



## GENDER-SENSITIVE SCHOOL LEADERSHIP FOR MENSTRUAL HYGIENE, PHYSICAL ACTIVITY PARTICIPATION, AND SCHOOL HEALTH IN GHANAIAN BASIC SCHOOLS: A NARRATIVE LITERATURE REVIEW

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**ABSTRACT:** *Girls' participation in school life is shaped not only by academic opportunity but also by whether schools respond adequately to menstrual hygiene needs, dignity, and safe participation in physical activity. This narrative literature review examined how school leadership can support menstrual hygiene and girls' participation in physical activity and identified gender-sensitive strategies for improving school health in Ghanaian basic schools. Relevant peer-reviewed studies published mainly between January 2021 and March 2026 were identified through searches of PubMed, Scopus, and Google Scholar (January 2021–March 2026); approximately 35 studies met inclusion criteria, screened for relevance, and synthesised thematically. The review found that effective support depends on leadership practices such as privacy-sensitive school routines, access to menstrual materials and WASH facilities, teacher support, stigma reduction, and flexible participation structures for girls during menstruation. The literature also shows that menstruation can reduce girls' confidence, attendance, and willingness to engage in physical activity when schools are poorly prepared or when social norms remain unsupportive. In Ghana, evidence points to inadequate school preparedness for menstrual hygiene management and continuing barriers to girls' full participation in school life. The review contributes to school health scholarship by integrating menstrual hygiene, physical activity participation, and gender-sensitive school leadership within one framework and argues that strategic leadership is essential for dignified and inclusive school health.*

**KEYWORDS:** Gender-sensitive leadership, menstrual hygiene management, girls' physical activity, school health, Ghanaian basic schools, narrative literature review.



## INTRODUCTION

Healthy schools are not defined only by curriculum coverage, classroom instruction, or examination performance. They are also shaped by whether children can participate in school life with dignity, safety, and confidence. For girls, one of the most important and often neglected dimensions of this experience concerns menstruation. Menstrual hygiene management affects attendance, concentration, self-esteem, movement, and social comfort in school settings. At the same time, girls' participation in physical activity is influenced by school culture, social expectations, privacy, bodily confidence, and the availability of supportive facilities and practices. These issues are closely related, yet they are often addressed separately in school health work. Menstrual hygiene may be treated as a sanitation or counselling matter, while physical activity is managed mainly as a curriculum issue. This division is problematic because girls' experiences of school participation are lived across both domains at once.

Recent evidence underscores the seriousness of this problem. In Ghana, Asumah et al. (2022) found that many junior high schools in the West Gonja Municipality were poorly prepared for menstrual hygiene management, with gaps in privacy, soap, water, changing facilities, and disposal arrangements. Their study suggests that girls' menstrual experiences at school are shaped not only by personal knowledge, but also by the institutional readiness of schools to support them. Other Ghanaian evidence points in the same direction. Kpodo et al. (2022) found that sociocultural factors, attitudes, and menstrual hygiene practices among junior high school girls in Ghana were shaped by both knowledge and contextual conditions, while Asumah et al. (2023) reported notable menstruation-related school absenteeism in northern Ghana and called for stronger educational and policy responses. These findings make clear that menstrual health in schools is not a marginal issue. It is a core educational and health equity issue.

The literature on physical activity also points to an important challenge for girls. Harvey et al. (2025), in a global scoping review, found that menstruation may act as a barrier to adolescent girls' physical activity through symptoms, stigma, lack of menstrual products, and wider social or cultural constraints. Kolić et al. (2025) similarly identified practical, psychological, and environmental barriers to physical activity during menstruation, while Pfeifer and Himbert (2025) showed that menstrual-related symptoms can reduce participation in physical education and influence confidence, attendance, and engagement. These studies matter because they show that menstruation affects more than hygiene practices. It also shapes how girls participate in school movement, sport, and physical education. In effect, girls' menstrual experiences can influence whether they feel comfortable, safe, and supported enough to participate fully in school life.

The school context is central to whether these barriers are reduced or intensified. Recent reviews and empirical studies on school menstrual hygiene interventions show that school-based menstrual hygiene management and WASH support can improve girls' health, confidence, attendance, and educational participation when implemented effectively (Andargie et al., 2025; Betsu et al., 2024). At the same time, recent school health leadership research shows that health promotion in schools depends strongly on leadership practices such as accountability, support, capacity building, collaboration, and the creation of enabling school environments (Adams et al., 2023; Leksy et al., 2024; Sasaki et al., 2024). Although these literatures do not always speak directly to one another, they point toward the same conclusion:



girls' participation is likely to improve when schools are led in ways that are sensitive to menstrual health, dignity, and inclusion.

The Ghanaian context makes this issue especially urgent. Recent evidence shows that school-based health programmes in Ghana face barriers including weak stakeholder participation, resource constraints, management and leadership challenges, and governance problems (Adomako Gyasi et al., 2024). Menstrual health work in Ghana has also highlighted stigma, period poverty, and the need for more supportive school and community environments (Gbogbo et al., 2024). At the same time, girls' school participation remains vulnerable where WASH facilities are inadequate and where menstrual needs are not recognised as part of everyday school management (Asumah et al., 2022). These findings suggest that improving girls' dignity and participation is not just a matter of providing menstrual products or teaching biology. It is also a matter of school leadership, school culture, and institutional responsiveness.

Against this background, this narrative literature review examines how school leadership can support menstrual hygiene and girls' participation in physical activity and identifies gender-sensitive strategies for improving school health in Ghanaian basic schools. This review pursues one overarching objective: to examine how school leadership can support menstrual hygiene and girls' participation in physical activity and to identify gender-sensitive strategies for improving school health in Ghanaian basic schools.

The article follows the same narrative review logic and structure as the uploaded model manuscript, moving from conceptual clarification to theory, method, thematic synthesis, research gaps, implications, and conclusion.

