





**Appendix Table 2a. Multivariate survival models of interactive associations between type-number of temporally primary lifetime DSM-IV/CIDI disorders in predicting the subsequent first occurrence of suicidal behaviors (ideation, attempt, plan among ideators, attempt among planners, attempt among ideators without a plan)—Developed Countries<sup>a</sup>**

	Among Total Sample				Among Ideators					
	Ideation		Attempt		Plan		Planned Attempt		Unplanned Attempt	
	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$
I. Anxiety Disorders										
Panic Disorder	2.4* (1.6-3.6)*	19.2(<.001)*	4.0* (2.1-7.8)*	17.3(<.001)*	1.7* (1.1-2.6)*	4.8(0.03)*	1.0 (0.5-1.7)	0.0(0.88)	4.3* (1.6-11.2)*	8.7(0.003)*
GAD	4.1* (3.2-5.4)*	110.6(<.001)*	5.0* (3.4-7.5)*	64.0(<.001)*	1.3 (0.9-1.9)	1.8(0.18)	1.6 (1.0-2.6)	3.5(0.06)	1.7 (0.9-3.4)	2.4(0.13)
Specific Phobia	1.7* (1.5-2.0)*	56.8(<.001)*	2.3* (1.8-3.0)*	43.5(<.001)*	1.3* (1.0-1.6)*	5.6(0.02)*	1.2 (0.9-1.6)	1.3(0.25)	1.5* (1.0-2.1)*	4.0(0.05)*
Social Phobia	2.5* (2.1-2.9)*	124.9(<.001)*	2.6* (1.9-3.4)*	40.9(<.001)*	1.3* (1.0-1.7)*	4.2(0.05)*	1.7* (1.2-2.4)*	7.2(0.01)*	0.7 (0.4-1.1)	3.0(0.08)
PTSD	3.1* (2.4-4.1)*	64.8(<.001)*	4.5* (3.1-6.5)*	59.6(<.001)*	1.7* (1.2-2.4)*	8.3(0.004)*	2.0* (1.2-3.2)*	7.8(0.01)*	2.2* (1.2-4.0)*	6.0(0.01)*
SAD	2.4* (1.6-3.6)*	18.1(<.001)*	2.5* (1.5-4.1)*	12.9(<.001)*	0.9 (0.5-1.6)	0.1(0.74)	1.3 (0.6-2.5)	0.5(0.49)	1.3 (0.5-3.2)	0.3(0.62)
Agoraphobia	2.3* (1.4-3.9)*	9.5(0.002)*	3.1* (1.2-8.1)*	5.1(0.02)*	2.2* (1.1-4.2)*	5.0(0.03)*	1.3 (0.6-3.0)	0.4(0.51)	0.8 (0.1-5.4)	0.1(0.81)
II. Mood Disorders										
MDD	4.0* (3.4-4.8)*	261.8(<.001)*	4.6* (3.4-6.1)*	108.8(<.001)*	1.4* (1.1-1.8)*	6.9(0.01)*	1.6* (1.2-2.2)*	8.5(0.004)*	1.3 (0.9-2.0)	1.8(0.18)
Dysthymia	2.9* (2.0-4.3)*	29.4(<.001)*	2.3* (1.2-4.6)*	6.2(0.01)*	1.2 (0.7-2.0)	0.2(0.63)	0.7 (0.3-1.3)	1.4(0.24)	1.1 (0.3-4.2)	0.0(0.88)
Bipolar Disorder	5.9* (4.2-8.4)*	98.4(<.001)*	8.2* (4.7-14.4)*	53.5(<.001)*	2.7* (1.7-4.3)*	17.6(<.001)*	3.4* (2.0-5.7)*	20.7(<.001)*	2.9* (1.2-7.0)*	5.9(0.02)*
III. Impulse-Control Disorders										
