

## Menstruation and Textbooks

*Abha Maurya\**

*Madhu Kushwaha\*\**

*\*Junior Research Fellow, Faculty of Education, Banaras Hindu University, Varanasi, Uttar Pradesh, India*

*\*\*Professor, Faculty of Education, Banaras Hindu University, Varanasi, Uttar Pradesh, India*

### Abstract

Education develops the knowledge, attitudes, values and skills to live a healthy life. These skills are aimed at raising self-esteem and self-confidence. Lack of knowledge, unawareness and misconception of puberty and menstrual hygiene leads deterioration of self-image and self-esteem of adolescents particularly girls and have negative impacts on society's health. A better understanding of puberty and menstrual education helps adolescents to make independent and informed decisions and to cope with pressure from peers, family, community and media messages. School is a place which provides a platform to learn and textbooks are the dominant tool to help in teaching learning process.

The present research study found that being tabooed only NCERT and some state board textbooks discussed about menstruation but still there is a lack of knowledge about its management and myths.

**Keywords: Menstruation and textbooks**

### Introduction

Education is a foundation of development of individual which facilitate the process of learning, or the acquisition of knowledge, skill, values, beliefs and habit. Education is considered a teaching and learning process which takes place in schools or school like environment, which provides our learners an overall development in respect of physical, intellectual, social, moral etc.

While education is no doubt important for children in one hand, the status of their health and immediate environment on the other hand are factors that adversely affect their health and wellbeing. The integration of education with life skill learning is, therefore, a basic requirement for aspiration fulfilling then a good life in the future. (Seid H. and Kumie A. 2013)

The education sector is responsible for contributing to the healthy development of its learners. It must help them respond to and manage the changes and challenges they face in life. One of the most challenging times for learners is puberty, when the body

goes through multiple changes all at once as it makes the transition to adulthood. These developments can be accompanied by the added pressure of cultural expectations for starting a family life. Yet many learners enter puberty unprepared. The information they receive is often selective and surrounded by taboos. Often the education sector avoids the issue by considering it a private matter or a problem to be addressed within the family. (UNESCO 2014)

There are 650 million primary school-age young people in the world. Considering that 57 million of them do not attend school, this leaves 593 million who can be reached through school-based programmes, making schools the ideal location to reach a large proportion of learners before puberty. Given also that only 75 percent of learners who started primary school reached the last grade (with the figure decreasing in regions such as sub-Saharan Africa where the proportion was only 58 percent). (UNESCO 2014)

The onset of puberty occurs in a time frame when many learners are still attending school. It is marked by first menstruation (menarche) for females and the development of sperm (spermarche) and the first ejaculation (semenarche) for males. On average, females begin puberty between 10 and 11 years of age (the age varies depending on factors such as nutrition), males a year later (UNESCO 2014).

Adolescence is a significant period in the life of a woman. Adolescent girls often lack knowledge regarding reproductive health including menstruation which can be

attributed to socio-cultural barriers in which they grow up. This lack of knowledge poses various problems for the adolescent girls. The need of the hour is that girls should have the information, education and an enabling environment to cope with menstruation issues. The hygiene-related practices of girls in the adolescent period related to menstruation can affect their health. The event of menarche is associated with taboos and myths particularly in traditional societies like India and it has negative implication for women's health, particularly their menstrual hygiene (Kamath R, Ghosh D, Lena A, Chandrasekaran V, 2013). Due to lack of knowledge about menstruation and its management girls are likely to suffer from mental trauma. Attitude of parents and society in discussing the related issues are barriers to the right kind of information, especially in the rural areas. The varied reaction to menarche may depend on the extent to which the girls have been prepared regarding the same. Fear and panic was the reaction observed in the study conducted by Dube S and Sharma K (2012). These studies highlighted the fact that girls with no previous knowledge about menstruation were more scared at menarche. This could also be a reflection of the culture and taboos of the society regarding menstruation, like menstruation is construed to be a matter of embarrassment in most cultures. Kamath R, Ghosh D, Lena A, Chandrasekaran V(2013), observed that use of sanitary napkin is higher in the urban area compared to rural participants and this could be due to the

