*** ONLINE SUPPLEMENT SAMPLE OF 193 YOUTH ***

Statistical Analysis Strategy

As with the main sample of 141 youth, in the online supplement sample of 193 youth we first explored the relations between primary study variables and covariates using bivariate correlation analyses (see Table S1). Next, to test hypotheses, we conducted three multiple regression analyses: (1) *NR3C1* expression as the outcome variable, (2) PA as the outcome variable, and (3) NA as the outcome variable. We tested the interaction between perceived responsiveness and self-disclosure and the interaction between perceived responsiveness and gender in separate models. We also tested the two interactions in a combined model and results remained the same (see Tables S2-S4). For the sake of parsimony, we discuss the interactions from the separate models below.

In the analyses for self-disclosure, the predictor variables were standardized scores on self-disclosure, standardized scores on perceived responsiveness, and the interaction between self-disclosure and perceived responsiveness. In the analyses for gender, the predictor variables were dummy-coded gender (0 = male, 1 = female), standardized scores on perceived responsiveness, and the interaction between gender and perceived responsiveness. We tested models with covariates that correlated with the outcome variable at a significance level of $p < .10$. For *NR3C1* expression, the significant covariates were ethnicity and anxiety symptoms. For PA, the significant covariates were age, depressive symptoms, and family conflict. For NA, the significant covariates were depressive symptoms and family conflict.

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Results

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NR3C1 **Expression**

Interaction of perceived responsiveness and self-disclosure. In line with hypotheses, a significant interaction between perceived responsiveness and self-disclosure emerged for youths' expression of *NR3C1* (see Table S2). As seen in Figure S1A, for youths who perceived their

interaction partners as highly responsive, greater self-disclosure was linked with higher *NR3C1* expression (β = .38, t(187) = 2.08, p = .04, 95% CI [0.02, .74]). Youths who perceived lower perceived responsiveness had lower *NR3C1* expression for higher levels of self-disclosure (β = -0.74, t(187) = -2.88, p = .004, 95% CI [-1.25, -.24]). This interaction remained robust in the combined model.

Interaction of perceived responsiveness and gender. A significant interaction between perceived responsiveness and gender also emerged for youths' expression of *NR3C1* (see Table S2). As seen in Figure S1B, for youths who perceived their interaction partners as highly responsive *NR3C1* expression was higher in females relative to males (β = 1.49, t(187) = 3.85, p < .001, 95% CI [0.72, 2.25]). Youths who perceived their interaction partners as less responsive, showed same levels of *R3C1* expression regardless of gender (β = -0.43, t(187) = -1.02, p = .31, 95% CI [-1.27, 0.40]). This interaction did not reach conventional levels of significance in the combined model (β =.53, t(185) = 1.71, p = .09, 95% CI [-0.08, 1.15]).

Positive Affect

Interaction of perceived responsiveness and self-disclosure. An interaction between perceived responsiveness and self-disclosure emerged for youths' PA (see Table S3). As seen in Figure S2, for youths who perceived high levels of responsiveness, greater self-disclosure was linked with higher PA (β = 0.11, t(187) = 2.38, p = .02, 95% CI [0.02, 0.21]). For youths who perceived their interaction partners as less responsive, PA did not significantly differ as a function of self-disclosure (β = -0.12, t(187) = -1.76, p = .08, 95% CI [-0.26, 0.02]). This interaction remained robust in the combined model.

Interaction of perceived responsiveness and gender. As seen in Table S3, the interaction between perceived responsiveness and gender for youths' PA was not significant in the individual

gender model. The same results were observed in the combined model so we do not decompose this interaction further.

Negative Affect

Interaction of perceived responsiveness and self-disclosure. An interaction between perceived responsiveness and self-disclosure emerged for youths' NA (see Table S4). As seen in Figure S2, for youths who perceived their interaction partners as highly responsive, greater self-disclosure was not significantly linked with NA ($\beta = 0.02$, $t(187) = .64$, $p = .52$, 95% CI [-0.03, 0.07]). For youths who perceived their interaction partners as less responsive, higher levels of self-disclosure were associated with higher NA ($\beta = 0.11$, $t(187) = 2.92$, $p = .004$, 95% CI [0.03, 0.18]). This interaction remained robust in the combined model.

Interaction of perceived responsiveness and gender. Finally, as seen in Table S4, the interaction between perceived responsiveness and gender for youths' NA was non-significant. This interaction was also non-significant in the combined model.