ODD	3.6* (2.4-5.3)*	41.2(<.001)*	3.0* (1.5-5.8)*	10.2(0.001)*	0.8 (0.4-1.8)	0.2(0.64)	1.2 (0.5-3.3)	0.2(0.69)	1.8 (0.6-5.0)	1.3(0.26)
Conduct Disorder	3.3* (2.3-4.6)*	43.8(<.001)*	3.0* (1.6-5.3)*	13.0(<.001)*	1.7 (0.8-3.6)	2.0(0.16)	1.0 (0.3-2.7)	0.0(0.92)	1.4 (0.5-3.9)	0.3(0.56)
ADHD	2.2* (1.4-3.5)*	12.0(<.001)*	4.0* (2.0-8.1)*	14.9(<.001)*	2.9* (1.3-6.5)*	6.9(0.01)*	1.6 (0.7-3.7)	1.1(0.28)	1.7 (0.6-4.3)	1.1(0.29)
IED	2.6* (1.7-4.0)*	21.3(<.001)*	2.5* (1.5-4.1)*	12.4(<.001)*	0.8 (0.5-1.3)	0.6(0.44)	1.4 (0.7-3.0)	0.9(0.35)	1.2 (0.5-2.8)	0.2(0.65)
IV. Substance Use Disorders										
Alcohol Abuse or Dep.	1.9* (1.5-2.4)*	27.0(<.001)*	3.2* (2.2-4.7)*	34.6(<.001)*	1.5* (1.0-2.1)*	4.1(0.04)*	1.4 (0.9-2.4)	1.7(0.19)	1.9* (1.0-3.5)*	3.9(0.05)*
Drug Abuse or Dep.	3.2* (2.1-4.8)*	32.2(<.001)*	4.1* (2.5-6.9)*	28.6(<.001)*	1.8* (1.1-2.8)*	6.5(0.01)*	1.4 (0.7-2.8)	0.7(0.40)	2.4* (1.1-5.3)*	4.4(0.04)*
Continuous Variable for Number of Other Disorders <sup>b</sup>	0.8* (0.7-1.0)*	6.3(0.01)*	0.9 (0.7-1.1)	2.2(0.14)	0.9 (0.8-1.1)	0.4(0.53)	1.0 (0.8-1.3)	0.1(0.79)	0.8 (0.6-1.2)	1.3(0.25)
<b>Interactions with Number of Other Disorders</b>										
I. Anxiety Disorders										
Panic Disorder	0.9 (0.8-1.0)	2.9(0.09)	0.9 (0.7-1.0)	2.9(0.09)	0.9 (0.8-1.1)	0.9(0.35)	1.1 (0.9-1.3)	1.7(0.19)	0.7* (0.5-1.0)*	4.0(0.05)*
GAD	0.8* (0.7-0.9)*	26.7(<.001)*	0.8* (0.7-0.9)*	12.5(<.001)*	0.9 (0.8-1.1)	1.4(0.23)	0.9 (0.8-1.1)	1.0(0.33)	1.0 (0.8-1.3)	0.0(0.95)
Specific Phobia	1.1 (1.0-1.2)	2.4(0.12)	1.0 (0.8-1.1)	0.6(0.42)	1.0 (0.9-1.1)	0.2(0.63)	1.0 (0.9-1.2)	0.2(0.64)	0.9 (0.8-1.1)	0.8(0.37)
Social Phobia	1.0 (0.9-1.0)	1.2(0.26)	0.9 (0.8-1.0)	2.6(0.11)	1.0 (0.9-1.1)	0.1(0.82)	0.8* (0.7-1.0)*	8.2(0.004)*	1.3* (1.1-1.6)*	6.4(0.01)*
PTSD	1.0 (0.8-1.0)	3.8(0.05)	0.9* (0.8-1.0)*	4.5(0.03)*	1.0 (0.8-1.1)	0.9(0.34)	0.9* (0.7-1.0)*	4.4(0.04)*	1.0 (0.8-1.2)	0.0(0.91)
SAD	0.9* (0.8-1.0)*	5.3(0.02)*	0.9 (0.8-1.0)	2.9(0.09)	1.1 (0.9-1.4)	0.6(0.43)	1.0 (0.8-1.2)	0.1(0.78)	1.0 (0.7-1.4)	0.0(0.99)
Agoraphobia	0.9 (0.8-1.1)	1.1(0.29)	0.9 (0.7-1.2)	0.7(0.40)	0.8 (0.7-1.0)	3.3(0.07)	1.0 (0.8-1.4)	0.1(0.75)	0.9 (0.5-1.5)	0.2(0.70)

