom didn't allow me to take them because she was afraid of the side effects. I remember during the Gao Kao (Chinese university entrance exam), she still didn't permit me to take them, so I had to endure the pain while taking the exam. As I grew older, I started taking painkillers, but I never let her know that I was taking them."

In conclusion, Theme 1 revealed the interviewees' experiences with pain. Some characteristics observed among the 16 participants included: 1) They employed various methods to treat the pain, taking various actions before and during their menstrual periods to address it seriously; 2) In comparison to the pain treatment methods found in the literature review, interviewees utilized several unique treatment methods influenced by Traditional Chinese Medicine (TCM), such as taking herbal medicine, moxibustion, and following Chinese dietary practices; 3) They emphasized the importance of staying warm and avoiding the consumption of cold water and food before and during their menstrual cycles; 4) Many participants took painkillers while expressing concerns about potential side effects, and their families held negative attitudes toward painkillers.

Theme 2: Little Red Book Community

The second major theme identified in this study focused on the Little Red Book (LRB) community. Within this theme, nine sub-themes emerged, covering various aspects related to the participants' engagement with the LRB community. The goal of this theme was to explore the significance of Little Red Book for the participants, to explore how users engaged within the

LRB community, and to understand how they leveraged this platform collectively to address the challenges associated with menstrual health.

Category 1: Motivation for Using LRB. Throughout the investigation into their motivations for using Little Red Book (LRB), this research identified seven reasons why individuals turned to LRB to search for menstrual-related information. According to Table 5.3.3, the primary reason was the perceived utility and value of menstrual-related information found on LRB. Participant I, for instance, noted that numerous bloggers on LRB shared valuable insights such as pain treatment tips and general knowledge about menstrual pain, aiding users in acquiring useful tips and gaining a deeper understanding of their bodies and health conditions.

Table 5.3.3

Motivations of Using LRB for Searching Menstrual Health Information

High discussion rate (3)	Comfortable with Many Female Users (5)	Value in Shared Experiences (7)	Usefulness and Value of Menstrual Cycle Information (8)
Friendly and Peaceful Platform (3)	Beneficial Algorithmic Layout (2)	Treating LRB as a Search Engine (3)	

Given LRB's nature as an experience-sharing platform, many participants emphasized the value of learning from others' experiences. Participant R, who had a medical condition, and she explained in detail,

> "There was a wealth of information that allowed me to better understand my current situation by learning from other people's experiences. This diminished my fear and provided me with a basic understanding of current treatments and enhanced my ability to communicate with my doctors."

Beyond the availability of valuable information, when the researcher asked, “Why do you prefer using LRB?” Participants mentioned that they perceived LRB as a female-friendly platform that provided a supportive space for women to discuss and encourage one another during challenging times,

> “I recall a time when I participated in a Weibo post about menstrual health, and I encountered disrespectful comments from male users, which made me uncomfortable. For Little Red Book, I appreciated the atmosphere because there were lots of female users, and I loved the peaceful atmosphere” (Participant E excerpt).

> “When I experienced pain and engaged in menstrual-related discussions, some girls responded with warm and encouraging messages. I felt a sense of warmth, I was touched, and realized I was not alone” (Participant T excerpt).

In addition to the community environment on LRB, some interviewees considered Little Red Book as their primary search engine. Participant B found it easier to find answers on LRB, noting, “If you have a question and you post it, there will be netizens replying below.” Others found it more convenient due to the effectiveness of the algorithm. Participant D, for example, found the algorithm on LRB effective in delivering relevant content, expressing satisfaction with the reasonable proportion of menstrual health content in recommendations and the usefulness of the pushed content.

After discussing their motivations for using LRB, researchers further inquired about whether the participants had used other platforms to seek menstrual-related information and their

opinions about them. Based on the participants' responses, in addition to Little Red Book (LRB), 14 participants reported using other platforms to explore methods for pain relief. These platforms included Google, Baidu (China's largest search engine), Weibo (a prominent microblogging and social media platform), Zhihu (a question-and-answer discussion forum like Reddit), and TikTok (a video-sharing social media platform). This study found that most participants indicated a preference for LRB as their primary search site. Reasons included "the information found on Google and Baidu is too general," "Weibo has a significant male user presence," and "participation rates are lower on Weibo." Additionally, participant Z mentioned searching for information on Zhihu, noting that while many users on Zhihu possessed in-depth knowledge, the text-based format made it less engaging for her, leading to decreased patience to continue reading. Interestingly, participant T found TikTok to be a useful platform due to its video-based sharing format. She highlighted that the platform featured numerous bloggers and influencers sharing knowledge about menstrual pain, making it a valuable resource.

Overall, participants' preferences for LRB were influenced by factors such as the specificity and quality of information, the user environment, and the engaging format of content delivery. These insights shed light on the diverse considerations individuals make when choosing platforms for obtaining menstrual health-related information.

Category 2: Role on Little Red Book. After examining participants' motivations for using Little Red Book (LRB), this category explored how they engaged within the LRB health community and the roles they identified themselves on LRB. The study categorized participants into three types of interactivities: observers, contributors, and information publishers. Each participant was asked to choose their preferred role, and they could select more than one. Notably, every participant identified themselves as an observer; in addition, 5 of them perceived

themselves as contributors, while 4 participants identified themselves as information publishers on LRB. The following sections delved into how participants engage in each role and their involvement within the LRB menstrual health community.

Role as an Observer. As observers, participants had various reasons for selecting this role. For example, Participant D preferred to maintain a learning attitude on LRB, acknowledging that she didn't have many tips to share. Therefore, she chose to observe others' posts and learn from their experiences. Participant E similarly mentioned regularly observing other users' experiences and comments, stating, "For me, I often observed how others engage; if there was something valuable, I would remember it."

To delve further into the types of posts and topics that participants usually browsed, the researchers asked participants about the kinds of menstrual-related topics they had searched for on LRB. Table 5.3.4 provides a summary of their searched topics. All participants expressed a strong interest in pain relief and hoped to discover useful pain relief methods shared by others on the LRB. 7 out of 16 participants searched for medication, especially painkiller recommendations. Five participants looked for general information about the menstrual cycle, such as why menstrual pain exists. Some participants indicated that they lacked basic knowledge about menstrual health and wished to learn more. As Participant H stated, "I searched for general information about the menstrual cycle because I did not know why the pain exists." Those who searched for dietary therapy mentioned that they hoped to use such methods to alleviate the pain. For instance, Participant E often searched for recipes to make tea for menstrual pain, and she found the recipes useful in improving her overall well-being. Additionally, some participants searched for Traditional Chinese Medicine (TCM), including TCM herbal medicine, massage, and acupressure. Participant W mentioned, "I found there are many TCM-related pain relief

tricks, and they were useful." Lastly, two participants searched for TCM doctors' visiting experiences, indicating their desire to find reputable TCM doctors for pain treatment.

Table 5.3.4

Summary of Searched Topic by Participants

Searched Topics	• *Pain relief (16)* • *Medication (7)* • *General info about menstrual cycle (5)* • *Dietary therapy (4)* • *TCM (4)* • *TCM Doctor's visiting experience (2)*

Based on the types of information they searched for, this study delved deeper into the impact that the information on LRB had on participants. Table 5.3.5 outlined a summary of the findings.

Table 5.3.5

Summary of Perceived Impacts

Impact	• Useful in gaining insights into the basic knowledge of pain (5) • Tricks and methods have been found to be effective in relieving pain (4) • The drug recommendation on LRB were useful (3) • Gained mental support and decreased anxiety (3) • Felt frustration because none of the tips working (1) • Not useful because the information shared were repetitive and common (1)

Most participants perceived that the information obtained from the LRB menstrual pain community as helpful, particularly in learning general information related to menstrual health. Participant T, for example, found the menstrual health information on LRB beneficial for gaining basic knowledge about pain, including symptoms, causes, and pain relief methods. She expressed,

> “The menstrual knowledge on LRB was helpful for me. Because my mom wouldn’t talk to me about these things. Also, science teachers didn’t cover this topic at school, so I was in a state of not knowing. Searching on LRB, as everyone has had similar experiences, by looking at their tips, you will eventually find something that suits you, which is great.”

In addition, participant H also shared her thoughts,

> “In terms of menstrual knowledge, it supplemented my understanding. In the process of searching and trying out different methods, I learned things like why the pain exists and what the potential causes are. Combined with my own situation, I am getting more and more familiar with my health conditions.”

For certain participants, especially those who needed to consult doctors overseas, such as Participants Z and R, the information they obtained about drugs and prescriptions from Little Red Book (LRB) proved valuable in helping them communicate with their doctors. Participant Z, an international student in Canada, mentioned that she was unfamiliar with the types of painkillers and prescriptions available in Canada. Consequently, she came across numerous posts on LRB discussing the types of painkillers found in Canadian pharmacy stores. Based on the information she acquired from these posts, she said,

> “When I consulted with the doctor about the type of medications I found online, the doctor recommended whether this medication was suitable for me or not, or if there were

better options. It helped my doctor understand my situation better and made it easier for me to communicate with my doctor."

LRB also served as a space for releasing anxiety and providing mental support for participants. Participant G said browsing on LRB made her less fearful of pain because she realized many people were experiencing the same issues, offering her emotional comfort. Participant D, who felt anxious when discussing menstrual pain with friends who hadn't experienced it, found relief by browsing LRB. She said, "I saw there were so many people like me, so I didn't feel anxious, and I didn't feel like I was an alien anymore."

Moreover, participants highlighted the practical benefits of the information found on LRB, particularly in finding various tricks and pain relief methods. However, participant A expressed a desire for more diverse methods. She noted that some of the content on LRB was repetitive. Participant H, on the other hand, expressed frustration, "I feel frustrated because after trying out different methods, none of them were working, and I could still feel the pain."

In conclusion, the study highlighted the diverse topics participants searched for on LRB. The perceived impact of the information from the community varied, with most participants found it helpful, especially for general menstrual health related information. This indicated that users might have lacked menstrual health education in China. Furthermore, the LRB community also provided emotional support by connecting individuals with shared experiences. Additionally, some participants sought information about drugs and prescriptions for medical consultations abroad. While the community offered various pain relief methods, there were expressions of both satisfaction and frustration among participants.

Role as a Contributor. The study observed that fewer participants chose to participate in discussions on Little Red Book (LRB). Table 5.3.6 outlines the motivations of participants who opted to become contributors and engage in the LRB health community. Their reasons included the desire to share personal experiences and help others, exchange effective pain relief methods, and provide emotional support.

