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University of Wales Trinity St Davids

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Assessment 3: Reflective Paper

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Participation in outdoor environments has been associated with physical wellbeing, recreation, and professional practice (Thompson Coon et al., 2011; White et al., 2019). The research question referred to ‘the outdoors’ but that term can be applied to a broad range of activities and contexts, including hiking, camping, outdoor education, and adventure recreation (Priest and Gass, 2018). Existing research within outdoor studies has explored themes such as wellbeing, access, identity, and participation; however, significantly less attention has been paid to how embodied experiences may shape engagement with outdoor environments (Higgins, Loynes and Crowther, 2012; Thomas, Dymont and Prince, 2021). In particular, menstruation remains comparatively underexplored within outdoor and active lifestyle research despite affecting a substantial proportion of the population (Costello, Bieuzen and Bleakley, 2014; Kissling, 2006; Bobel, 2010).

This study sought to explore the research question:

How is menstruation experienced and perceived by individuals who access the outdoors?

Research aimed to develop a deeper understanding of how menstruation may influence participation within outdoor environments, including practical management, social perceptions, and whether menstruation may act as a barrier to engagement. The project also sought to consider inclusivity within menstruation research by acknowledging that not all individuals who menstruate identify as women (MacKinnon et al., 2021). This introduced important methodological and ethical considerations surrounding language use, participant inclusivity, and researcher assumptions. For example, terminology commonly used within society, such as “feminine hygiene products,” was recognised as potentially exclusionary for participants who menstruate but do not identify as female. This again highlighted the importance of inclusive language throughout the research process (Bauer et al., 2017).

This reflective paper critically evaluates methodological decisions underpinning the study, including alignment between interpretivist qualitative research design and the research question. It also reflects experience of conducting sensitive research, including recruitment difficulties, ethical considerations, researcher positionality, and challenges associated with analysing subjective experiential data. Finally, considering the implications of the project for future research and professional practice within outdoor and active lifestyle contexts.

The gap in literature provided primary rationale for the study and informed development of the research question. Literature surrounding menstruation consistently demonstrates that menstrual experiences are shaped not only biologically but socially and culturally (Bobel, 2010). Research has highlighted how menstruation is frequently constructed as something private, shameful, or requiring concealment (Kissling, 2006; Johnston-Robledo and Chrisler, 2013). These cultural narratives may influence how individuals experience menstruation within public or physically demanding environments such as the outdoors. Existing research also suggests that outdoor environments can reinforce broader societal expectations surrounding resilience, physical

capability, and gender norms (Humberstone, Prince and Henderson, 2016), potentially intensifying discomfort or silence surrounding menstruation.

Although research exploring menstruation and physical activity has expanded in recent years, much of this literature focuses on elite sport and athletic performance (McNulty et al., 2020; Sims, 2016). Comparatively little attention has been paid to recreational outdoor participation or practical realities of menstruation management in outdoor settings. Emerging research by Prince and Annison (2022; 2025) highlights how menstruation may influence participation in adventurous activities due to concerns surrounding hygiene, disposal, emotional wellbeing, and limited support from outdoor leaders. Similarly, Campano et al. (2024) found that menstruation is rarely addressed within outdoor recreation planning or leadership communication. These studies assisted the value of exploring menstruation as an embodied outdoor experience while also highlighting significant gaps in understanding inclusive outdoor participation.

Literature also informed the study's methodological direction. Due to the research question focusing on "experience" and "perception," an interpretivist qualitative approach appeared most appropriate. Concepts of embodiment and lived experience, particularly those discussed by Shilling (2012), further supported use of qualitative methods capable of exploring subjective meaning and personal interpretation. Rather than seeking objective measurement, the study aimed to understand how individuals make sense of menstruation within outdoor environments, including emotional, social, and practical dimensions.

Early in the research design process, I became aware that dominant societal language surrounding menstruation frequently assumes femininity and womanhood. Terms such as "feminine hygiene products," although socially common, risk gender binaries and excluding individuals who menstruate but do not identify as women (Johnston-Robledo and Chrisler, 2013). Engagement with feminist and gender-inclusive literature therefore encouraged greater reflexivity in question design and participant communication (Hammarberg, Kirkman and de Lacey, 2016). This highlighted how literature engagement extends beyond informing research topics and instead shapes ethical awareness, methodological sensitivity, and researcher positionality (Finlay, 2002). Literature surrounding menstrual stigma prompted reflection on why non-female-identifying participants may have been less willing to engage, potentially reflecting ongoing gendered taboos surrounding menstruation, while also highlighting how the researcher's demographics may have shaped recruitment through existing social networks.

