Data Supplement for Luby et al., Trajectories of Preschool Disorders to Full DSM Depression at School Age and Early Adolescence: Continuity of Preschool Depression. Am J Psychiatry (doi: 10.1176/appi.ajp.2014.13091198)

TABLE S1. Studies Validating Preschool-Onset Depression

	Sample	Age Range			
Study	Size	(in years)	Sample	Diagnostic Measures	Validation
Kashani et al., 1984 (1)	N= 100	1-6	Sample drawn from a child development unit	Clinical interview by a child psychiatrist; parent-child interaction task	Construct
Kashani et al., 1986 (2)	N= 109	2.5-7	General population sample	The Behavior Checklist; GRASP; the Coddington Life Events Scale	Construct
Kashani et al., 1987 (3)	N= 1,000	1-9	Sample drawn from a child development unit	Clinical interviews by child psychiatrist; parent-child interaction task	Construct
Kashani et al., 1997 (4)	N= 300	2-6	Clinically referred preschoolers	Parent and Teacher CBCL; clinical interview by a child psychiatrist	Construct
Luby et al., 2002 (5) Luby et al. 2003 (6)	N= 136 N= 174			DISC-YC; FIGS; BPI salivary cortisol samples; DISC-YC; BPI	Construct/Discriminant External Biological
Luby et al., 2004 (7)	N= 156	3-5.6	Longitudinal	DISC-YC; FIGS ;Lab-TAB; salivary Cortisol samples	Discriminant
Luby et al., 2006 (8)	N= 152			DISC-YC; parent- child interaction ("The Teaching Task")	External observational

TABLE S1. Studies Validating Preschool-Onset Depression (Continued)

TABLE S1. Studies Validating Preschool-Onset Depression (Continued) Sample Age Range						
Study	Size	(in years)	Sample	Diagnostic Measures	Validation	
Sterba et al., 2007 (9)	N= 317	2-5	Sample drawn from a pediatric clinic	PAPA; CBCL	Construct/Discriminant	
Lavigne et al., 2009 (10)	N= 796	4	Community sample	DISC-YC; CSI	Construct/Discriminant	
Domènech-Llaberia et al., 2009 (11)	N=1,267	3-6	Community sample	ESDM 3-6; ECI-4	Construct	
Luby et al. 2009 (12)	N= 306	3-5.11	•	PAPA	Predictive	
Luby et al. 2009 (13)	N= 305	3-6		PAPA	Construct	
Luby et al. 2009 (14)	N= 305	3-5.11		PAPA	Construct	
Gaffrey et al., 2010 (15)	N= 36	3-5.11 ^a ;8.7- 10.5 ^b		PAPA, Parent and Child CDI, CSMS	External Biological	
Gaffrey et al., 2011 (16)	N=151	3-5.11	Longitudinal	PAPA; HBQ	Construct/Predictive	
Gaffrey et al., 2012 (17)	N=39	3-5.11 ^a ;7.9- 10.6 ^b		PAPA; WASI; Child CDI; CEMS	External Biological	
Barch et al., 2012 (18)	N=38	3-5.11 ^a ;7- 11 ^b		PAPA; Parent and Child CDI	External Biological	
Gleason et al., 2011 (19)	N=1,003 (completed CBCL) N= 350 (completed CBCL & PAPA	18-60 months	Sample drawn from a Romanian pediatric hospital	CBCL; PAPA	Construct	

TABLE S1. Studies Validating Preschool-Onset Depression (Continued)

Study	Sample Size	Age Range (in years)	Sample	Diagnostic Measures	Validation
Dougherty et al., 2011 (20)	N= 541	3		Lab-TAB; PAPA; ECI-4	Construct
			Community sample		
Bufferd et al., 2012 (21)	N= 541 ^a	3 ^a ; 6 ^b		PAPA; ECI-4	Predictive/Discriminant
()	N= 462 ^b				
Gaffrey et al., 2013 (22)	N= 54	4-6	Criterion	PAPA; ERC; FACE- EL; Facial Emotion Viewing Task	External Biological

NOTE: GRASP= General Rating of Affective Symptoms for Preschoolers; CBCL= Child Behavior Checklist; PDS= Preschool Depression Scale; RABI= Rochester Adaptive Behavior Inventory; DICA= Diagnostic Interview for Children and Adolescents; CGAS= Children's Global Assessment Scale; FES= Family Environment Scale; DISC-YC= Diagnostic Interview Schedule for Children-Parent Scale-Young Child Version; CSI= Child Symptom Inventory; ECI-4= Early Childhood Inventory-4; VABS= Vineland Adaptive Behavior Screener Socialization subscale; Lab-TAB= Laboratory Temperament Assessment Battery; FIGS= Family Interview for Genetic Studies; BPI= Berkeley Puppet Interview; CDI= Child Depression Inventory; CSMS= Children's Sadness Management Scale; HBQ= MacArthur Health and Behavior Questionnaire; WASI= Wechsler Abbreviated Scale of Intelligence; CEMS= Children's Emotion Management Scale; ERC= Emotion Regulation Checklist; FACE-EL= Facial Affect Comprehensive Evaluation Emotion Labeling subtest; ESDM 3-6= Escala de depresión preescolar para maestros; SDQ= Strengths and Difficulties Questionnaire

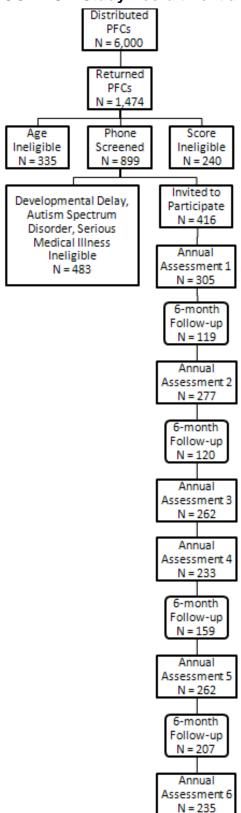
^a At initial assessment

^b At follow-up

TABLE S2. Assessments Table (N=246)

