October 2017

Mapping the knowledge and understanding of menarche, menstrual hygiene and menstrual health among adolescent girls in low- and middle-income countries

V Chandra-Mouli, SV Patel

chandramouliv@who.int @ChandraMouliWHO

sheilavp@gmail.com @sheilavpatel

Training Course in Sexual and Reproductive Health Research 2017

World Health Organization

human reproduction programme hrp research for impact

UNDP-UNFPA-UNICEF-WHO-THE WORLD BANK

Literature Review: Objectives

1. **How knowledgeable** are adolescent girls in LMIC about menstruation and **how prepared** are they for reaching menarche?
2. Who are young girls' **sources of information** regarding menstruation?
3. **How well do adults respond** to girls' information needs?
4. What **negative health and social effects** are experienced by adolescents?
5. **How do adolescents respond** when they experience these negative effects and **what practices do they develop** as a result?

Literature Review: Methods

Inclusion Criteria

- Articles published in peer-reviewed journals between the years 2000 and 2015
- Evidence from low- and middle-income countries
- Data relevant to adolescents (ages 10-19)

Available Evidence

- 81 studies identified
- 21 countries

Ethiopia	Nigeria	Nepal
Kenya	Mexico	Pakistan
Malawi	Brazil	Sri Lanka
Tanzania	China	Iran
Uganda	Malaysia	Jordan
Egypt	Bangladesh	Lebanon
Ghana	India	Turkey

1. **How knowledgeable** are adolescent girls in low- and middle-income countries about menstruation and **how prepared** are they for reaching menarche?

Proportion of girls aware before reaching menarche:
Ranged from 2.8% of rural girls in Rajasthan, India to 100% of urban girls in Turkey

Inadequate knowledge:

- 3/4 of Chinese girls surveyed
- Identification of the uterus as the source of menstrual blood ranged from 2.5% in India to 82.9% in Uganda of girls questioned

Plan International, Brazil

Misconceptions:

- Menstruation is sometimes considered a curse, disease, or representation of sin in Nepal, India, Uganda
- 6% of 150 Nepalese girls recognized menstruation as physiological process

Education level: Had a significant influence on menstrual knowledge in India and Nigeria

2. Who are young girls' **sources of information** regarding menstruation?

UNICEF/P. Vishwanathan

- **Mothers** were most often reported as the first and main source of information
- **Sisters and peers** were the next most common sources
- Nearly all studies reporting on **teachers and health professionals** reported them as the least common source (Egypt, Ghana, India, Jordan, Malaysia, Nepal, Nigeria, Sri Lanka, Turkey)
- Some girls have access to **media and the Internet**

3. **How well do adults respond** to girls' information needs?

In India and Tanzania, mothers **often provide information after menarche**; in Mexico, however, 94% of girls had discussed menstruation before it occurred

Adults **passed down misconceptions** about menstruation; mothers interviewed in Bangladesh attributed menstruation to God

Parents' level of education was positively correlated with pre-menarcheal knowledge in Nigeria

UNICEF/G. Pirozzi

In Kenya, adults cited **discomfort as an impediment** to discussing menstruation

4. What **negative health and social effects** are experienced by adolescents?

Emotional Impacts

- Menarche described as shocking or frightening
- "The girl with her period is the one to hang her head"
- Mood swings and irritability reported by more than 2/3 schoolgirls in India, Lebanon, Malaysia

UNICEF, Turkey

Physical Impacts

- Severe pain, headaches, swelling, and fatigue cited across studies
- The highest report of dysmenorrhea was among schoolgirls in Egypt (94.4%)
- Majority of rural-living girls in Malaysia considered dysmenorrhea a normal aspect of menstruation

Social Impacts

- 1/3 female students in Brazil and Egypt, 3/5 slum dwellers in India restrict daily activities
- Housework, such as cooking, prohibited while menstruating in India, Kenya, Nepal
- Abstain from religious activities in India, Malaysia, Nigeria, Pakistan
- Absenteeism from school ranged from 2.0% to 61.7%; dysmenorrhea significantly associated with missing school in Lebanon

5. **How do adolescents respond** when they experience these negative effects and **what practices do they develop** as a result?

Sanitation

- Sanitary pad use ranged from 2% in rural Nepal to 69.1-93.8% in urban Nigeria
- Many of those who reuse cloth dry washed cloth in hiding instead of under the sun
- Tissue, grass, mattress pads also reported as absorbents
- Schools had insufficient facilities and privacy; girls preferred to only change absorbents at home
- Bathing while menstruating ranged from 0% in rural India to 100% Egyptian schoolgirls

Medication

- Few consult health professionals (generally less than 1/5)
- Self-medicate to relieve pain
- Traditional remedies reported in Bangladesh, Brazil India Malaysia, Sri Lanka

YHP China

Five Takeaways

1. Girls are uninformed and unprepared for menstruation

2. Mothers, other female relatives, and female peers are the main sources of information, but it is not adequate or timely

Plan International, Nepal

3. Girls experience a variety of symptoms (e.g. pain, headaches, fatigue) and, when combined with taboos, they often cannot participate in household, school, or social activities

4. Few girls seek health care when they experience menstrual problems, and may instead resort to household remedies

5. Girls in rural and poor urban communities are less likely to obtain and use sanitary pads; they use materials made at home, and often lack access to clean water and functional toilets

Girl education project in Korogocho informal settlement, Nairobi, Kenya
Jonathan Torgovnik/Getty Images

What girls need:

1. To grow up in a context where menstruation is seen as healthy and normal
2. To be well educated about menstruation
3. To have access to sanitary products, water, soap, toilets and disposal methods
4. To be cared for and supported during their menstrual periods
5. To be able to consult a competent and caring health worker when they have menstrual health problems