

The Educational Impact of Menstrual Stigma on Schoolgirls: Experience from Selected Districts of Lumbini Province

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Abstract

Menstrual stigma remains a pervasive barrier to girls' education in South Asia, particularly in Nepal, where cultural taboos, psychological distress, and infrastructural inadequacies intersect to limit academic engagement. This study aims to identify cultural beliefs and practices related to menstruation, explore the underlying causes of their persistence, and assess their impact on girls' educational participation and psychological well-being. Adopting an explanatory sequential mixed methods design, the research integrates quantitative and qualitative evidence to provide a comprehensive understanding of menstrual culture and education. Quantitative data were collected through a structured questionnaire survey of 400 secondary school girls, while qualitative insights were obtained from 12 key informant interviews involving teachers, guardians, and religious leaders. Quantitative findings indicate that psychological factors—such as fear of leakage, shame, and anxiety—significantly predict school absenteeism and classroom disengagement ($\beta = 0.263$, $p < .001$). Cultural restrictions, including food taboos and temple bans, also contribute to educational exclusion ($\beta = 0.177$, $p < .001$). Qualitative themes reveal that social silence, inadequate facilities, and inconsistent teacher support reinforce menstrual stigma, though girls show resilience through peer networks and adaptation. Interpreted through social cognitive and cultural frameworks, the study underscores menstruation as a critical dimension of educational equity and advocates for menstrual education, improved WASH facilities, community awareness, and policy-level reform.

Keywords: Menstrual stigma, girls' education, psychological distress, cultural taboos.

Introduction

Menstruation, a natural biological process, remains surrounded by silence, stigma, and misconceptions in many societies, particularly in South Asia. In Nepal, menstrual stigma continues to impose significant psychological, social, and educational barriers on adolescent girls (WaterAid, 2018). Despite increasing attention to menstrual hygiene and health, the cultural and emotional dimensions—such as shame, fear, and anxiety—remain underexplored in relation to school education. These stigmas often lead to absenteeism, classroom disengagement, and declining academic performance,

especially among girls from marginalized communities (Mahon & Fernandes, 2010; Tegegne & Sisay, 2014).

Previous quantitative studies have measured the prevalence of absenteeism and its correlation with menstrual practices (Adhikari et al., 2007; Hennegan et al., 2017), while qualitative studies have captured personal experiences of exclusion and adaptation. However, few studies in Nepal have integrated both approaches to understand how cultural taboos, psychological distress, and educational participation intersect. This research gap highlights the need for a mixed methods approach that captures both the breadth of statistical patterns and the depth of lived experiences (Creswell & Plano Clark, 2018).

Theoretically, this study is guided by Feminist Theory, Social Justice Theory, and Cultural Theory. Feminist perspectives reveal menstruation as a gendered site of social control and inequality (Butler, 2004; Crenshaw, 1991). Social Justice Theory underscores education as a right that must be free from biological or cultural discrimination (Creswell & Plano Clark, 2018; Tashakkori & Teddlie, 2010). Cultural Theory helps explain how notions of purity and pollution sustain exclusionary practices in schools and communities (Douglas, 1966). Grounded in these perspectives, this study investigates how menstrual stigma affects girls' schooling experiences in selected districts of Lumbini Province. It explores how psychological factors—such as shame and fear—interact with restrictive cultural norms to shape attendance, participation, and confidence in educational spaces.

Statement of the problem

In Nepal, menstrual stigma continues to undermine educational equity for adolescent girls, especially those from marginalized communities. Psychological factors like fear of leakage and embarrassment, combined with cultural restrictions, contribute to absenteeism and disengagement (Mahon & Fernandes, 2010; Tegegne & Sisay, 2014). Existing quantitative studies document prevalence but lack depth, while qualitative research offers insight but limited generalizability (Adhikari et al., 2007; Hennegan et al., 2017). To address this methodological gap, this study employs triangulation through an explanatory sequential mixed methods design (Creswell & Plano Clark, 2018), offering a comprehensive understanding of menstrual stigma's educational impact.

Objective

The major objective of this study is to explore how menstrual stigma—through psychological factors and cultural taboos—affects school attendance and academic engagement among adolescent girls in Nepal.