## **Conceptual Background**

### **Gender-sensitive school leadership**

In this review, gender-sensitive school leadership refers to leadership that deliberately recognises and responds to the different ways girls and boys may experience school conditions, participation, and wellbeing. It goes beyond general administration and includes the ability to create safe, respectful, inclusive, and equitable school environments. In the present article, the concept is used specifically in relation to how school leaders address girls' menstrual hygiene needs, protect dignity, reduce stigma, and support equitable participation in physical activity and wider school health. Recent school health leadership literature shows that school leaders influence health promotion through accountability, support, collaboration, and institutional embedding of health priorities (Adams et al., 2023; Leksy et al., 2024). This review extends that logic by arguing that leadership becomes gender-sensitive when these practices are applied deliberately to barriers that affect girls' participation.

### **Menstrual hygiene management**

Menstrual hygiene management refers to the conditions and practices that allow girls to manage menstruation safely, privately, comfortably, and with dignity. In school settings, this includes access to menstrual materials, water, soap, toilets, privacy for changing, appropriate disposal systems, pain support where needed, and an environment free from shame and ridicule. Asumah et al. (2022) show that school preparedness for menstrual hygiene management in Ghana depends on the presence and usability of facilities and supplies, while recent



intervention evidence indicates that school-based menstrual hygiene and WASH support can improve educational, physical, emotional, and social outcomes for menstruating girls (Andargie et al., 2025). In this review, menstrual hygiene management is therefore understood as both a facilities issue and a school culture issue.

### **Girls' physical activity participation**

The concept of girls' physical activity participation includes girls' engagement in physical education, sport, active play, exercise, and wider movement opportunities in school. It is not limited to formal PE lessons. Harvey et al. (2025) show that menstruation may shape girls' activity experiences through symptoms, stigma, and practical barriers such as inadequate product access or unsuitable school environments. Pfeifer and Himbert (2025) also suggest that menstrual-related symptoms can affect participation in physical education specifically. In the present review, girls' physical activity participation is therefore treated as a behavioural and institutional issue shaped by school culture, leadership, confidence, privacy, and support systems.

### **Girls' dignity in school health**

A central idea in this article is girls' dignity. Dignity refers to the experience of being treated with respect, privacy, worth, and safety within school life. Menstrual health is closely linked to dignity because girls may feel exposed, ashamed, or excluded when schools lack privacy, products, supportive routines, or empathetic responses from staff and peers. Dignity is also relevant to physical activity because girls may avoid participation where school environments fail to address menstrual discomfort, fear of leakage, teasing, or restrictive cultural expectations. The concept is important because it links menstrual hygiene and physical activity through one shared outcome: whether girls feel fully able to belong and participate in school.

### **Gender-sensitive strategies in school health**

In this review, gender-sensitive strategies refer to school-based actions that respond deliberately to girls' specific needs in ways that improve inclusion and participation. These may include menstrual hygiene education, provision of menstrual materials, improved WASH conditions, teacher orientation, anti-stigma messaging, privacy-sensitive school routines, flexible support during menstruation, and more inclusive physical activity practices. Recent literature on menstrual health in Ghana and other settings shows that girls' outcomes improve when schools combine facilities, education, social support, and enabling environments rather than relying on one intervention alone (Gbogbo et al., 2024; Andargie et al., 2025; Betsu et al., 2024). Thus, gender-sensitive strategy in this article refers to deliberate institutional action rather than general goodwill.

### **Scope of the review**

The review focuses on Ghanaian basic schools and on the intersection of menstrual hygiene, girls' participation in physical activity, and school health leadership. It does not attempt to cover all areas of gender and education, nor does it examine menstrual health in tertiary institutions or elite sport settings. The main concern is how school leadership can support girls' dignity, school participation, and health in everyday basic school environments. International studies are used where necessary to provide wider conceptual and empirical grounding, but



Ghana remains the central context because of the strong local relevance of menstrual health preparedness, school absenteeism, and school-based health barriers. This focus is also consistent with the approach used in the uploaded model manuscript.

## THEORETICAL FOUNDATIONS

The first theoretical lens for this review is the health-promoting schools perspective, which views school health as a coordinated organisational process rather than a collection of separate programmes. This perspective is useful because it allows menstrual hygiene, physical activity, dignity, and well-being to be interpreted within one school-wide framework. Recent school health leadership literature shows that leaders play a central role in embedding health promotion in school systems and routines (Adams et al., 2023; Leksy et al., 2024). That makes this perspective especially suitable for understanding how leadership can support girls' participation in menstruation-sensitive ways.

A second useful lens is ecological and socio-cultural thinking about girls' participation. Harvey et al. (2025) show that menstruation influences girls' physical activity through a combination of physical symptoms, stigma, social expectations, and material access. Ghanaian work on menstrual hygiene and school absenteeism likewise points to the interaction of school conditions, social beliefs, resources, and personal experience (Asumah et al., 2022; Asumah et al., 2023; Kpodo et al., 2022). This lens is relevant because it shows that girls' school participation is shaped not only by individual willingness, but by multiple interacting conditions at school, home, and community levels.

A third perspective comes from implementation and leadership theory. Recent studies show that school health practices succeed when leaders provide coordination, support, capacity building, and accountability (Sasaki et al., 2024; Adams et al., 2023). This perspective is important for the present review because it helps explain how gender-sensitive strategies can move from good intention to practical routine. Menstrual hygiene support and inclusive physical activity participation are not simply matters of awareness. They require implementation through policy, staffing, facilities, relationships, and follow-up.

Together, these perspectives support one core interpretation. Menstrual hygiene and girls' physical activity participation in Ghanaian basic schools are best understood as school health issues shaped by leadership, context, and implementation rather than by individual girls alone.

