

Breaking taboos: Exploring menstruation's influence on young women's travel experiences in Rural Japan

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Abstract

The topic of menstruation remains taboo in many countries. Japan is no exception, but growing empathy and awareness have compelled some companies to introduce measures such as menstrual leave programs. In turn, menstruation is gradually being discussed more openly. A review of existing literature reveals that existing research focuses primarily on the physiological impacts of menstruation with some studies diverging to investigate the effects on female athletes, soldiers, and students. However, the implications for tourism remain entirely unexplored. To address this research gap, this study investigates menstruation-related challenges faced by young female adults during travel. Quantitative data from 296 female respondents, aged in their late teens and early 20s at rural, tertiary educational institutions in Japan, were analyzed. The findings reveal strategies to mitigate menstrual symptoms and situations that restrict travel and advocate for broader research in this field.

Keywords

Menstrual health
Cultural taboos
Gender
Travel
Tourism

Introduction

Menstruation remains a globally taboo topic (Buckley & Gottlieb, 1988; Gottlieb, 2020), and Japan is no exception. However, a significant shift is underway as societal and institutional attitudes toward menstruation evolve. For example, the announcement by Ministry of Economy, Trade and Industry (METI) (2019) brought increased attention to the notion that menstrual symptoms and the resulting labor losses are not merely individual concerns, but broader societal challenges. In 2020, the FemTech market – a term combining “female” and “technology” to describe products and services addressing women’s health issues through technological solutions – experienced a significant rise in the number of companies entering the field (The Nippon Foundation, 2023). This year is often referred to as the “first year of FemTech” in Japan (The Nippon Foundation, 2023). The development of menstrual leave policies, and media attention regarding such activities and policies are prominent examples (Ministry of Economy, Trade and Industry, 2024; Ministry of Health, Labour and Welfare, 2024). These steps foster a supportive work environment and show leadership that the tourism industry should emulate to enhance inclusivity.

Despite these advancements, research on the effect of menstruation within the tourism sector is scarce, particularly regarding special considerations for menstruating travelers.

This study explores the realities of menstruation among women in Japan and its impact on travel experiences, assessing barriers and identifying potential solutions. Preliminary results highlight actionable recommendations for accommodation providers to support menstruating travelers.

Literature Review

Defining a Global Taboo

In the context of this research, menstruation (otherwise commonly referred to as periods or menses), is a natural biological

process experienced by women, making a key physiological phenomenon from menarche to menopause (Fujii et al., 2023). A detailed exploration of this phenomenon and more comprehensive definitions can be found in the Chavez-MacGregor et al. (2008) and Fujii et al. (2023).

This paper is primarily concerned with the management of associated symptoms which might interfere with travel for women before, during and after menstruation. For instance, Premenstrual Syndrome (PMS) refers to the physical and emotional symptoms, such as cramps and mood swings, that may precede menstruation (Gosselin, 2013). As a reflection of physiological status, menstruation serves as a potential diagnostic tool for assessing women’s health (Wyatt et al., 2002). However, despite its universal occurrence, menstruation remains a subject of secrecy and stigma, perpetuating its status as a global taboo (Gottlieb, 2020; Pinel et al., 2022; White, 2013).

Menstruation in Non-Tourism Demographics: Military, Education, and Sports

While tourism-specific research on menstruation is scarce, insights from other disciplines can be valuable. Medical studies on menstruation are abundant, but research outside this area typically targets groups like military members, students, and athletes. Reviewing these studies provides essential context for the current research and offers a framework for exploring menstruation in the tourism sector.

For instance, in the military context, some studies acknowledge that menstruation is both a practical and symbolic issue. Specifically, female soldiers face various concerns and operational challenges, such as difficulty in managing menstrual hygiene during deployments, limited access to sanitary supplies, and the potential impact on mission readiness (Chua, 2022; Wardell & Czerwinski, 2001). Chua’s research (2022) reflects broader cultural anxieties about the place of women in traditionally male-dominated spaces like the military.