Overall, literature provided both theoretical justification and critical guidance throughout the research process. It demonstrated clear gaps within outdoor menstruation research while also supporting the importance of inclusivity, and methodological sensitivity when researching embodied and potentially stigmatised experiences.

The study was distributed through social media, university peers, friends, and colleagues. Although the proposal did not explicitly identify a research paradigm, reflection suggests the study aligned most closely with interpretivism, with constructivist and feminist-informed

elements, due to its focus on lived experience, subjective perception, and socially constructed meanings surrounding menstruation (Shilling, 2012; Bobel, 2010). An open-ended online questionnaire was selected due to both practicality and sensitive nature of the topic. Anonymous participation allowed individuals to share personal experiences privately and in their own words, supporting exploration of subjective experiences while minimising researcher influence.

The study viewed menstruation as a socially and culturally shaped lived experience influenced by stigma, social norms, and environmental context, aligning with interpretivist perspectives that recognise reality as individually and socially constructed. Rather than seeking a single objective truth, the research aimed to explore how participants understood and experienced menstruation within outdoor environments.

However, reflection identified several limitations within the chosen methodology. Although some participants provided thoughtful and detailed responses, others submitted comparatively brief answers, limiting depth of experiential data collected. Unlike interviews, questionnaires did not allow opportunities for probing, clarification, or follow-up discussion. Reflecting on this process, semi-structured interviews may have generated richer and more nuanced accounts of menstruation within outdoor environments, particularly regarding emotional responses, embodied experiences, and social stigma.

Participant recruitment proved unexpectedly difficult, particularly among individuals who menstruate but do not identify as women. The personal nature of the topic made recruitment feel uncomfortable at times, highlighting ongoing sensitivity surrounding menstruation-related discussion. Several individuals declined participation due to subject matter, questionnaire length, or time commitment, suggesting menstruation may still function as a socially sensitive topic despite increasing public discussion. Additionally, detailed consent and information procedures required by ethical approval increased overall length of participation, discouraging engagement. Time constraints caused by university assessment schedule also limited opportunities for prolonged recruitment.

Participant sample consisted predominantly of cisgender women despite attempts to make the study inclusive of all individuals who menstruate. This prompted important reflection regarding both societal stigma and researcher positionality. It is possible that individuals who menstruate but do not identify as women may experience additional discomfort discussing menstruation due to gendered assumptions often attached to menstrual discourse (Johnston-Robledo and Chrisler, 2013). However, this may also reflect personal positionality as a cisgender heterosexual woman whose social networks largely consist of similar demographics (Finlay, 2002). This highlighted how researcher identity and social access can shape recruitment opportunities within qualitative research (Finlay, 2002). Engagement with inclusive research approaches is therefore important to avoid exclusion in study design and language (Hammarberg, Kirkman and de Lacey, 2016).

Manual thematic analysis was ultimately considered more effective, enabling greater familiarity with participant narratives and more context-sensitive coding. This process supports awareness

that qualitative analysis remains inherently subjective, as themes and meanings are influenced by interpretation of participant language and experience.

Reflecting on overall research design, a mixed methods approach may have strengthened the study. A shorter quantitative questionnaire combined with follow-up interviews may have reduced participant burden while still generating richer qualitative insight. Quantitative elements may additionally provide broader comparative data and reduce some interpretive limitations associated with qualitative analysis alone. However, the personal and socially constructed nature of menstruation suggests that qualitative exploration would still remain essential for understanding lived experience and embodied meaning.

Conducting this research highlighted practical and emotional challenges involved in researching sensitive lived experiences. While the proposal stage focused mainly on research design and methodology, completing the project demonstrated the importance of ongoing ethical awareness and adaptability within qualitative research. Throughout I experienced nervousness, awkwardness, frustration, and emotional investment, all of which shaped understanding of both the research process and development as a researcher.

Designing the questionnaire also required substantial ethical consideration. Constructing questions that were inclusive, non-leading, and emotionally sensitive proved more difficult than anticipated. I became increasingly aware that language commonly associated with menstruation often assumes femininity and womanhood. Terms such as “feminine hygiene products,” although socially familiar, risk exclusionary assumptions and potentially alienating participants who menstruate but do not identify as women. This prompted careful reflection on language choices throughout the questionnaire design process.