Table 5.3.6

Motivation of Being a Contributor

Motivation of participating in discussion	Want to share personal experiences and help others (4)	Want to provide emotional support to users experiencing painful periods (2)

Participants J and K actively shared their experiences on LRB. They frequently left comments to participate in pain relief discussions and exchanged effective methods. Participant R expressed her motivation for participating in discussions, and she said that she saw many users like her who experienced pelvic diseases feel anxious, so she wanted to engage in the discussion, and share her experiences and feelings to help alleviate their anxiety. “I did this through posts, comments, or direct messages, but I didn’t publish this information on my LRB page,” as she said. When the researcher asked why she didn't post it on her page, and participant R explained,

> “To be honest, I know I shouldn’t feel embarrassed about my health condition, but I still have these feelings. I have connections on LRB, some are my friends, and some are male users. I feel uncomfortable sharing my privacy online.”

In addition to the motivation of sharing experiences and helping others, there were also participants who wanted to provide emotional support. Participant T, for example, used to engage

in discussions by providing encouragement and sending warm messages to other female users. As she said,

> "When I saw some posts about girls complaining about the pain, if I left a warm message or gave a warm comment, it would make her feel better. Because when I felt the pain, I received some users who gave me warm messages, and I felt I was not alone. Although physically I was in pain, mentally I felt better."

According to their responses, these participants actively contributed to the community by sharing experiences, offering support, and participating in discussions around pain relief methods. The reasons for not posting certain information on their personal pages highlighted privacy concerns and considerations about their online audience. Overall, the motivations for being contributors to LRB were rooted in a desire to help others, share experiences, and provide emotional support.

Role as an Information Publisher. The role of information publisher involves participants had experience in sharing menstrual-related content on Little Red Book (LRB). Participant Q shared posts related to her personal use of medication on LRB. In her post, she provided details about the drug, including its name, brand, ingredients, and a photo of the painkiller. She also shared her feelings and experiences after taking the medication, including any side effects and how long it took to alleviate the pain. Her motivation for sharing the post was to provide information about effective painkillers to those who might need it. She received a significant amount of engagement on her post, with many users sharing their experiences and asking questions. Participant Q said,

> "I received a lot of users who shared their experiences under the post. Some asked questions about how to take the medication, and some recommended products that they thought were valuable. It is insightful to engage with these users because I can learn a lot too."

Two participants shared their experiences of going to the emergency room due to menstrual pain. Participant B, for instance, experienced severe stomach pain and dizziness, leading her to seek immediate medical attention. After her visit to the hospital, she shared her experience with LRB, emphasizing the importance of seeking medical help if feeling uncomfortable. She received numerous warm messages and supportive comments. Participant B explained,

> "I received a lot of warm messages. There was a girl who sent me warm messages using a hugging emoji. There were many users who shared the same situation with me, and I also saw many comments that complained about the pain, and I encouraged them too."

Finally, participant K shared questions related to societal issues around menstrual health. She expressed concerns about potential work discrimination if she needed to take time off due to menstrual pain. Participant K posted this question along with some complaint messages. She received numerous comments, with one user expressing agreement and stating that working discrimination is likely for females regardless of menstrual pain.

In conclusion, the role of a publisher on LRB extended beyond personal anecdotes to encompass a broader dialogue, ranging from medical experiences and urgent situations to societal challenges surrounding menstrual health. Participants who engaged in this role contributed to a dynamic and supportive community, where shared experiences fostered understanding and support.

Category 3: Perceived advantages and limitations of LRB. Despite participants' motivation and the role played in the LRB menstrual health community, this study further assessed the advantages and limitations of participating in LRB by asking the question, "What do you perceive as the advantages and limitations of using LRB as a source to access menstrual health information?" Table 5.3.7 demonstrated a comprehensive perception of interviewees' responses:

Table 5.3.7

Perceived Advantage and Limitations

Category	*User experience*	*Content*	*Mental Support*	*Discussion Environment*
Perceived advantage	Videos are short, easy to watch (1) Large number of female users (9) Posts with text and images, easy to consume information (1) Algorithm is helpful in getting useful content (1)	Access to many shared experiences (8) Allow women to enrich knowledge about menstrual cycle (6) Allow women to learn various type of pain relief method (1) Answers could be easily found (2)	Resonance (2) Get help from others feeling not alone (6)	Allow women to discuss menstrual related issues openly and eliminate menstrual shame (4) High engagement rate (1)

Perceived disadvantage	Complain there are too many ads (4)	The video timing on LRB because there might be a limitation to the depth of the knowledge (1) Authenticity of the content (8) Methods shared might not be applicable to everyone (3) Content is repetitive and cannot find new information (2) Based on personal experience sharing, lack professional contribute to sharing the content (1)	Some sensitive words need to avoid, making it inconvenient to discuss (1)

In terms of advantages, participants highlighted that they enjoy the overall user experience on LRB. First, the short video, short text, and infographics made it easier to consume the information. Additionally, the algorithm was seen as helpful, leveraging big data to push more relevant and useful content to participants, enhancing their access to pertinent information. Finally, participants mentioned that LRB provided them with a comfortable online environment because most of the users on LRB were female.

Content was another perceived advantage by participants. They believed that access to shared experiences was one of the platform's significant strengths, which enabled them to observe how others coped with pain. Furthermore, LRB addressed the participants' lack of information about menstrual cycles and pain relief methods, allowing women to access relevant

information and gain a better understanding of their physical bodies. Crucially, their questions and concerns about menstrual pain found easy visibility on the platform.

LRB was also viewed as a source of mental support for users. The platform allowed them to connect with numerous users who share similar experiences, which fostered a sense of resonance. Through interactions with other users, participants could receive help and alleviating the feeling of isolation.

The final advantage emphasized by participants is that LRB provided an open discussion environment for Chinese women. Participants Z, noted the high participation rate on LRB in terms of menstrual-related information, indicating a growing willingness among women to discuss menstrual cycles openly. In a cultural context where menstrual shame was still prevalent in China, LRB offered a platform for Chinese women to openly address menstrual-related issues. Participant H also said, “The community can create a warm and supportive environment where they can openly discuss various topics without feeling embarrassed.”

While there were numerous advantages to using Little Red Book (LRB) as the primary source for gaining menstrual-related information, several concerns and limitations on this platform have been identified. There were three major concerns centered around user experience, content, and the discussion environment.

Complain about ads. In terms of user experience, four participants expressed dissatisfaction with the abundance of advertisements on Little Red Book. They found the advertisements to be intrusive and potentially annoying, especially when they attempted to search for pain relief methods. Some advertisements promoted professional doctors for treating diseases, leading to skepticism about the legitimacy of these services. Participant T expressed her concern, stating,

> "These professionals in ads seemed like magic, but I was still not sure whether they really had the capability to treat menstrual pain, so I thought there was a risk of falling for deception."

Participants also noted that health-related marketing accounts tended to promote pain relief products by writing soft sale ads. Participant J expressed uncertainty about the effectiveness of these products, saying, "I was not sure whether those products worked or not, so I doubted the authenticity of these products." To this end, this study found that participants have high media literacy skills, as they expressed their ability to distinguish ads. Participant D explained, "It was easy to distinguish these ads. For some products, to determine their effectiveness, I checked out the comment section to see whether they worked. I also visited other shopping websites to review the comments, or I simply texted my friend to ask for their opinion."

Complain of video timing, repetitive content, and sensitive discussion. Another limitation on Little Red Book (LRB) was the constraint on video timing, as the platform only allowed for 5-minute videos. This limitation hindered the ability to provide in-depth and extensive explanations. In addition, given the abundance of posts and content on LRB, some users felt that the information was repetitive, and they expected to see more and more effective pain relief methods. Participants also mentioned that although shared experiences are valuable, they may not universally apply to everyone due to individual differences in situations and preferences. Another concern expressed by an interviewee was related to sensitive content, such

as female organ-related words, which might need to be avoided or substituted with other terms, making it challenging to engage in discussions at times.

Complain about the authenticity of the post. However, when it came to professional aspects on LRB, some participants expressed their concerns. One significant limitation observed on LRB was the authenticity of the posts. Users were uncertain about the truthfulness of the content shared on LRB and questioned whether the information publishers possessed the requisite capability or knowledge of menstrual health. As described by Participant C, numerous accounts on LRB claimed to be "experts." These accounts often portrayed themselves wearing white uniforms and glasses while regularly sharing menstrual health information. As participant R observed, the accounts appeared to be experts but raised doubts about their authenticity and qualifications. Similarly, participant B shared an experience, saying, "I remembered seeing two posts where two experts were discussing the same topic, but their views were contradictory. I didn't know which one to trust."

Participant B also highlighted the issue of primary and secondary sources. Some bloggers copied and pasted information from others and posted it on their own LRB accounts to attract followers. Consequently, some information found on LRB was not firsthand but rather sourced secondarily. Participant B expressed skepticism, stating, "I didn't know the origin of the information, so it was also hard for me to trust." Participant T also found some posts did not seem reasonable, as she described,

> "I saw a post, and the publisher said in her experience, drinking a cocktail can help to relieve the pain. When I saw this, I was afraid to try because it seemed not scientific, so I think the information validity is one limitation."

From participants' responses, this study found that, on one hand, LRB allowed users to discuss menstrual-related content openly in a female-friendly environment. Female users in LRB shared various pieces of information, helped each other, and provided emotional support to each other. However, this study also found concerns regarding ads and the authenticity of the posts. There were too many posts for commercial purposes, and interviewees had mentioned that the truthfulness of some posts remained skeptical. This reflected that this group of interviewees had media literacy skills, which meant they were able to distinguish the reliability of information and critically evaluate the content they encountered on the platform.

Theme 3: Perceived Differences Between TCM and Western Medicine

The third theme that emerged in the interviewees' responses was the perceived difference between Traditional Chinese Medicine (TCM) and Western medicine. There were three major subthemes within this theme:

1. Preference between TCM and Western medicine; Reasons for the preference.
2. Perceived differences between TCM and Western medicine.
3. Perceived menstrual pain management methods between China and respondents' current residence countries.

According to participants' demographic information, some of the respondents resided in different countries (as of October 2023). Therefore, their answers were based on their experiences in their respective locations.

Category 1: Preference between TCM and Western medicine. The research investigated interviewees' preferences between Traditional Chinese Medicine (TCM) and Western medicine. Based on the responses, this study found that 6 interviewees chose TCM, 7 voted for Western medicine, and 3 expressed no specific preference, as shown in the table 5.3.8.

Table 5.3.8

Preference Between TCM and Western Medicine

Preference	*TCM (6)*	*Western (7)*	*No Preference (3)*
Reason	Impacted by family (2)	Painkillers are fast acting and effective (7)	Nothing can treat the pain.
	Effective (1)	TCM requires longer treatment duration (1)	Like combining Western and Chinese dietary adjustments (1)
	Believe TCM can treat the toot cause (3)	TCM doesn't work for everyone (2)	Each one has its own reasons for existence (1)
	Long history (1)	Doesn't like the taste of Chinese herbal medicine (1)	

For those favoring TCM, four major reasons were identified. Firstly, participants trusted TCM due to its long history. Participant C believed TCM, as she said, "TCM has thousands of years of experience, so it must be effective since it has been practiced across generations." Secondly, some participants were influenced by their families. For example, Participant E grew up in a family that strongly believed in TCM, rarely visiting western medicine hospitals. Therefore, under the influence of her family, she believed in TCM and preferred it as a primary treatment method. Thirdly, participants believed TCM addressed the root cause of diseases like menstrual pain, which could offer a complete cure without reliance on painkillers. Participant Q, who suffered from menstrual pain, shared her experience,

> "I consulted Western medicine doctors in the US a few years ago. My doctor only prescribed me painkillers. Initially, I only took half a tablet, but gradually I developed a dependency. When taking four tablets didn't work, my doctor advised me to take six tablets. Later, when I

returned to China and consulted a TCM doctor, I completely recovered by taking herbal medicine. Since then, I haven't experienced pain."