awareness and literacy of the mothers. Regarding the drying of the cloth, it is observed that more of rural participants dried them inside the house because menstruation is considered as impure and dirty and meant to be hidden from other male members of the family. The most important sources of providing the information related to menarche are mothers, sisters along with friends and teachers (RainaD & Balodi G, 2014)). There are several myths associated with menstruation and perpetuated by elder women of the family as participating women in a study by Kumar and Srivastava (2011), reported that during menstruation the body emits some specific smell or ray, which turns preserved food bad that is why they are not allowed to touch persevered foods items like pickles. However, till date no scientific test has shown menstruation as the reason for spoilage of any food. Food may get spoiled if one does follow general hygiene measures and it has nothing to do with menstruation. The subject of menstruation, however, is too often taboo, and has many negative cultural attitudes associated with it, even well-educated girls and women think menstruation as 'contaminated', 'dirty' and 'impure', 'a curse' of God. Globally, approximately 52% of the female population (26% of the total population) is of reproductive age (WaterAid, 2012) and most of these women and girls menstruate each month for between two and seven days. However, in most parts of the world, it remains taboo and is rarely talked about consequently, the practical challenges of

teaching young girls and women about menstrual hygiene become even more difficult in the context of various socio-cultural factors.

UNICEF estimates that one in ten menstruating girls skips school four to five days per month or completely drops out. A girl absent from school due to menstruation for four days of every 28 day cycle loses 13 learning days, the equivalent of two weeks of learning, and 104 hours of school every school term. Around 23% of adolescent girls in the age-group 12-18 drop out of school after they begin menstruating because of inadequate menstrual protection like sanitary napkins; those who remain in school are absent an average of four days a month.

### **Need of study**

Although we learn in school from our teachers, peers, school ethos but the dominant tools are textbooks. School textbooks are the reflections of the curriculum in schools and are a representation of cultural, economic, political battles and compromises. Textbooks are '... conceived, designed and authored by real people with real interests' and are '... published within the political and economic constraints of markets, resources and power' (Apple, 1993, p.46). School textbooks are based upon the cultural, ideological and political power of dominant groups and they tend to enforce and reinforce cultural homogeneity through the promotion of shared attitudes. The construction of textbook knowledge is an intensely political activity and debates,

controversies and tensions over the construction of school textbooks involve a struggle over the manufacture and control of popular memory. School textbooks are one vehicle through which attempts can be made to disseminate and reinforce dominant cultural forms. (Crawford, n.d.) School textbooks must reflect the life realities of the students and these must help students to understand and cope with their real life issues. Currently millions of adolescent girls are attending schools and most of them are first generation learners too. Indian social context is full of taboos, misconception and religious dogmas against menstruation which feeds in misogyny in this context it is imperative to look whether our schools and particularly textbooks are fighting with these misconceptions/taboo by equipping young girls with right kind of knowledge regarding menstruation. With this context in mind researcher attempted the present study. Researcher intends to know how upper primary science textbooks are contributing to pupil's information regarding menstruation, its management and deconstruction of myths associated with it.

### Research Questions

- What kind and amount of information related to menstruation is present in textbooks?
- How the information is presented or what are the contexts of presentation?

### Methodology

Qualitative content analysis was used for analyzing the textbooks.

### Sample of the study

For the purpose of the study class 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> science textbooks of eight states including NCERT were selected for analysis. Researcher has chosen class 6<sup>th</sup> to 8<sup>th</sup> science textbooks as it is assumed that at upper primary school level either maximum girls have attained puberty or about to attain. Thus this would be the right level at which textbooks must address the issue of menstruation and provide knowledge. Following books were taken for analysis-

- 1-Andhra Pradesh Board of Secondary Education (APBSE)
- 2-Bihar Board of Secondary Education (BBSE)
- 3-Board of Secondary Education, Madhya Pradesh (MPBSE)
- 4-Madhaymik Shiksha Parishad Uttar Pradesh (UPBSE)
- 5-Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE)
- 6-Tamil Nadu Board of Secondary Education (TNBSE)
- 7-Uttarakhand Board of School Education (UBSE)
- 8-West Bengal Board of Secondary Education (WBBSE)
- 9-National Council of Educational, Research and Training (NCERT)

**Research procedure-**

Researcher read and re-read all the textbooks and analysis has been done from social constructivist framework.