<b>II. Mood Disorders</b>										
MDD	0.8* (0.8-0.9)*	21.8(<.001)*	0.9* (0.8-0.9)*	9.5(0.002)*	1.1 (0.9-1.2)	0.7(0.41)	1.0 (0.8-1.1)	0.5(0.48)	0.9 (0.8-1.1)	0.7(0.40)
Dysthymia	0.9 (0.8-1.0)	2.7(0.10)	0.9 (0.8-1.1)	1.0(0.31)	1.0 (0.8-1.1)	0.2(0.66)	1.1 (0.9-1.3)	0.3(0.56)	1.0 (0.7-1.5)	0.1(0.81)
Bipolar Disorder	0.8* (0.7-0.9)*	15.6(<.001)*	0.8* (0.6-0.9)*	12.7(<.001)*	0.8* (0.7-0.9)*	8.8(0.003)*	0.9 (0.8-1.1)	1.6(0.21)	0.8 (0.6-1.1)	1.5(0.22)
<b>III. Impulse-Control Disorders</b>										
ODD	0.8* (0.7-0.9)*	11.0(<.001)*	0.9 (0.7-1.2)	0.6(0.45)	1.2 (1.0-1.6)	2.8(0.09)	1.1 (0.8-1.5)	0.2(0.65)	1.0 (0.7-1.4)	0.0(0.89)
Conduct Disorder	0.8* (0.8-1.0)*	7.2(0.01)*	0.9 (0.7-1.1)	0.6(0.43)	0.8 (0.7-1.0)	3.1(0.08)	1.0 (0.8-1.4)	0.1(0.78)	1.2 (0.9-1.7)	1.6(0.21)
ADHD	0.9 (0.8-1.1)	1.6(0.21)	0.8* (0.6-1.0)*	4.1(0.05)*	0.8 (0.6-1.0)	2.9(0.09)	0.9 (0.7-1.2)	0.5(0.47)	1.0 (0.8-1.2)	0.1(0.71)
IED	0.9 (0.8-1.0)	2.2(0.14)	0.9 (0.8-1.1)	1.4(0.24)	1.1 (1.0-1.3)	2.5(0.12)	1.0 (0.8-1.2)	0.2(0.70)	0.9 (0.7-1.1)	0.7(0.39)
<b>IV. Substance Use Disorders</b>										
Alcohol Abuse or Dep.	1.0 (0.9-1.1)	0.2(0.63)	0.9 (0.8-1.1)	0.8(0.37)	1.0 (0.8-1.1)	0.4(0.52)	1.0 (0.8-1.2)	0.1(0.74)	1.1 (0.8-1.4)	0.3(0.60)
Drug Abuse or Dep.	0.8* (0.7-1.0)*	7.2(0.007)*	0.8* (0.7-0.9)*	7.6(0.01)*	0.9 (0.8-1.1)	1.1(0.29)	1.0 (0.8-1.2)	0.3(0.58)	0.7* (0.5-0.9)*	8.0(0.01)*
<b>df Interaction Test<sup>c</sup></b>	. * (-.)*	228.2(<.001)*	. * (-.)*	175.4(<.001)*	. * (-.)*	40.6(<.001)*	. * (-.)*	32.2(0.010)*	. (-.)	23.5(0.10)
<b>(N)<sup>d</sup></b>		(27963)		(27963)		(4997)		(1874)		(3123)

**Appendix Table 2b. Multivariate survival models of interactive associations between type-number of temporally primary lifetime DSM-IV/CIDI disorders in predicting the subsequent first occurrence of suicidal behaviors (ideation, attempt, plan among ideators, attempt among planners, attempt among ideators without a plan)—Developing Countries<sup>a</sup>**

