

Supportive Social Environment Supplement

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Introduction

A supportive social environment is a requirement for optimal menstrual health. The definition of menstrual health notes that a requirement for menstrual health is to *experience a positive and respectful environment in relation to the menstrual cycle, free from stigma and psychological distress, including the resources and support they need to confidently care for their bodies and make informed decisions about self-care throughout their menstrual cycle.* This can include a broad range of factors such as support at the level of the individual, family, school, community, and broader society. The supportive environment for menstruation is also set within the broader environment of support such as the strength of interpersonal relationships and support provided by parents, along with broader gender norms and sociocultural context. Within the AMEHC study we measure the social environment surrounding menstruation at a range of levels and through several different constructs.

The broader social environment

We measure **social support**. The National Cancer Institute defines social support as “a network of family, friends, neighbors, and community members that is available in times of need to give psychological, physical, and financial help.”¹ We assess generalized social support at home. We measure **gender norms** using questions consistent with those in multi-country studies or nationally representative surveys. More equitable gender norms, and expectations for gender roles, are likely to influence the support an adolescent girl received related to her education, her expected responsibilities and priorities within the family, and her longer-term sexual and reproductive health. As menstruation is inextricably linked with gender, more restrictive gender norms may also influence expectations about women’s and girls’ behaviour during menstruation.^{2,3} Likewise girls receiving strong support from their parents may be more likely to experience support related to menstruation and for other tasks and goals such as their education or support for mental health. As such, both these features of the broader social environment are likely to influence girls’ experience of menstruation and so be important to understand girls’ trajectories through adolescence. Similarly, as they are likely to influence both girls’ experience of menstruation and independently influence broader life outcomes, they represent important, specific confounders for core analyses.

Reasons to include measures on the **generalized social support at home** in your work:

- To understand how supportive girls think their parents generally are (not menstruation-specific)
- As a topic-specific potential confound

Reasons to include measures on the **gender norms** in your work:

- To understand parental support for education and ideas around gender norms
- As a topic-specific potential confound

Menstrual-specific support and norms

Supportive social environments around menstruation can help women, adolescent girls and people who menstruate feel more comfortable discussing menstruation and asking for the resources they need.^{4,5}

We also measure parents’ knowledge about menstruation, anticipating that parents with greater knowledge are likely to be more supportive and equipped to share informational support with girls.

Menstrual-related social norms also form part of the social environment for menstruation. These questions are discussed in a separate Menstrual Social Norms Supplement.

Reasons to include measures on the **school social environment** in your work:

- To understand the interpersonal dynamics around menstruation at school
- To consider the influence of the school environment on girls' menstrual experience

Reasons to include measures on the **family support for menstruation** and **parental menstrual knowledge** in your work:

- To understand how parents support their daughters around menstruation
- To understand the degree to which girls feel supported by family members around menstruation
- To understand the impact of parents' menstrual knowledge on girls' menstrual experiences over time
- To understand the impact of social support on girls' menstrual experiences over time

The Adolescent Menstrual Experiences and Health Cohort (AMEHC) study will measure home and school social environments, family support for menstruation, and menstrual social norms longitudinally to increase our understanding of how these factors change over time, and the way that they influence girls' menstrual experiences and broader health and educational outcomes.

Overview of School Social Environment: Culture Around Menstruation

Definition	The interpersonal dynamics and culture around menstruation at schools that influence how safe, supported, and valued students who menstruate feel. ¹
Importance to Menstrual Health	School social environments that can lead to worry and anxiety in students who menstruate include teasing and harassment about periods. ^{6,7} Students may cope by reducing school attendance, participation, and concentration in the classroom when menstruating. ^{6,7} They may also withdraw from social activities or unsafely manage their periods to avoid embarrassment. ^{6,7}
Measurement Method	All questions: Self-reported by girls on an enumerator-administered survey
General Considerations	
Question Source	SS6: Priority List of Indicators for Girls' Menstrual Health and Hygiene: Technical Guidance for National Monitoring. (2022). Global MHH Monitoring Group. Columbia University. New York NSS3 & NSS4: AMEHC-created through formative qualitative work and a pilot survey Sub3 & Sub4: Sol L, Schölmerich V, Liket K, Alberda H. The Ritu Study Protocol : A cluster randomized controlled trial of the impact of menstrual health programs on school attendance and wellbeing of girls in rural Bangladesh. <i>Simavi</i> . Published online 2019