Ethical considerations remained central throughout the project. Due to personal nature of menstruation and discussions surrounding gender identity, participant wellbeing and emotional safety were prioritised throughout recruitment and data collection. Measures including anonymous participation, informed consent, clear participant information, and the right to withdraw were implemented in accordance with ethical approval requirements and professional ethical principles. Although no participants expressed emotional distress or negative reactions to the questionnaire, I remained conscious of the possibility that discussing menstruation-related experiences could evoke discomfort, embarrassment, or personal sensitivities.

Personal experiences also significantly shaped engagement with the research, creating a heightened emotional connection to the topic and new awareness of how deeply personal menstruation experiences can be. Reflecting critically, this emotional investment strengthened motivation and commitment. I recognised that personal experiences and assumptions surrounding menstruation may have influenced expectations prior to analysing the data. For example, I anticipated participants would report higher levels of stigma.

However, several findings challenged these assumptions. More participants reported feeling comfortable discussing menstruation than uncomfortable, and only one participant agreed menstruation is a taboo topic. Similarly, more participants reported not experiencing stigma surrounding menstruation than those who had. These findings surprised me and highlighted the importance of remaining open to participant perspectives rather than allowing personal assumptions to shape interpretation. Reflecting on this process highlighted a key strength of research and its ability to challenge preconceived ideas and generate more nuanced understanding (Finlay, 2002).

The experience also shaped methodological preferences. Reflecting on the project, I recognised a stronger personal preference for quantitative approaches. Writing open-ended qualitative questions proved significantly more difficult than adapting or using established quantitative measures. Recruitment and qualitative analysis additionally required substantial interpretation. However, the project also demonstrated that experiences such as menstruation cannot always be fully understood through numerical data alone, as lived experiences remain deeply contextual, emotional, and socially constructed (Bryman, 2016).

A significant shift in thinking involved how I conceptualised menstruation as a barrier to outdoor participation. Prior to conducting the study, I viewed menstruation as a substantial barrier within outdoor environments. However, participant responses led me to reconsider this position. Rather than menstruation itself functioning as an inherent barrier, findings suggested that barriers are often created through inadequate infrastructure, limited education, stigma, and insufficient support systems. Access to appropriate menstrual products, private sanitation facilities, inclusive education, and supportive social environments may significantly influence whether menstruation becomes restrictive within outdoor contexts. This highlighted how barriers to participation are socially and environmentally mediated rather than purely biological (Sallis, Owen and Fisher, 2008).

Thematic analysis of participant responses identified several interconnected themes relating to menstruation, outdoor participation, stigma, infrastructure, and self-management. Findings generated insight into how menstruation is experienced within outdoor environments. Reflecting on both the findings and analytical processes demonstrated how participant experiences often challenged personal assumptions prior to conducting the study.

One of the most significant findings was that menstruation was rarely perceived as a complete barrier to outdoor participation. Instead, participants described it as a conditional barrier that could restrict or complicate engagement depending on symptom severity, activity type, and access to facilities. Participants discussed planning activities around their cycle, limiting participation in activities such as climbing or water sports, and adapting plans according to symptom management. Reflecting on these findings challenged the initial assumption that menstruation would be viewed primarily as a direct barrier. Instead, data suggested that barriers often emerge where support, infrastructure, or flexibility are lacking.

Infrastructure deficits were identified as a major issue throughout responses. Participants highlighted difficulties surrounding access to toilets, sinks, disposal facilities, and privacy within outdoor environments. Although products such as menstrual cups were viewed positively for practicality and sustainability, they became difficult to manage where facilities were unavailable. Participants often adapted through extensive planning, carrying disposal systems, or using less preferred products for convenience. These findings aligned with existing literature surrounding menstrual management within outdoor contexts (Prince and Annison, 2022; Lynch, 2023) and reinforced the idea that barriers are often environmentally and socially produced rather than purely biological.

The findings also highlighted the emotional and cognitive effort involved in managing menstruation outdoors. Participants described anxiety surrounding leaks, concerns about visibility, and the stress involved in planning around menstruation. Responses additionally demonstrated that menstruation extends beyond stereotypical understandings of “cramps,” including experiences such as dizziness, nausea, fatigue, heavy bleeding, and brain fog. Portraying menstruation as a multidimensional embodied experience.

Although participants often described menstruation as not discussed, particularly within male-dominated outdoor spaces, most did not explicitly describe it as taboo. More participants also reported feeling comfortable discussing menstruation than uncomfortable. This suggested that menstruation may remain socially silenced in practice without necessarily being consciously perceived as taboo. Openness appeared highly context-dependent, with participants describing greater comfort discussing menstruation within female or queer spaces.