	Among Total Sample				Among Ideators					
	Ideation		Attempt		Plan		Planned Attempt		Unplanned Attempt	
	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$	OR (95% CI)	$\chi^2$
<b>I. Anxiety Disorders</b>										
Panic Disorder	2.5* (1.6-3.9)*	15.5(<.001)*	4.4* (2.2-9.0)*	16.7(<.001)*	1.3 (0.6-2.9)	0.6(0.45)	2.1* (1.1-4.0)*	5.6(0.02)*	1.6 (0.5-5.6)	0.5(0.48)
GAD	2.1* (1.2-3.5)*	7.3(0.007)*	3.5* (1.7-7.2)*	12.1(<.001)*	1.0 (0.5-2.3)	0.0(0.92)	1.4 (0.6-3.1)	0.6(0.42)	1.8 (0.5-6.7)	0.9(0.35)
Specific Phobia	2.2* (1.8-2.6)*	71.6(<.001)*	2.6* (1.9-3.4)*	43.3(<.001)*	1.6* (1.2-2.1)*	8.1(0.004)*	1.3 (0.9-2.0)	2.3(0.13)	1.2 (0.7-1.8)	0.4(0.53)
Social Phobia	2.9* (2.0-4.1)*	33.0(<.001)*	2.6* (1.5-4.8)*	11.2(<.001)*	0.9 (0.5-1.6)	0.1(0.77)	1.4 (0.7-2.6)	0.9(0.34)	1.0 (0.5-2.4)	0.0(0.93)
PTSD	4.9* (3.1-7.7)*	44.7(<.001)*	8.4* (4.5-15.7)*	44.0(<.001)*	2.8* (1.5-5.3)*	10.5(0.001)*	5.5* (3.0-10.1)*	29.1(<.001)*	2.1 (0.5-9.9)	0.9(0.33)
OCD	1.6 (1.0-2.7)	3.5(0.06)	1.7 (0.7-4.0)	1.3(0.26)	0.9 (0.4-2.2)	0.1(0.79)	1.2 (0.4-4.0)	0.1(0.78)	0.7 (0.1-6.2)	0.1(0.73)
SAD	2.3* (1.7-3.1)*	26.9(<.001)*	2.1* (1.3-3.4)*	8.2(0.004)*	0.9 (0.6-1.4)	0.3(0.61)	1.0 (0.6-1.6)	0.0(0.83)	1.2 (0.5-2.8)	0.1(0.74)
Agoraphobia	1.3 (0.8-1.9)	1.3(0.26)	1.5 (0.9-2.6)	2.0(0.16)	1.3 (0.8-2.1)	1.5(0.21)	2.0* (1.0-3.9)*	4.3(0.04)*	1.7 (0.6-5.4)	0.9(0.33)
<b>II. Mood Disorders</b>										
MDD	3.1* (2.5-3.9)*	107.1(<.001)*	3.5* (2.4-4.9)*	48.8(<.001)*	1.9* (1.4-2.6)*	18.9(<.001)*	1.4 (0.9-2.1)	2.4(0.12)	0.7 (0.4-1.3)	1.4(0.24)
Dysthymia	3.9* (2.2-6.7)*	23.7(<.001)*	4.4* (2.0-9.7)*	12.9(<.001)*	2.2* (1.1-4.3)*	5.4(0.02)*	1.4 (0.6-3.4)	0.5(0.48)	1.1 (0.2-6.0)	0.0(0.96)
Bipolar Disorder	4.4* (2.8-7.1)*	39.4(<.001)*	4.0* (1.7-9.5)*	9.7(0.002)*	7.7* (3.7-15.9)*	30.2(<.001)*	0.8 (0.2-3.2)	0.2(0.70)	0.6 (0.1-4.7)	0.3(0.60)
<b>III. Impulse-Control Disorders</b>										
ODD	4.0* (2.5-6.6)*	31.9(<.001)*	5.7* (2.8-11.7)*	22.6(<.001)*	2.7* (1.2-5.9)*	5.7(0.02)*	1.5 (0.6-3.9)	0.7(0.39)	2.9 (0.7-12.4)	2.1(0.14)
Conduct Disorder	5.3* (2.9-9.6)*	29.9(<.001)*	9.8* (4.7-20.4)*	37.4(<.001)*	1.6 (0.9-2.9)	2.6(0.11)	2.5 (1.0-6.7)	3.5(0.06)	3.6* (1.4-9.3)*	6.8(0.01)*
ADHD	2.0* (1.0-3.7)*	4.3(0.04)*	2.4 (0.9-6.9)	2.8(0.09)	1.1 (0.4-3.1)	0.0(0.84)	2.0 (0.7-6.0)	1.6(0.21)	0.7 (0.1-5.5)	0.1(0.71)
IED	4.1* (3.1-5.4)*	101.7(<.001)*	4.4* (2.8-6.9)*	42.6(<.001)*	1.3 (0.8-2.0)	0.9(0.33)	1.6 (0.8-3.3)	1.5(0.22)	1.5 (0.8-3.0)	1.5(0.22)
<b>IV. Substance Use Disorders</b>										
Alcohol Abuse or Dep.	2.8* (2.2-3.6)*	61.8(<.001)*	3.9* (2.6-6.0)*	40.2(<.001)*	1.7* (1.2-2.5)*	8.2(0.004)*	1.4 (0.9-2.1)	1.7(0.19)	1.5 (0.7-3.5)	1.0(0.31)
Drug Abuse or Dep.	2.4* (1.6-3.9)*	11.7(<.001)*	4.4* (2.1-9.1)*	15.8(<.001)*	1.6 (0.7-3.6)	1.4(0.23)	1.5 (0.7-3.4)	0.9(0.33)	3.3* (1.2-9.4)*	4.9(0.03)*
Continuous Variable for Number of Other Disorders <sup>b</sup>	0.8* (0.6-1.0)*	4.0(0.05)*	0.7 (0.5-1.1)	2.7(0.10)	1.0 (0.8-1.4)	0.1(0.80)	0.8 (0.5-1.2)	1.4(0.24)	0.9 (0.5-1.6)	0.2(0.67)