## Review Method

This article adopts a narrative literature review design because the topic is conceptually broad and draws together literature on menstrual hygiene management, girls' physical activity participation, gender-sensitive school health, school leadership, and Ghanaian basic education. A narrative review is appropriate when the aim is to interpret a heterogeneous field, identify patterns and contradictions, and build a coherent conceptual understanding rather than aggregate one narrow intervention effect. Recent review methodology literature recommends that narrative reviews remain transparent about scope, search strategy, and thematic organisation even when they are not conducted as full systematic reviews (Chigbu et al., 2023; Kelley & D'Souza, 2025). This principle guided the present review.



The literature search focused mainly on Scopus, Web of Science, PubMed, ERIC, and Google Scholar, reflecting the interdisciplinary nature of the topic across public health, education, physical activity, and school leadership. Search terms were developed around the main concepts of the review and included combinations of “menstrual hygiene management,” “schoolgirls,” “girls’ participation,” “physical activity,” “physical education,” “school leadership,” “school health,” “gender-sensitive,” “WASH,” “Ghana,” and “basic schools.” Additional combinations such as “menstruation and physical activity in adolescents,” “school preparedness for menstrual hygiene,” and “girls’ dignity in school health” were used to refine results.

The review prioritised peer-reviewed or high-quality indexed sources written in English. Studies published mainly between 2021 and 2026 were prioritised so that the review would reflect current evidence, although closely relevant post-2020 work central to the more recent literature was retained where necessary. Included studies had to address at least one of the following: menstrual hygiene management in schools, girls’ physical activity or physical education participation during menstruation, school leadership for health promotion, school-based menstrual health interventions, or Ghanaian evidence on girls’ menstrual experiences and school participation.

Studies were excluded if they were not peer reviewed, were not written in English, lacked sufficient indexing or verifiability, focused solely on clinical menstrual health without school relevance, or had no clear connection to girls’ school participation or leadership. Reports, dissertations, editorials, and non-peer-reviewed documents were not used in the article itself.

Screening took place in stages. Titles and abstracts were first reviewed for relevance to the review objectives, followed by full-text reading of suitable studies. follows the same narrative review logic used in the uploaded model manuscript, which emphasises thematic organisation and synthesis. Reference lists of selected papers were also checked for additional relevant journal articles. In total, database searches returned approximately 312 records; after title and abstract screening, 67 full-text articles were assessed for eligibility, and approximately 35 studies were ultimately included in the review. After selection, the studies were read in full and organised thematically rather than described one by one. This approach follows the same narrative review logic used in the uploaded model manuscript, which emphasises thematic organisation and synthesis.

The review has the usual limitations of narrative review work. It does not claim exhaustive reproducibility in the way a systematic review would, and it does not formally score the risk of bias of every included study. However, the field under review is broad and requires interpretive integration more than narrow statistical aggregation. For that reason, the review remains narrative in design but transparent in execution.

## **Thematic Review of the Literature**

### **Why menstrual hygiene and girls’ participation should be analysed together**

The reviewed literature strongly suggests that menstrual hygiene and girls’ participation in school life are closely connected. Menstrual hygiene management is not only about products and sanitation. It is also about whether girls can move, attend, participate, and feel respected during menstruation. Asumah et al. (2022) found that many schools in the West Gonja



Municipality lacked the facilities and conditions necessary for adequate menstrual hygiene management. Their findings point to weak preparedness in areas such as privacy, water, soap, and disposal systems. Asumah et al. (2023) further show that menstruation-related absenteeism remains a significant issue in northern Ghana and is shaped by pain, stained clothes, heavy bleeding, and school-related conditions. These studies suggest that menstrual health in schools is directly tied to educational participation.

Recent review evidence on menstruation and physical activity strengthens this argument. Harvey et al. (2025) show that menstruation may reduce adolescent girls' physical activity through symptoms, stigma, product access challenges, and broader socio-cultural constraints. Kolić et al. (2025) similarly identify practical and psychosocial barriers to being active during menstruation, while Pfeifer and Himbert (2025) report that menstrual-related symptoms can act as a barrier to physical education and affect girls' confidence, attendance, and engagement. These studies show that menstruation should not be analysed only as a hygiene issue. It is also a participation issue. School leadership, therefore, matters not only because girls need products and sanitation, but because schools must create conditions in which girls can continue participating in physical activity and wider school life during menstruation.

### **School preparedness for menstrual hygiene management**

A major theme in the literature is that school preparedness matters enormously for girls' dignity and participation. Asumah et al. (2022) found that schools in the West Gonja Municipality were inadequately prepared for menstrual hygiene management, with limited availability of water, soap, privacy, and disposal materials. Kpodo et al. (2022) similarly identified sociocultural influences on knowledge, attitudes, and menstrual hygiene practices among junior high school girls in Ghana, showing that practice is shaped by context rather than knowledge alone. Abor (2022) also reports that menstrual hygiene management remains a significant issue in Ghanaian school settings, with girls often relying on informal sources of information before menarche. Together, these studies suggest that girls' menstrual experiences in school depend on both material support and the social conditions under which menstruation is understood and managed.

Intervention evidence adds further insight. Betsu et al. (2024), in a systematic review, found that menstrual hygiene management interventions can improve schoolgirls' attendance, performance, dropout-related outcomes, and emotional well-being. Andargie et al. (2025) similarly report that school-based menstrual hygiene and WASH interventions can improve girls' physical, emotional, social, and educational outcomes. These findings are important because they show that menstrual support in schools is not merely symbolic. When schools improve facilities, information, and support systems, girls' educational participation can improve in measurable ways. This reinforces the importance of leadership, because preparedness is rarely accidental. It usually depends on school priorities, oversight, planning, and follow-up.