Methods and Procedure

This study employed an explanatory sequential mixed methods design (Creswell & Plano Clark, 2018), beginning with a quantitative phase followed by a qualitative phase. This design allowed the researcher to explore statistical patterns through survey data and then interpret them in greater depth through interviews. The combination provided a comprehensive understanding of how menstrual stigma influences girls' educational participation and psychosocial well-being in the context of Lumbini Province.

Sampling and Participants

Quantitative Phase

A stratified multistage random sampling procedure was employed to ensure representativeness and diversity within the study population. In the first stage, Rupandehi and Kapilvastu districts were purposively selected from among the twelve districts of Lumbini Province. These districts were chosen because they reflect diverse socio-cultural and geographic contexts, encompassing both urban and rural areas as well as varied caste, ethnic, and religious communities. Their inclusion provided a suitable setting for examining the intersection of menstrual stigma and educational participation across different social groups.

In the second stage, official lists of community secondary schools were obtained from the District Education Profiles (2024). The study focused exclusively on community schools, which serve the majority of girls from middle- and lower-income families, and thus represent the educational experiences of the broader population. From each district, ten schools were selected through simple random sampling without replacement, resulting in a total of twenty community secondary schools included in the study.

In the final stage, student selection was conducted within each selected school. Rosters of menstruating girls enrolled in Grades 9 and 10 were prepared in collaboration with school authorities. Using a random number generator, ten girls from each grade were selected, yielding a total of 400 participants. In cases where fewer than ten eligible students were available in a grade, all were included, and the shortfall was compensated from the other grade to maintain sample balance. The overall sample size was determined using Yamane's (Yamane, 1976) formula, which ensured statistical representativeness with a 95% confidence level.

Qualitative Phase

After analyzing the quantitative results, a purposeful subsample was selected for the qualitative phase to provide deeper insights into the observed patterns. Twelve Key Informant Interviews (KIIs) were conducted, including four female class teachers, four mothers or guardians, and four religious leaders (Hindu, Muslim, Buddhist, and Christian). These informants were chosen to capture perspectives from education, household, and cultural domains and to reflect diversity in religion, caste, and geography.

Research Tools and Validation

Quantitative data were collected using a structured questionnaire designed to capture a comprehensive understanding of menstrual stigma and its educational implications. The questionnaire consisted of four sections: demographic profile, menstrual beliefs and practices, impact on girls' educational participation and psychosocial impact. The instrument was developed through a review of relevant literature and adaptation of items from previously validated tools used in similar South Asian contexts.

To ensure content validity, the questionnaire was reviewed by three senior scholars specializing in gender studies, health education, and psychology. Their feedback helped refine the wording, sequence, and cultural appropriateness of the items. A pilot study was then conducted with 30 adolescent girls from a non-sample school in Rupandehi district to assess clarity, comprehension, and response consistency. Minor modifications

were made based on pilot feedback. The final instrument demonstrated satisfactory internal reliability, with a Cronbach's alpha coefficient of 0.75, indicating acceptable consistency across the items.

For the qualitative phase, a semi-structured interview guide was prepared to explore participants' lived experiences and contextualize the quantitative results. The guide was developed after preliminary analysis of survey data and focused on themes such as menstrual restrictions, psychological distress, school participation, and coping mechanisms. To establish content and cultural validity, the guide was reviewed by two qualitative research experts and piloted with two participants to test clarity and sensitivity of the questions. Revisions were made accordingly before its formal application during data collection.

Data Collection Process

Quantitative surveys were administered in classroom settings by trained female research assistants to ensure privacy and comfort. Informed consent was obtained from school authorities and parents, with verbal assent from participants. Qualitative interviews were conducted after preliminary quantitative analysis. Each interview lasted 25–30 minutes and took place in private, quiet settings, either within schools or at participants' homes. Interviews were audio-recorded with permission, transcribed in Nepali, and translated into English for analysis. To maintain data quality, completed questionnaires were reviewed daily for accuracy, and transcripts were checked against recordings to ensure reliability. Data triangulation across respondent groups enhanced credibility and trustworthiness. Data were collected between January and April 2024.

Ethical Considerations

Ethical clearance was obtained from the Nepal Sanskrit University Research Committee on 15 December 2023. Informed consent was secured from parents and school administrators, and written assent was obtained from participating girls. Confidentiality and anonymity were strictly maintained, and participation was voluntary, with the option to withdraw at any stage.

Data Analysis

Quantitative data were analyzed using SPSS (Version 25). Descriptive statistics (frequencies, percentages, and means) summarized the data, and inferential analyses, including regression models, were applied to identify predictors of absenteeism and engagement.

