

Supplementary table 1: Characteristics of the Global School-based Health Surveys by country

Country	Survey year	Sample size	Response rate
Jordan	2007	1876	99.8
Algeria	2011	4377	98.0
Libya	2007	2226	98.0
China	2003	10582	98.0
Eswatini	2013	3501	97.0
Syrian	2010	3,098	97.0
VietNam	2013	3200	96.0
Myanmar	2007	2438	95.0
Botswana	2005	1842	95.0
Indonesia	2007	10363	94.0
Malawi	2009	2172	94.0
Oman	2015	3327	92.0
Bangladesh	2014	2975	91.0
United Arab Emirates	2010	2456	91.0
British Virgin Islands	2009	1584	90.0
Trinidad and Tobago	2011	2693	90.0
Tuvalu	2013	875	90.0
Sri-lanka	2008	2363	89.0
Thailand	2008	5230	89.0
Namibia	2013	4136	89.0
Suriname	2009	1619	89.0
Malaysia	2012	23992	89.0
Iraq	2012	1884	88.0
Belize	2011	1957	88.0
Bolivia	2012	3445	88.0
El Salvador	2009	1829	88.0
Mongolia	2010	5200	88.0
Tanzania	2014	3576	87.0
Quarter	2011	1838	87.0
Egypt	2011	2390	85.0
Peru	2010	2771	85.0
Cambodia	2013	3669	85.0
Kiribati	2012	1438	85.0
Solomon Islands	2011	1278	85.0
Kenya	2003	2890	84.0
Anguilla	2009	887	84.0
Dominica	2009	1544	84.0
St. Vincent and the Grenadines	2007	1176	84.0
Djibouti	2011	1359	83.0
Tunisia	2008	2465	83.0
Curaçao	2009	2689	83.0
Mauritius	2011	2084	82.0
Seychelles	2015	2335	82.0
Guatemala	2015	4082	82.0
Saint Lucia	2007	1219	82.0
Wallis and Futuna	2015	1024	82.0
Niue	2010	131	81.0
Mozambique	2015	1737	80.0
Tonga	2013	2015	80.0
Timor	2015	3217	79.0
Afghanistan	2014	2358	79.0
Cayman Islands	2007	1201	79.0
Honduras	2012	1700	79.0
Philippines	2015	8394	79.0
Samoa	2011	2030	79.0
Bahamas	2013	1270	78.0
Grenada	2013	1366	78.0
Montserrat	2008	203	78.0
Ghana	2007	1839	76.0
Pakistan	2009	4676	76.0
Guyana	2010	2212	76.0

Yemen	2014	2476	75-0
Barbados	2011	1573	73-0
Nauru	2011	499	73-0
Costa Rica	2009	2590	72-0
Jamaica	2010	1482	72-0
Vanuatu	2011	1018	72-0
Argentina	2012	26988	71-0
Uruguay	2006	3415	71-0
Tokelau	2014	132	71-0
Mauritania	2010	1898	70-0
Zambia	2004	1,641	70-0
Saint Kitts and Nevis	2011	1652	70-0
Lao People's Democratic Republic	2015	3442	70-0
Uganda	2003	2869	69-0
Antigua	2009	1208	67-0
Brunei Darussalam	2014	2514	65-0
Cook Islands	2015	669	65-0
Maldives	2009	3325	60-0
Chile	2013	2001	60-0
Kuwait	2015	3304	78-0
Morocco	2010	2864	92-0

Supplementary table -2- Prevalence of suicidal ideation and anxiety among the young adolescent in selected counties those had different time points data