	Mean	SD	Min	Max
Preschool age assessments	2.50	1.16	1	5
School age assessments	5.20	1.80	1	9
Total assessments	7.70	1.74	2	10

FIGURE S1. Study Recruitment and Retention



REFERENCES

- 1. Kashani JH, Ray JS, Carlson GA. Depression and depressive-like states in preschool-age children in a child development unit. Am J Psychiatry 1984; 141:1397-402.
- 2. Kashani JH, Holcomb WR, Orvaschel H. Depression and depressive symptoms in preschool children from the general population. Am J Psychiatry 1986; 143:1138-43.
- 3. Kashani JH, Carlson GA. Seriously depressed preschoolers. Am J Psychiatry 1987; 144:348-50.
- 4. Kashani JH, Allan WD, Beck NC, Jr., Bledsoe Y, Reid JC. Dysthymic disorder in clinically referred preschool children. J Am Acad Child Adolesc Psychiatry 1997; 36:1426-33.
- 5. Luby JL, Heffelfinger AK, Mrakotsky C, Hessler MJ, Brown KM, Hildebrand T. Preschool major depressive disorder: Preliminary validation for developmentally modified DSM-IV criteria. J Am Acad Child Adolesc Psychiatry 2002; 41:928-37.
- 6. Luby JL, Heffelfinger A, Mrakotsky C, Brown K, Hessler M, Spitznagel E. Alterations in stress cortisol reactivity in depressed preschoolers relative to psychiatric and no-disorder comparison groups. Arch Gen Psychiatry 2003; 60:1248-55.
- 7. Luby JL, Mrakotsky C, Heffelfinger A, Brown K, Spitznagel E. Characteristics of depressed preschoolers with and without anhedonia: Evidence for a melancholic depressive subtype in young children. Am J Psychiatry 2004; 161:1998-2004.
- 8. Luby JL, Sullivan J, Belden AC, Stalets M, Blankenship S, Spitznagel E. An observational analysis of behavior in depressed preschoolers: further validation of early-onset depression. J Am Acad Child Adolesc Psychiatry 2006; 45:203-12.
- 9. Sterba S, Egger HL, Angold A. Diagnostic specificity and nonspecificity in the dimensions of preschool psychopathology. J Child Psychol Psychiatry 2007; 48:1005-13.
- 10. Lavigne JV, LeBailly SA, Hopkins J, Gouze KR, Binns HJ. The prevalence of ADHD, ODD, depression, and anxiety in a community sample of 4-year-olds. J Clin Child Adolesc Psychol 2009; 38:315-28.
- 11. Domènech-Llaberia E, Viñas F, Pla E, Jané MC, Mitjavila M, Corbella T, Canals J. Prevalence of major depression in preschool children. Eur Child Adolesc Psychiatry 2009; 18:597-604.
- 12. Luby JL, Si X, Belden AC, Tandon M, Spitznagel E. Preschool depression: Homotypic continuity and course over 24 months. Arch Gen Psychiatry 2009; 66:897-905.
- 13. Luby JL, Belden AC, Pautsch J, Si X, Spitznagel E. The clinical significance of preschool depression: Impairment in functioning and clinical markers of the disorder. J Affect Disord 2009; 112:111-9.
- 14. Luby J, Belden AC, Sullivan J, Hayen R, McCadney A, Spitznagel E. Shame and guilt in preschool depression: evidence for elevations in self-conscious emotions in depression as early as age 3. J Child Psychol Psychiatry 2009; 50:1156-66.
- 15. Gaffrey MS, Luby JL, Repovs G, Belden AC, Botteron KN, Luking KR, Barch DM. Subgenual cingulate connectivity in children with a history of preschool-depression. Neuroreport 2010; 21:1182-8.
- 16. Gaffrey MS, Belden AC, Luby JL. The 2-week duration criterion and severity and course of early childhood depression: implications for nosology. J Affect Disord 2011; 133:537-45.
- 17. Gaffrey MS, Luby JL, Botteron K, Repovs G, Barch DM. Default mode network connectivity in children with a history of preschool onset depression. J Child Psychol Psychiatry 2012; 53:964-72.

- 18. Barch DM, Gaffrey MS, Botteron KN, Belden AC, Luby JL. Functional brain activation to emotionally valenced faces in school-aged children with a history of preschool-onset major depression. Biol Psychiatry 2012; 72:1035-42.
- 19. Gleason MM, Zamfirescu A, Egger HL, Nelson 3rd CA, Fox NA, Zeanah CH. Epidemiology of psychiatric disorders in very young children in a Romanian pediatric setting. Eur Child Adolesc Psychiatry 2011; 20:527-35.
- 20. Dougherty LR, Bufferd SJ, Carlson GA, Dyson M, Olino TM, Durbin CE, Klein DN. Preschoolers' observed temperament and psychiatric disorders assessed with a parent diagnostic interview. J Clin Child Adolesc Psychol 2011; 40:295-306.
- 21. Bufferd SJ, Dougherty LR, Carlson GA, Rose S, Klein DN. Psychiatric disorders in preschoolers: Continuity from ages 3 to 6. Am J Psychiatry 2012; 169:1157-64.
- 22. Gaffrey MS, Barch DM, Singer J, Shenoy R, Luby JL. Disrupted amygdala reactivity in depressed 4- to 6-year-old children. J Am Acad Child Adolesc Psychiatry 2013; 52:737-46.