### **Menstruation and girls' physical activity participation**

The physical activity literature shows that girls' participation can be shaped by menstruation in ways that schools often fail to recognise. Harvey et al. (2025) found that menstruation may act as a barrier to physical activity due to pain, discomfort, stigma, menstrual product concerns, and social pressure. Kolić et al. (2025) similarly found that being active during menstruation



is influenced by practical barriers, beliefs, and perceived capability, suggesting that participation is shaped by more than symptom severity alone. Pfeifer and Himbert (2025) provide especially relevant evidence for schools, reporting that menstrual-related symptoms can reduce participation in physical education and influence confidence and attendance. These studies indicate that girls may withdraw from physical activity not because they dislike movement, but because school environments do not adequately address menstrual realities.

This matters for school leadership because physical activity participation is partly a school culture issue. If girls fear embarrassment, leakage, teasing, or negative teacher responses, participation will decline even where physical education is formally available. The literature, therefore, implies that girls' physical activity cannot be improved only through curriculum reform or exhortation to exercise more. It also requires gender-sensitive support around menstruation. Schools that fail to address this intersection may unintentionally reproduce gendered exclusion in activity settings.

### **Leadership and school culture in girls' school health**

The leadership literature provides a strong basis for connecting these issues. Adams et al. (2023) show that school leadership supports health promotion through accountability, support, shared leadership, capacity building, and engagement with communities. Leksy et al. (2024) likewise argue that school leaders are central to initiating and embedding health promotion within school life. Sasaki et al. (2024) further show that school health implementation depends on principals' coordination and their ability to build capacity and institutional commitment. These studies do not focus specifically on menstrual health, but their implications are clear: when school leaders set priorities, create supportive routines, coordinate staff, and respond to barriers, health promotion becomes more likely to be sustained.

When this leadership literature is read alongside menstrual health studies, a gender-sensitive interpretation emerges. Schools do not become supportive of menstruating girls by chance. They become supportive when leaders create privacy-sensitive routines, address stigma, ensure access to WASH and menstrual materials, orient teachers, and include girls' concerns in school decision-making. Leadership also matters for whether girls' participation in physical activity is protected or ignored. In this sense, gender-sensitive school leadership should be understood as the institutional process through which girls' dignity and inclusion are safeguarded across different aspects of school life.

### **Gender-sensitive strategies for improving school health**

The literature points to several strategies that can improve school health for girls. The first is improving menstrual hygiene facilities and privacy. Asumah et al. (2022) and Andargie et al. (2025) both indicate that facilities matter greatly for girls' comfort and participation. Access to private changing spaces, water, soap, disposal systems, and menstrual materials is, therefore, a foundational strategy. Schools that lack these supports are likely to undermine girls' attendance, confidence, and participation.

The second strategy is teacher support and stigma reduction. Harvey et al. (2025) and Pfeifer and Himbert (2025) both suggest that social and psychological barriers matter for participation during menstruation. This means schools need teacher orientation and school culture work that treat menstruation as a normal and manageable part of school life rather than a source of shame.



Gbogbo et al. (2024) also show that breaking stigma and involving wider communities can contribute to more supportive environments in Ghana. Gender-sensitive strategies must therefore include communication and culture change, not only facility improvement.

A third strategy is adapting physical activity participation structures. The literature does not support excluding girls from physical activity during menstruation as a default response. Instead, it suggests that girls need flexibility, information, and supportive teaching. This may include alternative participation options on high-symptom days, permission for brief breaks, appropriate clothing guidance, confidence-building communication, and PE environments that are respectful and non-stigmatising. These strategies are important because they allow participation to continue in ways that are sensitive rather than punitive or dismissive.

A fourth strategy is integrating menstrual health into broader school health planning. Menstrual hygiene should not be treated as an occasional charity issue or awareness event. It should be built into school health systems, leadership routines, and school-community communication. This means school leaders should include menstrual support in school health planning, supervision, PTA discussions, teacher orientation, and facility review. A gender-sensitive school health system is one in which girls' menstrual needs are anticipated rather than reacted to.

### **Ghanaian enablers and barriers**

The Ghanaian literature shows both enabling possibilities and serious barriers. There is now growing public and scholarly attention to menstrual health, and recent work in Ghana highlights efforts to reduce stigma, improve dialogue, and support menstruating individuals more visibly (Gbogbo et al., 2024). However, school-based barriers remain substantial. Asumah et al. (2022) show weak preparedness, Adomako Gyasi et al. (2024) identify leadership and collaboration barriers in school health, and Asumah et al. (2023) highlight continued absenteeism linked to menstruation. These studies suggest that Ghanaian schools have not yet fully translated awareness into institutional readiness.

The broader implication is that gender-sensitive school health in Ghana requires stronger leadership, better facilities, better coordination, and a more explicit recognition that girls' dignity is part of educational quality. Where schools fail to address menstrual needs, girls' participation in class, sport, and school life is likely to remain constrained.

### **SYNTHESIS OF LITERATURE FINDINGS**

Taken together, the reviewed literature suggests that girls' menstrual hygiene, dignity, and physical activity participation are not separate school issues but interconnected dimensions of gender-sensitive school health. Across the literature, the most consistent pattern is that menstruation shapes girls' participation through a combination of material, social, and institutional factors. In Ghana, Asumah et al. (2022) show that many schools are poorly prepared for menstrual hygiene management, while Asumah et al. (2023) show that menstruation-related absenteeism continues to affect schoolgirls. These findings establish that menstrual health is a school participation issue. At the same time, Harvey et al. (2025), Kolić et al. (2025), and Pfeifer and Himbert (2025) all show that menstruation can shape girls' willingness and ability to participate in physical activity. This means the literature converges



on a clear conclusion: menstruation affects not only hygiene practice and attendance, but also movement, confidence, and inclusion in school life.

