

Supplementary Data

1 **Table S1: Decision making score for adolescent males and females in DHS 2014 data**

Variables	Sex		2
	Female	Male	3
Index of attitude toward wife beating			4
<i>Wife beating is justified if:</i>			
1. Goes out without telling him	√	√	5
2. Neglects the children	√	√	6
3. Argues with him	√	√	7
4. Refuses to have sex with him	√	√	8
5. Burns the food	√	√	9
The maximum attainable score for attitude toward wife beating	5	5	10
<i>Index of property ownership:</i>			
1. Owns a house alone or jointly	√	√	11
2. Owns land alone or jointly	√	√	12
The maximum attainable score for property ownership	2	2	13
Summated empowerment index	7	7	

14 **Table S2: Scoring format from responses for decision-making indexes**

Index of attitude toward wife beating scoring format	Index of property ownership Scoring format
No=1	Does not own=0
Yes =0	Alone only=1
	Jointly only=1
	Both alone and jointly=1

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Table S4. Multivariate Predictors of Height-For-Age Z-Score (HAZ) and Body-Mass-Index-For-Age Z-Score (BAZ): A Comparative Analysis for Adolescent Boys and Girls from the 2014 Ghana Demographic Health Survey (GDHS) Data

Variables	HAZ						BAZ					
	Girls (n=857)		Boys (n=870)		Pooled (n=1727)		Girls (n=857)		Boys (n=870)		Pooled (n=1727)	
	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)
Sex												
Boy					-0.17	0.13					-0.27**	0.14
Girl					Ref.						Ref.	
Age	-0.08***	0.03										
Girl Menstruated in the last 6 weeks												
Yes	0.41***	0.13					0.25**	0.12				
No	Ref.						Ref.					
Adolescent has experienced first sex												
Yes	0.22***	0.07			0.14***	0.04	0.18**	0.07	0.34****	0.08	0.23****	0.05
No	Ref.				Ref.		Ref.					
Adolescent has a child												
Yes					-0.36***	0.13			0.51**	0.26		
No (Ref.)					Ref.							
Interaction term sex* adolescent has a child												
Girl *Has a child					-0.39**	0.16						
Highest educational level of girl												
No education	-0.38**	0.16	0.29	0.22	-0.10	0.13						
Primary school	-0.21**	0.09	-0.35****	0.10	-0.26****	0.06						
Secondary education /Higher	Ref.		Ref.		Ref.							
Ethnicity												
Akan					-0.14**	0.06						
Mole-Dagbani					0.05	0.07						
Other					Ref.							
Marital status												
Currently married							-0.69**	0.30				

Never married							Ref.					
Empowerment score					0.06**	0.03					0.07**	0.03
An interaction term for sex*empowerment score												
Girl * empowerment score											0.09**	0.03
Water, hygiene and sanitation score			0.06**	0.02								
Household wealth index												
Poorest	-0.21*	0.11	-0.29**	0.12	-0.16	0.10	-0.42****	0.11	-0.21	0.13	-0.33****	0.08
Poorer	-0.27***	0.11	-0.43****	0.13	-0.27***	0.10	-0.44****	0.11	-0.37***	0.13	-0.43****	0.09
Middle	-0.24**	0.12	-0.30**	0.13	-0.23**	0.11	-0.15	0.12	-0.29**	0.14	-0.22**	0.09
Richer	-0.08	0.12	-0.16	0.12	-0.10	0.12	-0.16	0.14	-0.02	0.14	-0.09	0.09
Richest	Ref.		Ref.		Ref.		Ref.		Ref.		Ref.	
An interaction term for Sex *												
Household Wealth Quintile												
Boy* Poorest					-0.35**	0.15						
Boy*Poorer					-0.33**	0.16						
Boy*Middle					-0.21	0.18						
Boy*Richer					-0.15	0.17						
Boy*Richest					Ref.							
Agro-ecological zone												
Coastal savannah	-0.09	0.08										
Guinea/Sudan savannah	0.19*	0.10										
Forest	Ref.											
Model Fit Statistics												
R-Square	0.07	0.09	0.11				0.07	0.07		0.17		
Root MSE	0.85	0.88	0.87				0.85	0.78		0.82		
Model (F-Value)	3.80****	7.49***	10.51****				6.01****	5.63***		29.38***		

