Supplementary material

Table S1. Regression analyses for negative mental health outcomes and suicidal risk by traditional and cyberbullying victimization and sexual orientation

	Depression	Anxiety	Stress	Suicidal ideation	Suicidal plan	Suicidal attempt
Model information	$F_{(7, 918)}=21.01$, $p<0.001$; $R^2=0.13$	$F_{(7, 919)}=18.57$, $p<0.001$; $R^2=0.12$	$F_{(7, 920)}=13.08$, $p<0.001$; $R^2=0.08$	-2LL= 905.87; $\chi^2_{(7)}=79.21$, $p<.001$; $R^2=0.13$	-2LL= 473.64; $\chi^2_{(7)}=61.39$, $p<.001$; $R^2=0.15$	-2LL= 331.46; $\chi^2_{(7)}=78.44$, $p<.001$; $R^2=0.23$
	β (B, UNSTANDARDIZED SE)			**ADJUSTED ODDS RATIO (95% CI)**		
Age	0.11 (0.49, 0.15)**	0.08 (0.30, 0.12)*	0.10 (0.42, 0.14)**	1.01 (0.92; 1.10)	0.97 (0.85; 1.12)	0.99 (0.83; 1.19)
Gender (ref. girls)	-0.16 (-2.67, 0.53)***	-0.16 (-2.24, 0.44)***	-0.17 (-2.73, 0.52)***	0.43 (0.30; 0.60)***	0.42 (0.25; 0.72)***	0.26 (0.13; 0.52)***
Sexual orientation (ref. heterosexual youth)	0.08 (2.64, 1.06)*	0.08 (2.07, 0.87)*	0.08 (2.38, 1.02)*	1.79 (0.99; 3.26)°	2.66 (1.22; 5.84)*	4.24 (1.76; 10.24)**
Traditional victimization	0.23 (2.67, 0.43)***	0.20 (1.86, 0.35)***	0.15 (1.58, 0.41)***	1.86 (1.48; 2.36)***	1.68 (1.28; 2.20)***	2.03 (1.51; 2.74)***
Traditional victimization * sexual orientation (ref. heterosexual youth)	-0.03 (-0.95, 1.29)	-0.03 (-0.77, 1.07)	-0.00 (-0.05, 1.25)	0.79 (0.39; 1.59)	0.60 (0.27; 1.31)	0.57 (0.26; 1.22)
Cybervictimization	0.17 (3.03, 0.65)***	0.18 (2.57, 0.53)***	0.14 (2.41, 0.62)***	1.52 (1.05; 2.19)*	2.13 (1.43; 3.16)***	2.12 (1.39; 3.24)***
Cybervictimization * sexual orientation (ref. heterosexual youth)	-0.03 (-1.68, 2.29)	-0.01 (-0.35, 1.89)	-0.04 (-2.29, 2.21)	0.60 (0.18; 1.97)	0.88 (0.24; 3.22)	0.82 (0.22; 3.04)
Parsimonious model results						
Model information	$F_{(5, 920)}=28.88$, $p<0.001$; $R^2=0.13$	$F_{(5, 921)}=25.81$, $p<0.001$; $R^2=0.12$	$F_{(5, 922)}=17.98$, $p<0.001$; $R^2=0.08$	-2LL= 967.02; $\chi^2_{(3)}=85.81$, $p<.001$; $R^2=0.13$	-2LL= 504.91; $\chi^2_{(3)}=60.46$, $p<.001$; $R^2=0.14$	-2LL= 352.27; $\chi^2_{(4)}=81.18$, $p<.001$; $R^2=0.22$
	β (B, UNSTANDARDIZED SE)			**ADJUSTED ODDS RATIO (95% CI)**		
Age	0.10 (0.46, 0.14)**	0.08 (0.29, 0.12)*	0.09 (0.39, 0.14)**	/	/	/

	Depression	Anxiety	Stress	Suicidal ideation	Suicidal plan	Suicidal attempt
Gender	-0.15 (-2.64, 0.53)***	-0.16 (-2.22, 0.44)***	-0.17 (-2.73, 0.51)***	0.43 (0.31; 0.60)***	0.49 (0.30; 0.81)***	0.28 (0.14; 0.55)***
Sexual orientation	0.07 (2.38, 1.04)*	0.07 (1.91, 0.86)*	0.07 (2.26, 1.01)*	/	/	2.65 (1.09; 6.46)*
Traditional victimization	0.22 (2.51, 0.40)***	0.18 (1.75, 0.33)***	0.14 (1.52, 0.39)***	1.90 (1.54; 2.35)***	1.69 (1.33; 2.13)***	1.98 (1.53; 2.56)***
Cybervictimization	0.16 (2.88, 0.62)***	0.17 (2.53, 0.51)***	0.13 (2.21, 0.60)***	1.41 (0.99; 2.00)°	2.01 (1.38; 2.92)***	1.93 (1.29; 1.29)**