Country	Suicidal ideation				Anxiety			
	Year	Prevalence	Year	Prevalence	Year	Prevalence	Year	Prevalence
Namibia	2004	32.17	2013	26.4	2004	19.79	2013	14.41
Seychelles	2007	17.44	2015	21.76	2007	11.18	2015	11.31
Argentina	2007	16.97	2012	16.5	2007	10.45	2012	9.33
Guyana	2004	18.67	2010	23.48	2004	13.11	2010	14.37
Trinidad and Tobago	2007	17.89	2011	17.07	2007	11.14	2011	7.39
Indonesia	2007	4.74	2015	5.5	2006	5.76	2012	5.53
Thailand	2008	8.62	2015	12.88	2007	7.84 I	2015	4.64
Jordan	2004	15.46	2007	17.82	2008	6.75	2015	9.15
Kuwait	2011	19.58	2015	17.17	2004	19.16	2007	17.64
Morocco	2006	14.42	2010	15.01	2011	20.85	2015	21.19

Supplementary table -3- Factors associated with Suicidal ideation among the young adolescent, per WHO region

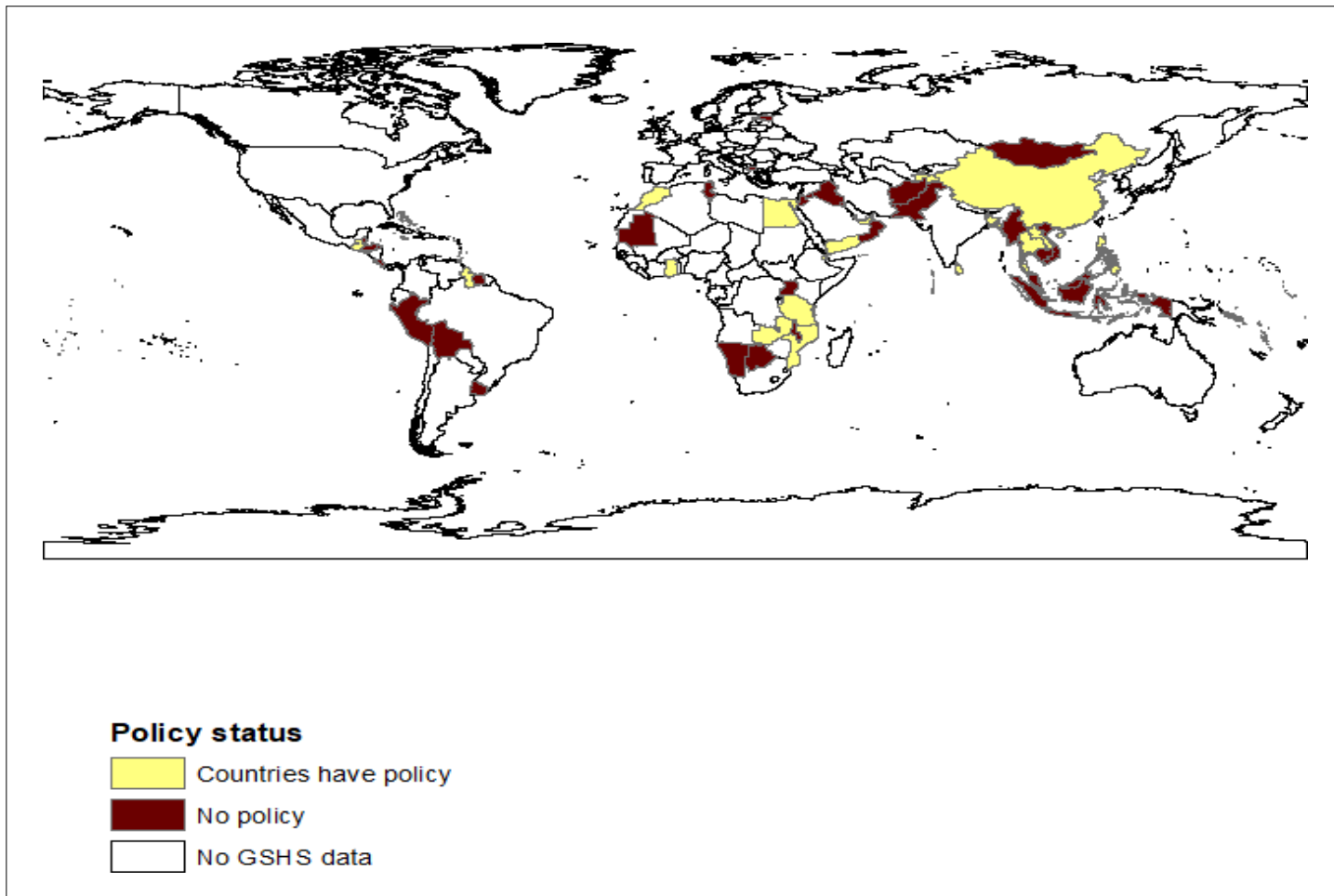
Variables	Asia			Africa			Eastern Mediterranean Region		Region of Americas		Western Pacific Region		European Region	
	OR (95% CI)	p- value		OR (95% CI)	p- value		OR (95% CI)	p- value	OR (95% CI)	p- value	OR (95% CI)	p- value	OR (95% CI)	p- value
Sex														
Boys	Ref			Ref			Ref		Ref		Ref		Ref	
Girls	1.75 (1.47-2.09)	<0.001		1.01 (0.79-1.27)	0.958		1.26 (1.03-1.53)	0.023	2.30 (2.09-2.52)	<0.001	1.82 (1.54-2.15)	<0.001	2.21 (1.44-3.39)	<0.001
Age														
12-13 years	Ref			Ref			Ref		Ref		Ref		Ref	
14-15 years	1.46 (1.19-1.8)	<0.001		0.73 (0.54-0.99)	0.041		1.17 (0.95-1.44)	0.142	1.09 (0.92-1.28)	0.335	1.17 (0.9-1.5)	0.238	2.53 (1.31-4.91)	0.006
16-17 years	1.90 (1.48-2.44)	<0.001		0.81 (0.6-1.09)	0.167		1.59 (1.21-2.08)	<0.001	1.2 (1.02-1.42)	0.025	1.47 (1.1-1.97)	<0.001	3.23 (1.7-6.14)	<0.001
Socioeconomic status														
Average	Ref			Ref			Ref		Ref		Ref		Ref	
