

# Adolescent Girls' Narratives on Hesitation, Realization, and Adaptation of Menstrual Hygiene and Sanitation Practices

**Basanti Karki, Dhanapati Subedi, and Niroj Dahal**  
Kathmandu University School of Education, Lalitpur, Nepal  
Email: [niroj@kusoed.edu.np](mailto:niroj@kusoed.edu.np)

---

## Abstract

*This paper explores the menstrual hygiene and sanitation practices of four adolescent girls from Nepali public schools. We used Bandura's social learning theory to explain how adolescent girls learn about menstruation in a social environment. Subscribing narrative inquiry as a research methodology, we followed the first author's journey from gathering the girls' stories to interpreting them. Guided by the paradigm of interpretivism for understanding how they construct meaning about menstruation and menstrual hygiene amidst the diverse social scenario. We created the themes based on the girls' (i) learning about menstruation and experiencing menarche, and (ii) practicing menstrual hygiene at home, school, and community, based on our involvement in the process of transcribing and translating the collected information, first by coding, categorizing, thematizing and theorizing. While going through the participants' stories, we learned that the girls' experiences are deeply rooted in their community's social and cultural assumptions, behaviors, and practices on menstruation. They see their family, friends, and neighbors talking about menstruation, which aligns with society's beliefs. They become accustomed to the infrastructural limitations at school and the financial constraints at home, which prevent them from comfortably practicing menstrual hygiene. As a result of the observation, the girls imitate the behaviors of other members of their family, community, and school. The findings of this study show that girls should learn about menstruation and menstrual practices from their social environment. Finally, the study suggests that home, school, and community practices be implemented to encourage girls to engage in healthier menstrual hygiene and menstruation practices.*

---

**Keywords:** menstrual hygiene, adolescent schoolgirl, narrative inquiry, participants

## Introduction

This article explores the menstruation hygiene and sanitation practices among adolescent schoolgirls. Menstruation hygiene and sanitation practices seem common issues for adolescent girls in public schools in Nepal (Sapkota et al., 2013). In Nepal, there has been a growing emphasis on the discourses of adolescent girls, menstruation, and menstrual hygiene. The growing emphasis has been reflected very explicitly (Hennegan et al., 2021), where the researchers, alluding to the Sustainable Development Goals and the agendas on Gender Equality and Human Rights, have mentioned that menstrual health has witnessed its space in advocacies, programming, policies, and research. Not only at the international level, but it has also appeared as the discourse of menstruation, menstrual sanitation, and hygiene that is concerned with the significant priority in the nation.

Whether in the coverage of Nepal's criminalization of menstruating women to isolated huts made by BBC (British Broadcasting Corporation [BBC], 2017). a normal physiological process among girls and women. However, menstruation is still stigmatized in different countries on the grounds of different religious convictions that consider menstruating women to be ritually unclean. Nepal's embedded religion as foundation to social lives can be considered no exception to the menstrual stigma. Belayneh and Mekuriaw (2019) also stated that menstrual stigmas have led girls to unsafe hygienic practice, school dropout, poor performance and poor quality of life. Similarly, there are even the concerns expressed on less familiarity of the adolescents to reproductive health and services which are supposed to make adverse effect, not only in the educational opportunities of the adolescent girls, but also on their physical and mental wellbeing (Rumun & Msuega, 2014). Apart from the home, the menstruating girls are no exception to facing difficulties at schools. Many schools of Nepal are indeed receiving a number of supporting hands in the form of projects like WASH (MOE, 2016) and free sanitary pad distribution from the government sector (Water Supply and Sanitation Collaboration Council [WSSC], 2020). However, girls need privacy to change sanitary clothes or pads, clean water, and soap; girls still lack access to water and sanitation when they require it most (Kamath et al., 2013). Even today, there is a dearth of studies on how menstruating girls manage their hygiene and sanitation amidst this paradox.

Besides those above, the girls' struggle during their menstruation days, which we saw during our working days, makes us feel that there is still a gap in the practices of menstruating girls, which is to be explored. Bajracharya (2021) also claimed menstruation needs to have a significant space in social discussion.

These issues triggered some questions in our minds, such as – what do adolescent girls experience their first menstruation? How do they learn about menstrual hygiene and sanitation? What challenges do they face in school and society? How do they overcome the problem? These queries provoked us to explore the issue of menstruation hygiene and sanitation practices among adolescent schoolgirls.

Guided by the research questions, how do adolescent girls experience menstruation in socio-cultural practices? And how do they narrate their learning about menstruation in their menstrual hygiene practices? The study explored adolescent schoolgirls' experiences regarding their menstruation, menstrual hygiene and sanitation practices. It is focused on uncovering how the girls experienced socio-cultural perspectives related to menstruation and how the practices contributed to shaping their practices on menstrual hygiene and sanitation in their home, school, and community. With this introduction, this article presents, literature review, theoretical orientation, methodology, discussion of findings, drawn conclusions, and implications.

### **Literature**

We elucidate reviews of earlier research studies, journal articles and dissertation/thesis around research topic. The purpose of conducting literature review was to get insights about adolescent girls, socio-cultural perspectives on menstruation and the girls' practices.

#### **Understanding Menstruation and Menstrual Hygiene Management**

Pandey (2014) has articulated menstruation as a function of Hypothalamus-pituitary-ovarian function lasting from three to seven days, the blood flowing from her vagina during the period, and the continuity of the cycle except in case of her pregnancy were the discourses used to get imprinted in the books but were discussed with ample hesitation during school days. There are a few notable terms related to menstruation. Female adolescents' mean age at first menstruation is 13.5 years (Ministry of Health and Population, 2012). Likewise, the first menstrual period is called menarche, which starts puberty, defined by the United Nations Scientific and Cultural Organization [UNESCO] (2016) as a time of rapid physical, psychological and cognitive changes shaping an individual's gender identity. There are many literatures that discuss menstruation and adolescence. According to UNFPA (2017), adolescence is a decisive age for girls around the world, while what transpires during adolescence is supposed to contribute to shaping the entire life and the family. Relating to this, we can understand that proper orientation to the girls during their adolescence can contribute to shaping their reproductive and family lives during their adulthood. Relating to the discourse of menstruation and its management, the concept of Menstrual Hygiene Management (MHM) was coined at

a meeting of the WHO/UNICEF Joint Monitoring Programme (2012). The program defined Menstrual Hygiene Management (MHM) as

*Women and adolescent girls using a clean menstrual management material to absorb or collect blood that can be necessary for the duration of the menstruation period, using soap and water for washing the body as required, and having access to facilities to dispose of used menstrual management materials. (p. 21)*

Since then, the menstruation and Menstrual Hygiene Management (MHM) issue seems to have got great space in international and national arenas. The emphasis can be seen visible even in the context of our country in the national level policies and programs including the Water Supply and Sanitation Ministry Development Plan, the National Master Plan for Hygiene and Sanitation, National Health Policy 2014, the Health Sector Strategy 2015- 2020, Adolescent Health and Development Strategy (2015), the Integrating Menstrual Hygiene Management into School Health Program 2015, the Water Supply, Sanitation and Hygiene Sector Development Plan (2016-2030) (Karki et al., 2017) and the School Sector Development Plan 2015-2022/23 (MOE, 2016).