Qualitative data were analyzed through thematic analysis following Braun and Clarke's (2006) six-step framework. Coding was conducted manually to allow closer engagement with the data. Themes such as *shame and fear*, *classroom withdrawal*, *religious stigma*, and *coping strategies* emerged inductively, supported by patterns identified in the quantitative phase. Cross-validation among teacher, guardian, and religious leader perspectives enhanced the credibility and confirmability of the findings (Nowell et al., 2017; Creswell & Poth, 2018).

Results

Table 1

Background Characteristics of the Participants (N=400)

Variables		Number	Percent
Responses			
Age	13Years	4	1.0
	14Years	74	18.5
	15Years	171	42.8
	16Years	117	29.3
	17Years	29	7.3
	18 Years	5	1.3
Religion	Hindu	347	86.8
	Muslim	41	10.3
	Buddha	7	1.8
	Christian	5	1.3
Caste	Brahmin	105	26.3
	Chhetri	86	21.5
	Dalit	21	5.3
	Janajati	87	21.8
	Muslim	41	10.3
	Others	60	15.0

Table 1 presents the background characteristics of the respondents. The majority of respondents fell within the age group of 14–16 years, which accounted for over ninety percent of the sample. Among them, 15-year-old girls represented the largest proportion (42.8%), followed by those aged 16 years (29.3%) and 14 years (18.5%). A smaller share of respondents was 17 years (7.3%), while only a few were either 13 years (1.0%) or 18 years (1.3%). This age distribution aligns with the typical adolescent stage when menstruation begins and schooling challenges related to menstrual culture are most pronounced, thereby making the sample highly relevant to the study objectives.

The religious distribution shows that the majority of the respondents were represented Hindu (86.8%), reflecting the dominant religious composition of Lumbini Province. Muslim students accounted for 10.3 percent, while Buddhists (1.8%) and Christians (1.3%) represented smaller minority groups. Although the representation of minority religions is comparatively limited, their inclusion allows for meaningful exploration of religious diversity in menstrual beliefs and practices.

Caste-wise, the respondents represented diverse social categories. Brahmin (26.3%) and Janajati (21.8%) girls formed the largest groups, followed closely by Chhetri (21.5%). Muslim respondents, representing both a religious and caste identity, comprised 10.3 percent of the sample, while Dalit accounted for 5.3 percent, highlighting their relative underrepresentation but ensuring the voices of marginalized groups were included. The category "Others," which made up 15 percent of the respondents, captured additional caste groups (Lonia, Pasi, Badhai, Kalwar, Kurmi, Kori, Kandu) not classified

separately. This distribution indicates that the study encompasses perspectives from both high-caste and marginalized communities, thereby providing a comprehensive lens for analyzing how caste, culture, and religion intersect with menstrual practices and their influence on education.

Overall, the background information of the sample demonstrates a representative cross-section of adolescent girls in Lumbini Province. The balance across grade levels, the clustering of respondents in the critical adolescent age range, and the inclusion of diverse caste and religious groups provide a strong foundation for analyzing the influence of menstrual culture on school education.

Table 2

Triangulated Evidence on the Educational Impacts of Menstrual Stigma

Thematic Focus	Quantitative Findings	Qualitative Themes	Key participants Insights
Psychological Consequences	58.8% of girls reported fear of leakage; $\beta = 0.263$, $p < .001$	Anxiety, shame, and emotional withdrawal during menstruation	"She feels so uncomfortable; she escapes asking questions in class." – Female Teacher
School Absenteeism	59.1% missed school at least once a month due to menstruation	Avoidance behavior linked to stigma and lack of menstrual materials	"We cannot send our daughters when they are bleeding, or pain it's shameful." – Guardian
Cultural Restrictions	$\beta = 0.177$, $p < .001$ showed cultural taboos as a significant predictor of educational barriers	Menstrual taboos (e.g., temple ban, food restrictions, isolation)	"Religion says girls are impure... how can they be in the classroom?" – Hindu Priest
Classroom Participation	39.5 % reported reduced participation during periods	Silence, lack of engagement, self-censorship	"They come to school but remain quiet the whole day." – Female Class Teacher
Support from Teachers/Family	Only 65% reported receiving support during menstruation	Teachers and mothers often unaware or silent due to societal norms	"Even mothers don't talk about it openly. So girls suffer silently." – Female Guardian
Infrastructure/Facilities	52% of respondents noted lack of clean toilets and disposal options	Poor WASH facilities reinforce absenteeism and shame	"No hygienic toilets. Girls go home if they stain or pain." – School Staff

Note. Quantitative results are derived from survey analysis among 400 secondary school girls across Lumbini Province, Nepal. Qualitative insights are drawn from 12 Key

Informant Interviews with female class teachers, religious leaders, and female guardians. Thematic analysis was applied to triangulate with quantitative trends.