Below average	1.15 (0.96-1.38)	0.128		1.18 (0.96-1.45)	0.124		1.05 (0.89-1.24)	0.543	1.03 (0.92-1.15)	0.622	1.18 (1.02-1.37)	0.029	1.65 (0.87-3.13)	0.125
Close friends														
No	2.16 (1.57-2.96)	<0.001		2.18 (1.7-2.8)	<0.001		2.2 (1.73-2.78)	<0.001	1.45 (1.19-1.77)	<0.001	2.41 (1.81-3.23)	<0.001	3.01 (1.17-7.77)	0.022
Yes	Ref			Ref			Ref		Ref		Ref		Ref	
Peer were supportive														
Never/rarely	Ref			Ref			Ref		Ref		Ref		Ref	
Sometimes	0.57 (0.44-0.73)	<0.001		0.84 (0.67-1.04)	0.117		0.89 (0.71-1.12)	0.311	0.9 (0.78-1.03)	0.135	0.86 (0.74-1.01)	0.064	1.91 (1.19-3.06)	0.007
Most of the times	0.67 (0.51-0.88)	0.004		0.85 (0.67-1.08)	0.182		0.77 (0.62-0.96)	0.019	0.94 (0.84-1.05)	0.286	0.79 (0.62-1)	0.046	1.64 (0.91-2.96)	0.099
Always	0.60 (0.46-0.78)	<0.001		0.90 (0.65-1.25)	0.536		0.71 (0.53-0.94)	0.016	0.88 (0.75-1.03)	0.112	0.88 (0.7-1.11)	0.288	2.13 (1.14-3.98)	0.017
Parental understanding (Parents or guardians understood problem)														
Never/rarely	Ref			Ref			Ref		Ref		Ref		Ref	
Sometimes	0.72 (0.56-0.93)	0.013		0.92 (0.67-1.27)	0.606		1.12 (0.84-1.5)	0.422	0.75 (0.66-0.86)	<0.001	0.76 (0.63-0.92)	0.004	0.76 (0.4-1.42)	0.386
Most of the times	0.61 (0.44-0.84)	0.003		0.90 (0.69-1.19)	0.464		0.89 (0.64-1.23)	0.479	0.57 (0.49-0.66)	<0.001	0.54 (0.42-0.69)	<0.001	0.69 (0.34-1.38)	0.290
Always	0.67 (0.5-0.9)	0.009		0.80 (0.55-1.15)	0.219		0.83 (0.67-1.03)	0.096	0.57 (0.5-0.66)	<0.001	0.72 (0.57-0.9)	0.005	0.42 (0.23-0.79)	0.006
Parental monitoring (Parents or guardians didn't know about free time)														
Never/rarely	Ref			Ref			Ref		Ref		Ref		Ref	
Sometimes	0.89 (0.7-1.13)	0.336		0.70 (0.54-0.91)	0.008		0.81 (0.67-0.98)	0.034	0.91 (0.77-1.08)	0.285	0.74 (0.63-0.87)	<0.001	0.49 (0.33-0.73)	<0.001