The policies and programs which are developed from the national and international levels make us anticipate in-depth engagement of the concerned authorities in orienting the adolescent girls on what menstruation is, and how menstrual hygiene is to be managed. However, when we went through the literatures on how menstrual hygiene is treated, we could get to know that menstrual hygiene is still a problem for adolescent girls in low and middle-income countries (LMICs) (Sommer & Sahin, 2013). While education could dispel some restrictions (e.g., of foods or activities) related to menstrual misconceptions, domination of the beliefs and negative attitudes that are deeply entrenched within religious convictions (Garg & Anand, 2015) are still acting as barriers to practicing menstrual hygiene in the countries like Nepal. The policies are imprinted to ensure proper sanitation and water, sanitation, and hygiene (WASH) facilities in the schools (MOE, 2016). Suppose we reflect upon the scenario of public schools of the city areas of Nepal. In that case, we can feel that the policies have reached to practice to some extent, since the sanitary pad dispenser and girls' toilets make menstruating girls comfortable to a great extent. However, if the context of the nooks and corners of the country are taken into account, still the girls are instigated to experience menstruation as shameful and uncomfortable as these schools still suffer poor water, sanitation and hygiene (WASH) facilities, inadequate puberty education and lack of hygienic MHM items though the cloths are traditionally used as low cost and environment- friendly absorbent to the menstrual flow, cleaning and drying cloths is a problem in the lack

water, privacy and a drying place (Narayan et al., 2001). Amid this, we can sense the difficulties the menstrual girls undergo in practicing menstrual hygiene.

Recent international concern for MHM directed through work to improve WASH in schools has focused on the need for dignity and privacy, raising awareness to break the silence and stigma, making safe and effective MHM absorbents accessible, and improving the school WASH environment. As stated by CU and UNICEF (2014), the latter includes separate toilets for girls, water and cleansing materials, and safe disposal of soiled materials. These provisions are expected to create a gender equitable atmosphere in the schools while a gender equitable school environment is considered to support the girls to engage in class and stay in school (Rihani, 2006). Since most of the girls remain absent in the school during their menstrual cycles due to discomfort, lack of continuous water supply and shame or fear of staining of blood (Rajbhandari et al., 2018), the focus made by the school in ensuring MHM can be expected to reduce the problems related to girls' menstrual discomfort and facilitate their academic acquisition.

### **Menstruation Hygiene and Sanitation Practices at School**

Many studies have been conducted focusing on how menstrual hygiene is practiced by the girls (Pandey & Mahotra, 2019) while practices like Chhaupadi that disrupt the girls' menstrual hygiene are amply confronted (Kadariya & Aro, 2015). However, suppose the practice of menstrual hygiene is analyzed with reference to the school context. In that case, we can still see most of the schools have undergoing gaps in water supply, sanitation and waste disposal facilities, which result in a huge burden among adolescent girls in the management of their menstrual hygiene practices. This burden can be anticipated from the statistics published by the Ministry of Education [MOE] (2016) has shown that many basic schools have access to water and sanitation however less schools of Nepal lack water supplies and do not have toilets. These statistics hint me of the difficulties the menstruating girls go through when they are at schools.

Apart from the infrastructural constraints at schools, studies have even displayed the lack of awareness among girls, and insufficient guidance from the seniors as barrier to their menstrual practices. There are a few studies including the one done by Singh et al. (2019) which found the participants of their study (girls) to be aware of process of menstruation. Their study suggested that participants preferred using disposal pads during the menstrual cycle, but most didn't change pads in school as they were guided by hesitation and awkwardness to get help from teachers. Regarding the awkwardness, the researchers have found the influence of family beliefs to be instigating. Similarly, the study by Yusuf and Musa (2010) on Menstruation and Menstrual Hygiene amongst Adolescent School Girls in Kano, Northwestern Nigeria concluded that most had

fair knowledge of menstruation, although deficient in specific knowledge areas. The conclusion of the study, however, contrasts from that of Singh et al. (2019) as most of the girls were found to be using sanitary pads as absorbent during their last menses; changed menstrual dressings about 1-5 times per day; and three quarter increased the frequency of bathing. The latter scenario depicts some rays of changes in perception and practices of adolescent girls on menstruation and menstrual hygiene.

Likewise, a study conducted by Rajbhandari et al. (2018) among 168 adolescent girls studying in grade nine and ten from four schools of Bhaktapur revealed that although the girls had knowledge on menarche, they had to undergo discomfort, lack of water supply and the shame and fear of stain at school. These discomforts were reported to have resulted in absenteeism of the girls during their menstrual cycle, while lack of parental and maternal orientation on menstruation was identified as one of the reasons behind the girls' awkwardness and shame.

Putting together the findings of the studies, we could develop a sense that menstrual hygiene practices, despite being given a great emphasis in the policies and programs, has experienced a gap when it comes to practice. Moreover, we could even understand that the studies have focused mostly on the significance of menstrual hygiene, whether the girls practice it or not, and how their menstrual practices relate to their participation in the school. However, there are still areas to be explored on how the girls from public schools of Nepal experience socio-cultural perspectives on menstruation and how their experience shapes their menstrual hygiene practices.

### **Policies on Adolescents, Menstruation, and Menstrual Hygiene**

Studies have suggested that the health issues of every individual in general, and that of girls in particular, are given great priority in the international and national arena. Right to Health is identified as right of human by the International Convention on the Declaration of Human Rights (United Nations Office of the High Commissioner, 2016). Aligning to the declaration, the Constitution of Nepal 2015 has discerned Right to Health as a fundamental right in Part III, article 35 (Constituent Assembly Secretariat [CAS], 2015). The first two sub-articles of the constitution highlight that every citizen shall have the right to seek basic and emergency health care services and every person shall have the right to be informed about his/her health condition of health care services. Further, it is even articulated that each person shall have equal access to health care and each citizen shall have the right to access to clean water and hygiene. This declaration defines health as the subject of national concern in the context of Nepal.

The National Health Policy 2014, in the similar way, ensures health care as a fundamental right of every citizen (Government of Nepal [GoN] Ministry of Health and



Population, 2014). The policy advocates essential health care services, including sexual and reproductive health for adolescents. Moreover, the policy also provides high priority to health education, and communication about reproductive issues of adolescents. Besides, Family welfare division as an apical government body has been working for implementation of reproductive health and population related activities through seven major programs, among which adolescent and sexual reproductive health (ASRH) is one. Apart from these, The Nepal Health Sector Strategy 2016-2021 (Government of Nepal [GoN] Ministry of Health, 2017) has also focused on adolescent reproductive health, prioritizing adolescent friendly health care services in health institutions school health program.

Periodically, the first National Adolescent Health and Development [NAHD] 2000 (His Majesty's Government of Nepal, 2000) was formulated as the motivational plan for disseminating the basic health, including women maturational. The document has the provisional objectives such as to increase the availability of and access to quality on adolescent health and development. Moreover, the School Sector Development Plan 2016-2022/23 also has emphasized adolescence and menstrual hygiene management in the school discourse. Additionally, National Adolescent Health and Development Strategy (2018) has also emphasized adolescent participation and leadership, equity and inclusion, right based responsibility feeling system, partnership strategy for extension of adolescent health program through GOs and development partners through federal, provincial to local level of government.