The triangulated data presented in table 1 reveals a multifaceted relationship between menstrual stigma and educational outcomes among adolescent girls in Lumbini Province, Nepal. Quantitative findings indicate that psychological distress is a significant barrier to learning, with 58.8% of surveyed girls reporting fear of menstrual leakage. This fear was statistically associated with reduced educational engagement ($\beta = 0.263$, $p < .001$). Qualitative interviews reinforced this pattern, uncovering themes of anxiety, shame, and emotional withdrawal during menstruation. Teachers described students as visibly uncomfortable and reluctant to participate, with one noting, “She feels so uncomfortable; she escapes asking questions in class.” These insights suggest that menstrual stigma not only affects attendance but also undermines classroom confidence and cognitive engagement.

School absenteeism emerged as another critical consequence, with 59.1% of girls missing school at least once a month due to menstruation. While the survey data quantified the prevalence, qualitative narratives illuminated the underlying drivers—namely, avoidance behavior rooted in cultural shame and inadequate menstrual materials. Guardians expressed reluctance to send their daughters to school during menstruation, citing pain and embarrassment. One mother stated, “We cannot send our daughters when they are bleeding... it’s shameful.” This reflects how familial attitudes, shaped by broader societal norms, reinforce absenteeism and limit girls’ access to consistent education.

Cultural restrictions were found to be a statistically significant predictor of educational barriers ($\beta = 0.177$, $p < .001$), underscoring the institutionalized nature of menstrual stigma. Interviews revealed entrenched taboos such as prohibitions on temple entry, food restrictions, and social isolation. These practices were not only internalized by families but also endorsed by religious leaders. A Hindu priest remarked, “Religion says girls are impure... how can they be in the classroom?” Such beliefs directly conflict with inclusive educational environments and perpetuate exclusionary practices that marginalize menstruating girls.

Classroom participation was also adversely affected, with 39.5% of girls reporting reduced engagement during their periods. While quantitative data captured the extent of this issue, qualitative responses provided insight into its manifestations—silence, self-censorship, and disengagement. Teachers observed that girls often attended school but remained passive and withdrawn. One teacher noted, “They come to school but remain quiet the whole day.” This suggests that menstrual stigma operates not only through physical absence but also through psychological presence, where girls are physically in class but mentally and socially disengaged.

Support systems within schools and families were notably weak. Only 65 % of girls reported receiving any form of support during menstruation. Interviews revealed that both teachers and mothers often avoided the topic due to prevailing societal norms. A

female guardian shared, “Even mothers don’t talk about it openly. So girls suffer silently.” This silence exacerbates the emotional burden on girls and deprives them of critical guidance and reassurance during a vulnerable time.

Finally, infrastructural inadequacies were a pervasive theme, with 52% of respondents citing a lack of clean toilets and disposal facilities. Poor WASH (Water, Sanitation, and Hygiene) infrastructure was consistently linked to shame and absenteeism. School staff acknowledged that girls often left school if they experienced staining or pain, stating, “No hygienic toilets. Girls go home if they stain or pain.” These findings highlight the urgent need for structural improvements to create safe and supportive environments for menstruating students.

Taken together, the triangulated evidence underscores that menstrual stigma is not a singular issue but a constellation of psychological, cultural, and infrastructural factors that collectively hinder girls’ educational participation. The integration of quantitative trends with qualitative narratives provides a nuanced and contextually rich understanding of how stigma operates across multiple domains, reinforcing the need for holistic interventions that address both material conditions and socio-cultural attitudes.