Main Use in the AMEHC Study			
Proximal Exposure for:	Distal Exposure for:	Covariate for:	Outcome for:
Menstrual health experience	Education Mental Health Social Participation		

Included in the Following AMEHC Study Activities*					
Baseline Girls Survey	Baseline Guardians Survey	Baseline School Audit	Sub-cohort 1 Survey	Sub-cohort 2 Survey	Sub-cohort 3 Survey
X			X	X	X
Wave 1 Survey	Wave 1 School Audit	Wave 2 Survey	Wave 2 Guardian Survey	Wave 2 School Audit	
X		X			

*Specific questions varied over different data collection activities according to study needs.

School Social Environment Survey Questions in AMEHC

Question Number	Question	Response Options
SS6	Do you have someone at school you feel comfortable asking for support (advice, resources, emotional support) for your period?	<ul style="list-style-type: none"> • Yes • Maybe • No
NSS3	Do students at your school tease girls about menstruation?	<ul style="list-style-type: none"> • Never • Sometimes • Often
NSS4	Over the past three months, have you been teased about your menstrual period?	<ul style="list-style-type: none"> • Never • Sometimes • Often
Sup3	During your last menstrual period, did you discuss menstruation with someone at your school?	<ul style="list-style-type: none"> • Yes • No
Sup4	What did you discuss? <i>Select all that apply.</i>	<ul style="list-style-type: none"> • Expectations for behaviour during menstruation • Support – providing materials • Support – providing advice • Comfort or emotional support • Other, specify

Overview of Home Social Environment – Generalized Social Support

Definition	The interpersonal dynamics and overall culture that influence family structures and interpersonal dynamics between family members. ¹
Importance to Menstrual Health	Adolescents experiencing greater social support may feel more comfortable engaging their adult guardian about sensitive topics, like menstruation, and may also be more likely to receive menstrual-related support. This may support effective self-care practices, confidence, and reduce feelings of shame and distress. ^{2,10}
Measurement Method	All questions: Self-reported by girls on an enumerator-administered survey
General Considerations	In AMEHC, we use a single sub-scale from the SHREYA (Sexual and Reproductive Empowerment Scale for Adolescents) focused on social support.
Question Source	SS1-4: Upadhyay UD, Danza PY, Neilands TB, et al. Development and Validation of the Sexual and Reproductive Empowerment Scale for Adolescents and Young Adults. <i>J Adolesc Health</i> . 2021;68(1):86-94. doi:10.1016/j.jadohealth.2020.05.031

Main Use in the AMEHC Study			
Proximal Exposure for:	Distal Exposure for:	Covariate for:	Outcome for:
	Menstrual-related social support Menstrual experience	Education Mental Health SRH Physical Health Social Participation	

Included in the Following AMEHC Study Activities*					
Baseline Girls Survey	Baseline Guardians Survey	Baseline School Audit	Sub-cohort 1 Survey	Sub-cohort 2 Survey	Sub-cohort 3 Survey
X					
Wave 1 Survey	Wave 1 School Audit	Wave 2 Survey	Wave 2 Guardian Survey	Wave 2 School Audit	
X		X			

*Specific questions varied over different data collection activities according to study needs.

Home Social Environment – Generalized Social Support Survey Questions in AMEHC

Instructions: I am going to read a series of statements about the support that you feel is available to you from a parent or another adult in your household. I will ask if you agree with this statement, if you agree, somewhat agree, if you somewhat disagree, or if you disagree.