Table S2. Moderation analyses for parenting styles in the relation between traditional bullying victimization and sexual orientation on negative mental health outcomes and suicidal risk

	Depression	Anxiety	Stress	Suicidal ideation	Suicidal plan	Suicidal attempt
Model information (non-parsimonious model)	$F_{(13, 882)}=17.17$, $p<0.001$; $R^2=0.19$	$F_{(13, 883)}=14.85$, $p<0.001$; $R^2=0.17$	$F_{(13, 883)}=12.96$, $p<0.001$; $R^2=0.15$	-2LL= 802.10; $\chi^2_{(13)}=148.85$, $p<.001$; $R^2=0.23$	-2LL= 426.38; $\chi^2_{(13)}=88.35$, $p<.001$; $R^2=0.22$	-2LL= 294.80; $\chi^2_{(13)}=105.39$, $p<.001$; $R^2=0.31$
	β (B, UNSTANDARDIZED SE)			**ADJUSTED ODDS RATIO (95% CI)**		
Age	0.06 (0.28, 0.15)°	0.04 (0.15, 0.12)	0.05 (0.23, 0.14)	0.96 (0.86; 1.06)	0.91 (0.77; 1.07)	0.92 (0.75; 1.12)
Gender	-0.18 (-3.07, 0.52)***	-0.18 (-2.55, 0.44)***	-0.19 (-3.02, 0.51)***	0.35 (0.25; 0.51)***	0.37 (0.22; 0.64)***	0.21 (0.10; 0.44)***
Sexual orientation	0.04 (1.45, 1.09)	0.04 (1.18, 0.91)	0.04 (1.10, 1.06)	1.12 (0.46; 2.72)	0.76 (0.15; 3.95)	3.03 (0.82; 11.20)°
Traditional victimization	0.30 (3.40, 0.45)***	0.23 (2.20,0.37)***	0.18 (1.94, 0.44)***	2.24 (1.70; 2.94)***	2.29 (1.71; 3.05)***	2.68 (1.93; 3.71)***
Traditional victimization * sexual orientation	-0.00 (-0.11, 1.24)	0.05 (1.07, 1.09)	0.05 (1.26, 1.20)	0.99 (0.42; 2.34)	0.86 (0.32; 2.31)	0.66 (0.25; 1.74)
Moderation effects parenting styles						
Parental autonomy support	-0.08 (-0.94, 0.46)*	-0.08 (-0.86, 0.38)*	-0.06 (-0.68, 0.45)	0.82 (0.59; 1.13)	0.69 (0.43; 1.12)	0.42 (0.23; 0.77)**
Parental psychological control	0.23 (2.61, 0.42)***	0.22 (2.05, 0.35)***	0.24 (2.63, 0.41)***	2.17 (1.62; 2.91)***	1.97 (1.30; 3.00)**	2.03 (1.21; 3.41)**

	β (B, UNSTANDARDIZED SE)			ADJUSTED ODDS RATIO (95% CI)		
Sexual orientation * Parental autonomy support	0.00 (0.01, 1.61)	-0.01 (-0.23, 1.35)	-0.01 (-0.18, 1.57)	2.08 (0.63; 6.84)	3.70 (0.63; 21.90)	15.72 (2.13; 115.78)**
Sexual orientation * Parental psychological control	0.06 (2.30, 1.58)	0.04 (1.43, 1.32)	0.05 (1.79, 1.54)	3.25 (0.88; 12.00)°	9.23 (1.34; 63.66)*	3.79 (0.74; 19.43)
Traditional victimization * Parental autonomy support	0.08 (1.10, 0.54)*	0.00 (0.05, 0.45)	0.02 (0.23, 0.53)	1.25 (0.93; 1.71)	1.43 (0.94; 2.11)°	1.31 (0.88; 1.95)
Traditional victimization* Parental psychological control	-0.03 (-0.33, 0.54)	-0.03 (-0.28, 0.40)	-0.05 (-0.62, 0.47)	0.86 (0.65; 1.13)	0.85 (0.61; 1.17)	0.87 (0.63; 1.20)
Sexual orientation * traditional victimization * parental autonomy support	0.02 (0.84, 1.34)	0.08 (2.37, 1.29)	0.09 (2.91, 1.50)°	1.12 (0.30; 4.18)	1.80 (0.14; 22.66)	2.17 (0.20; 23.50)
Sexual orientation * traditional victimization * parental psychological control	-0.02 (-0.62, 1.07)	-0.04 (-0.90, 0.89)	0.00 (0.09, 1.04)	0.87 (0.40; 1.89)	0.92 (0.30; 2.92)	1.45 (0.43; 4.82)
Parsimonious model results						
Model information	F(5, 953)=46.93, p<0.001; R²=0.19	F(4, 955)=49.49, p<0.001; R²=0.17	F(3, 958)=55.33, p<0.001; R²=0.15	-2LL= 875.21; χ²(3)=143.50, p<.001; R²=0.21	-2LL= 468.89; χ²(7)=79.56, p<.001; R²=0.18	-2LL= 320.89; χ²(6)=102.71, p<.001; R²=0.29
	β (B, UNSTANDARDIZED SE)			ADJUSTED ODDS RATIO (95% CI)		
Gender	-0.17 (-2.97, 0.50)***	-0.18 (-2.54, 0.42)***	-0.18 (-2.89, 0.49)***	0.36 (0.25; 0.51)***	0.45 (0.27; 0.75)**	0.24 (0.12; 0.47)***
Sexual orientation	/	/	/	/	0.55 (0.13; 2.32)	3.43 (1.41; 8.38)**
Traditional victimization	0.30 (3.40, 0.39)***	0.23 (2.18, 0.29)***	0.17 (1.87, 0.33)***	2.07 (1.68; 2.55)***	2.20 (1.70; 2.83)**	2.17 (1.70; 2.76)**