In particular, the agendas on menstruation and menstrual health management (MHM) are given special space in the international and national spheres. The United Nations Children's Fund's [UNICEF] (2012) priority on access to menstrual materials, facilities and education related to it is evident to the space. Advocacy about Menstrual Hygiene Management (MHM) in the Committee of the Rights of the Child (CRC), Rights of Women, and the Human Rights Council, are other instances of priority given to the discourses of menstruation and menstrual hygiene. In the context of Nepal, criminalization of *chhaupadi* made by the government (British Broadcasting Corporation [BBC], 2017), inclusion of the discourses of menstrual health and WASH in School Sector Development Plan are some other examples of policies inscribed to promote menstrual openness and menstrual hygiene.

Going through the above- mentioned literature, we could understand that many policies, law, regulation, and plans are published from government and non-government sectors with special emphasis on adolescents and reproductive health to which menstruation closely relates. But when the adolescents' hesitation to talk about

their issues is recollected, it seems like the implementation of the plans and policies are still scanty. And the same hesitation makes me realize that the agenda of how the gap in practice is the discourse that needs immediate exploration.

### **Theoretical Referent**

To make meaning out of the adolescent girls' experiences on menstruation and menstrual hygiene. We illustrate Bandura's socio-cultural learning theory along with its rationale for meaning making about the adolescent girls' experiences on menstruation. Albert Bandura developed social learning theory, which focused on learning through observation. In social learning theory, Bandura (1999) argued that an indirect learning occurs which stems from the observation of other's behaviors. Through this learning method, individuals can learn the generalized and settled learning structures without the need for trial and error (Bandura, 2001). As a result of individuals' observation of the model, the observers can weaken the negative knowledge acquired previously, acquire new beliefs and values and learn how to use the environment and things from the model in their practices.

Social learning theory is grounded on the notion that learning attempts to imitate modeled behavior through social observation. Often seen as a bridge between both behaviorist and cognitive learning theories, social learning theory involves reciprocal interaction between cognitive, behavioral, and environmental influences. At its inception, social learning theory challenged the traditional theories of behaviorism and its perceived limitations as a learning theory. The social learning theory is based on Bandura's premise that learning does not always occur from firsthand experiences alone but through harnessing the power of observation and imitation. Bandura states that by observing others, humans have the capacity to develop ideas about how new behaviors are performed (Bandura, 1977). Likewise, there are four major components relating to observational learning which is related to social learning theory, and the components include the process of attention, the process of retention, the process of production and the process of motivation respectively (Bandura, 1989).



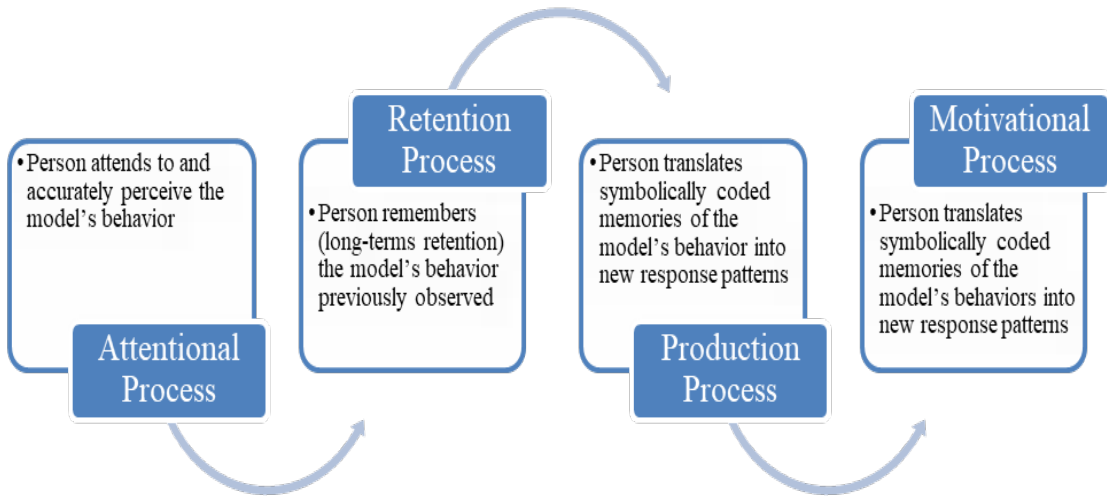


Figure 1: Four major components of social learning theory

Figure 1 shows the four major components of observational learning related to social learning theory. The girls' menstrual hygiene practices, which was the study's main agenda, were guided by their socio-cultural contexts. And for developing insights on how the menstrual hygiene practices of the girls are shaped by their learning about menstruation amid socio-cultural contexts.

## Method

Subscribing the interpretivism research paradigm, we believe that the girl's experiences are rooted to their own perspective, views, backgrounds, and practices, for making sense about their stories. We considered getting guided by the philosophical assumptions of interpretivism to be relevant in our study since we believe that the reality of adolescent girls' experiences, which is socially constructed (Dahal, 2023; Saldana, 2011), is subjective. Likewise, interpretivism as a research paradigm could help collect the women's world beliefs (Guba & Lincoln, 1994) amidst their social background (Creswell, 2013). As this study revolved around exploring the lived narratives of four research participants, it normally needed an interpretive philosophical underpinning related to the tradition of qualitative research. The reality within the lens of interpretive research is socially and contextually constructed and is subject to diverse interpretations. It is believed that human stories are interrelated as they cover different aspects of an individual to social. In this sense, narrative inquiry is a research approach that facilitates reporting the art of narrative (Saldana, 2015). We have used lived experiences with knowledge and lived experiences of participants from stories about the menstrual hygiene and sanitation practice of school adolescent girls in public schools. It allowed

us to explore Nepali girls' menstrual hygiene and sanitation practices in the 9th and 10th grade of public school. Adopting narrative inquiry as research methodology, we have documented personal to respondents' attitudes, feelings and stories in written form. We found the adolescent girls first menstrual experiences and menstrual as well as sanitation practices exploring their personal, and social stories.

Using purposive sampling based on the criteria, we selected four adolescent girls namely, Basana (pseudo name), Priyana (pseudo name), Rachana (pseudo name) and Archana (pseudo name) from Kathmandu Valley, Nepal where the communities/ ethnicities have strong taboos and thoughts about menstruation as "impurity" and "un-touch-ability" and where they keep adolescent girls away during their monthly cycle/ menstruation. The research participants were secondary school girls who had, at least, one-time experience in menstruation. So as to maintain anonymity, we have used pseudonym for them. Further, the study's purpose was to unveil adolescent girls' experiences on their menstrual hygiene practices. And as we have chosen narrative inquiry as methodological approach, we have gathered their experiences in the form of narratives. We took in-depth interview as the method of collecting narratives while open ended questions were used as guideline. The stories collected from the research participants were not the mere stories for us. We realized that for a narrative inquirer like first author, the stories contribute to the construction of knowledge about the participants' way of seeing and experiencing the world around them (Webster & Mertova, 2007). To attain the research goal of constructing knowledge from the participants' narratives, it was very essential for us to find out the similarities and differences the experiences of research participants contain for which we involved in the process of coding and categorizing. In the process of coding, we labeled the words, phrases and paragraphs in translated information which we found relatable to research discourse. From the pyramid of narratives, we have designated only those narratives affiliated with menstrual hygiene, and sanitation practices bridged with socio-cultural perspectives on menstruation. Simultaneous to narrating stories including three themes, we have created the meaning of themes and presented as per our understanding on the issue of menstruation hygiene and sanitation practices. Their experiences and narratives on each theme are elaborated.