In TCM, participants found methods like acupressure, Chinese chiropractic, and dietary adjustments effective. However, they acknowledged that these approaches require long-term commitment and consistency. This lengthy adjustment period was a reason why some participants preferred Western medicine. As participant A explained,

> "TCM usually takes a long time, involving the consumption of many medicines, and the effectiveness is not immediate. When you're in pain, all you want is immediate relief, not a long-term adjustment."

The long-term commitment to TCM also demanded significant effort and financial investment, leading some participants to question its cost-efficiency. Participant D pointed out the convenience of painkillers, which saved time and eliminated the need for frequent hospital visits. Additionally, she expressed skepticism about younger TCM practitioners due to their perceived lack of experience, but "the older and more experienced TCM doctors were difficult to schedule," as she said.

Some participants also reported that TCM was ineffective for them. Participant H visited a famous TCM practitioner and, after four months of taking herbal medicine and spending a considerable amount of money, found that her pain persisted. She recounted her experience, saying,

> "While taking the herbal medicine, I wasn't allowed to use any painkillers, so I had to endure the pain every month. After that treatment, I lost the desire to invest time and money in this approach and no longer have the courage to see a traditional medicine doctor."

Finally, among the participants without a preference, the reasons varied. One lost confidence in treating the pain altogether, believing that neither TCM nor Western medicine could offer relief. Another participant felt that each had its own merits and reasons for existence. Lastly, one prefers to combine Western painkillers with Chinese dietary adjustments to manage the pain.

Category 2: Perceived difference between TCM and western. Participants had their own perceptions of the differences between TCM (Traditional Chinese Medicine) and Western medicine. After analyzing their responses, this study found that most of the interviewees perceived that Chinese medicine treats the root cause, while Western medicine targets the symptoms. Participant B believed that TCM could identify the underlying cause of pain and, through a series of adjustments, guarantee that the pain would disappear without the need for painkillers. However, as participant B said, "I think Western medicine is more focused on stopping the pain, but next time you will still feel the pain."

Participant E shared a similar sentiment, emphasizing Western approaches to pain management,

> "With Western practitioners, if there was pain, they prescribed painkillers to stop it. There was no exploration into the why—what was causing the pain, how your life habits might contribute, or whether there was dysfunction in other organs."

Two interviewees perceived TCM as being good for improving overall well-being but not suitable for disease treatment. They said,

> "When it came to pain treatment, I thought the goal of TCM was to improve your overall body health, while Western medicine was more focused on pain relief, which was much quicker" (Participant G excerpt).

> "I think TCM can make your body healthier, such as when you feel tired and less energic or afraid of colds. TCM works well. But for Westerners, they are more targeted in treating diseases" (Participant K excerpt).

Furthermore, regarding the effectiveness and results of each medicine, interviewees' perspectives varied. Some found Traditional Chinese Medicine (TCM) ineffective, while others reported positive outcomes. The inconsistency in results led some participants to stress the importance of finding a skilled traditional doctor, suggesting that TCM's effectiveness may have depended on individual circumstances and the practitioner's competence. In contrast, Western painkillers were viewed by most participants as immediately effective, providing quick relief. They were seen as particularly useful in acute situations. This reflected a consensus among the participants that, while TCM might offer a more holistic and long-term approach to health, Western medication was favored for its rapid action in alleviating symptoms, especially in urgent scenarios.

Category 3: Perceived cultural differences in menstrual pain management. For interviewees who had experience living in other countries, they provided insights into cultural differences in menstrual pain treatment. One management method that stands out among Chinese women was the emphasis on maintaining warmth. Participant E noted, "Compared to Canadian culture, Chinese women are conscious about staying warm, such as having hot foot baths, keeping their feet warm, and avoiding cold food and beverages." Similarly, participant J, who lived in the US, observed,

> "Chinese students usually keep warm with heat pads and drink ginger or brown sugar hot water. In contrast, non-Chinese students typically rely on painkillers, and I am surprised they even drink cold water during their period."

Participants also noted that in Canada and the US, painkillers were frequently used, often as the primary method of managing menstrual pain. This led to the perception that some participants believed non-Chinese people did not use other methods of pain relief. Furthermore, some participants expressed an interesting perspective, suggesting that they believed menstrual pain was less prevalent in Western cultures. As participant R said,

> "I was unsure if locals in Canada resisted pain, but it seemed they viewed pain as normal. I felt fewer white women experienced the pain, and they might have lacked seriousness or understanding of the pain because they only took painkillers."

Finally, attitudes toward painkillers also differed. Participant Z mentioned that in China, her female friends tended to avoid taking painkillers due to concerns about potential side effects.

However, when she came to the US, her American roommate offered her painkillers and assured her that it was normal to take them. This reflected that for some Chinese women, there might have been resistance to taking painkillers as a method of pain relief.

Theme 4: Resources and Public Awareness. When asked, "To comprehend the menstrual cycle and alleviate pain, what types of resources could you access to obtain this information?" Interviewees provided different responses that demonstrated their experiences with accessing menstrual-health-related resources. The resources encompassed their access to menstrual health-related knowledge, their ability to consult with doctors, access to education, and the availability of feminine hygiene products, among other factors. In addition, respondents also mentioned their perceptions of public awareness of female menstrual health. The following sections presents their responses accordingly.

One of the primary sources of support for participants during menstruation was their family. However, respondents mentioned that their family members were not always able to provide medical assistance due to a lack of medical knowledge. Instead, families tended to offer emotional support or accompany their daughters to the doctor. Furthermore, participants described barriers when they were trying to communicate with their parents. For instance, participant T shared an experience where she had a question about her menstrual cycle and attempted to discuss it with her mother, but her mother refused to answer her question. Participant A recalled her mother saying, "You are an adult, and you should figure it out on your own."

Furthermore, concerning medical resources such as access to doctors and hospitals, participants in China reported convenient access. They found it relatively easy to undergo examinations, schedule appointments, and benefit from shorter waiting times and lower costs. In

contrast, participants from the US and Canada expressed challenges. Participant R mentioned the difficulty of scheduling appointments with family doctors and long waiting times at walk-in clinics. As an international student, she also expressed concerns about her medical insurance, fearing that going to a hospital would be too expensive. Similarly, participant S shared her experience of facing high medical costs due to menstrual pain,

> "There was a time when I experienced extreme pain, necessitating a call for an ambulance. However, the emergency visit cost me $30,000 US dollars. Even after the student insurance coverage, I still had to pay $550, which was crazy. The doctors didn't seem very invested in my case; they didn't prescribe anything, only advising me to take painkillers and apply a heating compress."

The examples from participants R and S highlighted the potential high costs in North America. As international students with limited medical insurance coverage, this might cause concerns when seeking health resources. Moving on, despite the previous section where participants expressed that medical care and waiting times are lower in China, participants still expressed dissatisfaction with the effectiveness of Western medicine doctors in China. Additionally, visits to a TCM practitioner might produce mixed outcomes, indicating variations in the effectiveness of available resources. Participants K and D consulted Western doctors and underwent examinations, but no abnormalities were found. Participant D mentioned, "The doctors simply recommended painkillers and advised against consuming certain things, and that was it." Participant D also commented on medical practices, saying, "Sometimes, doctors might prescribe a lot of unnecessary tests, and you end up having to pay for these examinations."

In addition to access to hospitals and doctors, participant H expressed frustration regarding drug accessibility in China. When she went to a pharmacy to purchase contraceptive pills for menstrual pain management, she was refused. Participant H described her experience,

> "The pharmacist saw that I was young and declined to sell me birth control, saying it wasn't good for my body. I had to ask my mom to buy the drug for me, and the pharmacist sold it to my mom."

This revealed that there was a cultural bias against the use of birth control for menstrual pain in China, which had been corroborated by another participant's experience. Participant I recalled that when she mentioned using birth control for managing menstrual pain, her friends were surprised, and their attitude was against the use of birth control.

Moving on to the discussion of menstrual-related products, in interviews covering six regions (China, the United States, Canada, Taiwan, Hong Kong, and the United Kingdom), three respondents living in China highlighted the high cost of feminine hygiene products, and they expressed dissatisfaction with the expense of these items. Furthermore, eight participants were dissatisfied with the lack of feminine products in public restrooms in China, which they found highly inconvenient. One participant pointed out, "Some might argue that women should always carry these items, but they don't realize that many women don't have a menstrual cycle that is exactly 30 days." Others noted the absence of such products in schools, adding to the inconvenience, especially since they were not allowed to carry cell phones when they were students. In contrast, those who have lived in the US, Canada, and the UK expressed satisfaction with the availability of sanitary pads on campuses and in some public spaces.

Furthermore, when discussing menstrual education-related content, some participants noted a shortage of websites specifically focused on menstrual health, particularly in simplified Chinese. They found that the available information on websites was often too general, and when it came to pain relief, there was a lack of useful and effective content. Finally, one important education-related resource recognized by the participants is the lack of sex education in China. Participants mentioned that when they were teenagers, around middle school, their biology teachers barely covered the topic of menstruation and methods to alleviate menstrual pain. In addition, "although there was a class about menstruation, the teacher wouldn't talk much," participant B also expressed a menstrual-related shame sentiment during her teenage years,

> "In middle and high school biology classes, discussing our body structure made me feel resistant, embarrassed, and awkward. I didn't want to listen. Moreover, the curriculum was focused on exam preparation, so topics like menstruation and pain management were overlooked."

All participants mentioned the separation between male and female students in sex education class, as participant K said,

> "Even when we had sex education that mentioned menstruation in middle school, boys and girls were separated. So, my teacher only talked about female-related health topics to girls, and we knew nothing about boys, and boys knew nothing about us."

Furthermore, respondents who studied in Canada and the United States observed similar patterns of gender separation in physiology classes, with little to no discussion on menstruation and associated pain. However, since only two participants had the experience of studying in North American middle schools, the sample size is limited, and it remains unclear whether this is a widespread issue across other schools in those regions.

In conclusion, the interview with participants from various regions shed light on the multifaceted challenges and experiences related to menstrual health education, and stigma. These findings underscored the need for improved access to menstrual health resources and comprehensive sex education, as well as the importance of addressing cultural biases and gender separation in educational settings.