#### Interactions with Number of Other Disorders

<b>I. Anxiety Disorders</b>										
Panic Disorder	1.0 (0.8-1.2)	0.1(0.77)	0.8 (0.6-1.1)	2.0(0.15)	1.0 (0.8-1.3)	0.0(0.93)	0.9 (0.6-1.2)	0.7(0.42)	0.6 (0.4-1.0)	3.6(0.06)
GAD	1.1 (0.9-1.4)	1.4(0.24)	0.9 (0.7-1.1)	1.3(0.26)	1.0 (0.8-1.4)	0.0(0.92)	0.9 (0.7-1.2)	0.2(0.63)	0.8 (0.5-1.4)	0.6(0.45)
Specific Phobia	1.0 (0.8-1.1)	0.6(0.44)	1.0 (0.8-1.2)	0.1(0.78)	1.0 (0.8-1.1)	0.3(0.56)	1.0 (0.8-1.3)	0.0(0.98)	0.9 (0.7-1.4)	0.1(0.72)
Social Phobia	0.9 (0.7-1.0)	2.9(0.09)	1.0 (0.8-1.2)	0.2(0.69)	1.2 (1.0-1.5)	3.7(0.06)	0.9 (0.7-1.2)	0.4(0.51)	1.1 (0.7-1.6)	0.2(0.69)
PTSD	0.8* (0.6-1.0)*	4.8(0.03)*	0.7* (0.6-1.0)*	5.0(0.03)*	0.8 (0.6-1.1)	1.6(0.20)	0.7* (0.5-0.9)*	10.3(0.001)*	0.9 (0.5-1.6)	0.1(0.76)
OCD	1.0 (0.8-1.3)	0.0(0.84)	1.0 (0.8-1.5)	0.3(0.60)	1.0 (0.7-1.4)	0.0(0.99)	1.2 (0.8-1.7)	0.6(0.42)	1.2 (0.5-2.8)	0.2(0.66)
SAD	1.0 (0.8-1.1)	0.3(0.58)	1.0 (0.8-1.2)	0.0(0.92)	1.0 (0.8-1.2)	0.0(0.99)	1.1 (0.8-1.4)	0.4(0.52)	1.2 (0.8-1.8)	0.9(0.33)