### **Discussion of the Findings**

This section discusses the spirit of the research based on the developed research question and methodological map. The stories of four adolescent girls from different schools in the Kathmandu Valley are discussed. When the first author experienced her menarche, family constantly reminded her family constantly reminded her that she was no longer in the age of playing hide and seek or jumping merrily with siblings. Rather,

first author was told that she had to start accompanying mother and aunts in kitchen, walk in shorter strides and be cautious while going outside. Basana, Priyana, Rachana and Archana also had similar experiences of being told to limit their premises. With the first menarche, all the girls we interviewed were cautioned about sexuality, told that they are now grown up, and urged to act lady like. And as first author had experienced the prohibition to giggle and play with younger siblings, the girls had also experienced restriction to the freedom of behavior that they had employed in the past. As they narrated, the restrictions they had experienced were rooted to the cultural conviction that menstruation is dirty and impure (Garg & Anand, 2015), and they had no option except listening to the convictions and following them quietly.

**Basana**, our first research participant, had awareness about menstruation even before her menarche. The awareness, however, was not related to anything from the lessons on reproductive health where menstruation is introduced as a natural phenomenon in which blood from the uterus exits through vagina (wateraid.org, 2012). She was used to seeing her mother and sisters used to being isolated from the kitchen once a month and the isolation used to continue for four to five days. Whenever they would go to isolation, Basana used to get more restless to reach them; and at this, her grandmother used to say, “*nachhune bhayeko aamalaai choyera bhansaamaa aaune hoina*” (don't come to the kitchen after touching your menstruating mother). Adding more about how she learnt about her first menstruation from her own family premises and friends, Basana narrated:

*Firstly, my mother shared that when she had got her menarche, she had felt something wet flowing out of her body. But she didn't tell openly what that 'Chiso-Chiso' (wet) thing was. Since I had only a little knowledge about menstruation, I was curious. I wanted to know more, but she told me this is not to be discussed openly. Rather, she told me that if I feel like wet, I should immediately tell her or my grandmother. The next week, I shared about the conversation with my best friend who had come to the school after ten days of her menarche. She told me about the flow of blood from the private part and reminded me that I should not shout and let everyone know about this issue.*

Basana's story revealed that she was very curious to get about the first menstruation. And she had considered herself to be fortunate in a sense there was her mother to tell her what it feels to be menstruating. As Kapoor and Kumar (2017) state of how a motherly figure can make girls aware of their menstruation, Basana's mother was there to aware her about menstruation. The mother's dissemination, however, was more aligned to the cultural conviction of considering menstruation as filthy, shameful and impure. And as Basana articulated about how she had considered menstruation as

the period of isolating herself by constantly observing her mother and sisters isolating themselves from the kitchen, we could find Basana representing many Nepali girls who are used to experiencing menstruation in the form of restriction from activities like cooking, touching food, being with family members, attending religious ceremonies, and bathing (Kumari, 2017). Moreover, as Bandura (1977) has mentioned of observing the behavior of others attentively and retaining it so as to reciprocate it, we could make sense that Basana had considered observation as the pathway to learning about menstrual practices.

Basana's story of how she got sense about menstruation was really interesting to hear. While she had been narrating how she had been observing her mother and sister, we could relate to our experience of regularly seeing mother, aunts and sisters remaining secluded for four to five days in a month. During the time, the mother of the first author kept herself restrained from dairy products. There used to be a separate corner in our house's ground floor, labelled as *mul ochhyan*<sup>1</sup> where she used to sleep on *gundri*<sup>2</sup>. Moreover, she used to take the steel plate and the glass out of the attic only on those four days, as childish mind used to long to eat in the plate. However, she was used to doing the work of collecting fodder, weeding crops, and weaving *gundri* during those four days.

While Basana narrating her experience on the first menstruation. With a smile on her face, she added:

*I was about thirteen years old. I was in my school then. Since I had very terrible back pain, I shared with my best friend. She told me that my cheeks were red, and that I might be on the way to the first menstruation. I felt shy, and simply said that she was just pulling my legs. But the next day, I felt "Chiso-Chiso" in my private part. I remembered my mother's remarks. So I went to the toilet to see what the thing was actually. My friend was true I had got my menarche. And the moment I discovered my undergarment full of blood, I was really anxious. I couldn't decide what to do I called my friends and shared what had happened to me. I even asked them how I would hide from the male teachers, friends and cousins who had been studying in the same school.*

While she had been talking of how she had blushed at her friend's comment on menstruation. But our research agenda was focused on exploring more about her experiences on the socio-cultural perspectives on menstruation. Hence, first author asked her of how she experienced the social and cultural convictions on menstruation to which she replied in the following way:

1 A corner separated for the menstruating girls women to sleep  
2 Floor mat made of straw

*When I rushed home from school, I hid behind the house since I wanted to make it a secret. I was even shy to share it with my mother. But she saw me when she came to collect firewood to prepare dinner. Even without an utterance from my end, she understood. So, she took me directly to the attic. There I stayed for six days. I was not allowed to speak loudly because my brothers would hear me ... Menarche was really scary for me. During the second and third menstruation, I tried my best to keep it a secret because I didn't want to go to the attic again ... luckily, this time they didn't send me to attic, and I could go to school after three days.*

Time and again, Basana's narration replicates that girls and woman are influenced by cultural discourses of secrecy and silence regarding menstruation (Ussher, 2017) which they learn mostly from their mothers. Basana had perceived menstruation as a socio-cultural phenomenon, and she had mentally prepared to stay isolated since she had observed her mother practicing menstruation as a social phenomenon, which we found very relatable to other cases too. The experience of observing mother, aunt, sister and friend was not only =Basana's experience though. The influence of mothers' behavior in shaping a daughter's behavior on their physiological phenomenon is reflected in the study made by Gil-Llario et al. (2019). Similarly, perceiving menstruation in relation to social and cultural phenomenon is apparent in our second participant Priyana's narration.