Table S1

Correlations among Study Variables

	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	*NR3C1* Expression	-													
2	Positive Affect	.17*	-												
3	Negative Affect	-.08	-.32**	-											
4	Perceived Responsiveness	.05	.39**	-.02	-										
5	Self-Disclosure	.06	.22**	.16*	.61**	-									
6	Gender[a]	.15*	.01	.07	.17*	.25**	-								
7	Age	-.04	-.24**	.11	.15*	.18*	.18	-							
8	Ethnicity[b]	-.14*	.04	-.02	-.12	-.15*	-.01	-.17*	-						
9	Medication Use[c]	.09	.02	-0.1	.03	.12	.05	.03	-.26**	-					
10	Asthma Severity Diagnosis	-.08	.02	.11	.11	.08	.15*	.17*	-.04	.12	-				
11	Parental Education[d]	.01	-.08	.02	.06	.02	-.11	-.11	-.19**	-.01	-.19**	-			
12	Anxiety Symptoms	-.19**	-.02	.12	-.06	.04	.04	.04	.03	-.06	.18*	.01	-		
13	Depressive Symptoms	-0.1	-.32**	.48**	-.11	.16*	.18*	.04	.02	-.04	.09	-.06	.19**	-	
14	Family Conflict	-.08	-.18*	.26**	-.19**	-.13	.05	.17*	.09	.05	-.13	-.05	.04	.16*	-

Note. $N = 193$ youth. Continuous scores were calculated such that higher scores indicate greater standing on the variable (e.g., greater perceived responsiveness).

[a]0 = male, 1 = female; [b]0 = White, 1 = non-White; [c]0 = no, 1 = yes; [d]0 = high school or less, 1 = some college or more.

$+p < .10$, $*p < .05$, $**p < .01$

Table S2

Associations of the Interaction of Perceived Responsiveness and Self-Disclosure and the Interaction of Perceived Responsiveness and Gender with Glucocorticoid Receptor Gene NR3C1 *Expression*

Variable	NR3C1 Expression		
	Coeff	*SE*	95% CI
Self-Disclosure Model			
Perceived Responsiveness	0.49*	0.32	[0.08, 0.89]
Self-Disclosure	-0.18	0.18	[-0.54, 0.18]
Responsiveness × Disclosure	0.56***	0.13	[0.30, 0.81]
Ethnicity	-0.61	0.34	[-1.28, 0.06]
Anxiety Symptoms	-0.38**	0.13	[-0.64, -0.11]
Gender Model			
Perceived Responsiveness	-0.30	0.17	[-0.63, 0.03]
Gender	0.53	0.28	[-0.02, 1.07]
Responsiveness × Gender	0.96**	0.29	[0.37, 1.54]
Ethnicity	-0.61	0.34	[-1.13, 0.23]
Anxiety Symptoms	-0.43**	0.14	[-0.70, -0.16]
Combined Model			
Perceived Responsiveness	0.25	0.25	[-0.23, 0.74]
Self-Disclosure	-0.23	0.18	[-0.59, 0.13]
Gender	0.62*	0.27	[0.08, 1.16]
Responsiveness × Disclosure	0.49***	0.14	[0.22, 0.76]
Responsiveness × Gender	0.53	0.31	[-0.08, 1.15]
Ethnicity	-0.60	0.33	[-1.26, 0.06]
Anxiety Symptoms	-0.42**	0.13	[-0.68, -0.16]

Note. N = 193 youth. Coeff = coefficient; *SE* = standard error; CI = confidence interval. Continuous scores were calculated such that higher scores indicate greater standing on the variable (e.g., greater perceived responsiveness). Continuous predictors and covariates were standardized. Ethnicity (0 = White, 1 = non-White) and gender (0 = male, 1 = female) were dummy-coded.
*p < .05, **p < .01, ***p < .001

Table S3

Associations of the Interaction of Perceived Responsiveness and Self-Disclosure and the Interaction of Perceived Responsiveness and Gender with Positive Affect