A second major synthesis point is that the barriers girls face are rarely only personal or biological. Rather, they are shaped by school conditions, social norms, privacy, stigma, teacher response, and access to materials and facilities. Harvey et al. (2025) show that menstruation-related barriers to physical activity include practical challenges, such as a lack of products and clothing concerns, but also psychosocial factors such as stigma and embarrassment. Ghanaian evidence on menstrual hygiene similarly points to the importance of contextual and social influences, including poor preparedness, sociocultural norms, and inadequate institutional support (Asumah et al., 2022; Kpodo et al., 2022). These studies collectively show that the problem cannot be solved simply by telling girls to be more resilient or by treating menstruation as a private matter. The environment in which girls manage menstruation matters profoundly. This is why school leadership becomes central: leaders influence the environment, not just the individual.

The intervention literature strengthens this interpretation by showing that school-based menstrual hygiene and WASH support can improve girls' outcomes when it is implemented well. Betsu et al. (2024) found that menstrual hygiene interventions can positively affect school attendance, performance, emotional well-being, and menstrual knowledge. Andargie et al. (2025) similarly report gains in girls' educational, social, and physical outcomes from school-based menstrual hygiene and WASH interventions. The broader meaning of these findings is that school conditions are modifiable. Girls' participation problems are not fixed or inevitable. They can be improved when schools take menstrual health seriously as part of school health practice. This is important because it shifts the conversation from sympathy to strategy.

A third synthesis point is that school leadership should be understood as the key implementation mechanism through which gender-sensitive support becomes real. The general school health leadership literature shows that successful school health promotion depends on accountability, support, capacity building, collaboration, and the creation of enabling conditions (Adams et al., 2023; Leksy et al., 2024; Sasaki et al., 2024). When this is brought into conversation with menstrual health and girls' participation research, it suggests that leadership matters in at least four ways. First, leaders influence whether menstrual hygiene is treated as a core school issue or a marginal concern. Second, leaders shape whether facilities, routines, and teacher practices support girls' dignity. Third, leaders influence whether stigma is challenged or silently reproduced. Fourth, leaders help determine whether girls can continue participating in physical education and activity during menstruation through flexibility and a supportive culture. This makes school leadership central not only to health promotion generally, but specifically to gender-sensitive inclusion.

The literature also shows broad agreement that schools need more integrated and gender-sensitive strategies rather than isolated actions. Improving girls' outcomes is unlikely if schools provide menstrual education without privacy, or facilities without anti-stigma work, or PE opportunities without flexibility for menstrual needs. The most promising evidence points toward combinations of support: facilities plus education, policy plus teacher orientation, and participation opportunities plus dignity-sensitive routines. Gbogbo et al. (2024) show the value of broader community dialogue and stigma reduction, while the physical activity literature indicates that menstruation-sensitive support can improve girls' confidence in being active.



The combined lesson is that girls' full participation depends on the alignment of resources, norms, relationships, and routines rather than on one intervention in isolation.

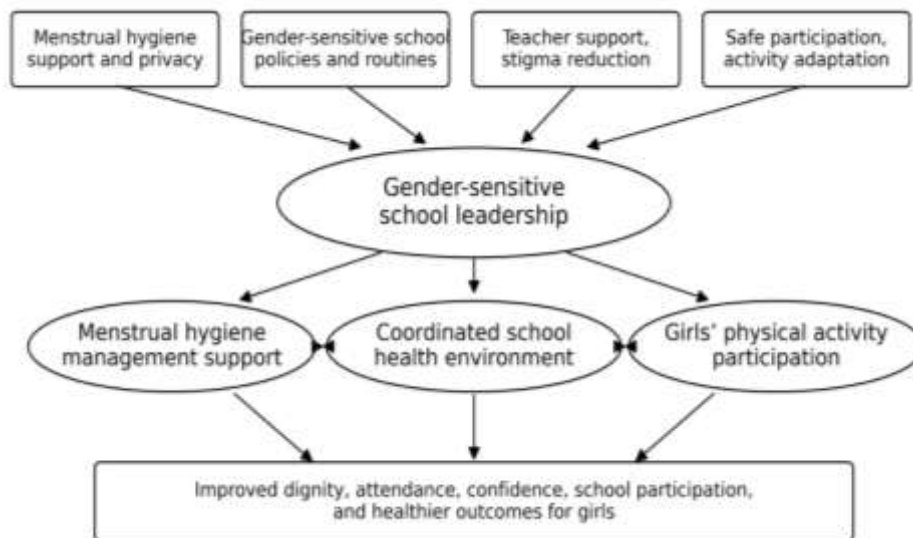
At the same time, the literature remains uneven in important ways. There is stronger and more direct evidence on menstrual hygiene management in school settings than on how school leadership specifically shapes girls' physical activity participation during menstruation. Much of the recent physical activity literature identifies menstruation as a barrier, but fewer studies explain in detail how school leaders can respond institutionally. In the same way, some school health leadership studies are broad and not specifically focused on menstrual health. This means the field is stronger in diagnosing the problem than in mapping one established leadership model for solving it. The absence of a fully specified model, however, should not obscure the direction of the evidence. The literature consistently implies that leadership, school culture, and preparedness matter.

The Ghanaian context adds a particularly important layer to this synthesis. Ghanaian studies show that girls' school experiences during menstruation are shaped by school preparedness, menstrual knowledge, social expectations, and continued absenteeism. They also show that school health implementation more broadly faces barriers involving leadership, resources, and collaboration (Adomako Gyasi et al., 2024). This means that gender-sensitive school health leadership in Ghana must be understood as part of a wider school improvement and governance challenge. It is not simply about products or awareness. It is about whether schools are organised to take girls' needs seriously in everyday practice.