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In educational settings, studies have shown that adolescent girls face a range of challenges, including limited access to menstrual products, inadequate sanitary facilities for managing menstruation, and insufficient education on menstrual health and hygiene (Schmitt et al., 2021). These factors can have detrimental effects on their overall health and well-being (Coast et al., 2019). Moreover, menstrual stigma often intensifies these challenges, as girls may experience anxiety over the possibility of staining their clothes or emitting odors, which could disclose their menstrual status (Girod et al., 2017). This stress, combined with the physical discomfort of dysmenorrhea or menstrual pain, can impair their ability to focus on their studies and engage socially with peers during the school day (Crofts & Fisher, 2012).

Finally, in athletic contexts, researchers have examined various physiological processes (de Jonge, 2003), including hormonal fluctuations, oxygen uptake, fluid retention, and cardiovascular strain. The menstrual cycle involves a complex interaction of multiple factors, making its effects on exercise outcomes ambiguous (Pinel et al., 2022). However, the most frequently reported barriers are related to the physical and psychological symptoms experienced during menstruation (Pinel et al., 2022). To address these challenges, enhancing coaches' education on female health and providing female athletes with support for managing symptoms and optimizing performance are crucial (Pinel et al., 2022).

Shifting Focus: Menstruation and Its Impact within the Tourism Sector

Despite a growing body of research on menstruation in the fields explored above, there are only a small number of tangentially related studies examining implications within the tourism industry. One of the earliest mentions of menstruation in relation to travel dates to 1930 in Japan, when the magazine named "Shufu no tomo" (The Friend of Housewives) offered advice to soon-to-be brides, recommending that honeymoons be scheduled after their menstrual periods to ensure comfort (Moritsu, 2020). While there has been some recent interest regarding female travelers, including those engaging in solo or adventure travel (Bauer, 2021; Fleuret, 2024; Prince & Annison, 2023a; Prince & Annison, 2023b), research specifically addressing the challenges posed by menstruation during travel remains limited.

The findings of those limited studies have highlighted various menstrual-related issues that female travelers face, such as difficulties in carrying or acquiring hygiene products while abroad, the need to adjust contraception due to changing travel conditions, and the potential for irregular or disrupted menstrual cycles resulting from travel stress (Fleuret, 2024). In particular, Prince and Annison (2023b) investigated the impact of menstruation on participation in outdoor and adventurous activities, drawing insights from both menstruating individuals and cisgender men in leadership roles.

With the exception of the limited examples provided above, the broader lack of research in this area underscores a significant gap in the literature. This gap underscores the need for more acutely focused studies that explore the intersection of menstruation and tourism, particularly in relation to improving customer service and the overall guest experience within the hospitality sector.

Research Methodology

This study employed a quantitative research approach, utilizing an online questionnaire survey to gather specific range of information from individuals (Veal, 2018). The target population comprised female students from two rural educational institutions in Toyama Prefecture, Japan, with additional respondents recruited from the researcher's personal network to enhance diversity. The

survey, designed to be concise, took approximately five minutes to complete.

Of the 526 individuals invited, 296 completed the survey, resulting in a 56% response rate. Conducted in July 2023, the survey examined how menstruation affects tourist behavior among women in their late teens and 20s, focusing on the intersection of health and tourism within this age group.

To ensure both reliability and ethical integrity, the research team collaborated to design a questionnaire that aligned with the study's objectives while being sensitive to participants' privacy. In addition, only students who understood the study and provided informed consent were invited to participate in the survey. For data analysis, grand totals and cross-tabulation were used to interpret the findings, chosen for their ability to explore the relationship between menstruation and tourist behavior among the target population.

Results

This study's findings reveal several key insights into the challenges young female adults face regarding menstruation during travel, they can be categorized into three principal themes: menstrual cycles and pain, openness about menstruation, and impacts on travel.

Menstrual Cycles and Pain

The data indicate that most participants (approximately 90%) (n=263) reported regular and stable menstrual cycles. Regarding menstrual pain levels, the majority (93%, n=275) experienced some degree of discomfort. Of these, 29.4% (n=87) reported tolerating the pain in daily life, while 56.8% (n=168) used coping methods such as medication. For a smaller proportion (7.1%, n=21), menstrual pain rendered daily activities nearly impossible. These findings align with prior research, which suggests that menstrual pain significantly impacts daily life and activities.