**Priyana**, who had come to Kathmandu from Dadeldura narrated the dos and don'ts prevalent in her village, giving her a sense that there must be something special/unique about women because of which they stay separately for five to six days a month. She even told that *Chhaupadi* is not treated with disgust in Dadeldhura as the people of Kathmandu consider it to be. Derived from the Raute dialect, the term *Chhaupadi* connotes menstruation (*chhau*) and women (*padi*) (Shrestha, 2019) and since the word itself reflects the phenomenon of women, Priyana reported that the women from her region were used to isolating themselves without grudges. Reflecting upon the practices that prevail in her hometown, she narrated how she learnt about menstruation in the following way:

*I used to think other family members might have allowed her to rest. But I couldn't really understand why she slept on the floor outside her room.... I was curious to know, so I asked her one day. At first, she was a little loud her first expression was, 'kati jaanne hunchhe yo- this girl is getting too over smart'. But later she told me that it is natural for the girls to menstruate ... I was in dilemma on what my mother and sister had been talking of. But I was pretty sure that I will also get menstruation; and during the period, I will have to wash a pile of muslin clothes, bath early in the morning on the fourth day and sleep on the floor.*

Priyana's story was from a different context from that of Basana. But we could get commonality in their stories. The commonality was in the figure of mother who had appeared as role model to them. As stated by Kiran (2010), both the girls had taken their mothers' menstrual behavior to confirm what behavior they should be practicing during their menstruation. We were immersing in Priyana's experiences; and at the same time, recollecting the experience of Basana and first author experience too. We could not wait to listen to how she experienced her menarche, and hence first author requested her to reveal it. Responding in request, she added:

*I was only nine years old. Nine is too early to get the period, isn't it? My mother went to sell vegetables that day. And I had been sleeping on my bed, and I had mild back pain. The pain was very new, and strange to me. I didn't know what was going on ... I shrieked in terror after hearing my cry, my mother came to me. Till then, I had already bundled up the bed sheet along with my undergarment and trousers*

The discourse of stigma seemed to have triggered her memories, and she articulated how she had to spend her days in anxiety and isolation on pretext of keeping her family safe from bad omen that might result due to the presence of a menstruating girl.

*When my mother discovered my bedsheet was stained in blood, she forbade me to go out of the room. She told me if it was the case of Dadeldura, I would have to stay in chhaughar. The entire day, I had to lie down on the floor and at night, my sister accompanied me ... Every month during my period, I ate on separate plate, slept separately, and struggled for sanitary pad. When I stopped bleeding, I took bath and washed all my clothes including bed sheet and pillow.*

Priyana's story was very heart touching to listen to. The way she talked of crying the entire day in isolation reminded us of Bobel (2018) who has presented that menstruating girl still lacks support in participating in the physical and social world. Moreover, her labeling of being treated 'inhuman', just for menstruating took us back to Beauvoir's (1949) argument about treatment of women as objects for being feminine in the pretext of following the gendered socio-cultural phenomenon. The mixture of fear, anxiety and seclusion that had disturbed Priyana during her menarche even helped us to understand that when the physiological phenomenon is oriented as the force of cultural practices, it can make negative impact upon the adolescents (Sonowal & Talukdar, 2019). Apart from these, Priyana's story also contained the discourse of observing her mother to generate knowledge about how menstruation is to be perceived which we found relatable to Bandura's theory of social learning. For Bandura (1961), individuals learn to shape their behavior by learning from the behaviors which the models exhibit through their actions. Here, the concept of 'model' is connected to the environment



around the individual, which comprises people, the knowledge they disseminate, and the behavior they display (Banyard & Grayson, 2000).

Putting together the story of Priyana with Bandura's notion, we could prepare an insight that mother and sister act as role model to the adolescent girls, while their perception, practice and behavior on menstruation are shaped by the way their mothers, sisters and other female members of the family perceive and practice it. In her stories, there were many instances of gender which, as defined by Dyson et al. (1992) has been historically and culturally defined as a constitutive element of human social relations based on culturally perceived and inscribed differences and similarities between and among males and females, and they had perceived menstruation as evident to the difference. The discourse of gender was reflecting in the narration of Basana, too. However, it was not only the two girls who had experienced their menstruation amid the construct they considered gendered. Our third participant, Rachana, reported the discourse of experiencing menstruation amid socio-cultural obligations and prohibitions. She recollected on her perception on menstruation and her experience on menarche in the following way:

*Ammm, I got my first menstruation when I was in grade six and at the age of 12. I still remembered the early morning of Jestha when I felt uneasy, sticky and cold. I went to the room, checked and found that I had been bleeding. ... I had even heard them talking of eating in separate plate, sitting separately from their siblings. When I was getting ready to go to the bathroom, my aunt gave me clothes and pad to use. She instructed me to use it properly. Later, she took me to a dark room and gave the food there. I was strictly told not to come out in the exposure of sun. She also advised me to bath before the sun rise. I was not allowed to see the faces of any male members of my family or even men from outside ... My father is religious, and I was not expected to violate his devotion through my impure touch. And I also didn't deny doing this. Although I didn't like because I knew that my friends had also been going through the similar experiences, and I couldn't be an exception.*

We heard that parents are the first teacher of a child. But when we listened to Rachana's story, we could understand that not only the parents become the teacher for the children. The friends, relatives and the environment where a girl grows, shapes her perception about menstruation and follows the same culture throughout her life. As Rachana narrated, she listened attentively to her friends' conversation on menstruation. And as Aksoy and Baran (2010) have noted, the same attention to the communication supported Rachana to put forward her experience on the menarche with her aunt without hesitation. Furthermore, her story even reflected that menarche is acknowledged through

cultural taboos or rituals (Uskul, 2004) which were very similar to that of the stories of Basana and Priyana. When she talked about adhering to what other friends had been doing as a girl. Her attempt to take the restrictions normally hinted to me that she had retained the practices of other girls and women of her surrounding that she had been observing and reproducing (Bandura, 1977).

Our curiosity to learn of the adolescent girls' experiences had been surging with the stories of Basana, Priyana and Rachana. we had been feeling like we were getting very close to their heart. The instances they brought about hiding during the menarche, not being allowed to touch the dairy products, and being mentally prepared to follow the obligations and prohibitions were also very relatable to my case. But we wanted to know more about adolescent girls' menstrual perceptions and experiences. For this, first author requested fourth participant **Archana** to look back to her first menstruation and she narrated:

*I had my first experience of menstruation when I was in grade five and I was eleven years old. In the afternoon, I returned from my school and did my homework. Suddenly, I had severe pain in my stomach and on my back. I went to the bathroom and saw that I had been bleeding. I was shocked and surprised too to see the blood flowing from my private part. I was informed from my mother that I would get pain in my lower abdomen when I had my menstruation ... she went to the shop to buy pads for me. She instructed me to how to use pads. After that, she sent me to my aunt's house and my cousin sister helped me to use pad. When I went to my aunt's, I was sent with a bag of fruits, some books and a radio. I shared the room with my cousin, and stayed there for a week I missed home, but we had fun together.*

Archana's experience was different from that of other participants whom we had interviewed earlier. It was nice to hear from her that her own mother supported her to use pad, and that her mother had arranged things for her to engage during the hiding at her aunt's. And as Archana narrated to have had fun during the period, we could anticipate what it means to get a mother's support for a daughter. Her story of spending the days comfortably during menarche even hinted to me that the emotional comfort of a daughter is contributed by how the family members behave, and how they express themselves with them. For us, Archana's mother who had been helping her daughter use sanitary pad was an image of an educated mother committed to having a good relationship with her growing daughter (Rana & Jami, 2018). Nevertheless, Archana's mother could not exclude herself from following the practices like sending her restricting her daughter's mobility and exposure. This instigated us to develop a sense that no matter how educated or aware the family appears, they are no exception to social expectations, norms and stereotypes embodied and intertwined with menstruation.