Overall, the broader meaning of the literature is that girls' dignity and participation improve when menstruation is treated as a normal school health issue requiring leadership attention rather than silence, stigma, or ad hoc response. The school environment becomes more inclusive when girls are not forced to choose between attendance, comfort, and physical activity participation. What the literature ultimately suggests is that gender-sensitive school leadership is the bridge through which menstrual hygiene support, inclusive activity participation, and healthier school culture can be connected.

The synthesis of the reviewed literature therefore suggests that gender-sensitive school leadership acts as the central mechanism through which menstrual hygiene support, girls' physical activity participation, and school health can be aligned, implemented, and sustained in Ghanaian basic schools, as illustrated in Figure 1.

**Figure 1. Conceptual framework for gender-sensitive school leadership supporting menstrual hygiene, physical activity participation, and school health**



*Note.* The framework is developed from the synthesis of the reviewed literature. It shows how menstrual hygiene support and privacy, gender-sensitive policies and routines, teacher support and stigma reduction, and safe participation adaptation operate through gender-sensitive school leadership to connect menstrual hygiene management, coordinated school health, and girls' physical activity participation within the Ghanaian basic school context.

Figure 1 presents a conceptual framework derived from the synthesis of the reviewed literature. The framework positions gender-sensitive school leadership as the central mechanism linking school strategies to improved outcomes for girls. It identifies four core leadership areas: menstrual hygiene support and privacy, gender-sensitive school policies and routines, teacher support and stigma reduction, and safe participation and activity adaptation. These leadership functions strengthen menstrual hygiene management support, coordinated school health conditions, and girls' participation in physical activity. When these processes work together, they contribute to improved dignity, attendance, confidence, school participation, and healthier outcomes for girls. The model is situated within the Ghanaian basic school context, where school facilities, social norms, and institutional support structures shape implementation.

### Research Gaps and Future Research Directions

Important gaps remain in the literature. Conceptually, menstrual hygiene and girls' physical activity are still too often studied separately, even though the reviewed evidence shows that they interact strongly through confidence, stigma, attendance, and participation. The field needs more integrated models that explain how school leadership can respond to both at once within a gender-sensitive school health framework.

Theoretical gaps are also evident. Existing studies support school health leadership, ecological, and socio-cultural interpretations, but these perspectives are not always brought together explicitly in the menstruation and girls' participation literature. Future work should more deliberately integrate leadership theory with menstrual health and participation research.



Methodologically, the field still relies heavily on cross-sectional studies, qualitative accounts, and intervention studies that do not always isolate leadership effects clearly. More mixed-methods and longitudinal research is needed to show how girls' participation changes when schools adopt sustained gender-sensitive leadership practices.

Contextually, there is a strong need for more Ghana-focused evidence on how school leaders support girls' dignity and participation specifically. Existing Ghanaian studies document weak preparedness, absenteeism, and sociocultural barriers, but fewer studies explain in detail which school-level leadership strategies are most effective. Future research should therefore examine practical school leadership models, rural-urban differences, and the role of school-community structures in supporting girls during menstruation.

### **Theoretical Implications**

This review contributes to theory by showing that menstrual hygiene and girls' physical activity participation should be interpreted within one integrated school health frame rather than as separate domains. Much of the literature has treated menstrual health mainly as a sanitation or reproductive health issue and girls' physical activity mainly as an exercise or curriculum issue. The present review shows that this separation is analytically limiting. In real school settings, the two are linked through dignity, stigma, confidence, participation, and institutional support. This means the review helps reposition these domains within a common theory of gender-sensitive school health.

A second theoretical implication is that the review deepens the value of school health leadership theory by giving it a more explicitly gender-sensitive interpretation. Recent literature already shows that school leadership matters for health promotion, but leadership is often discussed in general terms. The present review demonstrates that leadership becomes gender-sensitive when it responds to girls' specific barriers to participation, including menstrual discomfort, privacy concerns, stigma, and fear of exclusion. This extends the meaning of school health leadership beyond general support and shows that leadership must also be equity-sensitive if it is to be fully explanatory in school health research.

A third contribution is that the review supports a socio-ecological interpretation of girls' school participation. The evidence suggests that girls' experiences during menstruation are shaped not only by symptoms, but by school facilities, adult responses, peer culture, policy expectations, and broader social norms. This means girls' participation is a product of interacting systems rather than an individual behavioural choice. By showing this, the review helps move the field away from deficit explanations that implicitly locate the problem in girls themselves. Instead, it suggests that the school environment and its governance structure are central explanatory variables.

The review also contributes by clarifying the role of dignity as a school health concept. Dignity is often implied in discussions of menstrual health, but it is not always made explicit as an analytical category. This review brings dignity to the centre by showing that menstruation affects how girls experience belonging, respect, confidence, and safety in school settings. This is theoretically useful because it links infrastructure, participation, and psychosocial well-being under one interpretive idea. It also helps connect menstrual hygiene management with broader educational inclusion.



Another theoretical implication is that the review gives broader relevance to implementation thinking in school health. The literature repeatedly shows that support for girls is not produced by awareness alone. It depends on whether schools implement privacy, materials, routines, teacher preparation, and inclusive participation structures. This means that implementation theory is not only useful for general school health policy. It is also highly relevant for gender-sensitive school health. The review, therefore, strengthens the case for analysing girls' participation through the lenses of enactment, coordination, and school-level routine rather than through policy text alone.

Finally, the Ghanaian context gives the review a context-sensitive contribution. Ghanaian evidence shows that menstrual hygiene preparedness, school absenteeism, and school health barriers are shaped by local institutional realities. This means theory must be grounded in the conditions of actual schools, not only in universal ideals of inclusion. The review, therefore, contributes by showing that gender-sensitive leadership is both a normative and contextual concept. It is about what schools should do to support girls, but also about how they do so within the resource, cultural, and governance conditions of Ghanaian basic education.