Table number 1 gives an overview of the finding pertaining to first research question as what is the status and level of information on menstruation given in different state boards and NCERT textbooks.

**Analysis and Interpretation****Finding-1****Table 1-Information given about menstruation in textbooks of different education**

School Board	Amount of information	No. of times menstruation words used	Picture/Image	Information on management of menstruation	Dealing with myths	Exercise
APBSE	1Chapter 34 lines	09	Flow chart	YES	YES	YES
BBSE	1Chapter 28 lines	09	NO	YES	NO	YES
TNBSE	1Chapter 16 lines	06	NO	YES	YES	NO
NCERT	1Chapter 23 lines	10	NO	YES	YES	YES
WBBSE	NO	NO	NO	NO	NO	NO
MPBSE	NO	NO	NO	NO	NO	NO
MSBSHSE	NO	NO	NO	NO	NO	NO
UPSE	NO	NO	NO	NO	NO	NO
UPBSE	NO	NO	NO	NO	NO	NO

It is evident from table 1 that among all the sampled textbooks, researcher has found, only three state boards; Andhra Pradesh Board of Secondary Education, Bihar Board

of Secondary Education, and Tamil Nadu Board of Secondary Education and NCERT textbooks contained information or topic on menstruation.

Since researcher has taken Class 6<sup>th</sup> to 8<sup>th</sup> science textbooks for the analysis but among all the four books only class 8<sup>th</sup> science textbooks have information on menstruation. During analysis researcher has found there was not any separate chapter for menstruation in these four books, menstruation is discussed under the chapter of “**Reaching the age of adolescence**” and topic of “**Reproductive phase in life of human**”.

Andhra Pradesh board book has contained information on menstruation in 34 lines, Bihar board book described it in 28 lines, NCERT has information in 23 lines while Tamil Nadu board book has information in 16 lines.

Menstruation word has been used nine times in Andhra Pradesh and Bihar board book, ten times in NCERT while six times in Tamil Nadu board book.

Among these four books only Andhra Pradesh board book described menstruation in flow chart.

Furthermore Management of menstruation is described by all four books while myths are described by all except Bihar board book.

Exercise based on menstruation is found in all books except in Tamil Nadu board book. Exercise is in the form of objective in Andhra Pradesh and Bihar board book while both subjective and objective in NCERT.

**A detailed qualitative thematic analysis is also carried out to study and find out the contexts of representation of menstruation in textbooks.**

### **1-Factual information on menstruation**

In all textbooks puberty is described as change in height, change in body, change in voice, appearance of sweat and pimples, development of sex organ and menstruation is explained in “**Reproductive phase in life of human**”, while the major landmark of puberty for females is menarche, the onset of menstruation, which occurs on average between ages 12–13 and for males, it is the first ejaculation, which occurs on average at age 13.

All the four books which contained information on menstruation described it as reproductive phase of human life. The following excerpt from NCERT class 8<sup>th</sup> textbook described menstruation as,

**“The reproductive phase of life begins usually around 10-12 years of age and generally and lasts till the age of approximately 45-50 years. The ova begin to mature with the onset of adolescence. One ovum matures and is released by one of the ovaries once in about 28 to 30 days. During this period the wall of the uterus becomes thick so as to receive a fertilized egg and these results in pregnancy. If fertilization does not occur, the released egg and thickened lining of the uterus along with its blood vessels are shed off. This causes bleeding in women which is called menstruation.”**

In Tamil Nadu board textbook menstruation was defined as “**Menstruation or the period: This is the outward sign of the routine cycle of egg production and hormone change in a woman’s body. It takes about 3 – 5 days**”.

Although these four textbooks have information regarding menstruation but researcher found that more factual knowledge regarding menstruation would be needed as no textbooks mentioned that during menstruation from where the menstrual blood comes out of the body this omission of information creates confusion among learners as sometimes girls misunderstood it with urethra.