Moderation effects parenting styles

	Depression	Anxiety	Stress	Suicidal ideation	Suicidal plan	Suicidal attempt
Parental autonomy support	-0.08 (-1.00, 0.42)*	-0.09 (-0.94, 0.35)**	/	/	0.74 (0.49; 1.14)	0.52 (0.31; 0.88)*
Parental psychological control	0.24 (2.74, 0.38)***	0.23 (2.18, 0.32)***	0.29 (3.19, 0.33)***	2.32 (1.86; 2.90)***	1.76 (1.22; 2.56)**	2.16 (1.40; 3.35)**
Sexual orientation * Parental autonomy support	/	/	/	/	/	7.24 (1.66; 31.53)**
Sexual orientation * Parental psychological control	/	/	/	/	4.67(1.07; 20.43)*	/
Traditional victimization * Parental autonomy support	0.08 (1.08, 0.48)*	/	/	/	1.47 (1.05; 2.05)*	/

Controlled for main effects of age, gender, sexual orientation and victimization. R² in logistic regression analyses: Nagelkerke R²; R² in linear regression analyses: adjusted R². ° p<.1; * p<0.05; ** p<.01; *** p<.001

Table S3. Moderation analyses for parenting styles in the relation between cyberbullying victimization and sexual orientation on negative mental health outcomes and suicidal risk

	Depression	Anxiety	Stress	Suicidal ideation	Suicidal plan	Suicidal attempt
Model information (non-parsimonious model)	$F_{(7, 918)}=21.01$, p<0.001; R²=0.13	$F_{(7, 919)}=18.57$, p<0.001; R²=0.12	$F_{(13, 881)}=13.17$, p<0.001; R²=0.15	-2LL= 822.06; $\chi^2(13)=125.39$, p<.001; R²=0.20	-2LL= 420.26; $\chi^2(13)=94.12$, p<.001; R²=0.23	-2LL= 294.01; $\chi^2(13)=106.06$, p<.001; R²=0.31
	β (B, UNSTANDARDIZED SE)			**ADJUSTED ODDS RATIO (95% CI)**		
Age	0.05 (0.22, 0.15)	0.03 (0.10, 0.12)	0.04 (0.19, 0.14)	0.95 (0.85; 1.05)	0.90 (0.77; 1.06)	0.90 (0.74; 1.11)
Gender	-0.17 (-2.85, 0.53)***	-0.17 (-2.40, 0.44)***	-0.18 (-2.85, 0.51)***	0.40 (0.28; 0.57)***	0.44 (0.25; 0.76)**	0.27 (0.13; 0.55)***
Sexual orientation	0.07 (2.22, 1.10)*	0.06 (1.65, 0.91)°	0.04 (1.41, 1.06)	1.52 (0.71; 3.25)	1.05 (0.26; 4.27)	3.04 (0.89; 10.42)°

Cyberbullying victimization	4.56 (0.81, 0.24)***	0.25 (3.91, 0.67)***	0.20 (3.59, 0.77)***	2.70 (1.67; 4.39)***	4.24 (2.49; 7.24)***	4.26 (2.38; 7.61)***
Cyberbullying victimization * sexual orientation	0.10 (5.48, 4.06)	0.11 (4.85, 3.35)	0.03 (1.54, 3.89)	1.78 (0.19; 16.77)	0.52 (0.01; 19.21)	0.39 (0.01; 13.77)