Participants also demonstrated high levels of self-management and adaptation, including layering products, planning routes around facilities, and avoiding activities during menstruation. These findings suggest that responsibility for managing menstruation outdoors is heavily individualised rather than structurally supported.

Participants consistently identified education and awareness as key areas for improvement. While practical changes such as improved sanitation facilities were discussed, participants placed greater emphasis on educating all genders, increasing awareness among outdoor leaders, and normalising menstruation-related discussion within outdoor environments. These findings altered understanding of menstruation as a barrier, suggesting that exclusion is more strongly shaped by inadequate education, infrastructure, and support systems than menstruation itself.

Initially, NVivo software was used to assist coding; however, automated coding processes often failed to capture the emotional nuance and overlapping meanings within participant responses (Jackson and Bazeley, 2019). Manually rereading and comparing responses repeatedly enabled more theme development and allowed themes to be refined and reduced over time. This process strengthened familiarity with the data and increased confidence in thematic consistency. However, it also validated awareness that qualitative analysis remains inherently subjective.

Themes were shaped by interpretation of participant language and experience, meaning another researcher may have identified alternative patterns or meanings within the same dataset.

One of the most significant implications emerging from the study relates to education and preparedness within outdoor settings. Participant responses highlighted the importance of awareness, normalised discussion, and support from outdoor leaders and peers. Reflecting on both participant experiences and personal experiences within outdoor environments, I recognised that menstruation management and menstrual wellbeing were rarely discussed openly during previous outdoor education or recreational experiences. Looking back, there was often little guidance regarding how to manage menstruation outdoors, what products may be appropriate for different environments, or how outdoor leaders could support participants experiencing menstruation-related difficulties.

As a result of this project, professional awareness has changed significantly. I now routinely carry menstrual products despite no longer menstruating, recognising that access to products may be important for those around me in both every day and outdoor settings. Similarly, in future outdoor contexts, I would place greater emphasis on ensuring that individuals feel prepared and supported regarding menstruation management before participating in activities. This may include normalising discussions surrounding menstruation within trip planning, ensuring awareness of sanitation and disposal considerations, and promoting broader education for all participants regardless of gender identity. The findings verified that menstruation itself is not necessarily the primary barrier to participation; rather, barriers are often created through inadequate support systems, lack of education, limited infrastructure, and social discomfort surrounding discussion.

A shorter quantitative questionnaire may increase accessibility and participation rates while allowing broader comparison between demographic groups such as age, gender identity, outdoor experience, or activity type. Follow-up qualitative interviews could then provide greater depth and insight into lived experiences, emotional responses, and social dynamics surrounding menstruation in outdoor contexts. Such an approach may additionally support methodological triangulation, increasing credibility through the integration of both numerical and experiential data.

Future research would also benefit from a substantially larger and more diverse participant sample. Recruitment challenges within this study limited representation from individuals who menstruate but do not identify as women, despite inclusivity being an important consideration within the project design. Comparative research exploring experiences across different gender identities, cultures, or outdoor activity contexts may provide a more nuanced understanding of how menstruation is experienced and perceived within outdoor environments.

Reflecting personally, the project also significantly shaped a perspective as a researcher. While the study uncovered the value of qualitative inquiry for exploring complex lived experiences, it also highlighted the challenges associated with subjective interpretation, emotional nuance, and

thematic analysis. Although this project developed important reflexive and analytical skills, it also supported that qualitative research requires substantial emotional engagement, interpretation, and ambiguity, which I found personally challenging.

Overall, the project demonstrated the importance of education, inclusivity, and structural support within outdoor participation while also demonstrating how research can challenge assumptions and influence professional awareness and practice.

The study demonstrated that an interpretivist qualitative approach was appropriate for addressing the research question, as it enabled exploration of subjective and embodied experiences that would not be captured through purely quantitative methods.

Across the research process, it became clear that menstruation is not experienced as a fixed barrier to outdoor participation, but rather as a conditional barrier shaped by infrastructure, education, social norms, and support systems. This challenged initial assumptions and demonstrated the value of research in questioning pre-existing beliefs.

The project also showed the importance of awareness of researcher positionality when engaging with sensitive and embodied topics. While the study strengthened understanding of qualitative research processes, it also highlighted the challenges of subjective interpretation and strengthened a developing preference for more structured quantitative approaches.

Despite its limitations, the research contributed to understanding menstruation as an underexplored factor in outdoor participation and emphasised the importance of inclusive practice and further research in this area.

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