Theme 5: Public Awareness

In the final theme, all the Interviewees believed that there was a significant lack of public awareness concerning menstrual pain. Their responses highlighted three main subthemes: 1) The difficulty of obtaining leave from work, school, and examinations due to menstrual pain; 2) Menstrual shame, with women feeling embarrassed about discussing menstrual-related topics openly; 3) An empathy gap, particularly from males who cannot relate to the pain.

Participants expressed frustration with the challenge of taking time off during periods of menstrual pain. Participant R shared, “The pain causes significant disruption in my life; I’m currently unemployed because my condition makes it unfeasible for me to maintain a regular office job.” Others recalled being compelled by their parents to attend school despite their pain. In China, a specific issue arises during physical education classes, where some participants remembered male teachers who could not understand their pain, insisting female students to participate in activities regardless of their discomfort.

This lack of understanding also extends beyond the classroom. Participant D mentioned, “Some men might see women as overly sensitive or weak and struggle to empathize with the realities of menstrual pain.” Similarly, participant K noted workplace dynamics, stating, “I take painkillers at work. If my male colleagues see me suffering the pain, they might label me as oversensitive or weak, and I won’t let that happen.”

Participants recalled being teased by male students when they found out they were menstruating. For example, participant E recalled an incident in middle school: “I remember a boy laughing at me because of a bloodstain on my pants, which made me so angry.” Similarly, participant C mentioned, “Some boys gave me strange looks when they realized I was on my period.”

The disrespect extends to online spaces as well. Participant K expressed outrage over the tone of online discourse about menstrual pain,

> “I came across a post on menstrual pain and saw male users making disrespectful comments. They downplayed the pain as normal and trivial, and some insinuated that women are just being sensitive, which is infuriating.”

Due to the lack of understanding and the stigma surrounding menstruation, many participants experienced varying degrees of menstrual shame within Chinese society. This shame began early, with female students feeling too embarrassed to openly discuss menstruation in class, often using euphemisms like “that comes” or “my aunt comes” (a common Chinese cultural reference for the menstrual cycle). The sense of shame persisted in the workplace, where women may have felt pressured to conceal the real reason for their absence. As participant E

explained, “If I was in pain and needed to take a day off, I wouldn’t say it was menstrual pain; I would just say I was sick.”

In this theme, the lack of education and menstrual stigma are deeply interconnected and these issues impact both genders. For men, the lack of education about women’s menstrual cycles could lead to misunderstandings, an inability to empathize with women’s experiences, and potentially disrespectful attitudes. For women, the educational gap resulted in insufficient knowledge about their own bodies and pain relief methods, leading to disruptions in their daily lives. Moreover, due to the educational gap among men, menstruation was often relegated to a “female-only” topic, further compounded by cultural and religious influences, which caused the subject to be under-discussed or associated with shame and embarrassment.

Furthermore, menstrual stigma could also hinder educational efforts. The societal perception of menstruation as a taboo subject led to reluctance among teachers and family members to address it as a normal part of women’s physiology, resulting in a failure to impart necessary knowledge to the younger generation. This cyclical relationship between stigma and lack of education perpetuated the challenges faced by women in managing their menstrual health and obtaining the support they needed.

Chapter 6: Interview with the TCM Practitioners

To better understand menstrual pain from a Chinese culture's perspective, this study interviewed four Traditional Chinese Medicine practitioners. Through analyzing the interview transcripts, this study gained a deeper insight into the cause, factors, and treatment methods of dysmenorrhea, as well as their perceptions of TCM and Western medicine. Throughout this chapter, doctors' names were presented with their initials to protect their privacy. This study concluded three themes that appeared from the doctors' responses. The following sections introduced each theme, summarized the main points, discovered patterns, and assessed their responses with current literature.

Theme 1: Menstrual pain symptoms, causes, pain factors

The four doctors provided a comprehensive view of the symptoms of dysmenorrhea, its causes, and contributing factors to pain. First, Doctor M described the symptoms of menstrual pain,

> "Menstrual pain manifests in three distinct phases: premenstrual, menstrual, and postmenstrual, each characterized by unique symptoms. These symptoms included severe abdominal pain resembling spasms, heightened sensitivity to touch, a preference for warmth, fatigue, mood changes, and more. The severe pain could be comparable to childbirth, often necessitating medical intervention for relief. Even milder pain could significantly impact daily life, often requiring individuals to lie down and rest."

Furthermore, the four doctors provided their perspectives on the causes of the pain from a Traditional Chinese Medicine (TCM) standpoint. There were still other TCM theories and

explanations for dysmenorrhea. However, due to its complexity, this study only addressed the most common causes mentioned by the four doctors. The follow section presents the four aspects identified by the four doctors.

Blocked Flow Causes the Pain

Doctors believed that one reason for the occurrence of pain was blockages or disruptions in the flow of qi and blood within the body. Qi, often referred to as "life force" or "vital energy," flows through the body to help maintain a person's health (Cassidy, 2002). Unlike the Western concept of energy, which was measurable, Qi in TCM was invisible and had not yet been scientifically quantified (Cangeloso, 2020). To provide a clearer understanding of how blocked flow caused pain, doctor A explained, "Imagine your body as a river, with blood as water. When there was sand or stones in the river, causing blockages, the river encountered problems."

Damp Cold Stagnation

Doctors mentioned that cold was another essential factor that might cause dysmenorrhea. As doctor G explained, some women might have been careless with their diet during their menstrual cycle, consuming too many cold beverages, eating cold foods, and exposing themselves to cold environments. As a result, coldness was retained in the uterus, which could contribute to the pain. From an anatomical perspective, doctor A explained that when the human body was exposed to cold conditions, the blood vessels in the body constricted or narrowed. Consequently, the overall circulatory system in the body became weaker, leading to uterine spasms and pain. As a result, doctor A recommended women should "avoid drinking cold beverages and eating cold foods warm during the menstrual cycle and staying." However, there was insufficient evidence to support the relationship between drinking cold beverages and dysmenorrhea. Only one study investigated the relationship between cold beverages and

dysmenorrhea. This study discovered a positive relationship between drinking cold beverages and dysmenorrhea in winter but did not find consistent results in summer (Wu et al., 2023). As a result, Wu et al. (2023) concluded that winter might be a factor that impacted the intensity of dysmenorrhea. The reason was due to the cold environment constricting blood vessels, reducing blood flow and oxygen supply, and resulting in tissue damage, inflammation, and pain (Slater et al., 2015).

Insufficient of Yang Qi Causes the Pain

Doctors G and Z mentioned that insufficient amount of Yang Qi could also contribute to the pain. As they explained, Yang Qi refers to the vital energy or life force that flows through the body and is essential for maintaining health and well-being. It represents the warming, active, and dynamic aspects of this energy. Doctor G said,

"An imbalance or deficiency in Yang Qi might lead to symptoms such as coldness, lethargy, and a weakened immune system. Developed societies and excessive mental consumption in modern life can lead to a depletion of vital energy (Yang Qi), which in turn affects overall well-being."

Other Factors

In addition to the explanation from the TCM perspective, Doctors A and M also demonstrated the cause of dysmenorrhea from an anatomical perspective. Doctor M said, "When the uterus contracts, the overproduction of prostaglandins could lead to the pain." This theory has been scientifically supported by many studies, as mentioned earlier in the literature review in Chapter 2.

Doctors also mentioned that modern lifestyle habits might contribute to the pain. For example, doctors A, M, and G mentioned that a sedentary lifestyle could have a significant impact on dysmenorrhea. Current research has proven that the prevalence of dysmenorrhea is significantly higher among sedentary women than non-sedentary women (Prazeres et al., 2023). Doctor A explained that "a sedentary lifestyle could lead to pelvic anterior or posterior tilting, which in turn causes compression of vessels around the pelvis, resulting in insufficient blood supply and ultimately leading to ischemic spasms." Additionally, doctor M mentioned that "a cultural disconnect could have been a reason why more and more women experienced the pain." Doctor M noted that modern people often lacked awareness and adoption of traditional health practices in their contemporary lives. For instance, traditional methods such as foot soaking and therapeutic soups were acknowledged but not regularly practiced. Therefore, "due to this cultural disconnect, many individuals had lost the ability to utilize traditional methods for treating and preventing pain" (Doctor M excerpt).

Two doctors presented interesting perspectives on the relationship between racial differences and dysmenorrhea. According to Doctor A, he believed that white women experienced less pain because they had higher metabolic rates and wider pelvic sizes, which resulted in better blood circulation compared to Asian women. Doctor G also expressed a similar view. He pointed out that "white women had stronger bodies due to their ancient lifestyles (such as hunter-gatherer, active lifestyles)," therefore, they have better metabolism rates and overall improved blood circulation than Asians. However, it's important to note that this research did not find substantial literature that could definitively prove the prevalence of dysmenorrhea varied significantly among different racial groups. Therefore, future research might need to delve deeper into this aspect to establish a clearer understanding.

Theme 2: Perceived Differences Between TCM and Western Medicine

The second theme found in this study was the perceived differences between TCM and Western medicine. The definition of Western medicine, according to the US National Cancer Institute, is "a system in which medical doctors and other healthcare professionals (such as nurses, pharmacists, and therapists) treat symptoms and diseases using drugs, radiation, or surgery. Also called biomedicine, conventional medicine, mainstream medicine, orthodox medicine" (US National Cancer Institute). Four doctors expressed their perceived differences between TCM and Western medicine, and the study concluded four differences based their responses.

Difference in Medical Logic

Doctors believed that there was a fundamental difference between Traditional Chinese Medicine (TCM) and Western medicine. First, the difference in medical logic was shown in defining whether dysmenorrhea is a disease.

Doctor A mentioned that, from a Western medicine perspective, dysmenorrhea was not defined as a disease, while TCM considered menstrual pain to be a disease. When searching for the definition of dysmenorrhea and whether it is considered a disease, an article published on the website of the National Library of Medicine defined dysmenorrhea as not associated with a disease, viewing the pain as a normal part of the menstrual cycle (Burnett and Lemyre, 2017). However, from the perceptions of the doctors, they all considered dysmenorrhea a disease. As Doctor A stated,

“Anything uncomfortable is considered a disease. Since some people experience the pain while others have never encountered it, it is important to investigate why and understand the reasons why some people do not experience the pain.”

Furthermore, doctor A explained the difference medical logics:

“Let’s start with the medical logic. The essence of Western medicine was based on experimentation, while TCM was based on experience, and these two approaches had fundamental differences. In experimental-based Western medicine, theory originated from a hypothesis, and the hypothesis guided the practice, with the practice serving as proof of the hypothesis. However, in TCM, it was practical experience that came first, and after a long period of practical application, it eventually formed a theory. Modern medicine was highly scientific, but Traditional Chinese Medicine (TCM) was based on empirical knowledge. You didn’t really know why these TCM methods were effective; you only knew that they had been validated over thousands of years. However, the extent of their effectiveness has not been quantified or scientifically proven.”

