Supplementary Online Content

Kresovich A, Reffner Collins MK, Riffe D, Dillman Carpentier FR. A content analysis of mental health discourse in popular rap music. *JAMA Pediatr*. Published online December 7, 2020. doi:10.1001/jamapediatrics.2020.5155

eTable 1. Unadjusted and Firth-Adjusted Logistic Regressions of Associations Between Presence of Stressors and Presence of Anxiety References in Songs Expressing Negative Emotion (n = 94)

eTable 2. Unadjusted and Firth-Adjusted Logistic Regressions of Associations Between Presence of Stressors and Presence of Depression References in Songs Expressing Negative Emotion (n = 94)

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Unadjusted and Firth-Adjusted Logistic Regressions of Associations Between Presence of Stressors and Presence of Anxiety References in Songs Expressing Negative Emotion (n = 94)

Stressors Present	**Mental Health Reference**				**Unadjusted**			**Adjusted**		
	Present		**Absent**							
	%	*n*	*%*	*n*	*OR*	*95% CI*	*P-value*	*OR*	*95% CI*	*P-value*
Social Rival (Foe)	36	21	64	38	0.9	0.3, 2.8	.81	0.9	0.3, 2.7	.83
Environmental Conditions	48	20	52	22	2.3	0.8, 7.1	.14	2.0	0.7, 5.7	.17
Love Life	45	17	55	21	3.1	0.9, 10.5	.07	2.6	0.9, 8.0	.09
Work Life	67	12	33	6	2.8	0.8, 9.9	.11	2.4	0.8, 7.7	.13
Family Life	73	8	27	3	3.8	0.7, 22.3	.13	2.9	0.6, 14.3	.18
Authority	70	7	30	3	2.4	0.4, 14.9	.35	2.1	0.4, 11.0	.40
Social Ally (Friend)	57	4	43	3	2.9	0.4, 19.3	.27	2.5	0.5, 13.8	.30
Faith	80	4	20	1	3.9	0.2, 74.5	.37	2.6	0.2, 36.6	.48
Societal Issues	80	4	20	1	2.4	0.2, 30.2	.50	1.9	0.2, 15.4	.55
Financial Strain	100	1	0	0	5.8+E9	-	1.00	9.4	0.3, 257.0	.19

Note. Analysis based on the 94 songs within the total sample that contained cues of negative emotion. Supplemental analyses (not shown) were also conducted adjusting for year of song as a covariate. No changes to the reported pattern of associations was found when controlling for year. Lack of variability in Financial Strain (no presence of this stressor in songs without mental health references) generated an exponential unadjusted OR with a 95% CI that could not be calculated (separation phenomenon). This issue was addressed with the Firth bias adjustment.

Raw Model statistics: $\chi^2 = 24.46$, $p = .003$, -2 Log Likelihood = 99.65, Nagelkerke $R^2 = .31$.

Firth Model statistics: $\chi^2 = 12.54$, $p = .25$, -2 Log Likelihood = 94.69, Nagelkerke $R^2 = .28$.

eTable 2. Unadjusted and Firth-Adjusted Logistic Regressions of Associations Between Presence of Stressors and Presence of Depression References in Songs Expressing Negative Emotion (n = 94)

Stressors Present	**Mental Health Reference**				**Unadjusted**			**Adjusted**		
	Present		**Absent**							
	%	*n*	*%*	*n*	*OR*	*95% CI*	*P-value*	*OR*	*95% CI*	*P-value*
Social Rival (Foe)	17	10	83	49	0.2	0.04, 0.6	.007	0.2	0.1, 0.7	.01
Environmental Conditions	31	13	69	29	2.0	0.5, 7.5	.34	1.7	0.5, 5.8	.39
Love Life	42	16	58	22	3.7	0.9, 14.6	.06	3.1	0.9, 11.0	.08
Work Life	39	7	61	11	0.7	0.2, 3.3	.66	0.8	0.2, 3.0	.69
Family Life	73	8	27	3	9.2	1.5, 56.1	.02	5.6	1.2, 26.9	.03
Authority	30	3	70	7	0.2	0.01, 3.4	.27	0.3	0.03, 3.5	.35
Social Ally (Friend)	29	2	71	5	0.7	0.1, 8.7	.75	0.8	0.1, 7.0	.82
Faith	80	4	20	1	31.2	2.0, 496.4	.02	15.1	1.5, 150.7	.02
Societal Issues	60	3	40	2	7.3	0.3, 155.4	.20	4.8	0.4, 61.5	.23
Financial Strain	100	0	0	0	1.8E+10	-	1.00	24.9	0.8, 745.4	.06

Note. Analysis based on the 94 songs within the total sample that contained cues of negative emotion. Supplemental analyses (not shown) were also conducted adjusting for year of song as a covariate. When year was entered as a covariate, love life had a significant association with depression, Odds Ratio adjusted for year = 4.6, p = .03. Lack of variability in Financial Strain (no presence of this stressor in songs without mental health references) generated an exponential unadjusted OR with a 95% CI that could not be calculated (separation phenomenon). This issue was addressed with the Firth bias adjustment.
Raw Model statistics: $\chi^2 = 36.62$, $p < .001$, -2 Log Likelihood = 77.89, Nagelkerke $R^2 = .46$.
Firth Model statistics: $\chi^2 = 18.79$, $p = .04$, -2 Log Likelihood = 75.59, Nagelkerke $R^2 = .42$.