Question Number	Question	Response Options
SS1	You have a parent/guardian who would help you with your problems and troubles if you needed.	<ul style="list-style-type: none"> • Disagree • Somewhat disagree • Somewhat agree • Agree
SS2	You have a parent/guardian who accepts you as you are.	<ul style="list-style-type: none"> • Disagree • Somewhat disagree • Somewhat agree • Agree
SS3	You have a parent/guardian who trusts you to make the right decisions.	<ul style="list-style-type: none"> • Disagree • Somewhat disagree • Somewhat agree • Agree
SS4	You have a parent/guardian who helps you achieve your goals in life.	<ul style="list-style-type: none"> • Disagree • Somewhat disagree • Somewhat agree • Agree

Overview of Gender Norms

Definition	Gender norms are societal expectations and rules regarding how men and women should behave, express themselves and interact with others according to their gender. Media, socialization and culture contribute to the development of gender norms and they differ across time and place.
Importance to Menstrual Health	Gender norms that restrict the role of women and girls shape the knowledge, behavioral expectations, and social support that girls may receive during their lives. ^{2,4} These norms can restrict social and educational participation, negatively impact mental health and feelings of self-worth, and impact on experiences of menstruation. ^{2,4,12,13}
Measurement Method	GN1-4: Self-reported by girls on an enumerator-administered survey GN5: Self-reported by parents/guardians on an enumerator-administered survey
General Considerations	Four questions about gender norms were adopted from the Global Early Adolescence Study (GEAS) and posed to girls and parents. One question about gender-based violence was taken from the MICS survey and only posed to parents.
Question Source	GN1-4: Johns Hopkins Bloomberg School of Public Health and World Health Organization. <i>Baseline Survey of the Global Early Adolescent Study.</i> ; 2001. https://www.geastudy.org/download-the-measures GN5: Joint Monitoring Programme. <i>Multiple Indicator Cluster Surveys: Individual Women's Questionnaire.</i> UNICEF; 2017. Accessed March 11, 2024. https://washdata.org/unicef-multiple-indicator-cluster-surveys-mics

Main Use in the AMEHC Study			
Proximal Exposure for:	Distal Exposure for:	Covariate for:	Outcome for:
	Menstrual-related norms Menstrual health experience	Education Mental Health SRH Physical Health Social Participation	

Included in the Following AMEHC Study Activities*					
Baseline Girls Survey	Baseline Guardians Survey	Baseline School Audit	Sub-cohort 1 Survey	Sub-cohort 2 Survey	Sub-cohort 3 Survey
X	X				
Wave 1 Survey	Wave 1 School Audit	Wave 2 Survey	Wave 2 Guardian Survey	Wave 2 School Audit	
X		X	X		

*Specific questions varied over different data collection activities according to study needs

Gender Norms Survey Questions in AMEHC

Instructions: The next set of questions asks about your opinions on how men and women should behave. I will read a series of statements, and I will ask if you ‘agree’ or ‘disagree’ with each statement.

Question Number	Question	Response Options
GN1	Boys and girls should be equally responsible for household chores	<ul style="list-style-type: none"> • Agree • Disagree
GN2	A woman’s role is taking care of her home and family	<ul style="list-style-type: none"> • Agree • Disagree
GN3	A woman should obey her husband in all matters	<ul style="list-style-type: none"> • Agree • Disagree
GN4	Going to school is more important for boys than it is for girls	<ul style="list-style-type: none"> • Agree • Disagree
<u>ONLY FOR PARENTS/GUARDIANS</u>		
GN5	<p>Sometimes a husband is annoyed or angered by things that his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations...</p> <p><i>Select all that apply.</i></p>	<ul style="list-style-type: none"> • If she goes out without telling him? • If she neglects the children? • If she argues with him? • If she burns the food? • None of the above

Overview of Family Support for Menstruation: Perceived support for menstruation at home, parental comfort and support, and parental menstrual knowledge and shame