“Why TCM could not be scientifically proofed?” The researcher asked.

“The first reason was the cost and whether there was value in proving it. For example, let’s say when you catch a cold, TCM recommends having a bowl of ginger and jujube soup because it helps to relieve the symptoms. There were many cases like this where we knew it worked, but they hadn’t been scientifically proven because we didn’t need to.

Let's say we want to investigate why ginger and jujube soup is effective. After investing a significant amount of time and money, the conclusion might produce mixed outcomes; it might work for some people while it might not work for others. Therefore, scientific research was a costly endeavor; studying the therapeutic effects of a bowl of ginger soup after a viral infection could cost astronomical expenses, and the result might have been meaningless."

Doctor A continued with the second reason,

"The second reason why TCM cannot be scientifically proven is its complexity. For example, there was a type of herbal medicine called "Liu Wei Di Huang Wan," and on its package, it stated that the side effects were unspecified. So, some people might have argued that it lacked scientific proof. However, this remedy was proposed during the Song Dynasty and had been consumed in China for over a thousand years. If one were to research this medicine, it consisted of six ingredients, and TCM emphasized individualized diagnosis, making it impossible to conduct experiments involving control groups, efficacy testing, and the quantification of side effects. I am going to use a quote from Chairman Mao, which is, 'Extensive social practice is the sole criterion for testing truth.' So, you would see the difference between TCM and Western medicine, and why it could not be scientifically proven."

Hence, from doctor A's perception, TCM and Western medicine were completely different in their approaches, one based on experience, and one based on lab experiments. Doctor

G also mentioned the difference between experience and experimentation. He mentioned that "Western medicine is built based on human anatomy, but TCM is built based on the ancient philosophical theory of Yin and Yang, and the diagnosing process is dialectical."

Difference in Menstrual Pain Treatment and NSAID Drug Use

Interestingly, when asking the doctors' perceptions on the differences in disease treatment, all doctors mentioned that TCM focuses on a holistic view while Western medicine looks at specific parts. To explain it in more detail, doctor Z said,

> "Western medicine is effective in addressing localized issues. However, when it comes to the human body, it's not just about addressing the immediate problem or a specific area. If you solve a current localized issue, what about the overall well-being in the long run?"

Doctor M gave an example of how Western medicine treats dysmenorrhea,

> "When it comes to menstrual pain, Western medicine doctors usually prescribe NSAID drugs to relieve the pain. NSAID drugs, such as ibuprofen, could stop the production of prostaglandins. However, in my view, Western medicine tends to overlook the overall well-being of the human body because, when you take ibuprofen, you may still experience pain in the next month. Isn't that correct?"

Through the example of treating menstrual pain with NSAID drugs, Doctors Z and G argued that this method could not address the root cause of dysmenorrhea. As Doctor Z said,

“The ultimate goal in treating dysmenorrhea is to completely eliminate the pain even without the need for painkillers.”

When asking for doctors’ opinions on using NSAID drugs to treat dysmenorrhea, all doctors expressed negative attitudes toward NSAID drugs. Doctors G and Z believed that painkillers could not address the root cause of dysmenorrhea and it might lead to side effects. Additionally, doctors A and M mentioned that using Ibuprofen might lead to dependence and resistance to the painkiller, potentially resulting in an increase in dosage.

As a result, the practitioners explained their approach to applying TCM to menstrual pain treatment. From their perspective, TCM practitioners could conduct a holistic analysis based on an individual’s constitution, exploring the root causes and nature of menstrual pain. The treatment involved identifying the specific reasons based on each person’s unique constitution and then using different medicines. As doctor G said,

> “Through holistic analysis based on the individual’s condition, we can determine the causes of dysmenorrhea, such as whether it is due to blocked flow, insufficient Qi-blood, cold, or other factors.”

Doctors mentioned a series of TCM approaches in pain treatment, including internal treatments such as prescribed herbal medicine (raw herbs that need to be prepared by boiling or decocting) and Chinese patent medicine (ready-to-use medicine forms such as tablets, capsules, or powders). In addition, they also mentioned various external methods, including moxibustion, acupressure, gua sha (scraping therapy), hot compress, cupping, meridian therapy, and massage.

Theme 3: Discovered Menstrual-related Issues and Recommendations

The final theme encompassed their perceived public perceptions of the menstrual cycle and its social resources. When asked about their perceptions of challenges and issues that women face, the doctors identified three types of challenges that Chinese women encounter. The first issue was the lack of care and support from family and institutions. Doctor M highlighted the difficulties women might face when trying to request leave or negotiate wages during their period while working, as said by doctor M,

> "Female students might also encounter challenges in seeking leave during exams or worrying about missing important classes, which could affect their academic performance and mental health. Additionally, at home, many parents lacked medical knowledge and were unable to help their children. Some parents also underestimated the pain experienced by their daughters."

The second issue is that some women lack awareness of menstrual pain and tend to underestimate its severity because of lack of menstrual health related education. As a result, many girls do not have enough knowledge about the menstrual cycle, especially how to manage the pain. As Doctor Z recalled,

> "I found that some of my patients lack awareness of menstrual pain, seeing it as normal. They tend to overlook the potential health problems associated with menstrual pain, and some girls do not have enough knowledge of how to properly manage the pain. As a result, they endure the pain rather than actively seeking help."

The third issue involved menstrual shame among some women in China. Doctor G mentioned that some women felt a sense of shame or embarrassment when discussing their menstrual cycle. As a result, doctor G said, “many women were not willing to openly talk about it, and this embarrassment might deter them from seeking medical help.”

Despite their attitudes towards public perceptions of the menstrual cycle, doctors provided their opinions on menstrual-related medical resources in China when asked the question, “Do you think society has provided enough medical resources for women who have dysmenorrhea?” Their responses varied. Doctor M believed that there was a scarcity of proficient Chinese and Western medicine doctors, meaning that finding professionals who could effectively treat dysmenorrhea, whether in TCM or Western medicine, was rare. Doctor A did not clearly express an opinion on medical-related resources. However, Doctor A’s perspective emphasized that “dysmenorrhea should be treated as a menstrual health issue, and society should work on increasing knowledge and awareness of dysmenorrhea.” Doctor G and doctor Z believed that there was an abundance of medical resources, offering a variety of options, including Western medicine, traditional Chinese medicine, and community hospitals, making healthcare conveniently accessible.

Chapter 7: Advanced Findings and Conclusion

7.1 Advanced Findings and Interpretations

This chapter presented a synthesis of the significant insights derived from an extensive examination of content analysis data, insights from Little Red Book (LRB) participants, and Traditional Chinese Medicine (TCM) practitioners. By using the analytic frameworks of epistemology, Hofstede's cultural dimension theory, and intersectionality, this study discovered the multifaceted dimensions that shaped Chinese women's perceptions and experiences of menstruation. The following sections presented the analysis accordingly.

Feminist Epistemology: How Do Women Know What They Know?

Feminist epistemology was frequently interpreted as the investigation into feminine ways of knowing (Anderson, 1995). This study explored factors that impacted Chinese women's perceptions and experiences of menstruation. One of the major findings of this study revealed that women had limited access to menstrual-related health knowledge. Participants indicated that they received little sex education at school and home, including knowledge related to menstruation and relevant pain relief methods. They pointed out that their middle school biology teachers rarely discussed menstruation-related information in the classroom. As stated by participant A, "my biology teacher was male, he did not teach menstruation at all." Similarly, participant K said, "Menstrual knowledge was not included in the curriculum and was not assessed in mid-term or final exams, so most of the teachers just skipped it and perceived it as unimportant." While some teachers did mention menstruation, the participants stated that these teachers often segregated boys and girls, and they only provided information about menstruation to girls. In addition, they only explained the surface of menstruation and often ignored potential

health issues, such as pain, as participant R said, “If I had not experienced the pain, I wouldn’t even know menstruation is painful.”

From their responses, the influence of power relations and gender was identified, potentially affecting women’s access to knowledge. Code (1981) argued, “the relation between gender and knowledge is not merely theoretical, but also involves power relations” (p. 3). These power relations were evident through regulations and measures set by various systems such as legal, governance, education, and healthcare (Bohren, 2023). Within this framework, power relations encompassed educational policymakers who designed the curriculum and teachers who determined what was taught and what students should learn. Thus, these intersecting power relations “shaped people—their social identities, experiences—and the social norms, values, and moral codes through which their lives were governed within households, communities, and schools” (Bohren, 2023, p. 2). Gender played a significant role, as indicated by the avoidance of male teachers to discuss menstruation, reflecting the principles of feminist epistemology, which explored “the ways in which gender did and ought to influence our conceptions of knowledge, knowers, and practices of inquiry and justification” (Anderson, 2000, p. 2). Anderson pointed out that dominant knowledge practices disadvantaged women by excluding them from inquiry (2000). In this study, male teachers, influenced by power and gender dynamics, contributed to women being denied knowledge about menstruation, leaving them uninformed about their health conditions. However, one question arose: why was menstruation being avoided, overlooked, and underestimated by educators, particularly male teachers?

Findings from content analysis, interviews with Little Red Book (LRB) participants, and Traditional Chinese Medicine (TCM) practitioners revealed that menstrual-related stigma persisted in current Chinese society. Menstrual stigma encompasses the negative beliefs,

perceptions, taboos, and cultural practices associated with menstruation in society (Olson, 2022). The presence of menstrual shame among women could be traced back to a longstanding social and historical issue: menstrual-related stigma in China. In ancient Chinese culture, menstruation was considered impure, leading to prohibitions against menstruating women participating in ancestral worship and other cultural taboos (Cui, 2020). Despite modern advancements, menstruation remained a taboo topic and continued to be stigmatized in contemporary Chinese society (Su and Lindell, 2016). For instance, when purchasing sanitary pads in convenience stores, retail staff often used black plastic bags to package them, aiming to prevent embarrassment (Wang, 2021). In television advertisements, phrases like "menstrual blood" were avoided; instead, euphemisms such as "that time of the month" or "magical days" were used, and blood was often depicted as blue (Cui, 2020). Therefore, throughout history, the norms, values, and expectations that caused menstruation to be perceived as embarrassing have persisted. Therefore, even in the 21st century, the topic of menstrual shame still makes women feel uncomfortable when discussing menstrual issues. Anderson stated that individuals' understanding of the world, their beliefs, and their perceptions could be influenced by their gender, as well as by societal norms and expectations related to gender (2000). The societal norms and expectations in this case suggested that women were told menstruation was something to be embarrassed about, thus shaping their understanding of and experiences of menstruation.

How Do Men Know What They Know?

This study also identified an empathy gap between males and females. As mentioned in Chapter 5, participants shared instances where they encountered situations highlighting this lack of empathy and respect, particularly among men who left disrespectful comments online (e.g., perceiving women as weak, claiming menstruation is not painful, etc.). Additionally, some

participants recalled experiences in physical education classes where male teachers failed to understand menstrual pain and forced female students who were in pain to participate in physical activities. In addition, one participant recalled that when she was in middle school, she had a blood mark on her pants, and her male classmates laughed at her because of the blood mark. All these examples reflected a lack of understanding and respect for menstruation among males.