Openness to menstruation

Another prominent theme was the degree of openness around menstruation. Analysis of responses on comfort discussing menstruation showed that 50.7% (n=150) of participants were very comfortable, and 32.1% (n=95) were somewhat comfortable, with over 80% (n=245) expressing some level of ease discussing the topic. Interestingly, this openness contrasts with prior studies indicating that menstruation is a universal taboo.

Impacts on travel

The final theme addresses the impact of menstruation on travel experiences. Approximately 70% (n=204) of participants reported considering their menstrual cycles when planning trips. The survey also examined the relationship between menstrual pain severity and the ability to enjoy travel. Cross-tabulation of responses revealed that those with milder menstrual pain were significantly more likely to enjoy their travel experiences.

Discussion and Conclusion

In conclusion, this study sheds light on the often-overlooked intersection between menstruation and tourism, particularly among young women in rural Japan. The findings reveal that menstruation significantly influences travel behaviors, with many participants reporting discomfort and anxiety that limit their ability to fully engage in travel experiences. This highlights a pressing need for greater awareness and inclusivity in the tourism sector, especially in accommodating the unique needs of menstruating travelers.

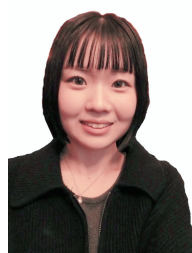
The findings of the study suggest that tourism providers should be encouraged to adopt practical solutions, such as offering free menstrual products, improving restroom facilities, and fostering

open conversations about menstruation to reduce the stigma surrounding it. These steps have the potential to establish a more welcoming and supportive environment for female travelers. Additionally, educational initiatives targeting both male and female accommodation providers and tourism stakeholders might play a crucial role in challenging cultural taboos and promoting understanding, ultimately leading to a more inclusive travel experience.

Future research should continue to explore this important topic, addressing current gaps in the literature and providing actionable insights for the tourism industry to create more inclusive and empowering experiences for all travelers.