Archana's story was unique and of her own. Her remarks on the supportive nature of her mother and aunt had fascinated us since these were very different, from the stories of Basana, Priyana and Rachana and even from first author. On the other hand, since Archana belonged to a different time, and since we believed that events are always in temporal transition (Connelly & Clandinin, 2006), we stopped flowing in emotions. First author wanted to know more about how she had experienced menstruation with relation to socio-cultural norms and practices, and asked her about the same. As response to the query, she lifted her brows and added:

*On the seventh day of my menarche, my mother took me back home. I was very happy. When I reached home, I found my father, cousin brothers and maternal uncles waiting for me. They had brought saree, choli and bangles for me. My father put tika on my forehead and gave the gift to me. My cousin brothers and maternal uncles also did the same. Beside the gift, I had collected five hundred rupees as dakshina<sup>3</sup> I was more than happy. Truly speaking, I was so overwhelmed that I started imagining similar kind of things in my second menstruation too. I could not go to the kitchen for thirteen more days. But I was not disappointed at this since my mother was there to fulfill my needs and support me.*

From Archana's narration on how she was welcomed back home after the six days of hiding, we could understand that menstruation is not only hidden but even celebrated in Nepali communities. As she articulated of being offered with *tika*<sup>4</sup> and *Dakshina*, which is generally done during religious celebrations in our community, we could even develop a sense that different religious practices are associated with menarche across different socio-cultural situations (Guterman et al., 2008).

Bringing together the stories of Basana, Priyana, Rachana and Archana, I have been able to develop an insight that the experiences of the adolescent girls on their menstruation are highly embedded in their family's social and cultural practices. This is even agreed upon by Kumar and Srivastava (2011), who state that awareness of menstruation among adolescent girls is shaped by existing social and cultural practices in their society. Moreover, the girls' stories had explicit illustration of being silent observer to what their mothers, sisters, aunts and friends had been doing during menstruation, which they tried to replicate in their own behavior and menstrual practices. In the words of Bandura (1977), this process of observing is one of the learning methods where the learner acquires learning through attentive observation and practical experience. Moreover, Bandura's social learning theory even illustrates that children observe the behavior and practices of their models silently, which is retained in them, and later,

3 Money given to the younger ones after putting tika to them

4 Vermillion power offered by elders to youngers on special occasions

reproduce similar behavior and practices (Bandura, 1977). In the case of Basana, Priyana, Rachana and Archana, the models were their mothers, aunts, sisters and friends.

Bringing the theoretical perspective presented by Bandura with the narration of the four adolescent girls, we can construct an insight that though we anticipate the children to be ignorant on what we are doing, they are not. Contrary to the adults' assumptions about children as passive recipients, they always collaborate with us in our exhibitions (Jacquez et al., 2012) directly or indirectly, while the collaboration can be exhibited in the form of their behavior and practices in the latter days. In the case of Basana, Priyana, Rachana and Archana, this collaboration was visible when they tried acting as their mothers and sisters when they had been informed about their menarche.

The girls had perceived menstruation to be extreme since they were reminded time and again that this is a private issue, and is not being discussed in the context rooted to religious and cultural beliefs (Ndlovu & Bhala, 2016) of morality and purity. Resulted by the conviction they had less awareness on the realities of menstruation (Deo & Ghattargi, 2016). Moreover, the unprepared girls were frightened and confused, and their negative attitudes towards menstruation (Olinga, 2019) had even retained in them. The attitude of the girls, as suggested by Bandura (1977) has come out as the manifestation of the social perspectives on menstruation with which they had been growing.

The girls were raised in the atmosphere that demanded purity. And as Tan (2007), bringing the context of Asia, Africa and North America has reported of the obligations like washing the clothes after menstruation and restraining from entering the holy hut during menstruation, our research participants had been observing the set of obligations and restrictions their mothers, sisters, aunts and friends had been going through. Some of the obligations included remaining secluded during menstruation, restraining from consumption of dairy products, and washing and drying the used absorbent secretly in a hidden corner (Jogdand & Yerpude, 2011).

Out of the narrations of the girls, findings from the literature and theoretical perspectives on social learning, we have made a meaning that the girls get practices, values and beliefs about menstruation from their social environment comprising of the home, school (Sherpa et al., 2019) and community. The meaning they make through constant attention retains in them, and they try replicating the similar behaviors and practices in their menstrual experiences.

## Menstrual Hygiene and Sanitation Practices of Adolescent Girls

We unfold the stories of adolescent girls. We discuss how adolescent girls have practiced menstrual hygiene and sanitation in their homes, schools and communities.

Recollecting first author's experiences on menstrual sanitation practices

*Aama, I won't go to school  
They say I look pale and blue  
My skirt stains, I feel like running back to you  
I can't run back, I feel heavy inside  
I can't stay back, they say I smell from inside  
I move out in hesitation, I ask the pine trees,  
"Do I really smell from inside?"  
They show me your yellow saree,  
The saree that is trying to safeguard the clot that belongs purely to me  
The saree has turned red; I turn pale as it was before  
I sob alone; get no one to listen to  
So I say, "Aama, I won't go to school"*

The lines above illustrate first author's reflection of the days during which used to be overwhelmed with hesitation, anxiety and fear on how to manage during the menstruation. Similar to the stories of the adolescent girls from Northeast Ethiopia (Tegegne & Sisay, 2014), remaining absent in school used to appear as a choice since the first author used to feel awkward in sharing about the cramps and nausea the author used to go through. The school had no proper toilet, so the first author had to rush to the bushes whenever we felt like urinating or changing the absorbent. This used to be tough for first author because all the time, she had to be aware of if anyone is watching. Many times, she has to run away even without completing the urge because of the footsteps she would hear.

The stories of first author's menstrual hygiene, however, are not only the stories of menstrual absorbent and toilet exercise and healthy diet, which are repeatedly emphasized as menstrual discourses at present (Karki et al., 2017) used to be '*EKAADESH KO KATHAA*'<sup>5</sup>. The first author still remembers her grandmother repeatedly telling that a growing girl should be calm, or else, she can be prone to social criticisms and even to the ill eyes of the people and not allowed to touch the trees, flowers and dairy as the touch of menstruating women and girls was considered toxic (Kaur et al., 2018), that could lead to infertility in the cows, trees, and even in the flowers Not only these, first author was not allowed to touch the public tap or the inn (Singh et al., 2019).

5 An idiom used in Nepali context to refer to something that is beyond practice

Truly speaking, we got the sense that a person is both the product, and producer of the environment (Bandura, 1989) from first author own experiences of menstrual practices. We consider as a product of the environment since menstrual sanitation practices were shaped by the environment where we had been living. We kept observing what other girls and women of community did regarding their menstrual practices, and the replica was seen from end very spontaneously. And we consider the person also the producer of the environment since we have experienced what our grandmother said on menstruation becoming the notion on menstruation in the community. Putting together the phenomenon, we could anticipate that a person learns from the surrounding.