Table 3

Educational Impacts of Menstrual Stigma from Key informant Interviews

Themes	Sub-Themes	Representative Quotes	Source
Psychological Consequences	Shame, Fear, and Anxiety	“I always worry my uniform will get stained. I stay quiet and avoid answering in class.”	Dalit girls
Cultural Restrictions	Isolation Food/Temple Taboos Social Silence and Secrecy	“During menstruation, I sleep separately and can’t touch food or go to the temple.” “We never talk about periods at home. Even my mother says ‘don’t tell anyone.’”	KII – Hindu Guardian Hindu girls
School Absenteeism	Lack of Facilities and Support	“There’s no ample of water. I prefer staying home when I’m on my period.”	Madishe girls
Coping Mechanisms	Peer Support and Whisper Networks Adaptation Strategies	“We tell each other that have pads or who to ask for help quietly.” “I sit near the back during class to avoid being seen.”	Grade 10 girls Grade 9 girl

Note. Themes were derived from thematic analysis of 12 Key Informant Interviews and views of girls during data collection time. Findings reflect consistent patterns across caste, religion, and rural–urban divisions, reinforcing the role of both psychological stress and cultural stigma in reducing girls’ academic engagement.

The qualitative data derived from key informant interviews and adolescent girls’ narratives in table 2 reveals a complex interplay of psychological, cultural, and

infrastructural factors that shape the educational experiences of menstruating girls in Lumbini Province. The theme of psychological consequences emerged prominently, with girls—particularly from marginalized caste groups such as Dalits—expressing deep-seated feelings of shame, fear, and anxiety. One Dalit girl shared, “I always worry my uniform will get stained. I stay quiet and avoid answering in class,” illustrating how menstrual-related anxiety leads to self-censorship and diminished classroom participation. These emotional responses are not isolated incidents but reflect a broader internalization of stigma that inhibits learning and engagement.

Cultural restrictions were another pervasive theme, manifesting through both physical isolation and symbolic exclusion. Girls reported being subject to food taboos and religious prohibitions, such as being barred from entering temples or touching communal meals during menstruation. A Hindu guardian explained, “During menstruation, I sleep separately and can’t touch food or go to the temple,” highlighting how cultural norms reinforce the notion of impurity. Additionally, the theme of social silence and secrecy was evident across interviews, with Hindu girls noting that menstruation is rarely discussed at home. One girl remarked, “Even my mother says ‘don’t tell anyone,’” underscoring how intergenerational silence perpetuates stigma and leaves girls without emotional or informational support.

The impact of these cultural and psychological pressures is reflected in patterns of school absenteeism, particularly among girls from rural and disadvantaged backgrounds. A Madishe girl stated, “There’s no ample of water. I prefer staying home when I’m on my period,” pointing to the intersection of inadequate facilities and social discomfort as drivers of educational exclusion. The lack of water and sanitation infrastructure not only exacerbates physical discomfort but also reinforces the perception that schools are unsafe or unsuitable spaces during menstruation.

Despite these challenges, girls demonstrated resilience through various coping mechanisms. Peer support networks—often informal and discreet—played a critical role in helping girls navigate menstruation within the school environment. Grade 10 girls described “whisper networks” where they quietly shared information about who had pads or where to seek help. These networks function as grassroots systems of care and solidarity, compensating for the absence of institutional support. Additionally, girls adopted adaptation strategies to minimize visibility and avoid stigma, such as sitting at the back of the classroom. A Grade 9 girl noted, “I sit near the back during class to avoid being seen,” reflecting how spatial positioning becomes a tactic for managing shame and anxiety.

Overall, the thematic framework reveals consistent patterns across caste, religion, and geographic divisions; reinforcing the conclusion that menstrual stigma is a pervasive barrier to girls’ educational engagement. The findings underscore the need for culturally sensitive interventions that address both the material and symbolic dimensions of menstruation in school settings. By amplifying the voices of girls and key informants,

this study highlights the urgency of dismantling stigma and creating inclusive, supportive educational environments.

Table 4

Integrating Quantitative and Qualitative Findings on the Educational Impacts of Menstrual Stigma