All four books except Tamil Nadu board book defined menarche as **the first menstrual flow begins at puberty and are termed menarche**. But none of Books has discussed on menarche symptoms like when will girl start getting her first period as mostly the first period happens in about 2 to 3 years after the breast begin to develop. This could be anytime between the ages of 8 to 15 years old. If there is thick mucus discharge coming from vagina. It is a good indication that first period might happen in the next six month (Gupta A and Paul T 2015 Menstrupedia comic). All four books also focused on menopause but again symptoms are not discussed likewise menarche.

Besides all four textbooks didn't provide information of menstrual cycle as the menstrual cycle is usually occurs around 28 days but can vary from 21 to 35 days. Within these 28 to 35 days many hormonal changes occurs like bleeding usually lasts around 2<sup>nd</sup> to 7<sup>th</sup> days, during 8<sup>th</sup> -11<sup>th</sup> days the lining of the uterus thickens in preparation for the egg, ovulation occurs within 12<sup>th</sup> -15<sup>th</sup> days, If fertilization has not taken place the lining of the uterus dissolves

which occurs in 16<sup>th</sup> to 25<sup>th</sup> days and The uterine lining detaches during 26<sup>th</sup> to 28<sup>th</sup> days and leading to menstruation and in this way the whole menstrual cycle completes. Whole cyclic process of menstruation was not given in any of the textbooks of four boards i.e., Andhra Pradesh, Bihar, Tamil Nadu and NCERT. Due to lack of knowledge of menstrual cycle sometimes girls are unable to calculate when they would get their next period or menses which leads inconvenience to them.

More detailed information with graphic and pictures of menstrual cycle would help the girls to understand better and help to manage menstrual cycle effectively. As only one textbook (APBSE) had visual image in the form of flow chart. It seems that textbooks are shying away in giving the full information about menstruation and failing pre-pubertal girls in acquiring complete factual and scientific knowledge of an important biological phenomenon of their lives.

Andhra Pradesh board book, Bihar board book and NCERT has some exercise related to menstruation in objective and subjective form but they are based on factual information. Instead of these exercise, science textbooks should add some activities related to deconstruction of menstrual myths like to touch pickle, basil etc. during menstruation as science has proven wrong many menstrual myths

### 3-Pathological aspects of menstruation-

During analysis regarding management of menses researcher has found each books has discussed about cleanliness of body during menstruation.

Biharboard book discussed as-

*“ऋतूश्राव के दौरान किशोरियों को विशेष सतर्क रहने की जरूरत है। श्राव को अवशोषित करने के लिए कीटाणु रहित कपडा जो अच्छी तरह सुखा हो या अच्छे गुणवत्ता वाला पैड प्रयोग में लाना चाहिए। कपडे को गरम पानी में डेटॉल डाल कर धोना और भी बेहत रहेगा। गन्दगी से दिनाय, खुजली तथा अन्य यौन रोग होने की आशंका बनी रहती है।”*

(Teenage girls need to be particularly vigilant during menstruation. To absorb the bleeding one should use germless soft cotton cloth which should be dried or good quality pad. Wash clothes in hot water poured with Dettol will be even better. Uncleanliness can cause, itching and other sexually transmitted disease.)

Andhra Pradesh Board book discussed as-

**“During menstruation period proper care regarding health and hygiene is needed rather than following myths. Girls should take special care of cleanliness during the time of menstrual cycle. Making use of disposable napkins may reduce chances of infections. Under NPEGEL scheme girls are provided sanitary napkins in most of the schools of our state”.**

Tamil Nadu Board discussed as-

**“Sanitary napkins (pads) or a pad made of clean soft cloth which can absorb moisture should be used for absorbing menstrual flow. Sanitary napkins or cloth should be changed frequently depending upon the menstrual flow. If a cloth is being used repeatedly, it should be with soap and hot water and dried in sunlight for reuse. Wash with soap and water before using a fresh napkin”.**

NCERT

**“Girls should take special care of cleanliness during the time of menstrual flow. They should keep track of their menstrual cycle and be prepared for the onset of menstruation”**