### **Practical Implications**

The practical implications of this review are significant for school leaders, teachers, district education actors, and policymakers in Ghana. The first implication is that menstrual hygiene should be treated as a normal and central school health issue rather than as an occasional welfare concern. Many schools still respond to menstruation only when a visible problem arises, such as pain, staining, or absence. The reviewed evidence suggests that this reactive approach is inadequate. Schools should instead plan by ensuring privacy, basic menstrual support materials, safe disposal, and clear routines for girls who need help during menstruation.

A second practical implication is that girls' physical activity participation should be considered directly in menstrual health planning. The literature shows that menstruation can reduce girls' willingness to participate in PE and other activity contexts when they fear leakage, pain, embarrassment, or ridicule. This means schools should not simply excuse girls from activity or ignore the issue. They should create supportive alternatives and adaptations. Practical measures may include flexible participation options, understanding from PE teachers, brief rest opportunities where needed, access to products and changing spaces, and classroom or school messages that normalise menstruation rather than silence it.

A third implication concerns teacher orientation and stigma reduction. Teachers play a major role in determining whether school environments feel safe and respectful for girls. Where teachers treat menstruation as shameful, inconvenient, or irrelevant, girls are more likely to withdraw from both school attendance and physical activity. Schools, therefore, need to orient teachers, including male teachers where appropriate, so that they understand menstrual health as part of school health. This training should not be overly technical. It should also address empathy, privacy, gender sensitivity, and practical support for girls' participation.

A fourth practical implication is the importance of privacy-sensitive facilities and routines. The Ghanaian evidence makes clear that school preparedness for menstrual hygiene remains weak in many settings. This means school leaders need to pay closer attention to the usability, privacy, and dignity-supporting quality of WASH facilities. Girls need access to toilets that can be used safely, with water, doors or privacy, soap, and means of disposal. Even where



resources are limited, leadership can make a significant difference by improving maintenance, assigning clear responsibility, checking supply availability, and making menstruation support part of routine school management rather than leaving it to chance.

A fifth implication concerns school culture. Menstruation affects girls' school participation not only through physical needs but also through the social meaning attached to it. Schools, therefore, need active stigma reduction. This may involve age-appropriate menstrual health education, classroom discussions that normalise menstruation, peer support, and messages that challenge teasing or exclusion. School leaders should recognise that culture is part of school health. Girls' dignity will improve not only when facilities improve, but also when school relationships become more respectful and informed.

Another practical implication is that school health planning should become more gender-sensitive overall. Menstrual hygiene should not sit at the margins of school life. It should appear in school health discussions, PTA conversations, school improvement plans, and periodic school reviews. This means leadership should ask practical questions such as whether girls have access to privacy, whether PE participation declines during menstruation, whether teachers know how to respond, and whether parents understand the school's support approach. Planning becomes gender-sensitive when girls' real experiences are treated as legitimate management concerns.

The review also suggests that girls' voices should be included more directly. School leaders often design health responses from the perspective of adults alone. Yet the literature shows that girls experience menstruation through combinations of discomfort, embarrassment, adaptation, and negotiation. Schools may therefore benefit from simple ways of hearing girls' perspectives, such as confidential feedback, girls' clubs, or structured consultation with pupils. This does not require complicated governance reform. It requires a willingness to treat girls as participants in school health rather than only as recipients of help.

A further implication concerns school-community and parent engagement. Menstrual health is shaped by beliefs and resources beyond the school gate. Schools should therefore work with parents and communities to reduce stigma, improve understanding, and support girls' dignity. This may involve PTA-based awareness, health talks, or partnerships with local health actors and community groups. In the Ghanaian context, where broader socio-cultural norms strongly shape menstruation, school leadership can play an important role in opening communication and building support across school and home settings.

District and system actors also have an important role. If gender-sensitive school leadership is essential, then leadership preparation should reflect that. Headteachers and other school leaders should be equipped through training, supervision, and guidance to respond to menstrual health and girls' participation issues practically. Support materials, supervisory templates, and school health tools should include menstrual hygiene and girls' participation indicators rather than assuming that generic school health language is sufficient.

Another practical implication concerns monitoring. Schools need simple ways to monitor whether girls are missing school during menstruation, withdrawing from PE, or lacking adequate support. This does not mean intrusive data collection. It means making girls' dignity and participation visible enough to improve. Attendance patterns, teacher observations, pupil feedback, and periodic facility review can all help schools identify gaps. When menstrual



health becomes visible in school monitoring, it is more likely to receive sustained leadership attention.

Finally, the review suggests that girls' full participation in school life requires more than sympathy. It requires institutional preparation. Ghanaian basic schools do not simply need to acknowledge that menstruation affects girls. They need leadership that responds through privacy, support, inclusive routines, teacher preparation, and stigma reduction. The practical lesson is therefore clear: when school leadership becomes gender-sensitive, school health becomes more inclusive, and girls are more likely to participate in school life with dignity and confidence.

## CONCLUSION

This narrative literature review examined how school leadership can support menstrual hygiene and girls' participation in physical activity and identified gender-sensitive strategies for improving school health in Ghanaian basic schools. The review showed that menstruation affects girls' school experiences in multiple ways, including hygiene management, attendance, confidence, and participation in physical activity. Across the literature, one central pattern emerged: girls are more likely to participate fully in school life when schools respond to menstrual needs through supportive facilities, respectful culture, teacher sensitivity, and inclusive routines.

The review identified several major findings. First, school preparedness for menstrual hygiene management remains uneven, and this undermines girls' dignity and participation. Second, recent evidence shows that menstruation can shape girls' physical activity experiences through symptoms, stigma, practical barriers, and school culture. Third, school leadership matters because it influences whether menstrual hygiene support and inclusive participation are built into everyday school practice. These findings suggest that the challenge is not only menstruation itself, but the degree to which school systems are prepared to support girls in menstruation-sensitive ways.