Variable	Positive Affect		
	Coeff	*SE*	95% CI
Self-Disclosure Model			
Perceived Responsiveness	0.31***	0.06	[0.20, 0.42]
Self-Disclosure	-0.005	0.05	[-0.11, 0.09]
Responsiveness × Disclosure	0.12***	0.03	[0.05, 0.19]
Age	-0.16***	0.04	[-0.23, -0.09]
Depressive Symptoms	-0.14***	0.04	[-0.21, -0.06]
Family Conflict	-0.01	0.04	[-0.07, 0.07]
Gender Model			
Perceived Responsiveness	0.19***	0.05	[0.10, 0.29]
Gender	0.02	0.07	[-0.13, 0.17]
Responsiveness × Gender	0.13	0.08	[-0.03, 0.28]
Age	-0.17***	0.04	[-0.24, -0.10]
Depressive Symptoms	-0.13***	0.04	[-0.21, -0.06]
Family Conflict	-0.02	0.04	[-0.09, 0.06]
Combined Model			
Perceived Responsiveness	0.29***	0.07	[0.14, 0.41]
Self-Disclosure	-0.01	0.05	[-0.11, 0.09]
Gender	0.02	0.07	[-0.12, 0.17]
Responsiveness × Disclosure	0.12**	0.04	[0.04, 0.19]
Responsiveness × Gender	0.02	0.08	[-0.15, 0.18]
Age	-0.16***	0.04	[-0.23, -0.09]
Depressive Symptoms	-0.14***	0.04	[-0.21, -0.06]
Family Conflict	-0.0001	0.04	[-0.07, 0.07]

Note. $N = 193$ youth. Coeff = coefficient; *SE* = standard error; CI = confidence interval. Continuous scores were calculated such that higher scores indicate greater standing on the variable (e.g., greater perceived responsiveness). Continuous predictors and covariates were standardized. Gender was dummy-coded (0 = male, 1 = female).
*$p < .05$, **$p < .01$, ***$p < .001$

Table S4

Associations of the Interaction of Perceived Responsiveness and Self-Disclosure and the Interaction of Perceived Responsiveness and Gender with Negative Affect

Variable	Negative Affect		
	Coeff	*SE*	95% CI
Self-Disclosure Model			
Perceived Responsiveness	-0.05	0.03	[-0.10, 0.01]
Self-Disclosure	0.06*	0.03	[0.01, 0.11]
Responsiveness × Disclosure	-0.05*	0.02	[-0.08, -0.01]
Depressive Symptoms	0.12***	0.02	[0.08, 0.16]
Family Conflict	0.06**	0.02	[0.02, 0.09]
Gender Model			
Perceived Responsiveness	0.01	0.02	[-0.03, 0.06]
Gender	-0.03	0.04	[-0.10, 0.05]
Responsiveness × Gender	0.03	0.04	[-0.05, 0.11]
Depressive Symptoms	0.14***	0.02	[0.10, 0.18]
Family Conflict	0.06**	0.02	[0.02, 0.10]
Combined Model			
Perceived Responsiveness	-0.08*	0.04	[-0.15, -0.01]
Self-Disclosure	0.07*	0.03	[0.02, 0.12]
Gender	-0.04	0.04	[-0.12, 0.03]
Responsiveness × Disclosure	-0.06**	0.02	[-0.09, -0.02]
Responsiveness × Gender	0.08	0.04	[-0.01, 0.16]
Depressive Symptoms	0.13***	0.02	[0.09, 0.17]
Family Conflict	0.05**	0.02	[0.01, 0.09]

Note. N = 193 youth. Coeff = coefficient; *SE* = standard error; CI = confidence interval. Continuous scores were calculated such that higher scores indicate greater standing on the variable (e.g., greater perceived responsiveness). Continuous predictors and covariates were standardized. Gender was dummy-coded (0 = male, 1 = female).
*p < .05, **p < .01, ***p < .001

Insert Figure S1 Here

Figure S1. $N = 193$ youth. Interaction between perceived responsiveness and self-disclosure on youths' expression of the glucocorticoid receptor gene

NR3C1 (Panel A). Interaction between perceived responsiveness and gender on youths' expression of the glucocorticoid receptor gene *NR3C1* (Panel

B). Lower and higher perceived responsiveness represent $\pm$ 1 *SD*. Shaded areas represent 95% confidence intervals for the simple slopes.

Insert Figure S2 Here
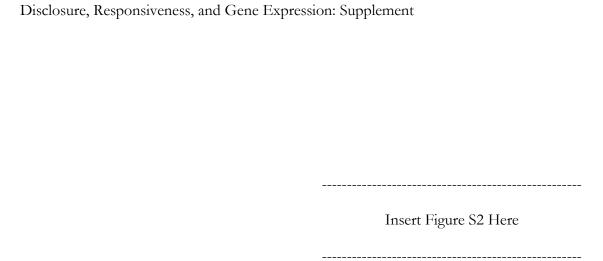

Figure S2. N = 193 youth. Interaction between perceived responsiveness and self-disclosure on youths' positive affect (Panel A). Interaction between perceived responsiveness and self-disclosure on youths' negative affect (Panel B). Lower and higher perceived responsiveness represent $\pm$ 1 *SD*. Shaded areas represent 95% confidence intervals for the simple slopes.