Agoraphobia	1.2 (1.0-1.4)	3.6(0.06)	1.1 (0.8-1.4)	0.5(0.50)	1.0 (0.8-1.2)	0.1(0.73)	0.8 (0.6-1.1)	1.7(0.20)	0.9 (0.5-1.4)	0.4(0.51)
<b>II. Mood Disorders</b>										
MDD	0.9* (0.7-0.9)*	7.9(0.01)*	0.9 (0.7-1.1)	1.8(0.18)	0.8 (0.7-1.0)	3.1(0.08)	1.1 (0.9-1.4)	0.4(0.54)	1.1 (0.7-1.8)	0.3(0.56)
Dysthymia	0.8 (0.7-1.1)	2.5(0.11)	0.9 (0.7-1.2)	0.7(0.41)	0.8 (0.6-1.0)	3.1(0.08)	1.0 (0.7-1.4)	0.0(0.91)	1.4 (0.7-2.7)	0.8(0.37)
Bipolar Disorder	0.9 (0.7-1.1)	1.3(0.26)	0.9 (0.6-1.2)	0.9(0.34)	0.7* (0.5-0.9)*	9.3(0.002)*	1.2 (0.8-1.7)	0.4(0.50)	1.3 (0.6-2.7)	0.6(0.46)
<b>III. Impulse-Control Disorders</b>										
ODD	0.8* (0.7-1.0)*	4.0(0.05)*	0.8 (0.6-1.0)	2.9(0.09)	0.9 (0.6-1.2)	0.7(0.41)	1.0 (0.7-1.4)	0.0(0.98)	1.2 (0.6-2.5)	0.3(0.60)
Conduct Disorder	0.8* (0.6-1.0)*	4.0(0.05)*	0.7* (0.5-0.9)*	8.2(0.004)*	0.9 (0.7-1.2)	0.6(0.43)	1.1 (0.8-1.6)	0.3(0.60)	0.4* (0.2-0.7)*	12.2(<.001)*
ADHD	1.0 (0.8-1.3)	0.1(0.77)	1.0 (0.7-1.5)	0.0(0.90)	1.0 (0.7-1.3)	0.1(0.78)	0.8 (0.6-1.2)	0.8(0.36)	1.6 (0.8-3.3)	1.8(0.18)
IED	0.8* (0.7-0.9)*	10.0(0.002)*	0.8* (0.6-1.0)*	5.1(0.03)*	1.0 (0.9-1.3)	0.3(0.60)	0.9 (0.7-1.2)	0.5(0.47)	0.9 (0.6-1.3)	0.5(0.50)
<b>IV. Substance Use Disorders</b>										
Alcohol Abuse or Dep.	0.8* (0.7-1.0)*	5.6(0.02)*	0.9 (0.7-1.1)	0.6(0.45)	0.8 (0.7-1.0)	3.0(0.09)	1.0 (0.8-1.3)	0.1(0.79)	1.3 (0.8-2.1)	1.1(0.30)
Drug Abuse or Dep.	1.1 (0.9-1.4)	1.4(0.24)	0.9 (0.7-1.3)	0.2(0.65)	1.1 (0.8-1.5)	0.4(0.51)	1.0 (0.7-1.3)	0.0(0.85)	0.6 (0.3-1.1)	3.3(0.07)
df Interaction Test <sup>c</sup>	.* (-.)*	69.9(<.001)*	.* (-.)*	62.3(<.001)*	.* (-.)*	49.6(<.001)*	. (-.)	18.9(0.33)	.* (-.)*	36.3(0.004)*
(N) <sup>d</sup>		(26959)		(26959)		(3326)		(1438)		(1888)

**Abbreviations:** GAD, Generalized Anxiety Disorder; PTSD, Posttraumatic Stress Disorder; OCD, Obsessive Compulsive Disorder; SAD, Separation Anxiety Disorder; MDD, Major Depressive Disorder; ODD, Oppositional Defiant Disorder; ADHD, Attention Deficit Hyperactivity Disorder; IED, Intermittent Explosive Disorder.

\* Significant at the .05 level, two-sided test

<sup>a</sup>Each column includes a separate multivariate model in survival framework, with all rows as predictors controlling for the following covariates: age, age-squared, age cohort, sex, and person-year.

<sup>b</sup>Number of other disorders represents the number of disorders in addition to the first one counted, so cases with 1 disorder will have 0 other disorders, cases with 2 disorders will have 1 other disorders, and so on. This is used in the multivariate model because the individual disorders are also in the model, and including a continuous number of disorder from 0,1,2,... will cause the model to overfit.

<sup>c</sup>Multi-df tests assess the overall interactions. This group effect test only includes all of the interactions and not all of the independent variables.

<sup>d</sup>Denominator sample size of the models.