Key Theme	Quantitative Findings	Qualitative Evidence	Interpretation
Psychological Consequences	$\beta = 0.263, p < .001$ – Strong predictor of school absenteeism and classroom disengagement	Girls expressed fear of leakage, shame, and anxiety; avoided class participation	Psychological distress is a primary barrier to education during menstruation
Cultural Restrictions	$\beta = 0.177, p < .001$ – Significant but lesser impact than psychological consequences	Reports of isolation, food taboos, and temple restrictions; secrecy around menstruation	Cultural taboos reinforce stigma and create indirect educational exclusion
School Absenteeism	59.1 % reported missing school during menstruation	Many girls avoided school due to pain and fear of embarrassment	Absenteeism is both a consequence and reflection of inadequate menstrual support
Lack of Menstrual Facilities	52% cited inadequate school sanitation as a major challenge	Complaints about absence of water, or separate room to change Pad in schools	Infrastructure gaps exacerbate educational exclusion due to menstrual stigma
Teacher Support and Awareness	Only 65 % agreed that teachers were supportive during menstruation	Mixed views on teacher sensitivity; some were supportive, others dismissive	Teacher attitudes greatly affect students' ability to manage menstruation in school
Coping Mechanisms	Not directly measured	Peer support networks and self-adaptation strategies observed during data collection	Despite systemic barriers, girls actively seek informal ways to cope and continue

Note. This table integrates results from survey data (n = 400) and KII using triangulation to identify consistent patterns. Quantitative predictors validate qualitative themes, underscoring the dual burden of psychological and cultural menstrual stigma on educational outcomes.

The triangulated findings presented in Table 3 offer a comprehensive synthesis of quantitative and qualitative data, revealing the layered and intersecting impacts of

menstrual stigma on girls' educational experiences. Psychological distress emerged as the most significant predictor of both absenteeism and classroom disengagement, with a regression coefficient of $\beta = 0.263$ ($p < .001$). This statistical association was substantiated by qualitative accounts in which girls described intense fear of leakage, shame, and anxiety during menstruation. These emotional burdens often led to silence and withdrawal in the classroom, suggesting that psychological stigma operates as a primary barrier to educational engagement.

Cultural restrictions also played a notable role, though with a slightly lesser statistical impact ($\beta = 0.177$, $p < .001$). Interviews revealed widespread practices of isolation, food taboos, and temple bans, alongside a pervasive culture of secrecy surrounding menstruation. Girls reported being discouraged from discussing their periods, even within their own families, reinforcing a cycle of silence and exclusion. While these cultural norms may not directly cause absenteeism, they contribute to an environment in which menstruation is stigmatized, thereby indirectly limiting girls' participation in school.

School absenteeism itself was reported by 59.1% of respondents, underscoring the tangible consequences of menstrual stigma. Qualitative data illuminated the reasons behind these absences, including physical discomfort, fear of embarrassment, and lack of menstrual materials. This suggests that absenteeism is not merely a behavioral outcome but a reflection of broader systemic failures in menstrual support and education.

Infrastructure deficiencies further compounded these challenges. Over half of the surveyed girls (52%) cited inadequate sanitation facilities as a major obstacle, a finding echoed in interviews that described the absence of clean water and private spaces to manage menstruation. These gaps in school infrastructure not only exacerbate physical discomfort but also reinforce the perception that schools are inhospitable environments for menstruating girls.

Teacher support and awareness emerged as a mixed theme. While 65% of girls agreed that teachers were supportive, qualitative evidence revealed variability in teacher attitudes. Some educators were empathetic and proactive, while others were dismissive or uninformed. This inconsistency in support underscores the critical role of teacher sensitivity in shaping girls' ability to manage menstruation within the school context.

Finally, although not directly measured in the quantitative phase, coping mechanisms surfaced prominently in qualitative interviews. Girls described informal peer support networks and self-adaptation strategies, such as sitting at the back of the classroom or discreetly sharing menstrual supplies. These responses reflect a form of agency and resilience, demonstrating that despite systemic barriers, girls actively seek ways to navigate menstruation and remain engaged in their education.

In sum, the triangulated data validate and enrich the understanding of menstrual stigma as a multidimensional phenomenon. The integration of statistical trends with lived experiences highlights the dual burden of psychological and cultural stigma, and points

to the urgent need for holistic interventions that address both infrastructural deficits and socio-cultural norms.

Discussion

This study employed an explanatory sequential mixed-methods design to explore how menstrual stigma affects the educational experiences of schoolgirls in Lumbini Province. Drawing on quantitative survey data ($N = 400$) and qualitative insights from 12 key informant interviews, the findings reveal a complex interplay of psychological, cultural, infrastructural, and pedagogical factors that collectively shape girls' educational routes during menstruation.