Diving deep into the stories of Basana, Priyana, Rachana and Archana, we could get an insight that the girls' menstrual practices at home were exhibited in the form of their learning journey where they had continuously involved in the phenomenon of attention, retention, and reproduction (Bandura,1977). As Bandura, in his Social learning theory has mentioned of the how an individual makes imitation as the actual reproduction of observed motor activities (Bandura, 1977 as cited in Nabavi, 2012), the stories of Basana, Priyana, Rachana and Archana also reflected that the practices they made for maintaining their menstrual hygiene had come out as the product of their constant observation of how other female members of their family had practiced their menstrual hygiene. Adolescent girls are counseled by mothers and only female, but not by male members.

In our participants' stories, there were no clear indications of pampered counseling on how a girl should be maintaining her menstrual hygiene, but it was obvious that the mothers had tried their best to inseminate knowledge and skills related to handling menstrual practices (Gurbuz & Kiran, 2018) amid their social setting. And the way Priyana and Rachana narrated to have replicated the practices they learnt from their mothers without open confrontation legitimized our understanding that whatever actions and treatments the parents, especially mothers do can influence the children (Maccoby, 1992). The mothers had stood as strongest role models for the adolescent girls (Ceka & Murati, 2016) while the actions and behaviors of the girls were stimulated by the girls (Parker- Rees, 2007).

In a nutshell, the adolescent girls were found to have learnt from the family, school friends and community members on menstrual, and brought their learning in their exhibition. Bandura (1977) mentioned that they had gone through the journey of constant observation, retention and reproduction in their learning process. The girls closely observed how their mothers, sisters, aunts, and friends exhibited themselves during menstruation. From their observation, they had cultivated the perception that



although menstruation is a natural process that occurs with every healthy girls and woman (Sahay, 2020), it has religious connotation and socio-cultural implications (Garg & Anand, 2015). Similarly, they had also realized that the inadequacy of water, sanitation and hygiene (WASH) facilities in home school and community resulted from low economic status (Karki et al., 2017). And since the girls, being the members of the society, couldn't deviate from the society reality, they had opted to adjust in the social scenario, replicating what the norms and practices said. Hence, the stories of adolescent girls have helped me construct the ontology that menstruation and menstrual practices of adolescent girls are all about learning from society and exhibiting what girls learn from social norms, behaviors, and practices.

### Conclusions

The adolescent girls develop awareness on menstruation even before their menarche. However, the awareness they develop is rarely related to the physiological connotation of menstruation that they learn from their mothers, aunts, grandmothers and friends. They learn the practice of social customs like staying socially isolated. The girls find menstruation as something that every girl and woman has to be gone through. And this is when they realize that menstrual practices are to be made amid different dos and donts of the society which results in discomfort, anxiety and frustration in them. It is a physical phenomenon and a socio-cultural influence among schoolgirls regardless of their community. Moreover, schoolgirls even face challenges while practicing menstrual hygiene and sanitation at schools, as menstruation-friendly infrastructures are often neglected. Likewise, the financial inadequacy of the girls also adds to the challenges they experience.

Despite the girls' disdain about taboos on menstruation, they do not express themselves explicitly. On the one hand, they are accustomed to the practices made by the statements and practices of society, which make them normal and natural. On the other hand, their acceptance is stimulated by their realization that they are members of society, and as members of society, they have to adopt, adapt and exhibit the menstrual practices in public schools. Even, there is a lack of proper orientation about menstrual hygiene from the schools and the parents. Moreover, the girls get physical pain and weak, so, they don't take care of their hygiene and sanitation seriously. Physical facilities in schools and home culture depend on their menstrual hygiene and sanitation practices. The problem in hygiene and sanitation creates physical and environmental problems. There is to be good physical facilities as well as proper orientation about such matters in school as well as in the community.

## Implications

The study deals with menstrual hygiene and sanitation practices by adolescent girls in public schools, so it has a wide scope. It is not only related to the community schools but also impacts their male and female schoolmates and their personal and peers' hygiene. The study can be helpful for adolescents and pubertal girls in understanding menstrual hygiene and sanitation practices. Likewise, this research could help schools maintain physical facilities for the girls and orient all students about menstrual hygiene and sanitation. The study is about women's rights; hence, this research study may be helpful to policymakers in formulating policies in schools and communities that will create a healthy and clean environment. Future researchers in education, health, and social studies can use this study as a good reference for identifying sociocultural problems in schools. We applied a narrative inquiry as a research approach and chose only girls from public schools. Through case studies, mixed methods, and phenomenology, further research can be done among private school girls to dig into their experience in more natural and trustier settings.

### Disclosure statement

No potential conflict of interest was reported by the author(s).

## References

- Bajracharya, S. (2021). *Still spoken in whispers: The obstacles of opening about menstrual experiences*. The Kathmandu Post. <https://kathmandupost.com/>
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development. Six theories of child development* (pp. 1-60). JAI Press.
- Bandura, A. (1999). Social cognitive theory of personality. *The coherence of personality: Social-cognitive bases of consistency, variability, and organization*, 185-241.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual review of psychology*, 52(1), 1-26.
- Banyard, P., & Grayson, A. (2000). *Introducing Psychological Research (2nd ed.)*. Macmillan.
- Belayneh, Z., & Mekuriaw, B. (2019). Knowledge and menstrual hygiene practice among adolescent schoolgirls in southern Ethiopia: A cross-sectional study. *BMC Public Health*. <https://doi.org/10.1186/s12889-019-7973-9>.
- Bobel, C. (2018). *Menstruators need more than something to bleed on, they also need and support*. WASH funders: Blog.

- British Broadcasting Corporation. (2017). *Nepal criminalises banishing menstruating women to huts*. <https://www.bbc.com/>
- Ceka, A., & Murati, R (2016). The role of parents in the education of children. *Journal of Education Practice*, 7(5), 61-64.
- Connelly, F. M., & Clandinin, D. J. (2006). Narrative inquiry. In, J. L. Green, G. Camilli, & P. B. Elmore (Eds.). *Handbook of complementary Methods in Education Research* (3rd ed., pp. 477- 487). Lawrence Erlbaum.
- Constitution of Nepal. (2015). *Kathmandu: Government of Nepal*. Authors.
- Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five*. Sage.
- Dahal, N. (2023). Ensuring quality in qualitative research: A researcher's reflections. *The Qualitative Report*, 28(8), 2298-2317. <https://doi.org/10.46743/2160-3715/2023.6097>
- Deo, D., & Ghattargi, C. (2016). Perceptions and practices regarding menstruation: A comparative study in urban and rural adolescent girls. *Indian J Community Med*, 30, 330- 40.
- Garg, S., & Anand. T. (2015). Menstruation related myths in India: Strategies for combating it. *Journal of Family Medicine and Primary Care*, 4(2), 184- 186. <https://10.4103/2249-4863.154627>
- Gil-Llario, M. D., Munoz, V., Ceccato, R., Ballester, R., & Gimenez, C. (2019). Relationship between mothers' thoughts and behaviors and their daughters' development of body image. *Revista de Psicología Clínica con Niños y Adolescentes*, 6 (2), 30- 35. <https://10.21134/rpcna.2019.06.2.4>
- Government of Nepal [GoN]. (2011). *Sanitation and Hygiene Master Plan 2011*. Author.
- Government of Nepal. (2014). *National Health Policy 2014*. Author. <http://nnfsp.gov.np/>
- Government of Nepal. (2017). *The Nepal health sector strategy 2016-2021*. Author. <http://nepalphysio.org.np/>
- Gurbuz., E., & Kiran., B. (2018). Research of social skills of children who attend to kindergarten according to the attitudes of their mothers. *Journal of education and Training studies*. 6(3). 95-100
- Guterman, M. A., Payal, M., & Margaret, S. G. (2008). Menstrual taboos among major religions. *The Internet Journal of World Health and Societal Politics* 5 (2). <https://doi.org/10.5580/1443>.
- Hennegan, J., Winkler, I. T., Bobel, C., Keiser, D., Hampton, J., Larsson, G., Chandra-Mouli, V., Plesons, M. & Mahon, T. (2021). Menstrual health: A definition for policy, practice and research. *Sexual and Reproductive Health Matters*, 29 (1), 1-8. <https://doi.org/10.1080/26410397.2021.1911618>
- Jogdand, K., & Yerpude, P. A. (2011). Community based study on menstrual hygiene among adolescent girls. *Indian Journal of Maternal and Child Health*, 13 (3), 1- 6.