As mentioned earlier, boys had often been excluded from learning about female menstruation in school. This absence of discussion among girls about menstruation left boys uninformed. Consequently, misunderstandings about menstruation were perpetuated among boys, resulting in shame and a lack of empathy towards women experiencing menstrual pain. This issue was further exacerbated when male biology teachers rarely addressed menstruation and related topics. In a society deeply rooted in power dynamics and cultural norms, these uninformed boys grew up to become teachers, thus continuing to perpetuate the gender gap in menstrual knowledge. Overall, the use of feminist theory helps this study reveal the gender dynamics that impact women's access to menstrual knowledge, such as male teachers rarely discussing menstruation with female students and the segregation of knowledge access between male and female students. As a result, Code argued that "in general, men have been in control of determining what is labeled..." highlighting a significant epistemological difference related to gender (p. 274).

Epistemology of Culture: How Culture Tells Her What She Knows

Culture was epistemological because "it made our experience understandable and made us feel as if we knew our world and our places in it" (Demerath, 2002, p. 208). In this context, through the lens of epistemology, culture dictated how women came to know and what they knew. By observing the data from content analysis and interviews, this study found a significant

similarity between the way Chinese women perceived pain and the principles of TCM. These similarities reflected the collective consciousness in epistemology, which was developed by Emile Durkheim. It referred to a collective representation that united a society through a common understanding, standard of values, norms, and beliefs held by the people of a cultural area (Demerath, 2002). The following sections demonstrates how this collectivist consciousness transformed the knowledge regarding menstruation among Chinese women.

Building on Emile Durkheim's concept of collective consciousness, Kendall formulated a protocol to examine the phases of collective consciousness (Sulistyono et al., 2021). Sulistyono et al. (2021) stated the protocol comprised three parts: Protocol 1 involved describing the emergence of phenomena, including cultural objects and practices. Protocol 2 focused on the development of systems thinking and knowledge. Protocol 3 centered on the explanation of the utilization of appearances. Within the scope of this study, the cultural objects and practices in question pertained to Traditional Chinese Medicine (TCM), a practice that had emerged and been in use for thousands of years in China. The second protocol underlined systems thinking and knowledge. The following is a summary of TCM doctors' responses to treatment principles, and their perceived differences between TCM and Western medicine:

1) Causes of pain were identified as coldness, blocked flow, damp cold stagnation, insufficient Yang and Qi, and poor lifestyle habits.
2) Dysmenorrhea was regarded as a disease.
3) Doctors held the belief that TCM offered a holistic approach to treating menstrual pain, in contrast to Western medicine, which relied on painkillers and could not treat the root cause of the pain.
4) Negative perceptions linked to the use of painkillers.

5) Pain treatment options encompassed herbal medicine, acupressure, guasha, and methods to maintain warmth, among others.

The third protocol concentrated on detailing the manifestations of knowledge, with the lists above illustrated how Traditional Chinese Medicine (TCM) knowledge was utilized among Chinese women in discussing their methods of pain management and their perceptions of the differences between TCM and Western medicine:

1) Both social media posts and LRB participants emphasized the importance of avoiding coldness. They highlighted the significance of actions like drinking hot water, wearing extra layers of clothing to stay warm, and applying hot compresses to the lower abdominal area. According to their beliefs, coldness was considered a major factor contributing to the pain.
2) Both sources of data stressed the significance of overall well-being. To alleviate the pain, maintaining a healthy lifestyle was encouraged. This included activities such as foot baths, increased exercise, consumption of healthy herbal teas, following Traditional Chinese Medicine dietary guidelines, and utilizing various TCM methods like acupressure, guasha, and acupuncture.
3) Most of the participants expressed concerns about the side effects of painkillers, while a few believed that painkillers had no side effects. However, they all mentioned that their family members held negative attitudes toward painkillers, perceiving them as potentially harmful and capable of leading to dependence.
4) Most participants viewed dysmenorrhea as a disease that TCM could completely treat. They perceived Western medicine as only addressing the symptoms of the pain, providing fast relief but not fully stopping the pain.

5) Participants believed that outside of Chinese culture, white women, for example, experienced less pain during menstruation.

The comparison above clearly highlighted the similarities between the concepts of Traditional Chinese Medicine (TCM) and the ideas held by the public. The list below shows that:

1) Emphasis on Avoiding Coldness: Both responses highlighted the belief that coldness contributed significantly to menstrual pain.
2) Holistic Approach of TCM: Both responses emphasized that TCM offered a holistic approach to treating menstrual pain by addressing the root cause rather than just the symptoms. Most of the participants perceived TCM could completely treat dysmenorrhea.
3) Negative Perceptions of Painkillers: Although all participants took painkillers, most of them perceived painkillers could bring negative side effects, which aligned with the view mentioned by TCM doctors.
4) Pain Treatment Options and Lifestyle Changes: Responses showed that the participants exhibited many TCM treatment principles such as herbal medicine, acupressure, Guasha, maintaining warmth, foot baths, increased exercise, and consumption of healthy herbal teas.

From the findings shown above, these similarities reflect how culture profoundly influences women's perceptions of menstrual treatment. When asked how they acquired this knowledge, many mentioned learning from their family, teachers, friends, and online sources. Notably, social media platforms and online communities also play vital roles in disseminating cultural beliefs and practices. Additionally, one intriguing finding in this study was that when some participants sought TCM help but did not experience the expected results, they attributed it to not finding a

proficient TCM doctor, rather than doubting the effectiveness of TCM itself. It revealed their trust in the effectiveness of TCM. Furthermore, it was important to acknowledge that this study only provided a summary of the major findings and that the sample might not represent the entire population of Chinese women. Overall, through the lens of epistemology, this study uncovered how power relations, gender, and culture influenced what women knew and the ways in which they acquired menstrual knowledge.

Hofstede's Cultural Dimension Theory: Collectivist, Masculine, Long-Term Orientation and High-Power Distance

This study further presented additional findings by using Hofstede's cultural dimension theory. As mentioned earlier in Chapter 2, Hofstede's cultural dimension theory explored cross-cultural differences. His work had been applied to various fields, including organizational culture, international management, and business communication (Makambe & Pellissier, 2014). Hofstede's work was mainly focused on organizational settings; however, it fell short in examining specific cultural phenomena. Therefore, this study extended the application of Hofstede's theory beyond the corporate world to examine how cultural dimensions affected individual behaviors and societal attitudes towards menstrual health in China. This helped to address a gap in Hofstede's analysis by focusing on a deeply ingrained cultural phenomenon rather than cross-cultural differences in a professional environment. This exploration contributed to a deeper understanding of the intersection between cultural dimensions and gender-related health issues, offering insights into the complex interplay of culture, gender, and health within the Chinese context.

Hofstede came up with six dimensions, including Power Distance Index (PDI), Individualism vs. Collectivism (IDV), Masculinity vs. Femininity (MAS), Uncertainty

Avoidance Index (UAI), Long-Term Orientation vs. Short-Term Orientation (LTO) and Indulgence vs. Restraint (IVR). Based on the research context and findings, this study selected four dimensions that were applicable to the analysis. The following sections introduced each accordingly.

Dimension: Individualism vs. Collectivism (IDV). Hofstede et al. (2010) defined individualistic societies as those exhibiting characteristics where individuals were expected to look after themselves and their immediate family, while collectivist societies integrated people into strong, cohesive in-groups. In collectivist societies, there were often "ways of creating family-like ties with persons who are not biological relatives but who are socially integrated into one's in-group" (p. 111).

The example from the LRB menstrual health community reflected a collectivist characteristic in which members who shared similar concerns and experiences gathered, exchanged ideas, and received support. Through interactivity, community members created a "family-like" environment that bound them together as a group. When facing a crisis, especially the pain they were suffering, they turned to this community, raised questions, browsed other netizens' experiences, and participated in various discussions, representing the collectivist society's characteristic of facing crises together.

Hofstede et al. (2010) also introduced the concepts of "in-group" and "out-group." Women who participated in the LRB health communities were considered "in-group," however, a significant portion of women remained "out-group." Those in the out-group might have been unaware of this community or they could have had other alternatives; this aspect required further investigation. Overall, Hofstede et al. (2010) emphasized that "the distinction between in-group and out-group is essential in the collectivist cultural pattern, which has far-reaching

consequences." As a result, by studying the pattern in the collectivist community on LRB, this research was enabled to discover collective behaviors within these online communities that influenced individual attitudes towards menstrual health and pain management. It revealed the importance of social support and shared knowledge in fostering a sense of belonging and empowerment among women navigating similar health challenges.

Power Distance Index (PDI). The Power Distance Index (PDI) measured the extent to which less powerful members of a society or organization accepted and expected an unequal distribution of power (Hofstede et al., 2010). Countries with a High-Power Distance Index reflected cultures that accepted inequity and power differences and showed high respect for rank and authority. In China, characterized by high power distance, participants' responses indicated many inequities and power differences. As mentioned, the lack of education and the authority's dictates on what should be taught and discussed exemplified this. This hierarchical structure may have led to the omission of sensitive topics such as menstruation, as those in authority may not have seen it as a priority or may have considered it taboo. Furthermore, in a society with significant power distance, this study found a lack of awareness and public attention on female menstrual pain. Participants described feeling that their pain was underestimated, which could be seen from the difficulty in obtaining leave from work or school, menstrual-related stigma in society, and an empathy gap that males could not relate to the pain. This dimension, in conclusion, helped this study detect that the societal structure, influenced by high power distance, contributed to the systemic neglect of women's menstrual health concerns.

Masculinity VS Femineity. This dimension evaluated the extent to which a culture valued traditionally "masculine" or "feminine" traits and behaviors. Masculine societies exhibited characteristics such as assertiveness and strength, while feminine societies displayed

traits like modesty and caring (Hofstede, 2011). Hofstede investigated which cultures exhibited masculine or feminine traits and behaviors; this study extended his framework to an online community. The findings indicated that participants appreciated the overall environment on LRB because most users were female. Compared to other platforms, as participants indicated, they disliked online platforms with a large number of male users. This revealed a preference for environments that exhibited feminine characteristics, which Hofstede described as tender, modest, and concerned with the quality of life (1998). As described by participants and discovered through content analysis, most users in this community showed a friendly attitude, with comments that were more interactive, positive, deeply resonant, and displayed strong empathy. Therefore, in this framework, it was particularly useful for examining the masculinity and femininity characteristics in a specific online environment.

In conclusion, this dimension added valuable insights into the study of online communities, providing an understanding of how gender influences digital social spaces. By focusing on the feminine aspects of these communities, this research not only contributed to the understanding of gender dynamics in digital environments but also highlighted the potential of online platforms to promote more empathetic and supportive forms of interaction. As society continues to evolve, the significance of such spaces in shaping cultural norms and gender relations will undoubtedly remain a critical area of study.