Most of the times	0.93 1.31)	(0.67-	0.693	0.83 1.12)	(0.61-	0.213	0.66 (0.48-0.9)	0.009	0.71 0.82)	(0.62-	<0.001	0.53 (0.42-0.67)	<0.001	0.28 0.53)	(0.15-	<0.001
Always	0.71 0.94)	(0.54-	0.015	0.84 1.23)	(0.57-	0.363	0.76 (0.6-0.95)	0.018	0.73 0.83)	(0.63-	<0.001	0.64 (0.52-0.78)	<0.001	0.35 (0.2-0.61)		<0.001
Parental control (Parents went through things without permission)																
Never/rarely	Ref			Ref			Ref		Ref			Ref		Ref		
Sometimes	1.13 1.33)	(0.96-	0.142	0.98 (0.74-1.3)		0.887	1.38 (1.08-1.76)	0.009	1.15 1.31)	(1.02-	0.025	1.42 (1.18-1.71)	<0.001	NA		NA
Most of the times	1.45 2.21)	(0.95-	0.085	1.10 1.55)	(0.78-	0.581	1.24 (0.88-1.75)	0.222	1.54 1.87)	(1.26-	<0.001	1.88 (1.45-2.43)	<0.001	NA		NA
Always	1.32 1.77)	(0.99-	0.057	1.45 2.27)	(0.92-	0.106	1.49 (1.12-1.98)	0.006	1.68 (1.41-2)		<0.001	1.9 (1.41-2.57)	<0.001	NA		NA
Peer conflict																
Yes	1.32 1.61)	(1.09-	0.005	1.13 1.47)	(0.87-	0.368	1.09 (0.89-1.34)	0.422	1.53 1.67)	(1.39-	<0.001	1.41 (1.23-1.62)	<0.001	NA		NA
No	Ref			Ref			Ref		Ref			Ref		Ref		
Peer victimization																
Yes	1.27 (1.07-1.5)		0.005	1.17 1.37)	(0.99-	0.062	1.30 (1.06-1.58)	<0.001	1.65 (1.5-1.83)		<0.001	1.29 (1.09-1.53)	0.003	1.84 2.95)	(1.14-	0.012
No	Ref			Ref			Ref		Ref			Ref		Ref		
Peer isolation																
Yes	2.32 (1.79-3)		<0.001	1.29 1.61)	(1.04-	0.023	1.47 (1.27-1.7)	<0.001	1.66 1.86)	(1.49-	<0.001	1.39 (1.17-1.66)	<0.001	2.87 4.54)	(1.81-	<0.001
No	Ref			Ref			Ref		Ref			Ref		Ref		
loneliness																
Yes	2.53 3.34)	(1.91-	<0.001	1.49 (1.05-2.1)		0.024	2.08 (1.72-2.52)	<0.001	3.37 3.81)	(2.98-	<0.001	2.7 (2.25-3.24)	<0.001	3.21 (1.64-6.3)		<0.001
No	Ref															