Moderation effects parenting styles

Parental autonomy support	-0.08 (-1.02, 0.47)*	-0.09 (-0.91, 0.39)*	-0.06 (-0.75, 0.45)°	0.81 (0.59. 1.11)	0.74 (0.45; 1.20)	0.44 (0.24; 0.81)**
Parental psychological control	0.24 (2.80, 0.43)***	0.23 (2.14, 0.35)***	0.25 (2.70, 0.41)***	2.22 (1.67; 2.96)***	1.98 (1.30; 3.02)**	2.03 (1.23; 3.36)**
Sexual orientation * Parental autonomy support	0.01 (0.14, 1.72)	-0.01 (-0.50, 1.42)	-0.02 (-0.73, 1.65)	1.87 (0.59; 6.01)	2.61 50.40. 17.04)	10.50 (1.17; 94.56)*
Sexual orientation * Parental psychological control	0.03 (1.06, 1.64)	-0.00 (-0.14, 1.35)	0.02 (0.63, 1.57)	2.07 (0.61; 7.00)	5.48 (0.91; 33.18)°	2.54 (0.46; 14.02)
Cyberbullying victimization * Parental autonomy support	0.08 (1.34, 0.78)°	0.08 (1.12, 0.64)°	0.08 (1.36, 0.75)°	1.38 (0.86; 2.22)	2.01 (1.10; 3.70)*	1.70 (0.94. 3.07)°
Cyberbullying victimization* Parental psychological control	0.03 (0.66, 0.68)	0.01 (0.19, 0.56)	0.01 (0.16, 0.65)	1.12 (0.72; 1.73)	1.33 (0.72; 2.50)	1.23 (0.75; 2.04)
Sexual orientation * Cyberbullying victimization * parental autonomy support	0.09 (3.75, 4.09)	0.05 (1.77, 3.38)	-0.05 (-1.87, 3.93)	1.24 (0.25; 6.03)	0.15 (0.00; 24.52)	0.08 (0.00; 14.41)
Sexual orientation * Cyberbullying victimization * parental psychological control	0.00 (0.05, 3.31)	0.07 (3.09, 2.73)	0.12 (6.16, 3.17)°	0.76 (0.12; 4.79)	4.14 (0.03; 513.20)	10.79 (0.07; 1572.66)

Parsimonious model results

Model information	F(6, 945)=32.02, p<0.001; R²=0.16	F(5, 955)=36.31, p<0.001; R²=0.16	F(8, 945)=21.10, p<0.001; R²=0.14	-2LL= 897.58; χ²(3)=116.10, p<.001; R²=0.18	-2LL=464.95; χ²(5)= 79.94, p<.001; R²=0.19	-2LL= 336.69; χ²(4)=87.06, p<.001; R²=0.24
	β (B, UNSTANDARDIZED SE)			**ADJUSTED ODDS RATIO (95% CI)**		
Gender	-0.17 (-2.85, 0.51)***	-0.17 (-2.40, 0.43)***	-0.17 (-2.79, 0.49)***	0.39 (0.28; 0.55)***	0.49 (0.29; 0.81)**	0.28 (0.14; 0.53)***
Sexual orientation	0.07 (2.19, 1.00)*	/	0.05 (1.70, 1.01)°	/	/	2.75 (1.18; 6.42)*
Cyberbullying victimization	0.25 (4.72, 0.78)***	0.25 (4.11, 0.65)**	0.15 (2.69, 0.59)**	2.30 (1.65; 3.22)***	4.72 (2.78; 8.01)***	3.32 (2.27; 4.86)***
Moderation effects parenting styles						
Parental autonomy support	-0.08 (-1.05, 0.43)*	-0.10 (-1.02, 0.36)**	/	/	0.80 (0.51; 1.24)	/
Parental psychological control	0.25 (2.88, 0.39)***	0.24 (2.23, 0.32)***	0.29 (3.17, 0.34)***	2.43 (1.95; 3.04)***	2.18 (1.51; 3.13)***	2.99 (2.05; 4.36)***
Cyberbullying victimization * Parental autonomy support	0.09 (1.55, 0.71)*	0.09 (1.40, 0.60)*	/	/	1.85 (1.17; 2.91)**	/
Cyberbullying victimization * sexual orientation	/	/	0.06 (3.16, 2.08)	/	/	/
Sexual orientation * parental psychological control	/	/	0.02 (0.75, 1.37)	/	/	/
Cyberbullying victimization * parental psychological control	/	/	-0.11 (-0.22, 0.64)	/	/	/
Sexual orientation * Cyberbullying	/	/	0.11 (5.66, 2.08)**	/	/	/

victimization * parental psychological control	

Controlled for main effects of age, gender, sexual orientation and victimization. R^2 in logistic regression analyses: Nagelkerke R^2; R^2 in linear regression analyses: adjusted R^2. ° $p<.1$; * $p<0.05$; ** $p<.01$; *** $p<.001$