Long-Term Orientation vs. Short-Term Orientation (LTO). The last dimension applied in this study was Long-Term Orientation and Short-Term Orientation (LTO). In definition, societies focused on long-term orientation prioritize future outcomes, while short-term orientation focuses on the near future, involving short-term success or gratification (Hofstede, 2010). In the context of menstrual pain management preferences, individuals who favored TCM

often emphasized the long history and holistic approach of TCM. They viewed TCM as a method that addressed the root cause of health issues, offering complete and long-term solutions without reliance on quick fixes like painkillers. This aligned with the values associated with Long-Term Orientation, where people were willing to invest time, effort, and resources for sustainable outcomes. Participants who trusted TCM's long-standing tradition and were willing to commit to lengthy treatments reflected a long-term orientation in their healthcare choices. On the other hand, participants who preferred Western medicine often highlighted its immediate effectiveness and quick relief, especially in acute situations. Overall, this dimension was particularly useful in examining cultural differences in expectations, planning, and value systems. In this study, although these participants preferred Western medicine as the quickest way for relief, they still expressed the wish to completely treat the pain in the long term. However, they encountered many barriers in treating the pain completely. In the subsequent framework, this study would explore the factors contributing to challenges in accessing healthcare resources.

Access to Health Care: Through an Intersectionality Perspective

This study concluded with the final finding: the lack of access to healthcare resources among Chinese women during menstrual pain. The analysis was conducted using an intersectionality perspective that explored multiple factors impacting their access to healthcare.

As mentioned in Chapter 2, intersectionality originated from Black feminist scholarship, specifically by Kimberlé Crenshaw in the late 1980s. Intersectionality provided a critical insight that factors such as race, class, gender, sexuality, ethnicity, nation, ability, and age were not singular, mutually exclusive entities but instead interlocking phenomena that constructed each other (Collins, 2015). It served as an analytical framework that improved understanding, description, and approach to addressing health inequalities (Blair et al., 2022).

Identity of status significantly impacted women's access to healthcare. Citizenship, immigration status, refugee status, or being an international student/worker could influence women's healthcare access within a country. This study, having participants with experiences of residing abroad, provided diverse perspectives on this issue. A notable example from Chapter 5 highlighted this point: interviewees who experienced menstrual pain and sought emergency care faced different challenges based on their location. Participants in China received prompt assistance at a relatively low cost, whereas those in the US encountered longer waiting times and higher costs. This study found that interviewees in China generally perceived the healthcare system as accessible, especially when booking appointments with doctors, consulting Traditional Chinese Medicine practitioners, and purchasing medications. In contrast, international students from overseas reported significant challenges in accessing healthcare resources, attributed to their non-citizen status preventing them from enjoying the same healthcare resources as citizens. Additionally, some interviewees noted that medical insurance did not cover all expenses, leading to concerns about the high cost of medical treatment. This situation underscored the healthcare issues faced by international students.

Socioeconomic status also impacted women's experiences with the menstrual cycle. Socioeconomic status referres to an individual's position in society, usually related to income, occupation, educational attainment, and wealth (Sarsani, 2011). When discussing their perspectives on the price of feminine products, participants from lower socioeconomic backgrounds (such as high school students and those with limited family assets) indicated that the cost of these products was too high. Despite the high prices, they still had to make the purchases. Interviewees who were relatively wealthier found the price of feminine products to be

acceptable. This underscored the barriers faced by women in lower socioeconomic statuses in purchasing feminine products, particularly those in poor, rural areas, and undeveloped countries.

Additionally, occupation also affected participants' experiences with the menstrual cycle. Some participants who had recently entered the workforce, and whose companies did not have a menstrual leave policy, had to work through the pain, often resorting to painkillers. However, participants employed by companies with more understanding and tolerance for menstrual pain found it easier to take leave and rest.

Intersectionality explores the multiple factors that mutually construct a phenomenon. In this study, in addition to the identity of status and socioeconomic status, the previously mentioned power relations also served as elements that strengthened the challenges in the menstrual cycle. These power dynamics inhibited women's accessibility to health knowledge, fostered menstrual-related stigma, and widened the empathy gap between males and females regarding menstruation.

In the conclusion, epistemology explored how women acquired knowledge and identified the barriers to their understanding. The cultural dimension theory delved into characteristics among Chinese women when facing health issues, specifically examining how these cultural dimensions influenced attitudes and behaviors towards menstrual health. In addition, identity encompasses many aspects beyond feminine identity; there are numerous additional dimensions to consider. For this study, the age range was limited to 20-30; however, in subsequent research, it would be beneficial to explore additional age groups beyond 30. Moreover, factors such as disability, such as blindness, could also significantly impact women's experiences. Furthermore, differences in experiences between women living in rural areas versus those in urban areas should be further examined. These dimensions warrant further analysis in follow-up studies.

Lastly, the lens of intersectionality provided a comprehensive overview of the diverse factors affecting women's perceptions and experiences of menstruation. The analysis of the frameworks also underscored the critical need for more inclusive and comprehensive education and policy-making that addressed the gaps in knowledge and empathy. The insights garnered from this study called for a re-evaluation of cultural, educational, and societal frameworks to better support women's health and well-being, advocating for a more informed, empathetic, and inclusive approach to menstruation.

7.2 Limitations

This study had several limitations. First, the interviews were conducted in Chinese, so the quotes in this study were translated, which might have introduced bias. Second, the content analysis in this study was limited. The time range for the content analysis was only from January 2022 to July 2023. Therefore, it might not be applicable to the entire post. Due to the researcher's limited time and effort, this study only collected 50 posts and conducted 20 participant interviews (16 LRB users and 4 TCM doctors). For the 16 LRB users, most participants were aged 20-30, so this study might not be applicable to the experiences of the age group over 40, since age might also be a factor that impacts their experiences with the menstrual cycle. In addition, since TCM has many theories and terms, and different TCM doctors might have different perspectives on menstrual pain, the interviews with TCM doctors only represented their own perspectives.

Additionally, the study's reliance on online ethnography, while innovative and suitable for exploring virtual communities, may have limited the depth of insights compared to traditional ethnographic methods. Online interactions may not have fully captured the complexities of offline social behaviors and cultural nuances. The decision to focus on the Little Red Book

platform and its users may not have fully represented the broader population of Chinese women dealing with menstrual pain. The experiences shared on this platform might have reflected a specific demographic or user base, which may not be generalizable to all Chinese women.

7.3 Recommendations

Throughout the interviews with both LRB interviewees and TCM doctors, based on the challenges they faced, this research summarized participants' recommendations on how society could change to better assist women in overcoming these situations. Table 7.3.1 below provides a summary of their responses:

Table 7.3.1

Recommendations

Category	Recommendations
Family Education	Families should provide more education about menstrual health, as they are often the first teachers for children. Instilling the right values from a young age is crucial.
School Education	Sexual education in schools should be improved to include information about menstruation and ways to alleviate menstrual pain. It's important to teach that menstrual pain is normal and not something to be ashamed of.
Societal Education	There should be an increase in public awareness to normalize menstruation and reduce its stigma. Books or campaigns could be introduced in society to help women understand their own bodies better.
Education for Men	Men also need education about women's menstrual issues to foster respect and understanding.
Suggestions for Taking Medication	There is a call for more diverse pain management options, beyond just traditional Chinese herbal medicine. Women should be informed that taking painkillers is not harmful and should be educated about the use of anti-inflammatory drugs, as well as understanding their side effects.
Suggestions for Seeking Doctors	Women should be encouraged to consult doctors if they are experiencing severe symptoms.
Improve Medical Resources	Healthcare professionals should offer more comprehensive assistance beyond simply prescribing medication, including specialists in menstrual pain.
Introduce Menstrual Leave Policy	While there are concerns about menstrual leave leading to employment discrimination, there is still a recommendation for the policy to be implemented.

Invest More Resources in Menstrual Research	here is a desire for more research into menstrual health to provide better pharmaceutical support.
Improve Public Resource	The accessibility of feminine hygiene in public spaces should be increased.
Flexible Working and Studying Environment	There's a need for more adaptable systems in education and the workplace, such as the option for remote work and recorded classes.
Improve Women's Leadership Positions	Elevating women's status, especially in higher positions, can empower them to effect positive change for others.
Encourage women to take initiative	Women can learn some basic Traditional Chinese Medicine, including acupuncture and herbal knowledge. This is useful in providing effective self-care and can be lifesaving in emergencies.

The table above provides various recommendations from participants on improving menstrual health education and support across different sectors of society. It highlighted the importance of tackling menstrual health issues from various angles, including family, educational institutions, society at large, and the medical community. This collective voice from the participants underscored the necessity for comprehensive strategies to ensure women's well-being and health rights were recognized and supported at all levels of society.

7.4 Conclusion

Chapter 1 provided a basic background of this study, including the prevalence of pain and its negative impact on women. Chapter 2 summarized recent literature on menstruation and introduced the research gaps. Chapter 3 presented how this study will be conducted, introducing the data collection methods and methods for data analysis. Chapters 4, 5, and 6 presented the research findings in detail, and Chapter 7 provided an advanced analysis of the research findings.

Painful periods can affect both physical and mental health, as well as quality of life. This research investigated a group of women aged between 17 and 37, analyzed social media posts on Little Red Book, and interviewed four Traditional Medicine doctors. It found that Chinese women have unique perspectives on pain treatment. The research also showed that when it comes to painful periods, women's pain is undertreated and underestimated by society. In the book *The Science, Medicine, And Mythology of Menstruation*, Dr. Jen Gunter wrote, "Our patriarchal system has dismissed menstrual pain as both exaggerated and a sign of weakness" (Gunter, 2024, p. 253). Due to these underestimations, women receive minimal menstrual-related education and see pain as a normal part of the cycle. Women, and the societies they live in, negate the importance of treating pain. As Gunter (2024) demonstrated, the menstrual cycle is a unique mechanism that ensures the healthiest pregnancy outcome; however, patriarchal society punishes it through employment discrimination, the cost of menstrual products, the inability to access contraception, neglect from health providers, and insufficient funding for research. From the interviewees' responses, these barriers highlight significant gaps in the menstrual health field. In the future, there should be more focus on menstrual health research, more care should be given to women in work and school environments, and, most importantly, women deserve to learn about their bodies and receive relevant education regarding the menstrual cycle. Within the current society, it is impossible to fill these barriers and gaps; but the best defence to against these gaps is knowledge.

(End)

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Appendix A

Consent Form

Title: Exploring Women's Menstrual Pain Experience Through a Cultural Lens

Jie Wu
Department of Communication

Supervisor: Prof. Rocci Luppicini, Ph.D.
Department of Communication

Invitation to Participate: I am invited to participate in a master's thesis project conducted by Jie Wu and Prof. Rocci Luppicini, Ph.D.