Menstruation is a natural process linked to the reproductive cycle of women and girls. It is not a sickness, but if not properly managed it can result in health problems. Since in all textbooks focus is on cleanliness and changing of sanitary napkin during menstruation but there is a lack of knowledge or textbooks are silent on why and what kinds of infections can occur if precaution is not taken during menstruation. During menstruation girls should take care on nutrition especially iron. Women need more iron than men to make up for the amount of iron they lose in their menstrual period. Around 1 mg of iron is lost for every day of bleeding (“Better health”, 2016). Only Tamil Nadu Board textbook concerned on this issue as **“In girls, iron deficiency occurs due to menstruation”.**

#### 4. Menstruation- A socio-cultural phenomenon

Menstruation is a taboo topic, and has many negative cultural attitudes associated with it, including the idea that menstruating women and girls are 'contaminated', 'dirty' and 'impure'. Menstruation is a natural biological phenomenon as written in **Tamil Nadu Board** textbook-

**“Menstruation in females is as natural as our regular physiological activities like breathing, drinking, eating, urinating and defecation etc., it is a cyclical process that is present in all the mammalian females. So it is a natural phenomenon that is neither to be worried nor to be ashamed”.**

Although Tamil Nadu board textbook discussed menstruation is a natural process but what about its social context is not mentioned anywhere.

NCERT clearly explained prevailing myths and taboos regarding menstruation and it has been presented in textbook. **“A girl becomes pregnant if she looks at boys during menstruation. The mother is responsible for the sex of her child. A girl should not be allowed to work in the kitchen during menstruation. You may come across many other myths and taboos discard them”**

Although NCERT emphasized on myths by representing it in a separate box but being tabooed teachers feel ashamed to teach this chapter and get skipped which creates development of wrong notion in learner.

Andhra Pradesh Board text book also mentioned some myths regarding menstruation **“Some sections of people in our society believe that during the period of menstruation woman are untouchable. So, they are asked to keep a distance from others. During this time girls may be restricted from taking bath, cooking food or going to school. In that case they may lag behind in their studies. In some sections of the society even women are also forced to stay in the huts built at the outskirts of the village.**

**In what way this kind of discrimination is harmful for girls and women? Several researches have been done to prove that all these are myths and there is no scientific reason behind these. The blood and egg that is discarded would give rise to a baby if fertilization took place. This is a biological phenomena. So how can it be impure or unclean”?**

In Bihar Board textbook researcher has not found description of myths and taboos related to menstruation.

All books except Bihar board have discussed about myths but none of the books attempted to discuss religious taboos and prohibition of worship during menses. But the fact is that in India almost all the major religions restrict menstruating girls and women offering prayers, participating in religious activities, entering temples and touching holy books etc. Since menstruation is not only a biological phenomenon and has social-cultural dimensions also thus it is

required that educative process must address these critical issues.

In many contexts menstruation is considered a private issue, making it difficult to speak about it in public, for instance in a classroom. Many girls are not properly prepared: Numerous studies, particularly from low-income countries, show that a very high number of girls start menstruating without having any idea what is happening to them or why. Since parents can find it difficult to speak of sensitive and sexual issues with their children. In this situation schools have a central role to educate girls and boys about puberty. This role involves more than just educating girls; boys are also undergoing changes and educating boys creates understanding that can lead to a healthier social environment and gender equality. (UNESCO 2014)

### **Conclusion-**

1-It was found that only four education boards textbooks out of eight contained information about menstruation. Thus majority of girls are denied to access the right kind of knowledge and information about a very vital aspect of their lives

2-In addition to biological process menstruation has socio-cultural dimension also but all the textbooks except NCERT presented it only as biological phenomenon and, medical and pathological aspect of women's bodies and health was emphasized. Not dealing with its socio-cultural

dimensions, which develop fear, hatred, tension, shame in girls and negative attitude for menstruation need to be addressed in textbooks. Regarding management of menstruation use of clothes and sanitary napkin were and precautions to be taken were discussed in all the four books but tampon, menstrual cup which are very hygienic and environment friendly didn't found mention in any textbook. Even Menstrupedia, a comic developed for educating young girls about menstruation had not mentioned Tampon and Menstrual Cup.