Ref, Reference group; *P≤ 0.1; ** P≤0.05; ***P≤0.01; **** P≤0.001

Table S5. Multivariate Predictors of Blood Pressure: A Comparative Analysis for Adolescent Boys and Girls from the 2014 Ghana Demographic Health Survey (GDHS) Data

Variables	Systolic blood pressure						Diastolic blood pressure						
	Girls (n=857)		Boys (n=870)		Pooled (n=1727)		Girls (n=857)		Boys (n=870)		Pooled (n=1727)		
	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	Estimate (β)	S.E (β)	
Sex													
Boy					3.35**	1.49						-1.56***	0.49
Girl					Ref.							Ref.	
Age			1.37****	0.34	0.74****	0.21		0.32*	0.17			0.40**	0.17
Adolescent has experienced first sex													
Yes	-2.34**	1.09	2.89***	1.12	-0.46	0.85							
No	Ref.				Ref.								
Interaction term sex* experienced first sex													
Girl*experienced first sex					3.84***	1.26							
Adolescent has a child													
Yes			18.22****	1.61								-2.47**	1.10
No													
Adolescent exercised in the past 10 minutes													
Yes	4.08***	1.47											
No	Ref.				Ref.								
Ate in the past 10 minutes													
Yes			2.55****	0.81	1.69***	0.61							
No			Ref.		Ref.								
Had coffee in the past 10 minutes													
Yes			6.39****	1.23	-2.49	2.22						-1.01	1.49
No			Ref.		Ref.							Ref.	
An interaction term for sex*had coffee in the past 10 minutes													
Boy * had coffee in the past 10					8.32***	2.61						7.32****	2.15

minutes										
Frequency of fruit intake in the past week			0.32*	0.17						
Visited a health facility in the last 6 months										
Yes										
No										
Marital status										
Currently married			-21.70****	5.88					-4.44***	1.67
Formerly married			N/A						N/A	
Never married			Ref.							
Household owns land usage for agriculture										
Yes									-1.44**	0.69
No									Ref.	
Household wealth index										
Poorest			5.84****	1.40	1.06	1.48				
Poorer			1.45	1.41	-0.88	1.50				
Middle			1.92	1.27	1.00	1.51				
Richer			1.63	1.27	0.28	1.48				
Richest			Ref.		Ref.					
An interaction term for Sex *										
Household Wealth Quintile										
Boy* Poorest										
Boy*Poorer										
Boy*Middle										
Boy*Richer										
Boy*Richest										
Agro-ecological zone										
Coastal savannah			1.90**	0.93	1.07	0.69				-0.52
Guinea/Sudan savannah			-3.48**	1.53	-2.68***	0.93				-2.11****
Forest			Ref.		Ref.					Ref.
BAZ category										
Underweight	-6.90	5.19	-2.53	1.29	-3.67**	1.88			-2.98**	1.51
Overweight	2.98***	1.02	4.71****	1.39	3.14****	0.97			1.98***	0.76
										-2.68*
										1.53
										0.78

Normal weight	Ref.	Ref.	Ref.			Ref.	Ref.
Adolescent is stunted							
Yes		-3.86***	1.25	-3.23***	1.09		
No		Ref.		Ref.			
Agro-ecological zone							
Coastal savannah							-0.48 0.55
Guinea/Sudan savannah							-1.97**** 0.61
Forest							Ref.
Model Fit Statistics							
R-Square	0.04	0.15	0.15			0.01	0.02 0.03
Root MSE	9.99	10.46	10.30			8.01	8.05 8.01
Model (F-Value)	5.83****	35.99****	16.76****			4.39**	3.58**** 5.32****

Ref, Reference group; *P≤ 0.1; ** P≤0.05; ***P≤0.01; **** P≤0.001; BAZ, Body-mass index-for-age Z-score; N/A, not applicable because none of the Boy adolescents was formerly married; N/A, none of the adolescent boys was formerly married