The main contribution of the review lies in bringing menstrual hygiene, girls' physical activity participation, and school health leadership into one gender-sensitive framework. By doing so, it shows that school leadership is the bridge through which dignity, inclusion, and health can be connected in everyday school life. Although the literature supports this direction, important conceptual and methodological gaps remain. Future research should therefore pay greater attention to Ghana-focused, leadership-oriented, and integrated studies of girls' participation and school health. Overall, the field now points toward a clear conclusion: healthier and more inclusive schools will require more gender-sensitive leadership, not only more isolated menstrual interventions.



## REFERENCES

- Abor, P. A. (2022). Menstrual hygiene management in public high schools in Ghana. *African Health Sciences*, 22(1), 88–91. <https://doi.org/10.4314/ahs.v22i1.11>
- Adams, D., Tan, K. L., Sandmeier, A., & Skedsmo, G. (2023). School leadership that supports health promotion in schools: A systematic literature review. *Health Education Journal*, 82(6), 693–707. <https://doi.org/10.1177/00178969231180472>
- Adomako Gyasi, P., Zhou, L., Chen, Z., Numawoseh, E. E., & Opoku-Agyemang, A. S. (2024). Barriers to school-based health programs implementation in basic schools in Ghana: Education stakeholders' perspective. *Health Education Research*, 39(1), 55–67. <https://doi.org/10.1093/her/cyad045>
- Andargie, F. A., Tarekegn, M., Kassie, S. Y., & Alemu, T. (2025). Effects of school menstrual hygiene management, water, sanitation, and hygiene interventions on girls' empowerment, health, and educational outcomes. *PLOS ONE*, 20(4), e0321376. <https://doi.org/10.1371/journal.pone.0321376>
- Asumah, M. N., Abubakari, A., & Gariba, A. (2022). Schools' preparedness for menstrual hygiene management: A descriptive cross-sectional study in the West Gonja Municipality, Savannah Region of Ghana. *BMJ Open*, 12(4), e056526. <https://doi.org/10.1136/bmjopen-2021-056526>
- Asumah, M. N., Adnani, Q. E. S., Dzantor, E. K., Beig, M. A., Wuffele, G. M., Donkor, D.-R., Abdulai, A.-M., Azanu, W. K., Parsa, A. D., & Abubakari, A. (2023). Menstruation-related school absenteeism: An urban centre study in the Northern Region of Ghana. *Women*, 3(4), 38. <https://doi.org/10.3390/women3040038>
- Betsu, B. D., Tura, A. K., Bekuma, T. T., & et al. (2024). Menstrual hygiene management interventions and their effects on schoolgirls' menstrual hygiene experiences in low- and middle-income countries: A systematic review. *BMC Women's Health*, 24, 515. <https://doi.org/10.1186/s12905-024-03211-y>
- Chigbu, U. E., Atiku, S. O., & du Plessis, C. C. (2023). The science of literature reviews: Searching, identifying, selecting, and synthesising. *Publications*, 11(1), Article 2. <https://doi.org/10.3390/publications11010002>
- Gbogbo, S., Appiah, S. C. Y., Mohammed, S., et al. (2024). Promoting menstrual health and hygiene: Insights from the 2023 World Menstrual Hygiene Day celebration events in the Hohoe municipality in Ghana. *Frontiers in Public Health*, 12, 1406665. <https://doi.org/10.3389/fpubh.2024.1406665>
- Harvey, J., Western, M. J., Townsend, N. P., Francombe-Webb, J., Sebire, S., Malkowski, O. S., Remskar, M., Burfitt, E., & Solomon-Moore, E. (2025). Adolescents, menstruation, and physical activity: Insights from a global scoping review. *BMC Women's Health*, 25, 381. <https://doi.org/10.1186/s12905-025-03825-w>
- Kelley, G. A., & D'Souza, R. S. (2025). Narrative reviews in anesthesia and pain medicine: Guidelines for producers, reviewers, and consumers. *Regional Anesthesia and Pain Medicine*, 50(9), 725–729. <https://doi.org/10.1136/rapm-2024-105661>
- Kolić, P., Hearn, J., & Holmes, P. S. (2025). Enablers and barriers to physical activity during menstruation: A qualitative study using the theoretical domains framework and COM-B model. *Qualitative Research in Sport, Exercise and Health*. Advance online publication. <https://doi.org/10.1080/2159676X.2025.2589871>
- Kpodo, L., Mensah, M. A., Dzah, S. M., Agbeshie, A. A., Agyabeng, K., et al. (2022). Socio-cultural factors associated with knowledge, attitudes, and menstrual hygiene practices



- among junior high school adolescent girls in the Kpando Municipality of Ghana: A mixed-method study. *PLOS ONE*, 17(9), e0275583. <https://doi.org/10.1371/journal.pone.0275583>
- Leksy, K., Gawron, G., Rosário, R., Sormunen, M., Velasco, V., Sandmeier, A., Simovska, V., Wojtasik, T., & Dadaczynski, K. (2024). The importance of school leaders in school health promotion: A European call for systematic integration of health in professional development. *Frontiers in Public Health*, 11, 1297970. <https://doi.org/10.3389/fpubh.2023.1297970>
- Pfeifer, C., & Himbert, C. (2025). Menstrual-related symptoms as a barrier to physical education among adolescent girls and young women: Implications for health and education. *Physical Education and Sport Pedagogy*. Advance online publication. <https://doi.org/10.1080/17408989.2025.2517651>
- Sasaki, H., Sari, D. P., Warnaini, C., Andiwijaya, F. R., Takeuchi, R., Kadriyan, H., Shibuya, F., & Kobayashi, J. (2024). Leadership of school principals for school health implementation among primary schools in Mataram, Indonesia: A qualitative study. *Tropical Medicine and Health*, 52(1), 5. <https://doi.org/10.1186/s41182-023-00568-y>