References

- Buckley, T., & Gottlieb, A. (1988). *Blood magic: The anthropology of menstruation*. University of California Press.
- Bauer, I. L. (2021). Healthy, safe and responsible: the modern female traveller. *Tropical diseases, travel medicine and vaccines*, 7, 14. <https://doi.org/10.1186/s40794-021-00141-7>
- Chavez-MacGregor, M., Van Gils, C. H., Van Der Schouw, Y. T., Monninkhof, E., Van Noord, P. A., & Peeters, P. H. (2008). Lifetime cumulative number of menstrual cycles and serum sex hormone levels in postmenopausal women. *Breast cancer research and treatment*, 108, 101-112. <https://doi.org/10.1007/s10549-007-9574-z>
- Chua, J. L. (2022). Bloody war: menstruation, soldiering, and the 'gender-integrated' United States military. *Critical Military Studies*, 8(2), 139-158. <https://doi.org/10.1080/23337486.2020.1750260>
- Coast, E., Lattof, S. R., & Strong, J. (2019). Puberty and menstruation knowledge among young adolescents in low- and middle-income countries: a scoping review. *International journal of public health*, 64, 293-304. <https://doi.org/10.1007/s00038-019-01209-0>
- Crofts, T., & Fisher, J. (2012). Menstrual hygiene in Ugandan schools: an investigation of low-cost sanitary pads. *Journal of water, sanitation and hygiene for development*, 2(1), 50-58. <https://doi.org/10.2166/washdev.2012.067>
- de Jonge, X. A. J. (2003). Effects of the menstrual cycle on exercise performance. *Sports medicine*, 33, 833-851. <https://doi.org/10.2165/00007256-200333110-00004>
- Fleuret, S. (2024). Backpackers' Tourism and Health: A Narrative Literature Review. *Geographies*, 4(1), 40-51. <https://doi.org/10.3390/geographies4010003>
- Fujii, T., Matsuura, N., Morita, Y., & Morimoto, K. (2023). Volatile organic compounds from human skin as biomarkers of menstruation phase and severity of premenstrual syndrome: An exploratory pilot study. *Heliyon*, 9(9), e19627. <https://doi.org/10.1016/j.heliyon.2023.e19627>
- Gosselin, M. (2013). *Menstrual cycle: Signs and symptoms, psychological/behavioral changes and abnormalities*. Nova Science Publishers, Incorporated.
- Gottlieb, A. (2020). Menstrual taboos: Moving beyond the curse. In Bobel, C., Winkler, I. T., Fahs, B., Hasson, K. A., Kissling, E. A., & Roberts, T. A. (Eds.) *The Palgrave handbook of critical menstruation studies* (pp. 143-162). Palgrave Macmillan. https://doi.org/10.1007/978-981-15-0614-7_14
- Girod, C., Ellis, A., Andes, K. L., Freeman, M. C., & Caruso, B. A. (2017). Physical, social, and political inequities constraining girls' menstrual management at schools in informal settlements of Nairobi, Kenya. *Journal of Urban Health*, 94, 835-846. <https://doi.org/10.1007/s11524-017-0189-3>
- Ministry of Economy, Trade and Industry (2019). *Kenko Keiei ni okeru Jyosei no Kenko no Torikumi ni tsuite* [Women's Health Initiatives in Health Management]. Ministry of Economy, Trade and Industry. https://www.meti.go.jp/policy/mono_info_service/healthcare/downloadfiles/jyosei-kenkou.pdf
- Ministry of Economy, Trade and Industry (2024). *Jyosei Tokuyuu no Kenko Kadai ni yoru Keizai Sonshitsu no Shisan to Kenko Keiei no Hitsuyousei ni tsuite* [Estimation of Economic Losses Due to Women's Specific Health Challenges and the Need for Health Management]. Ministry of Economy, Trade and Industry. https://www.meti.go.jp/policy/mono_info_service/healthcare/downloadfiles/jyosei_keizaisonshitsu.pdf
- Ministry of Health, Labour and Welfare. (2024, September 27). *Special Feature: Working Women and Menstrual Leave*. https://www.bosei-navi.mhlw.go.jp/health/special_company.html
- Moritsu, C. (2020). The Spread of Honeymoon in The New Middle Class. *Bulletin of Miyazaki Municipal University Faculty of Humanities*, 27(1), 233-243.
- Pinel, C. J., Mehta, R., & Okholm Kryger, K. (2022). The impact and experienced barriers menstruation present to football participation in amateur female footballers. *Journal of sports sciences*, 40(17), 1950-1963. <https://doi.org/10.1080/02640414.2022.2122328>
- Prince, H. E., & Annison, E. (2023a). The impact of menstruation on participation in adventurous activities. *Sport, Education and Society*, 28(7), 811-823. <https://doi.org/10.1080/13573322.2022.2059756>
- Prince, H. E., & Annison, E. (2023b). Men and menstruation: views and perspectives influencing participation in adventurous activities. *Sport, Education and Society*, 1-14. <https://doi.org/10.1080/13573322.2023.2269213>
- Schmitt, M. L., Hagstrom, C., Nowara, A., Gruer, C., Adenu-Mensah, N. E., Keeley, K., & Sommer, M. (2021). The intersection of menstruation, school and family: Experiences of girls growing up in urban cities in the USA. *International Journal of Adolescence and Youth*, 26(1), 94-109. <https://doi.org/10.1080/02673843.2020.1867207>
- The Nippon Foundation. (2023, January 10). *Lunaluna, the pioneer of FemTech, has faced the barrier between "physiology" and "society" for more than 20 years*. <https://www.nippon-foundation.or.jp/journal/2022/83467/gender>
- Veal, A. J. (2018). *Research methods for leisure and tourism* (Fifth edition.). Harlow: Pearson Education Limited.
- White, L. R. (2013). The function of ethnicity, income level, and menstrual taboos in postmenarcheal adolescents' understanding of menarche and menstruation. *Sex roles*, 68, 65-76. <https://doi.org/10.1007/s11199-012-0166-y>
- Wyatt, K. M., Dimmock, P. W., Hayes-Gill, B., Crowe, J., & O'Brien, P. S. (2002). Menstrual symptometrics: a simple computer-aided method to quantify menstrual cycle disorders. *Fertility and sterility*, 78(1), 96-101. [https://doi.org/10.1016/S0015-0282\(02\)03161-8](https://doi.org/10.1016/S0015-0282(02)03161-8)
- Wardell, D. W., & Czerwinski, B. (2001). A military challenge to managing feminine and personal hygiene. *Journal of the American Association of Nurse Practitioners*, 13(4), 187-193. <https://doi.org/10.1111/j.1745-7599.2001.tb00245.x>



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