Puberty is not a problem to be solved; it is simply a time of accelerated physical growth and sexual development experienced by every human. But by facing this pivotal phase of life unprepared, learners are left confused and unsupported, which in turn affects the quality of their Education. In some cases it may directly affect school attendance, especially for girls. It is incumbent on the education sector to make sure all learners are prepared for these changes (UNESCO 2014). Teaching puberty in schools can help learners better understand themselves and deal with the changes they are experiencing, and hence gain the self-esteem to overcome daily challenges they may face with teachers and peers in school. Adolescents also become more conscious of socially-constructed myths and taboos built around puberty, such as negative perceptions of menstruation or dismissal of emotion as un-masculine. A better understanding of puberty and life

skills helps young people to make independent decisions and better cope with pressure from peers, family, community and media messages. (UNESCO 2014)

We as a nation have a constitutional obligation to develop scientific temperament among citizens. Our education systems in general and textbooks in particular are shying away from its responsibility of educating young girls and boys about a very important aspect of their lives and are not proactive in deconstructing the myths and taboos around menstruation which affects the lives of millions of girls and women.

#### References

**Better Health Channel.** (2016). Nutrition - women's extra needs. Retrieved from <https://www.betterhealth.vic.gov.au/health/healthyliving/nutrition-womens-extra-needs>.

**Board of Secondary Education, Madhya Pradesh.** (2015). *Science textbook for class viii*. Bhopal: Madhya Pradesh Textbook Corporation.

**Crawford, K. (n.d.).** *The Role and Purpose of Textbooks*. Retrieved from

<https://centres.exeter.ac.uk/historyresource/journal6/Editorialrev.pdf>.

**Dube, S. & Sharma, K.** (2012). Knowledge, Attitude and Practice Regarding Reproductive Health among Urban and Rural Girls: A Comparative Study. *Ethno Med*, 6(2), 85-94.

**Gupta, A. & Paul, T.** (2015). *The friendly guide to periods for girls*. Gujarat: Menstrupedia.

**House, S., Mahon, T., & Cavill, S.** (2012). *Menstrual hygiene matters A resource for improving menstrual hygiene around the world*. UK: WaterAid.

**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 Udipi Taluk, Manipal, India. *Global journal of medicine and public health*, 2, 4.

**Kishoravastha ki oor.** (2013). *Science textbook for class viii (237-246)*. Patna: Bihar States Textbook Publishing Corporation limited.

**Madhaymik Shiksha Parishad Uttar Pradesh.** (2016). *Science textbook for class viii*. Lucknow: Uttar Pradesh Basic shiksha Parishad.

**Maharashtra State Board of Secondary and Higher Secondary Education.** (2016). *General science textbook for class viii*. Pune: Maharashtra state bureau of textbook production and curriculum research.

**Puberty Education and Menstrual Hygiene Management.** (2014). *Good policy and practice in health education*. France: United Nations Educational, Scientific and cultural Organizations.

**Raina, D. & Balodi, G.** (2014). Menstrual hygiene: knowledge, practice and restrictions amongst girls of Dehradun, Uttarakhand, India. *Global Journal of*

*Interdisciplinary Social science*, 3(4), 156-162.

**Reaching the age of adolescence.** (2013). *Science textbook for class viii (70-83)*. Hyderabad: Government of Andhra Pradesh.

**Reaching the age of adolescence.** (2015) *Science textbook for class viii (113-126)*. New Delhi: National Council of Educational Research and Training.

**Seid, H. & Kumie, A.** (2013). The status of school sanitation facilities in some selected primary and secondary schools in Dessie City Administration, South Wello Zone, Amhara Region. *Ethiopian Journal of Health Dev*, 27(1), 80-84.

**Toward the age of adolescence.** (2015). *Science textbook for class viii (146-160)*. Chennai: Government of Tamil Nadu.

**Uttarakhand Board of School Education.** (2016). *Science textbook for class*

*viii.*Nainital: State Council of Educational Research and Training Uttarakhand.

**West Bengal Board of Secondary Education.** (2014).*Science textbook for class viii.* Kolkata: West Bengal Textbook Corporation Limited.