Background Characteristics and Sociocultural Context

The majority of participants were aged 15–16 (72.1%), a critical developmental stage when menstruation typically begins and stigma intensifies. Most identified as Hindu (86.8%) and belonged to caste groups such as Brahmin (26.3%), Chhetri (21.5%), and Janajati (21.8%). These background characteristics are essential for interpreting the cultural and religious norms that influence menstrual discourse and school participation. The dominance of Hindu respondents, for instance, contextualizes the prevalence of temple bans and purity taboos reported in later thematic findings (Joshi et al., 2020).

Psychological Consequences: The Silent Barrier

Psychological distress emerged as the strongest predictor of educational disruption ($\beta = 0.263$, $p < .001$), with 58.8% of girls reporting fear of leakage and emotional withdrawal. Qualitative data reinforced this, with Dalit girls expressing anxiety and self-censorship: "I stay quiet and avoid answering in class". This convergence highlights how internalized stigma silences girls even when they are physically present, undermining both participation and learning outcomes (Mahon et al., 2015).

Cultural Restrictions: Institutionalized Exclusion

Cultural taboos—such as isolation, food restrictions, and temple bans—were statistically significant ($\beta = 0.177$, $p < .001$) and thematically pervasive. Hindu girls and guardians described menstruation as impure, leading to social silence and spatial exclusion: "We never talk about periods at home". These norms reinforce stigma and indirectly exclude girls from educational spaces, particularly in conservative households and religious communities (Thapa et al., 2021).

School Absenteeism: A Symptom of Systemic Neglect

Nearly 60% of girls missed school during menstruation, citing pain, embarrassment, and lack of support. This was echoed in interviews, where girls preferred staying home due to inadequate facilities: "There's no ample of water". Absenteeism thus reflects both emotional discomfort and infrastructural failure, positioning it as a key indicator of menstrual inequity in education (Sommer et al., 2016).

Infrastructure and Facilities: Material Constraints

Over half the respondents (52%) reported poor sanitation facilities, including lack of clean toilets and disposal options. Qualitative accounts described the absence of water and private spaces to change pads, reinforcing shame and absenteeism. These findings underscore the material dimension of menstrual stigma, where infrastructural neglect compounds emotional and cultural barriers (UNESCO, 2019).

Teacher Support and Awareness: A Mixed Landscape

Only 65% of girls felt supported by teachers, with interviews revealing mixed attitudes—some educators were empathetic, others dismissive. A female guardian noted, “Even mothers don’t talk about it openly. So girls suffer silently.” This highlights the need for menstrual literacy among both educators and caregivers to foster inclusive and supportive school environments.

Coping Mechanisms: Informal Resilience

Although not directly measured quantitatively, qualitative data revealed adaptive strategies such as whisper networks and spatial avoidance: “We tell each other who has pads” and “I sit near the back during class”. These informal coping mechanisms reflect resilience but also expose the absence of formal support systems. Empowering peer networks and integrating menstrual education into school curricula could enhance girls’ agency and reduce stigma.

Synthesis and Theoretical Implications

The triangulated evidence across all four tables reveals that menstrual stigma operates through intersecting psychological, cultural, and infrastructural pathways. These findings align with intersectional feminist theory, which emphasizes how caste, religion, and gender norms co-produce educational exclusion (Crenshaw, 1991). The study also resonates with social justice frameworks that advocate for equitable access to education and health resources, particularly for marginalized groups.

Conclusion

This study reveals that menstrual stigma significantly disrupts the educational experiences of schoolgirls in Lumbini Province through psychological distress, cultural taboos, inadequate infrastructure, and inconsistent teacher support. Triangulated evidence from surveys and interviews confirms that fear, shame, and silence during menstruation lead to absenteeism, reduced classroom participation, and emotional withdrawal. While girls demonstrate resilience through informal coping strategies, the lack of systemic support perpetuates exclusion and reinforces gender inequities in education.

Implications

- **Policy Reform:** Integrate menstrual health education into school curricula and teacher training programs to normalize menstruation and reduce stigma.
- **Infrastructure Investment:** Improve WASH facilities in schools, including clean toilets, water access, and disposal systems, to support menstrual dignity.
- **Community Engagement:** Mobilize parents, religious leaders, and local stakeholders to challenge harmful taboos and foster open dialogue.
- **Targeted Support:** Develop culturally sensitive interventions for marginalized groups (e.g., Dalit and Muslim girls) to address intersectional barriers.

- **Peer-Led Initiatives:** Strengthen peer support networks and student-led menstrual clubs to promote agency and solidarity among girls.

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