

Supplemental Table 1. Factors associated with student menstrual cup decline.

	Total N (%)	Declined cup N (%)	Unadjusted OR (95% CI)	LRT p-value	Adjusted ² OR (95% CI)	LRT p-value
N	2,139	439 (20.5)				
Level 1: Childhood and distal socio-demographic factors						
District						
Kalungu	758 (35.4)	160 (21.1)	1.00			
Wakiso	1,381 (64.6)	279 (20.0)	0.99 (0.55, 1.79)	0.97		
Religion						
Catholic	719 (33.6)	137 (19.1)	1.00			
Protestant/Born Again/SDA	807 (37.7)	170 (21.1)	1.01 (0.76, 1.34)	0.84		
Muslim	604 (28.2)	132 (21.9)	1.09 (0.80, 1.50)			
None/Other	9 (0.4)	0 (0.0)	...			
Ethnicity						
Muganda	1,436 (67.1)	299 (20.8)	1.00			
Non Muganda	703 (32.9)	140 (19.9)	0.93 (0.73, 1.19)	0.58		
Caregiver education						
Primary or less	525 (24.5)	98 (18.7)	1.00		1.00	
Secondary	704 (32.9)	127 (18.0)	1.01 (0.74, 1.38)	0.02	1.04 (0.76, 1.42)	0.02
More than secondary	552 (25.8)	122 (22.1)	1.24 (0.89, 1.72)		1.29 (0.93, 1.79)	
Don't know	358 (16.7)	92 (25.7)	1.62 (1.14, 2.30)		1.65 (1.16, 2.35)	
Social Economic Status (SES)						
Lowest	436 (20.4)	99 (22.7)	1.00			
Medium-low	471 (22.0)	85 (18.1)	0.74 (0.52, 1.04)	0.53		
Medium	418 (19.5)	83 (19.9)	0.82 (0.58, 1.18)			
Medium-high	414 (19.4)	90 (21.7)	0.87 (0.61, 1.24)			
Highest	400 (18.7)	82 (20.5)	0.83 (0.57, 1.21)			
Type of caregiver						
Mother	1,251 (58.5)	250 (20.0)	1.00			
Other ¹	888 (41.5)	189 (21.3)	1.11 (0.89, 1.40)	0.35		
Age categories						

(years)							
		204	1.00				
≤15	1,026 (48.0)	(19.9)					
		235	1.14 (0.91,	0.26			
>15	1,113 (52.0)	(21.1)	1.44)				
Household size							
		139	1.00				
<5 people	641 (30.0)	(21.7)					
		257	0.85 (0.66,	0.43			
6-10 people	1,296 (60.6)	(19.8)	1.09)				
		43 (21.3)	0.92 (0.61,				
10+ people	202 (9.4)		1.39)				
Number of meals eaten on the previous day							
One or fewer	386 (18.1)	65 (16.8)	1.00				
		224	1.37 (0.99,	0.09			
Two	1,077 (50.4)	(20.8)	1.89)				
		150	1.43 (1.01,				
Three or more	676 (31.6)	(22.2)	2.01)				
Level 1: Distal school level factors							
School ownership							
		149	1.00				
Government	780 (36.5)	(19.1)					
		290	0.92 (0.52,	0.78			
Private	1,359 (63.5)	(21.3)	1.63)				
Water in toilet block							
		302	1.00				
No	1,512 (70.7)	(20.3)					
Yes(piped/contai		137	1.40 (0.90,	0.13			
ner)	627 (29.3)	(21.1)	2.18)				
Separate toilet blocks for girls and boys							
No	156 (7.3)	45 (28.9)	1.00				
		394	0.57 (0.24,	0.21			
Yes	1,983 (92.7)	(19.9)	1.35)				
Private menstrual changing space available							
		343	1.00				
No	1,746 (81.6)	(19.6)					
		96 (24.4)	1.65 (0.84,	0.14			
Yes	393 (18.4)		3.22)				
Schooling category							
		193	1.00			1.00	
Boarding	957 (44.7)	(20.2)					
		246	1.38 (1.04,	0.03	1.40 (1.07, 1.84)	0.01	
Day	1,182 (55.3)	(20.8)	1.82)				
School-level UNEB assessment score							
		260	1.00				
Low (≤-3)	1,334 (62.4)	(19.5)					
		179	1.09 (0.61,	0.77			
High (>-3)	805 (37.6)	(22.2)	1.96)				
Individual-level UNEB assessment score							
Low (≤-3)	1,069 (50.0)	196	1.00			1.00	

		(18.3)				
		236	1.29 (1.01,	0.04	1.29 (1.01, 1.65)	0.04
High (>-3)	1,070 (50.0)	(22.7)	1.64)			
Level 2: Proximal menstrual related factors						
Knowledge questions answered correctly (out of 9)						
		372	1.00			
<7	1,795 (83.9)	(20.7)				
		67 (19.5)	0.90 (0.66,	0.51		
≥7	344 (16.1)		1.23)			
Attitude questions answered positively (out of 3)						
		196	1.00		1.00	
≥2	1,070 (50.0)	(18.3)				
		243	1.35 (1.08,	0.01	1.46 (1.16, 1.83)	0.001
<2	1,069 (50.0)	(22.7)	1.70)			
Age at menarche						
≤12	435 (20.3)	74 (17.0)	1.00			
		168	1.36 (0.99,	0.27		
13	760 (35.5)	(22.1)	1.87)			
		148	1.30 (0.94,			
14	702 (32.8)	(21.1)	1.80)			
		49 (20.3)	1.22 (0.79,			
15+	242 (11.3)		1.87)			
Knew about menstruation before first period						
		134	1.00			
No	604 (28.2)	(22.2)				
		305	0.85 (0.66,	0.19		
Yes	1,535 (71.8)	(20.0)	1.08)			
Used a menstrual cup at LMP						
		438	1.00			
No	2,126 (99.4)	(20.6)				
		1 (7.7)	0.40 (0.05,	0.33		
Yes	13 (0.6)		3.22)			
Used disposable products at LMP						
No	362 (16.9)	66 (18.2)	1.00			
		373	1.14 (0.83,	0.42		
Yes	1,777 (83.1)	(21.0)	1.55)			
Used reusable products (including a menstrual cup) at LMP ³						
		311	1.00			
No	1,428 (66.8)	(21.8)				
		128	0.79 (0.62,	0.06		
Yes	711 (33.2)	(18.0)	1.01)			
MPNS score						
		211	1.00		1.00	
Low (≤2.1)	1,147 (53.6)	(18.4)				
		228	1.31 (1.04,	0.02	1.36 (1.08, 1.72)	0.01
High (>2.1)	992 (46.4)	(23.0)	1.64)			
SAMNS-26 score						
		228	1.00			
Low (≤6.2)	1,115 (52.1)	(20.5)				
		211	0.98 (0.78,	0.84		
High (>6.2)	1,024 (47.9)	(20.6)	1.22)			
SDQ score						
Low (≤12)	1,198 (56.0)	261	1.00			

		(21.8)		
		178	0.79 (0.63,	0.04
High (>12)	941 (44.0)	(18.9)	0.99)	

¹Includes father, sibling, grand parent, aunt, uncle, and self

²Variables are adjusted for those at the same or lower levels (e.g., variables at Level 2 are adjusted for each other and for those at Level 1 that were retained in Level 1 final model).

³Thirteen (0.6%) students reported to have used a menstrual cup at LMP, and 350/2139 (16.4%) reported using both disposable and reusable products at LMP