- Kadariya, S., & Aro, A. R. (2015). Chhaupadi practice in Nepal – Analysis of ethical aspects. *Medicolegal and Bioethics*, 2015 (5), 53- 58.
- Kamath, R., Ghosh, D., Lena A., & Chandrasekaran, V. (2013). A study on knowledge and practices regarding menstrual hygiene among rural and urban adolescent girls in Udupi Taluk. *Global Journal of Medicine and Public Health*, 2(4), 1-9.
- Kapoor, G., & Kumar, D. (2017) Menstrual hygiene: knowledge and practice among adolescent schoolgirls in rural settings. *Int J Reprod Contracept Obstet Gynecol*, 6(9), 59-62.
- Karki, K. B., Poudel, P. C., Rothchild, J., Pope, N., Bobin, N. C., Gurung, Y., Basnet, M., Poudel, M. & Sherpa, L. Y. (2017). *Menstrual Health and Hygiene Management in Nepal*. Population Services International Nepal. <https://www.issuelab.org/>
- Kaur, R., Kaur, K. & Kaur, R. (2018). Menstrual hygiene, management and waste disposal: Practices and challenges faced by girls/ women of developing countries. *Journal of Environmental and Public Health*. <https://doi.org/10.1155/2018/1730964>
- Kumar, A, & Srivastava, K. (2011). Cultural and social practices regarding menstruation among adolescent girls, *social work in public health*, 26:6, 594-604. DOI: [doi.org/10.1080/19371918.2010.525144](https://doi.org/10.1080/19371918.2010.525144)
- Kumari, S. (2017). Social, cultural and religious practices during menstruation. *Jharkhand Journal of Development and Management Studies*, 15 (3), 7451- 7459.
- Maccoby, E. (1992) The role of parents in the socialization of children: An historical overview. *Developmental Psychology Stanford University*, 6 (1006), 1006-1017.
- Ministry of Education. (2016). *School sector development plan 2015- 2022/23*. Author.
- Narayan, K. A., Srinivasa, D. K., & Pelto, P. J. (2001). Puberty rituals reproductive knowledge and health of adolescent schoolgirls in south India. *Asia Pacific Population Journal*, 16(2), 225-38.
- Ndlovu, E., & Bhala, E. (2016). Menstrual hygiene - A salient hazard in rural schools: A case of Masvingo district of Zimbabwe. *Jamba*, 8, 204.
- Pandey, A. & Mahotra, N. B. (2019). A comparative study of menstrual hygiene issues between public and private school going adolescent girls in Kathmandu valley. *The Journal of Manmohan Memorial institute of Health Sciences*, 5 (1), 14- 26.
- Pandey, A. (2014). Challenges experienced by adolescent girls while menstruation in Kathmandu, valley: A qualitative study. *J Community Med Health Educ*, 4(285).
- Rana, G. & Jami, H. (2018). Knowledge/awareness and practices related to menstruation among female students: Role of mother-daughter relationship. *Pakistan Journal of Psychological Research*, 33, 313-334.
- Rihani, A. (2006). *Keeping the promise: five benefits of girls' secondary education*. Washington DC: AED Global Learning Group.

- Rumun, A. J., & Msuega, A. P. (2014). *Menstrual knowledge and practices among adolescent females in Makurdi Metropolis*, Benue State: Department of Sociology.
- Sahay, N. (2020). Myths and misconceptions about menstruation: A study of adolescent girls of Delhi. *Journal of Women's Health and Development*, 3 (3), 154- 169. <https://www.fortunejournals.com/>
- Saldana, J. (2015). *Thinking qualitatively*. London: Sage
- Saldana, J. (2015). *Thinking qualitatively: Method of mind*. Sage.
- Sapkota, D., Sharma, D., Pokharel, H. P., Budhathoki, S. S., & Khanal, V. K. (2013). Knowledge and practices regarding menstruation among school going adolescents of rural Nepal. *Journal of Kathmandu Medical College*, 2(3), 122-128.
- Shrestha, E. (2019). Everything you need to know about Chhaupadi, the taboo ritual of banishing women to period huts. *The Kathmandu Post*. <https://kathmandupost.com/>
- Singh, N., Sherpa, A. T., Pandey, S. & Pradhan, A. (2019). Menstrual hygiene: practices and challenges among adolescent girls of a private school of urban Nepal. *Asian Journal of Medical Sciences*, 10 (4), 39- 43. <https://10.3126/ajms.v10i4.24432>
- Sommer, M. & Sahin, M. (2013). Overcoming the taboo: Advancing the global agenda for menstrual hygiene management for school girls. *American Journal of Public Health*, 103(9), 1556-1559.
- Tegegne, T. K. & Sisay, M. M. (2014). Menstrual hygiene management and school absenteeism among female adolescent students in Northeast Ethiopia. *BMC Public Health*, 14 (1118). <https://doi.org/10.1186/1471-2458-14-1118>
- UNICEF. (2001). *The State of World Children*. UNICEF.
- United Nations Children's Fund. (2006). *Adolescent development: Perspectives and frameworks*. Author.
- United Nations Children's Fund. (2012). *Water, sanitation and hygiene (WASH) in schools: A companion to the child friendly school's manual*. Author.
- United Nations Children's Fund. (2019). *Guidance on menstrual health and hygiene*. Author. <https://www.unicef.org/>
- United Nations Office of the High Commissioner. (2016). *Human Rights: Handbook for parliamentarians*. <https://www.ohchr.org/>
- Uskul, Ayse. K. (2004). Women's menarche stories from a multicultural sample. *Social Science & Medicine*, 59(4), 667-79. <https://doi.org/10.1016/j.socscimed.2003.11.031>.
- Water Supply and Sanitation Collaborative Council. (2020). *1.3 million girls in Nepal to receive free menstrual supplies*. <https://reliefweb.int/>
- Webster, L., & Mertova, P. (2007). *Using narrative inquiry as a method*. Routledge.