Supplementary table -4: Factors associated with Anxiety among the young adolescent, per WHO region

Variables	Asia		Africa		Eastern Mediterranean Region		Region of Americas		Weastern Pacific Region		European Region	
	OR (95% CI)	p- value	OR (95% CI)	p- value	OR (95% CI)	p- value	OR (95% CI)	p- value	OR (95% CI)	p- value	OR (95% CI)	p- value
Sex												
Boys	Ref		Ref		Ref		Ref		Ref		Ref	
Girls	1.37 (1.12-1.68)	0.002	1.11 (0.84-1.47)	0.462	2.10 (1.73-2.54)	<0.001	1.92 (1.69-2.17)	<0.001	1.38 (1.13-1.69)	0.002	2.99 (1.76-5.09)	<0.001
Age												
12-13 years	Ref		Ref		Ref		Ref		Ref		Ref	
14-15 years	1.16 (0.92-1.45)	0.207	1.01 (0.72-1.42)	0.941	1.23 (1.05-1.45)	0.012	1.23 (1.02-1.49)	0.029	1.22 (0.99-1.5)	0.063	1.74 (0.93-3.26)	0.081
16-17 years	1.94 (1.49-2.53)	<0.001	0.87 (0.61-1.24)	0.435	1.88 (1.54-2.3)	<0.001	1.54 (1.24-1.9)	<0.001	1.41 (1.15-1.72)	<0.001	1.82 (0.77-4.33)	0.174
Socioeconomic status												
Average	Ref		Ref		Ref		Ref		Ref		Ref	
Below average	1.20 (1.01-1.41)	0.033	1.68 (1.36-2.07)	<0.001	1.38 (1.13-1.67)	<0.001	1.54 (1.29-1.83)	<0.001	1.37 (1.19-1.58)	<0.001	1.01 (0.35-2.93)	0.989
Close friends												
No	0.97 (0.6-1.57)	0.916	1.30 (0.93-1.81)	0.125	1.20 (0.87-1.66)	0.254	1.07 (0.88-1.31)	0.504	0.98 (0.64-1.5)	0.918	0.86 (0.27-2.75)	0.796
Yes	Ref		Ref		Ref		Ref		Ref		Ref	
Peers supportive												
Never/rarely	Ref		Ref		Ref		Ref		Ref		Ref	
Sometimes	0.67 (0.51-0.88)	0.004	0.86 (0.62-1.18)	0.346	0.95 (0.77-1.16)	0.605	1.00 (0.81-1.23)	0.967	0.93 (0.76-1.13)	0.440	1.45 (0.86-2.46)	0.166
Most of the times	0.87 (0.62-1.22)	0.427	0.98 (0.7-1.36)	0.884	1.05 (0.88-1.24)	0.611	1.12 (0.87-1.44)	0.384	1.03 (0.8-1.32)	0.840	0.99 (0.38-2.57)	0.985
Always	0.78 (0.6-1.01)	0.061	1.02 (0.65-1.61)	0.932	1.13 (0.93-1.38)	0.217	0.97 (0.76-1.23)	0.776	1.12 (0.87-1.46)	0.377	0.73 (0.37-1.43)	0.357
Parental understanding (Parents or guardians understood problem)												
Never/rarely	Ref		Ref		Ref		Ref		Ref		Ref	
Sometimes	0.55 (0.43-0.71)	<0.001	0.66 (0.46-0.94)	0.020	0.99 (0.79-1.23)	0.898	0.77 (0.6-0.98)	0.034	0.85 (0.7-1.03)	0.093	0.79 (0.46-1.38)	0.416
Most of the times	0.53 (0.38-0.74)	<0.001	0.94 (0.65-1.35)	0.727	1.20 (0.93-1.55)	0.157	0.88 (0.71-1.09)	0.232	0.98 (0.78-1.23)	0.853	1.21 (0.57-2.6)	0.619
Always	0.82 (0.63-1.07)	0.140	1.19 (0.8-1.77)	0.399	0.91 (0.73-1.13)	0.386	1.04 (0.89-1.21)	0.631	0.93 (0.7-1.23)	0.594	0.57 (0.32-1)	0.050
Parental monitoring (Parents or guardians didn't know about free time)												
Never/rarely	Ref		Ref		Ref		Ref		Ref		Ref	
Sometimes	1.00 (0.76-1.31)	0.993	1.29 (0.89-1.85)	0.174	0.96 (0.78-1.18)	0.712	0.65 (0.54-0.78)	<0.001	0.86 (0.7-1.05)	0.135	0.89 (0.5-1.6)	0.700
Most of the times	0.99 (0.7-1.41)	0.976	1.02 (0.72-1.43)	0.928	0.93 (0.76-1.13)	0.453	0.68 (0.58-0.81)	<0.001	1.13 (0.92-1.38)	0.245	0.74 (0.31-1.73)	0.483