Definition	The emotional and practical assistance family members provide to relatives who menstruate to help them manage their periods. Guardian’s factual knowledge about menstruation and the menstrual cycle, and endorsement of restrictive factual beliefs regarding menstruation.
Importance to Menstrual Health	Adolescents and young adults often rely on their families for emotional support, information, menstrual products and permission to go to school and participate in social activities. The attitudes, knowledge, and financial situations of parents/guardians can influence the attitudes children have around menstruation, their access to menstrual materials, and their ability to participate in activities outside the home. ^{2,16}
Measurement Method	Sup1-2, SS5, NS1: Self-reported by girls on an enumerator-administered survey C1, Afford, KM1-2, KT1, KR3_1-2, MS5: Self-reported by parents/guardians on an enumerator-administered survey
General Considerations	Many of the questions for this construct come from iterations of the research team’s previous work.
Question Source	SS5, KR3_1-2: Priority List of Indicators for Girls’ Menstrual Health and Hygiene: Technical Guidance for National Monitoring. (2022). Global MHH Monitoring Group. Columbia University. New York KR3_1-2: Demographic and Household Surveys. https://dhsprogram.com/ KM2, KT1: drew inspiration from past research knowledge quizzes. Including content in: UNICEF. <i>Guidance for monitoring menstrual health and hygiene</i> . New York: UNICEF, 2020. Kansiime, C, et al. Menstrual health interventions, schooling, and mental health problems among Ugandan students (MENISCUS): study protocol for a school-based cluster-randomised trial. <i>Trials</i> 23.1 (2022): 759. Sup1 & Sup2, C1: Sol L, Schölmerich V, Liket K, Alberda H. The Ritu Study Protocol : A cluster randomized controlled trial of the impact of menstrual health programs on school attendance and wellbeing of girls in rural Bangladesh. <i>Simavi</i> . Published online 2019 C1: Hennegan, J., & Sol, L. (2020). Confidence to manage menstruation at home and at school: findings from a cross-sectional survey of schoolgirls in rural Bangladesh. <i>Culture, health & sexuality</i> , 22(2), 146-165.

	All Other Questions: AMEHC-created through formative qualitative work and a pilot survey
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Main Use in the AMEHC Study			
Proximal Exposure for:	Distal Exposure for:	Covariate for:	Outcome for:
	Education Mental Health SRH	Physical Health Social Participation	

Included in the Following AMEHC Study Activities*					
Baseline Girls Survey	Baseline Guardians Survey	Baseline School Audit	Sub-cohort 1 Survey	Sub-cohort 2 Survey	Sub-cohort 3 Survey
X	X		X	X	X
Wave 1 Survey	Wave 1 School Audit	Wave 2 Survey	Wave 2 Guardian Survey	Wave 2 School Audit	
X		X			

***Specific questions varied over different data collection activities according to study needs.**

Family Support for Menstruation (social support) Survey Questions in AMEHC

Question Number	Question	Response Options
FOR GIRLS		
Sup1	During your last menstrual period, did you discuss menstruation with another female in your household?	<ul style="list-style-type: none"> • Yes • No
Sup2	What did you discuss? <i>Select all that apply.</i>	<ul style="list-style-type: none"> • Reminded or scolded about rules and restrictions for menstruation • Support – someone provided materials • Support – someone provided advice • Provided advice or materials to someone else • Comfort or emotional support (provided or received) • Other, specify
SS5	Do you have someone in your household you feel comfortable asking for support (advice, resources, emotional support) for your period?	<ul style="list-style-type: none"> • Yes • Maybe • No
NS1	Does anyone in your household instruct you not to attend school during your menstrual period?	<ul style="list-style-type: none"> • No • Yes
FOR PARENTS/GUARDIANS:		
C1	How comfortable do you feel discussing menstruation with [the girl participant]?	<ul style="list-style-type: none"> • Very comfortable • Comfortable • Uncomfortable • Very uncomfortable
Afford	What do you think, are the current cost of sanitary pads affordable for your household?	<ul style="list-style-type: none"> • Always affordable • Affordable most of the time • Affordable only some of the time • Not affordable • NA – no pad users

Family Support for Menstruation (parental knowledge and shame) Survey
Questions in AMEHC

	Next, I will read a few statements about menstruation. I will read a series of statements, and I will ask if you 'agree' or 'disagree' with each statement.	
KM2	To reduce pain from menstrual cramping, it is safe for girls to use medication (painkillers) from the (non-homeopathic) pharmacy	<ul style="list-style-type: none"> • Agree • Disagree • Don't know
KT1	Girls should not go out at night during menstruation to avoid attracting bad spirits	<ul style="list-style-type: none"> • Agree • Disagree • Don't know
KR3_1	From one menstrual period to the next, there are certain days when a woman is more likely to become pregnant.	<ul style="list-style-type: none"> • Agree • Disagree • Don't know
KR3_2	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	<ul style="list-style-type: none"> • Just before her period begins • During her period • Right after her period has ended • Halfway between two periods 3 • I don't know
MS5	Menstruation is shameful, so women and girls should keep it secret	<ul style="list-style-type: none"> • Agree • Disagree • Don't know

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