Purpose of the Study: The purpose of this research is to explore how culture shapes women's experience and understanding of pain, as well as how they use e-communities to share experiences related to menstrual pain in China. Additionally, it aims to investigate the challenges and difficulties that women face during the menstrual cycle.

Participation: My participation will consist of attending one interview session for approximately 45-60 minutes during which I will be asked by the researcher about my experience with menstruation and how I participated in the Little Red Book discussion online. The interviews have been scheduled for _____ (place), _____ (date), _____ (time). I will also be asked to review the transcript of the interview for accuracy and additional feedback, which should take approximately 10 minutes.

Risks: My participation in this study will entail that I volunteer very personal information, and this may cause me to feel emotional experience with menstrual pain. I have received assurance from the researcher that every effort will be made to minimize these risks by keeping my participation in this research confidential and anonymous. Researcher will provide a list of resources for psychological or emotional support.

Benefits: Your participation in this study will contribute to a raise awareness of dysmenorrhea and its impact on women's physical and mental health.

Confidentiality and anonymity: I have received assurance from the researcher that the information I will share will remain strictly confidential. I understand that the contents will be used only for the creation of a master's thesis and that my confidentiality will be protected by the fact that only the researchers will have access to the data. Anonymity will be protected by the removal of any identifying characteristics from the data during the analysis and reporting stages.

Conservation of data: The data collected, including audio recordings of interviews, electronic and print versions of transcripts, and electronic and print notes will be kept by the researcher in a secure manner. The electronic data will be stored on a USB drive and both the drive as well as the printed materials will be kept in the supervisor's office. The transcript will securely send to the participant for revision by using password protected cloud service (Baidu Wangpan). Only the researcher and supervisor will have access to the data, and it will be conserved for 5 years. The researchers will respect the privacy and confidentiality rights of the participants and obtain

their informed consent. The collected data will be treated confidentially and used solely for research purposes. The research findings will be analyzed and presented in aggregated form to protect the privacy and anonymity of the participants.

Compensation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be deleted and/or destroyed.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I can withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. If I choose to withdraw, all data gathered until the time of withdrawal will be removed from the dataset and not used in the study.

If I have any questions about the study, I may contact the researcher or their supervisor. If I have any questions regarding the ethical conduct of this study, I may contact the Office of Research Ethics and Integrity via email (ethics@uottawa.ca) or telephone (613-562-5387).

It is recommended that I *(keep/print/save)* a copy of this consent form for my records.

Acceptance: By selecting the consent statement below, I agree to participate in this research study.

☐ Yes, I want to participate.

(Name/Code): _____
Email/Telephone number: _____

☐ No, I do not want to participate.

Appendix B:

Letter of Recruitment

Hello,

You are invited to participate in research conducted by Jie Wu, under the supervision of Prof. Rocci Luppicini, Ph.D. at the University of Ottawa.

The purpose of this research is to explore how culture shapes women's experience and understanding of pain, as well as how they use e-communities to share experiences related to menstrual pain in China. Additionally, it aims to investigate the challenges and difficulties that women face during the menstrual cycle.

Each participant will be asked to take part in one interview session that will take approximately 45-60 minutes. Following this session, participants will be provided with a transcript of their interview and asked to review it and provide any additional comments or feedback. The data that you provide will be kept confidential and anonymous.

Participation in this study is completely voluntary. If you initially wish to participate and change your mind, you will be able to remove yourself from this study. Only the researcher and supervisor will have access to the information you provide.

If you wish to participate or have any questions, please feel free to contact me.

Thank you,

Sakura Wu

Appendix C: LRB Recruitment Post

English Translation:

Hello everyone on Little Red Book! I am a second-year student majoring in Communication Studies at the University of Ottawa. Recently, I have been researching the social and cultural issues faced by Chinese women during menstrual pain, as well as how Chinese women seek help and self-help in online health communities (Little Red Book).

I have been experiencing menstrual pain for many years and understand the suffering it brings to women. I hope to find sisters interested in participating in the research on Little Red Book and contribute a little to women's health.

The interview process will take about 45-60 minutes over the phone, no video required! I won't need your personal information, just simple answers to questions like the difficulties faced during menstrual pain and how to seek help on Little Red Book. Once the experimental data analysis is complete, I will send you the results in electronic format! All the specific information is on the poster! Interested netizens can DM me! I hope the world becomes better for women and may there never be menstrual pain again!

Appendix D: Demographic Chart

Participant Name (Nickname)	
Age	
Residence Background	
Beliefs	
Education	
Occupation	
Underlying Health Conditions	
Years of Menstrual Pain	
Duration	
Participation Type	

Appendix E: LRB User Interview Questions

Question List for LRB Users
Theme 1: Personal Experience
1. Can you describe your personal experience with menstrual pain or discomfort?
2. Please tell me your experience in dealing with solving menstrual pain. What sources can you access? Health providers, hospital, parents, self-help?
Theme 2: Little Red Book Community
3. What motivated you to join the Little Red Book community to seek information about menstrual issues? Do you find the community to be helpful and informative in addressing your concerns? Is there any misinformation or concerns that you found in this community?
4. What type of information you can gather in this community?
5. Have you ever participated in discussion and shared your opinion in this community?
6. Have you ever posted in this community? If so, what was it about and why you share it?
Theme 3: Traditional Chinese Medicine
7. When it comes to managing menstrual pain, do you prefer Traditional Chinese medicine or western medicine? Why?
8. What factors influence your preference for Chinese traditional medicine or western medicine in managing menstrual pain?
9. Have you noticed any differences in the way Chinese culture views and approaches menstrual pain compared to other cultures? If so, could you provide some examples?
10. Are there any specific cultural practices or remedies within Chinese culture that you have found effective in managing menstrual pain?
Theme 4: Social issues related to menstrual cycle
11. Do you feel that there are any unique challenges or barriers to accessing healthcare for menstrual issues? Do you feel that there is enough public awareness and attention given to menstrual health and menstrual pain as a health issue?
12. How do you think society can work to improve women's health and wellbeing in relation to menstrual issues?

Appendix F:

Interview for TCM Practitioners

1. From your perspective, what are the causes of dysmenorrhea?
2. What do you consider effective methods for dealing with dysmenorrhea?
3. How do you think Chinese culture influences Chinese women's understanding/treatment of dysmenorrhea?
4. What is your opinion of Western medicine? Have you noticed differences between Chinese culture and other cultures in how menstrual pain is perceived and treated? How do you perceive these differences?
5. Do you feel there are difficulties accessing medical resources when dealing with menstrual issues within the existing social and healthcare systems?
6. Do you think there is enough public awareness and attention in society to treat menstrual health and menstrual pain as health issues?
7. What measures do you think society can take to improve women's health and well-being in terms of menstrual issues?

Appendix G: Interview Respondents for LRB Users

Participant	Interview Date	Duration
Interviewee E	October 4, 2023	28:35
Interviewee R	October 3, 2023	25:05
Interviewee Z	October 5, 2023	56:07
Interviewee J	October 5, 2023	34:46
Interviewee C	October 6, 2023	19:16
Interviewee T	October 7, 2023	24:08
Interviewee K	October 7, 2023	38:52
Interviewee B	October 7, 2023	57:28
Interviewee S	October 8, 2023	30:59
Interviewee A	October 8, 2023	41:00
Interviewee G	October 8, 2023	19:33
Interviewee D	October 9, 2023	37:14
Interviewee H	October 10, 2023	60:16
Interviewee I	October 11, 2023	35:51
Interviewee W	October 12, 2023	49:29
Interviewee Q	October 12, 2023	47:28

Appendix H: Interview Respondents for TCM Practitioners

Participant	Interview Date	Duration
Doctor M	October 6, 2023	57:07
Doctor A	October 5, 2023	60:13
Doctor G	October 6, 2023	32:23
Doctor Z	October 8, 2023	30:54

Appendix I: Demographic Chart

Participants	Age	Residence Background	Beliefs	Education	Occupation	Underlying Health Conditions	Years of Menstrual Pain	Duration	Participation Type
Interviewee E	26	Taiwan, Mainland China, Canada	Buddhism	Bachelor	Office worker		5	1-3 days	Observer
Interviewee R	27	Mainland China, Canada		Bachelor	Unemployed	Uterine Adenomyosis, Endometriosis, Gallstones, Depression (4 years)	16	4-7 days	Observer, Contributor
Interviewee Z	31	Mainland China, Canada, US		Master	Office worker		20	1-3 days	Observer
Interviewee J	17	Mainland China, US		High school	Student		3	1-3 days	Observer, Contributor
Interviewee C	24	Mainland China, Canada		Master	Student		10	1-3 days	Observer
Interviewee T	21	Mainland China		Bachelor	Student		2	Less than 1 day	Observer
Interviewee K	27	Mainland China		Bachelor	Office worker		12	1-3 days	Observer, Contributor, Publisher
Interviewee B	23	Mainland China		Bachelor	Student		10	1-3 days	Observer, Contributor, Publisher
Interviewee S	25	Mainland China, US		PhD	Student	Depression, Anxiety	2	1-3 days	Observer, Publisher
Interviewee A	23	Mainland China, US	Buddhism	Master	Student		10	1-3 days	Observer
Interviewee G	19	Mainland China, Canada		Bachelor	Student		6	1-3 days	Observer
Interviewee D	24	Mainland China		Bachelor	Student		6	1-3 days	Observer
Interviewee H	21	Mainland China, UK, Hong Kong		Master	Student		10	1-3 days	Observer
Interviewee I	21	Mainland China		Bachelor	Student		10	1-3 days	Observer, Contributor
Interviewee W	25	Mainland China		High school	Student	fever of unknown origin	14	4-7 days	Observer, Publisher
Interviewee Q	37	Mainland China, US		Master	Office worker	Endometrial hyperplasia	6	1-3 days	Observer

Appendix J: Ethics Approval

27/09/2023

Université d'Ottawa
Bureau d'éthique et d'intégrité de la recherche

University of Ottawa
Office of Research Ethics and Integrity

CERTIFICAT D'APPROBATION ÉTHIQUE I CERTIFICATE OF ETHICS APPROVAL

Numéro du dossier / Ethics File Number	S-06-23-9371
Titre du projet / Project Title	Study of Chinese Women's Menstrual Self-Help in an Online Community
Type de projet / Project Type	Thèse de maîtrise / Master's thesis
Statut du projet / Project Status	Approuvé / Approved
Date d'approbation (jj/mm/aaaa) / Approval Date (dd/mm/yyyy)	27/09/2023
Date d'expiration (jj/mm/aaaa) / Expiry Date (dd/mm/yyyy)	26/09/2024

Équipe de recherche / Research Team

Chercheur / Researcher	Affiliation	Role
Jie WU	Département de communication / Department of Communication	Chercheur Principal / Principal Investigator
Rocci LUPPICINI	Département de communication / Department of Communication	Superviseur / Supervisor

Conditions spéciales ou commentaires / Special conditions or comments