Always	0.95 (0.69-1.31)	0.743	1.28 (0.89-1.82)	0.177	0.91 (0.72-1.14)	0.417	0.69 (0.56-0.86)	0.001	0.95 (0.74-1.21)	0.665	0.62 (0.29-1.36)	0.234
Parental control (Parents went through things without permission)												
Never/rarely	Ref		Ref		Ref		Ref		Ref		Ref	
Sometimes	1.20 (0.92-1.57)	0.185	1.30 (0.69-2.43)	0.416	0.95 (0.74-1.21)	0.667	1.10 (0.92-1.32)	0.283	0.9 (0.73-1.09)	0.280	NA	NA
Most of the times	1.40 (1-1.95)	0.047	1.86 (1.33-2.6)	<0.001	1.64 (1.17-2.28)	0.004	1.31 (1.09-1.56)	0.003	1.93 (1.46-2.55)	<0.001	NA	NA
Always	1.11 (0.81-1.52)	0.521	1.76 (1.13-2.72)	0.012	1.51 (1.14-2)	0.004	1.53 (1.32-1.78)	<0.001	2.09 (1.48-2.95)	<0.001	NA	NA
Peer conflict												
Yes	1.70 (1.33-2.17)	<0.001	1.22 (0.92-1.63)	0.168	1.39 (1.19-1.63)	<0.001	1.47 (1.26-1.73)	<0.001	1.36 (1.18-1.58)	<0.001	1.24 (0.67-2.29)	0.496
No	Ref		Ref		Ref		Ref		Ref		Ref	
Peer victimization												
Yes	1.26 (1.01-1.57)	0.044	1.47 (1.11-1.95)	0.007	1.2 (1-1.44)	0.044	1.50 (1.29-1.75)	<0.001	1.01 (0.85-1.2)	0.907	NA	NA
No	Ref		Ref		Ref		Ref		Ref		NA	NA
Peer isolation												
Yes	2.05 (1.62-2.59)	<0.001	1.84 (1.5-2.27)	<0.001	1.48 (1.2-1.83)	<0.001	1.66 (1.42-1.93)	<0.001	1.35 (1.12-1.62)	0.002	2.15 (1.25-3.72)	0.006
No	Ref		Ref		Ref		Ref		Ref		Ref	
loneliness												
Yes	6.60 (5.28-8.25)	<0.001	4.13 (2.99-5.69)	<0.001	4.4 (3.72-5.19)	<0.001	5.22 (4.6-5.93)	<0.001	5.31 (4.45-6.34)	<0.001	12.38 (6.92-22.17)	<0.001
No	Ref		Ref		Ref		Ref		Ref		Ref	



Supplementary figure-1: Country status policy formulation to adolescent mental health